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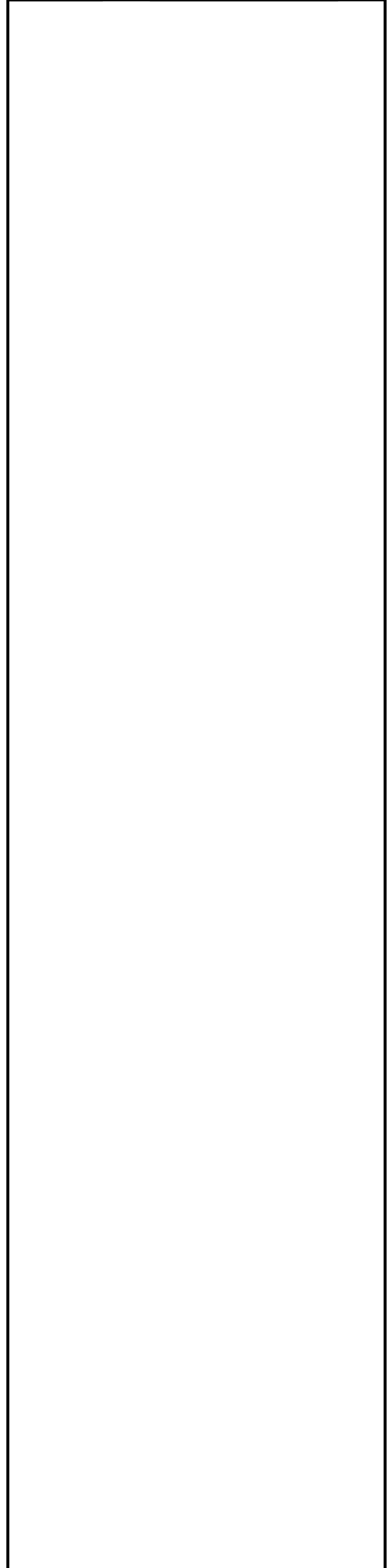
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 DOUGLAS SWETT, P.E. 114211

THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE FOR THE FOLLOWING SHEETS IN ACCORDANCE OF TENN. CODE ANN. §62-2-306.

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| YEAR | PROJECT NO. | SHEET NO. |
|------|-------------|------------|
| PIH | STP/NH-4(6) | SIG-SIGN-1 |
| | | |
| | | |
| | | |



**STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION**

**SIGNAL
 SIGNATURE
 SHEET**

INDEX OF SHEETS

| SHEET NAME | SHEET NO. |
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| SIGNAL SIGNATURE SHEET | SIG-SIGN1 |
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SPECIAL NOTES REGARDING SIGNAL HEADS

- ALL CIRCULAR AND ARROW INDICATIONS WITHIN ALL VEHICULAR SIGNAL HEADS PROPOSED FOR THIS PROJECT SHALL CONSIST OF AN LED (LIGHT EMITTING DIODE) SIGNAL MODULE UNLESS OTHERWISE NOTED IN THE PLANS.
- CIRCULAR INDICATIONS SHALL MEET "ITE VTC SH-LED CIRCULAR SIGNAL SUPPLEMENT" FOR EXPANDED/EXTENDED VIEW. ARROW INDICATIONS SHALL MEET "ITE VTC SH-3 LED ARROW SPECIFICATION" FOR EXPANDED/EXTENDED VIEW.
- INCANDESCENT OR SCREW-IN MODULES ARE NOT ACCEPTABLE.
- COMPATIBILITY WITH CONFLICT MONITORS AND LOAD SWITCHES SHALL BE TESTED AND CONFIRMED.
- MANUFACTURER SHALL PROVIDE A MINIMUM FIVE-YEAR WARRANTY FOR OPERATION OF THE UNIT.
- SIGNAL HEADS SHALL INCLUDE LOUVERED BACKPLATES WITH A 1" MIN. / 3" MAX. YELLOW RETRO REFLECTIVE BORDER AROUND THE PERIMETER OF THE FACE OF THE BACKPLATE. THE RETRO REFLECTIVE BORDER TO BE MADE OF A TYPE III PRISMATIC OR BETTER MATERIAL.

STANDARD DRAWINGS

STANDARD ROADWAY DRAWINGS

10-100.00 STANDARD ROADWAY TITLE SHEET, ABBREVIATIONS, AND LEGENDS

| DWG. | REV. | DESCRIPTION |
|---------|----------|------------------------------------------------|
| RD-TP-1 | 09-26-16 | STANDARD ROADWAY DRAWINGS TITLE SHEET |
| RD-A-1 | 02-20-20 | STANDARD ABBREVIATIONS A THROUGH L |
| RD-A-2 | | STANDARD ABBREVIATIONS M THROUGH Z |
| RD-L-1 | 02-20-20 | STANDARD LEGEND |
| RD-L-1A | | STANDARD LEGEND |
| RD-L-3 | 03-01-23 | STANDARD LEGEND FOR SIGNALIZATION AND LIGHTING |
| RD-L-4 | 10-01-24 | STANDARD LEGEND FOR SIGNALIZATION AND LIGHTING |

10-107.00 MULTIMODAL

| DWG. | REV. | DESCRIPTION |
|----------|----------|--------------------------------------------|
| CR-GN-1 | | GENERAL NOTES CURB RAMP |
| CR- GN-2 | | CURB RAMP NUMBERING |
| CR-DWS-1 | | DETECTABLE WARNING SURFACE DETAIL |
| CR-PLL-1 | | PUSH BUTTON LOCATION LAYOUT |
| CR-CRT-1 | | CURB RAMP TYPES |
| CR-PL-1 | | PERPENDICULAR CURB RAMP PLACEMENT LAYOUT |
| CR-10 | | PERPENDICULAR CURB RAMP |
| CR-11 | | PERPENDICULAR CURB RAMP WITH BRICK DETAILS |
| CR-PL-2 | | PARALLEL CURB RAMP PLACEMENT LAYOUT |
| CR-20 | 07-01-25 | PARALLEL CURB RAMP 5 – FT SIDEWALK |
| CR-22 | | COMBINATION CURB RAMP |
| CR-33 | | SINGLE CROSSING CURB RAMP IN CURVE |
| CR-34 | | SINGLE CROSSING CURB RAMP IN CURVE |
| CR-41 | | SINGLE CROSSING CURB RAMP IN CURVE |
| CR-50 | | PEDESTRIAN REFUGE |
| CR-51 | | PEDESTRIAN REFUGE |

STANDARD TRAFFIC DESIGN DRAWINGS

10-201.00 SIGNALS

| DWG. | REV. | DESCRIPTION |
|----------|----------|--------------------------------------------------------------------|
| T-SG-1 | 12-18-25 | WOOD POLE DETAILS FOR SPAN MOUNTED SIGNALS |
| T-SG-2 | 12-18-25 | LOOP LEAD-INS, CONDUIT AND PULL BOXES |
| T-SG-3 | 12-18-25 | STANDARD NOTES AND DETAILS OF INDUCTIVE LOOPS |
| T-SG-3A | 12-18-25 | ALTERNATE DETECTION DETAILS |
| T-SG-4 | 12-18-25 | SPAN WIRE AND MESSENGER CABLE DETAILS |
| T-SG-5 | 12-18-25 | CONTROLLER CABINET DETAILS |
| T-SG-6 | 12-18-25 | PEDESTRIAN SIGNAL DETAILS |
| T-SG-7 | 12-18-25 | SIGNAL HEAD ASSEMBLIES |
| T-SG-7A | 12-18-25 | TYPICAL SIGNAL HEAD PLACEMENT APPROACHES WITH NO THROUGH MOVEMENTS |
| T-SG-7C | 12-18-25 | TYPICAL SIGNAL HEAD PLACEMENT ONE-LANE AND TWO-LANE APPROACHES |
| T-SG-7E | 12-18-25 | TYPICAL SIGNAL HEAD PLACEMENT THREE-LANE APPROACHES |
| T-SG-7F | 12-18-25 | TYPICAL SIGNAL HEAD PLACEMENT THREE-LANE APPROACHES |
| T-SG-7H | 12-18-25 | TYPICAL SIGNAL HEAD PLACEMENT THREE-LANE AND FOUR-LANE APPROACHES |
| T-SG-7HH | 12-18-25 | TYPICAL SIGNAL HEAD PLACEMENT FOUR-LANE APROACHES |
| T-SG-8 | 12-18-25 | STRAIN POLE DETAILS FOR SPAN MOUNTED SIGNALS |
| T-SG-9 | 12-18-25 | DETAILS OF CANTILEVER SIGNAL SUPPORT |
| T-SG-9A | 12-18-25 | MISCELLANEOUS SIGNAL DETAILS |
| T-SG-10 | 12-18-25 | MAST ARM POLE AND STRAIN POLES FOUNDATION DETAILS |
| T-SG-11 | 12-18-25 | MAINTENANCE OF EXISTING SIGNALS DURING HIGHWAY CONSTRUCTION |
| T-SG-12 | 12-18-25 | TYPICAL WIRING FOR SIGNAL HEADS AND DETECTION LOOPS |

10-202.00 LIGHTING AND UTILITY POLES

| DWG. | DESCRIPTION |
|--------|----------------------------------------------|
| T-FO-2 | FIBER OPTIC UNDERGROUND ENTRANCE DETAILS |
| T-FO-4 | FIBER OPTIC PULL BOX, CABINET & POLE DETAILS |

| TYPE | YEAR | PROJECT NO. | SHEET NO. |
|------|------|-------------|-----------|
| PIH | 2026 | STP/NH-4(6) | 1A |
| | | | |
| | | | |
| | | | |

**PLAN
IN
HAND**

SEALED BY

COORDINATES ARE NAD 83(1983). ARE DATUM ADJUSTED BY THE FACTOR OF 0.99996 AND TIED TO THE TGRN.

**STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION**

SHEET INDEX
AND STANDARD
DRAWINGS

| TYPE | YEAR | PROJECT NO. | SHEET NO. |
|------|------|-------------|-----------|
| PIH | 2026 | STP/NH-4(6) | 2 |
| | | | |
| | | | |

SIGNAL QUANTITIES

| FOOT-NOTE | ITEM NO. | DESCRIPTION | UNIT | QUANTITY |
|-----------|-----------|----------------------------------------------------------|------|----------|
| | 713-14.21 | STREET NAME SIGN (RIGID, 0.100 IN. THICK) | S.F. | 130 |
| | 725-21.11 | NETWORK SWITCH (TYPE A) | EACH | 5 |
| (9) | 730-01.02 | REMOVAL OF SIGNAL EQUIPMENT | EACH | 2 |
| (10) | 730-01.03 | MODIFICATION OF EXISTING TRAFFIC SIGNAL EQUIPMENT | EACH | 2 |
| | 730-02.02 | SIGNAL HEAD ASSEMBLY (130 A3) | EACH | 1 |
| | 730-02.03 | SIGNAL HEAD ASSEMBLY (130 A3 WITH BACKPLATE) | EACH | 8 |
| | 730-02.08 | SIGNAL HEAD ASSEMBLY (130 POLE MOUNTED) | EACH | 1 |
| | 730-02.09 | SIGNAL HEAD ASSEMBLY (130 WITH BACKPLATE) | EACH | 39 |
| | 730-02.11 | SIGNAL HEAD ASSEMBLY (130 A2 WITH BACKPLATE) | EACH | 10 |
| | 730-02.17 | SIGNAL HEAD ASSEMBLY (150 A2H WITH BACKPLATE) | EACH | 5 |
| | 730-02.18 | SIGNAL HEAD ASSEMBLY (150 A2 POLE MOUNTED) | EACH | 8 |
| | 730-03.21 | INSTALL PULL BOX (TYPE B) | EACH | 21 |
| (1) | 730-05.01 | ELECTRICAL SERVICE CONNECTION | EACH | 5 |
| | 730-08.01 | SIGNAL CABLE - 3 CONDUCTOR | L.F. | 12760 |
| | 730-08.02 | SIGNAL CABLE - 5 CONDUCTOR | L.F. | 6060 |
| | 730-08.03 | SIGNAL CABLE - 7 CONDUCTOR | L.F. | 7400 |
| | 730-08.04 | SIGNAL CABLE - 9 CONDUCTOR | L.F. | 40 |
| | 730-09.20 | SPAN WIRE ASSEMBLY | L.F. | 970 |
| | 730-12.02 | CONDUIT 2" DIAMETER (PVC SCHEDULE 40) | L.F. | 661 |
| | 730-12.03 | CONDUIT 3" DIAMETER (PVC SCHEDULE 40) | L.F. | 201 |
| | 730-12.23 | CONDUIT 2" DIAMETER (DIRECTIONAL BORE) | L.F. | 2126 |
| | 730-12.42 | CURB MARKER (CURB MOUNTED CABLE MARKER) | EACH | 30 |
| (2) | 730-13.02 | VEHICLE DETECTOR (VIDEO) | EACH | 15 |
| (3) | 730-13.06 | VEHICLE DETECTOR (OPTICALLY ACTIVATED PRIORITY CONTROL) | EACH | 15 |
| (2) | 730-13.16 | VEHICLE DETECTOR (RADAR/VIDEO) | EACH | 6 |
| (4) | 730-15.32 | CABINET (EIGHT PHASE BASE MOUNTED) | EACH | 5 |
| (5) | 730-16.04 | CONTROLLER (ATC) | EACH | 8 |
| (6) | 730-23.28 | PEDESTAL POLE (TYPE A) | EACH | 13 |
| (6) | 730-23.29 | PEDESTAL POLE (TYPE B) | EACH | 4 |
| (6) | 730-23.72 | CANTILEVER SIGNAL SUPPORT (1 ARM @ 35') | EACH | 1 |
| (6) | 730-23.79 | CANTILEVER SIGNAL SUPPORT (2 @ 35' & 45') | EACH | 1 |
| (6) | 730-23.86 | CANTILEVER SIGNAL SUPPORT (2 @ 40' & 40') | EACH | 1 |
| (6) | 730-23.88 | CANTILEVER SIGNAL SUPPORT (1 ARM @ 45') | EACH | 2 |
| (6) | 730-24.76 | CANTILEVER SIGNAL SUPPORT (2 @ 30' & 55') | EACH | 1 |
| (6) | 730-24.90 | CANTILEVER SIGNAL SUPPORT (2 @ 45' & 50') | EACH | 1 |
| (6) | 730-25.07 | CANTILEVER SIGNAL SUPPORT (1 ARM @ 55') | EACH | 3 |
| (6) | 730-25.11 | CANTILEVER SIGNAL SUPPORT (1 ARM @ 60') | EACH | 2 |
| | 730-26.06 | PEDESTRIAN PUSHBUTTON POST | EACH | 5 |
| (7) | 730-26.11 | COUNTDOWN PED SGNL HEAD W/AUDIBLE PUSHBUTTON & 15IN SIGN | EACH | 30 |
| | 730-35.06 | BATTERY BACK-UP SYSTEM | EACH | 5 |
| (8) | 730-40 | TEMPORARY TRAFFIC SIGNAL SYSTEM | EACH | 3 |

FOOTNOTES

- (1) THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING THE LOCAL UTILITY TO OBTAIN THE ESTIMATE FOR ANY CHARGES BY THE UTILITY FOR PROVIDING ELECTRICAL SERVICE TO THE SIGNAL CONTROLLER. THESE CHARGES AND ANY OTHER EQUIPMENT NECESSARY FOR A COMPLETE SERVICE CONNECTION SHALL BE INCLUDED IN THE PRICE BID FOR THIS ITEM FOR PAYMENT BY THE CONTRACTOR.
- (2) ITEM IS PER CAMERA AND TO BE ITERIS SYSTEM. ITEM INCLUDES DETECTION CAMERAS, PROCESSOR UNIT(S), CARD RACK(S), VIDEO REMOTE MANAGEMENT CARD WITH ETHERNET INTERFACE, POWER SUPPLY UNIT, SURGE PROTECTION EQUIPMENT, 10" COLOR LCD MONITOR, MOUSE AND ALL CABLING, CONNECTIONS AND HARDWARE TO COMPLETE THE INSTALLATION OF A FULLY FUNCTIONAL SYSTEM, IN ACCORDANCE WITH CITY OF MEMPHIS TRAFFIC SIGNAL SPECIFICATIONS.
- (3) TO BE GTT OPTICOM SYSTEM. INCLUDES OPTICAL DETECTORS, CONFIRMATION LAMPS (PAR 90), POLE-MOUNTED BEACONS, FOUR-CHANNEL PHASE SELECTOR, CARD RACK (OPTICOM 760) AND ALL OTHER CABLING, CONNECTIONS AND HARDWARE TO COMPLETE THE INSTALLATION OF A FULLY-FUNCTIONAL PREEMPTION SYSTEM AT EACH INTERSECTION, INCLUDING FIELD FINE-TUNING, IN ACCORDANCE WITH CITY OF MEMPHIS TRAFFIC SIGNAL SPECIFICATIONS.
- (4) THE CABINET SHALL BE A SIZE P UPS CABINET. ALL AUXILIARY EQUIPMENT TO BE INSTALLED IN THE CABINET SHALL BE MANUFACTURED, SUPPLIED, AND INSTALLED IN ACCORDANCE WITH THE LATEST CITY OF MEMPHIS SPECIFICATIONS. SEE SP730M FOR CABINET DETAILS. THE INSTALLATION SHALL HAVE A 12-CHANNEL CONFLICT MONITOR UNIT WITH BUILT-IN ETHERNET PORT. THIS INSTALLATION SHALL INCLUDE ADDITIONAL SURGE PROTECTION UNIT TO PROTECT ALL EQUIPMENT INSIDE THE CABINET.
- (5) THE TRAFFIC SIGNAL CONTROLLER SHALL BE A SIEMENS M60 SERIES CONTROLLER KEYBOARD UNIT WITH BUILT-IN ETHERNET PORT. THE TRAFFIC CONTROLLER SHALL BE MANUFACTURED, SUPPLIED, AND INSTALLED IN ACCORDANCE WITH THE LATEST CITY OF MEMPHIS TRAFFIC SIGNAL CONTROLLER AND CABINET SPECIFICATIONS.
- (6) THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN OF ALL SIGNAL POLES, MAST ARMS, AND FOOTING FOUNDATIONS. SEE SPECIAL PROVISION 700SIG FOR POLE DESIGN REQUIREMENTS. BID ITEM SHALL INCLUDE THE COST OF ALL MATERIALS AND LABOR NECESSARY FOR COMPLETE INSTALLATION OF THE POLE FOUNDATION. SELECT THE APPROPRIATE FOUNDATION DESIGN FROM STANDARD DRAWING T-SG-10.
- (7) APS PUSH BUTTON EQUIPMENT TO BE POLARA ENGINEERING APS SYSTEM INCLUDING THE EN2-EZ COMMUNICATOR NAVIGATOR, 2-WIRE PUSH BUTTON SYSTEM IN ACCORDANCE WITH CITY OF MEMPHIS TRAFFIC SIGNAL SPECIFICATIONS.
- (8) ITEM TO INCLUDE ALL TRAFFIC SIGNAL EQUIPMENT TO PROVIDE A FULLY FUNCTIONING TEMPORARY TRAFFIC SIGNAL AS SHOWN ON TEMPORARY TRAFFIC SIGNAL SHEETS.
- (9) ITEM TO INCLUDE THE REMOVAL OF ALL EXISTING TRAFFIC SIGNAL EQUIPMENT PER INTERSECTION.
- (10) ITEM TO INCLUDE MODIFICATIONS TO EXISTING TRAFFIC SIGNALS NEEDED DURING CONSTRUCTION TO MAINTAIN TRAFFIC OPERATION AS SHOWN IN THE TRAFFIC CONTROL PLANS PER INTERSECTION.

PLAN IN HAND

SEALED BY

COORDINATES ARE NAD 83(1983). ARE
DATUM ADJUSTED BY THE FACTOR
OF 0.99996 AND TIED TO THE TGRN.

**STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION**

ESTIMATED
SIGNAL
QUANTITIES

| | | | |
|------|------|-------------|-----------|
| TYPE | YEAR | PROJECT NO. | SHEET NO. |
| PIH | 2026 | STP/NH-4(6) | 2F |
| | | | |
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ESTIMATED SIGNAL QUANTITIES BY SHEET

| ITEM NO. | DESCRIPTION | UNIT | SHEET NO. | | | | | | | | TOTAL QUANTITY |
|-----------|----------------------------------------------------------|------|-----------|-------|-------|--------|--------|--------|--------|--------|----------------|
| | | | SIG-2 | SIG-5 | SIG-8 | SIG-11 | SIG-14 | SIG-16 | SIG-17 | SIG-18 | |
| 713-14.21 | STREET NAME SIGN (RIGID, 0.100 IN. THICK) | S.F. | 28.5 | 26.25 | 20 | 29 | 27 | | | | 130 |
| 725-21.11 | NETWORK SWITCH (TYPE A) | EACH | 1 | 1 | 1 | 1 | 1 | | | | 5 |
| 730-01.02 | REMOVAL OF SIGNAL EQUIPMENT | EACH | | | 1 | | 1 | | | | 2 |
| 730-01.03 | MODIFICATION OF EXISTING TRAFFIC SIGNAL EQUIPMENT | EACH | | | 1 | | 1 | | | | 2 |
| 730-02.02 | SIGNAL HEAD ASSEMBLY (130 A3) | EACH | | 1 | | | | | | | 1 |
| 730-02.03 | SIGNAL HEAD ASSEMBLY (130 A3 WITH BACKPLATE) | EACH | | 2 | | | | 2 | 2 | 2 | 8 |
| 730-02.08 | SIGNAL HEAD ASSEMBLY (130 POLE MOUNTED) | EACH | 1 | | | | | | | | 1 |
| 730-02.09 | SIGNAL HEAD ASSEMBLY (130 WITH BACKPLATE) | EACH | 6 | 4 | 5 | 5 | 5 | 5 | 5 | 4 | 39 |
| 730-02.11 | SIGNAL HEAD ASSEMBLY (130 A2 WITH BACKPLATE) | EACH | 2 | 2 | 2 | 2 | 2 | | | | 10 |
| 730-02.17 | SIGNAL HEAD ASSEMBLY (150 A2H WITH BACKPLATE) | EACH | | | 1 | 1 | 1 | 1 | 1 | | 5 |
| 730-02.18 | SIGNAL HEAD ASSEMBLY (150 A2 POLE MOUNTED) | EACH | | | 4 | 3 | 1 | | | | 8 |
| 730-03.21 | INSTALL PULL BOX (TYPE B) | EACH | 5 | 4 | 4 | 4 | 4 | | | | 21 |
| 730-05.01 | ELECTRICAL SERVICE CONNECTION | EACH | 1 | 1 | 1 | 1 | 1 | | | | 5 |
| 730-08.01 | SIGNAL CABLE - 3 CONDUCTOR | L.F. | 2430 | 2300 | 2570 | 2820 | 2640 | | | | 12760 |
| 730-08.02 | SIGNAL CABLE - 5 CONDUCTOR | L.F. | 1250 | 640 | 1470 | 1660 | 1040 | 80 | 60 | | 6060 |
| 730-08.03 | SIGNAL CABLE - 7 CONDUCTOR | L.F. | 1300 | 2000 | 1400 | 1400 | 1300 | 1100 | 900 | | 7400 |
| 730-08.04 | SIGNAL CABLE - 9 CONDUCTOR | L.F. | | 40 | | | | | | | 40 |
| 730-09.20 | SPAN WIRE ASSEMBLY | L.F. | | | | | | 300 | 300 | 370 | 970 |
| 730-12.02 | CONDUIT 2" DIAMETER (PVC SCHEDULE 40) | L.F. | 298 | 83 | 96 | 79 | 105 | | | | 661 |
| 730-12.03 | CONDUIT 3" DIAMETER (PVC SCHEDULE 40) | L.F. | 42 | 90 | 30 | 27 | 12 | | | | 201 |
| 730-12.23 | CONDUIT 2" DIAMETER (DIRECTIONAL BORE) | L.F. | 422 | 390 | 416 | 460 | 438 | | | | 2126 |
| 730-12.42 | CURB MARKER (CURB MOUNTED CABLE MARKER) | EACH | 6 | 6 | 6 | 6 | 6 | | | | 30 |
| 730-13.02 | VEHICLE DETECTOR (VIDEO) | EACH | 2 | 1 | 3 | 3 | 1 | 2 | 2 | 1 | 15 |
| 730-13.06 | VEHICLE DETECTOR (OPTICALLY ACTIVATED PRIORITY CONTROL) | EACH | 3 | 3 | 3 | 3 | 3 | | | | 15 |
| 730-13.16 | VEHICLE DETECTOR (RADAR/VIDEO) | EACH | 2 | 2 | | | 2 | | | | 6 |
| 730-15.32 | CABINET (EIGHT PHASE BASE MOUNTED) | EACH | 1 | 1 | 1 | 1 | 1 | | | | 5 |
| 730-16.04 | CONTROLLER (ATC) | EACH | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 8 |
| 730-23.28 | PEDESTAL POLE (TYPE A) | EACH | 4 | 2 | 2 | 2 | 3 | | | | 13 |
| 730-23.29 | PEDESTAL POLE (TYPE B) | EACH | 1 | 1 | 1 | 1 | | | | | 4 |
| 730-23.72 | CANTILEVER SIGNAL SUPPORT (1 ARM @ 35') | EACH | | | | | 1 | | | | 1 |
| 730-23.79 | CANTILEVER SIGNAL SUPPORT (2 @ 35' & 45') | EACH | | | 1 | | | | | | 1 |
| 730-23.86 | CANTILEVER SIGNAL SUPPORT (2 @ 40' & 40') | EACH | 1 | | | | | | | | 1 |
| 730-23.88 | CANTILEVER SIGNAL SUPPORT (1 ARM @ 45') | EACH | 2 | | | | | | | | 2 |
| 730-24.76 | CANTILEVER SIGNAL SUPPORT (2 @ 30' & 55') | EACH | | | | 1 | | | | | 1 |
| 730-24.90 | CANTILEVER SIGNAL SUPPORT (2 @ 45' & 50') | EACH | | 1 | | | | | | | 1 |
| 730-25.07 | CANTILEVER SIGNAL SUPPORT (1 ARM @ 55') | EACH | | | 1 | 1 | 1 | | | | 3 |
| 730-25.11 | CANTILEVER SIGNAL SUPPORT (1 ARM @ 60') | EACH | | 1 | | | 1 | | | | 2 |
| 730-26.06 | PEDESTRIAN PUSHBUTTON POST | EACH | | 1 | 2 | 1 | 1 | | | | 5 |
| 730-26.11 | COUNTDOWN PED SGNL HEAD W/AUDIBLE PUSHBUTTON & 15IN SIGN | EACH | 6 | 6 | 6 | 6 | 6 | | | | 30 |
| 730-35.06 | BATTERY BACK-UP SYSTEM | EACH | 1 | 1 | 1 | 1 | 1 | | | | 5 |
| 730-40 | TEMPORARY TRAFFIC SIGNAL SYSTEM | EACH | | | | | | 1 | 1 | 1 | 3 |

PLAN
IN
HAND

SEALED BY

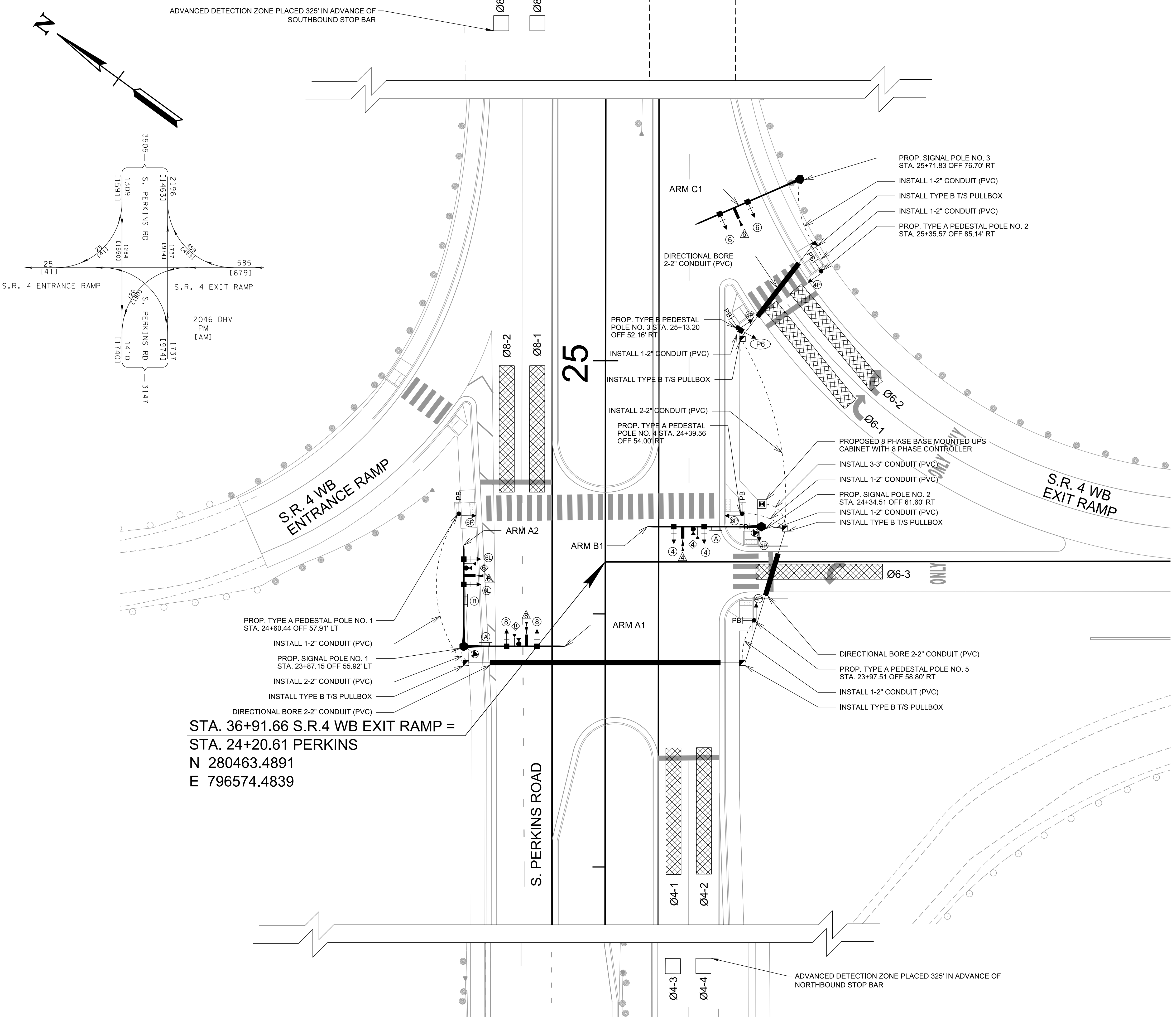
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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

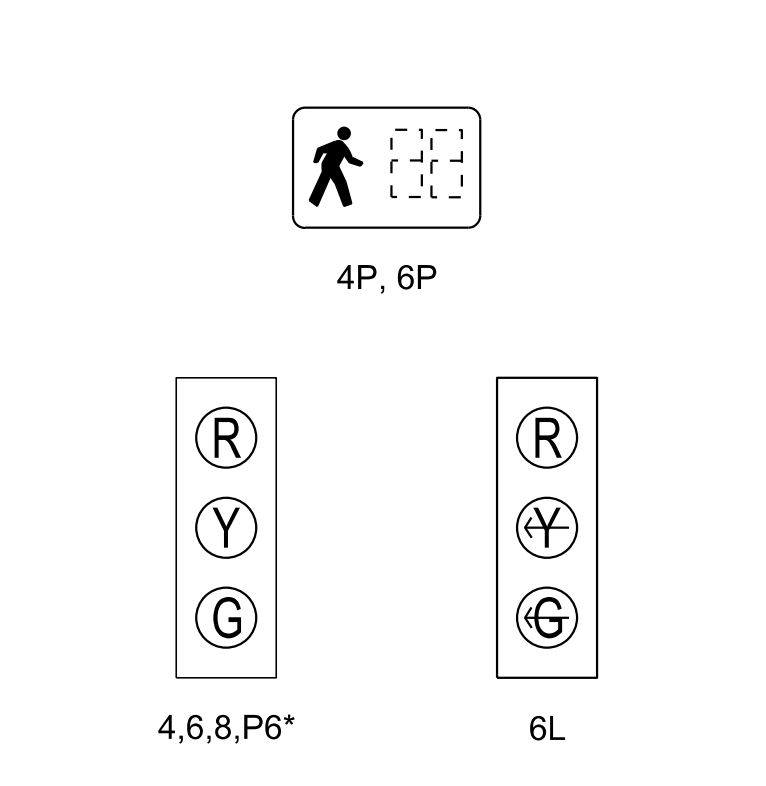
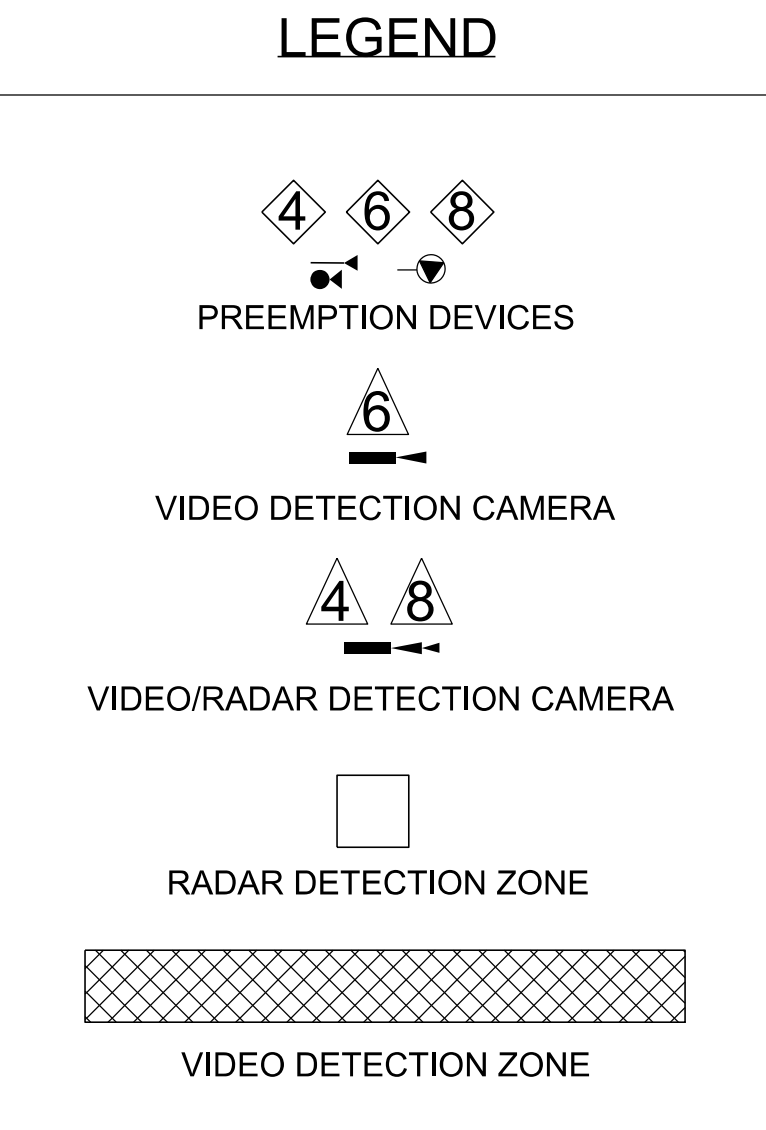
TABULATED
QUANTITIES

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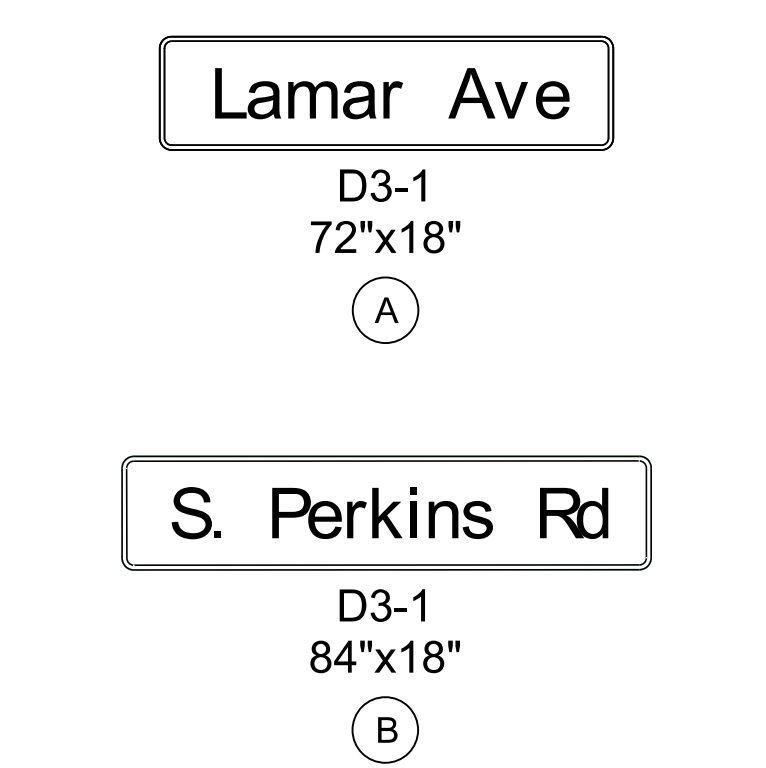
| TYPE | YEAR | PROJECT NO. | SHEET NO. |
|------|------|-------------|-----------|
| ROW | 2020 | STP/NH-4(6) | SIG-1 |
| PIH | 2026 | STP/NH-4(6) | SIG-1 |
| | | | |



| PREEMPT TABLE | |
|---------------|-----------------|
| DETECTOR | PHASE(S) CALLED |
| 4 | 4+8 |
| 6 | 6 |
| 8 | 4+8 |



ALL SIGNAL HEADS TO HAVE BACKPLATES
(*EXCEPT POLE MOUNTED)



CITY TO PROVIDE 18" STREET NAME SIGNS
TO THE CONTRACTOR FOR INSTALLATION

**PLAN
IN
HAND**

SEALED BY

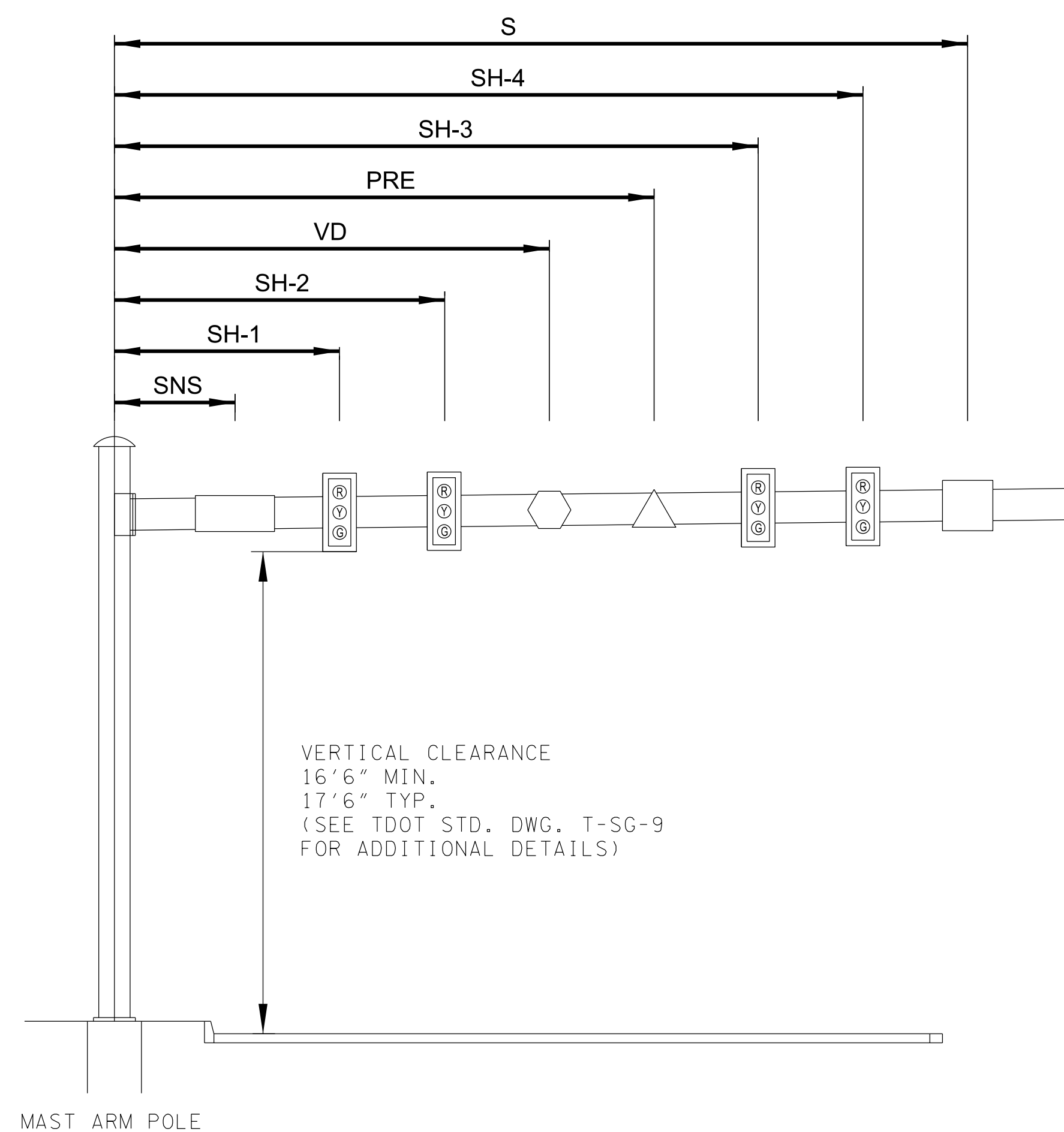
COORDINATES ARE NAD 83(1983). ARE
DATUM ADJUSTED BY THE FACTOR
OF 0.99996 AND TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

**SIGNAL
LAYOUT**
SR 4 WESTBOUND RAMPS
AT PERKINS ROAD
SCALE: 1"=20'

| TYPE | YEAR | PROJECT NO. | SHEET NO. |
|------|------|-------------|-----------|
| ROW | 2020 | STP/NH-4(6) | SIG-2 |
| PIH | 2026 | STP/NH-4(6) | SIG-2 |
| | | | |

TYPICAL SIGNAL SUPPORT POLE DATA TABLES

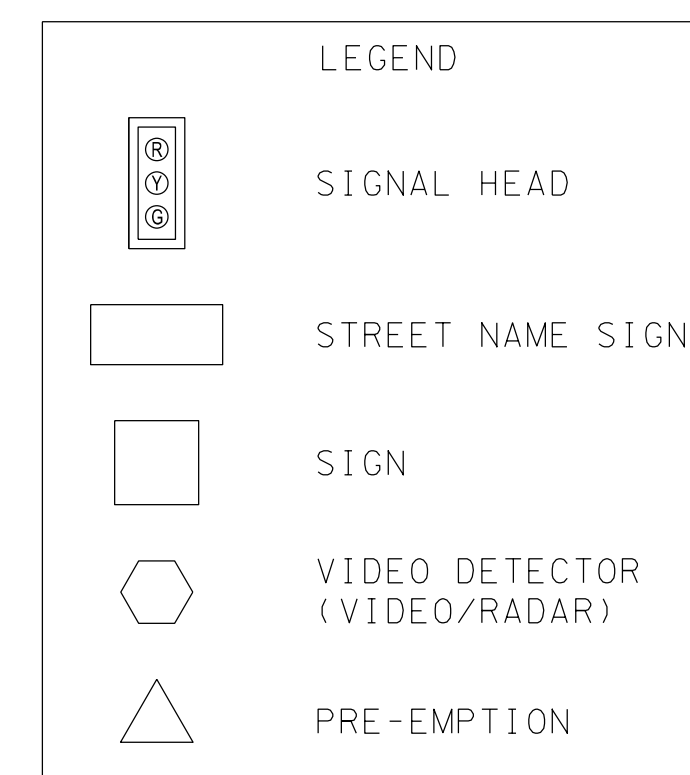


| SIGNAL SUPPORT POLE DATA AND MAST ARM DETAILS | | | | | | | | | | | | | | |
|-----------------------------------------------|------------|-----------|-------------|-------------|-----|------------|-------|------|------|-----|-----|-----|-----|-------------------|
| POLE NO. | STATION | OFFSET | NORTHING | EASTING | ARM | ARM LENGTH | PED-1 | SH-1 | SH-2 | VD | BEA | PRE | SNS | GROUND EL. @ POLE |
| 1 | 23 + 87.15 | 55.92' LT | 796514.4680 | 280488.8794 | A1 | 40' | -- | 14' | 28' | 24' | 0* | 20' | 9' | 342.68 |
| | | | | | A2 | 40' | -- | 25' | 35' | 28' | | 32' | 18' | |
| 2 | 24 + 34.51 | 61.60' RT | 796622.0676 | 280421.9670 | B1 | 45' | 0* | 23' | 35' | 31' | 0* | 26' | 18' | 341.42 |
| 3 | 25 + 71.83 | 76.70' RT | 796741.8019 | 280490.8428 | C1 | 45' | -- | 23' | 35' | -- | -- | -- | -- | 335.99 |

* DENOTES POLE MOUNTED SIGNAL EQUIPMENT AS INDICATED ON SIGNAL LAYOUT.

| PEDESTAL POLE NO. | STATION | OFFSET |
|-------------------|------------|-----------|
| 1 | 24 + 60.44 | 57.91' LT |
| 2 | 25 + 35.57 | 85.14' RT |
| 3 | 25 + 13.20 | 52.16' RT |
| 4 | 25 + 39.56 | 54.00' RT |
| 5 | 23 + 97.51 | 58.80' RT |

S: SIGN
 SNS: STREET NAME SIGN
 SH-X: SIGNAL HEAD
 VD: VIDEO DETECTOR (VIDEO/RADAR)
 PRE: PRE-EMPTION



PLAN
IN
HAND

SEALED BY

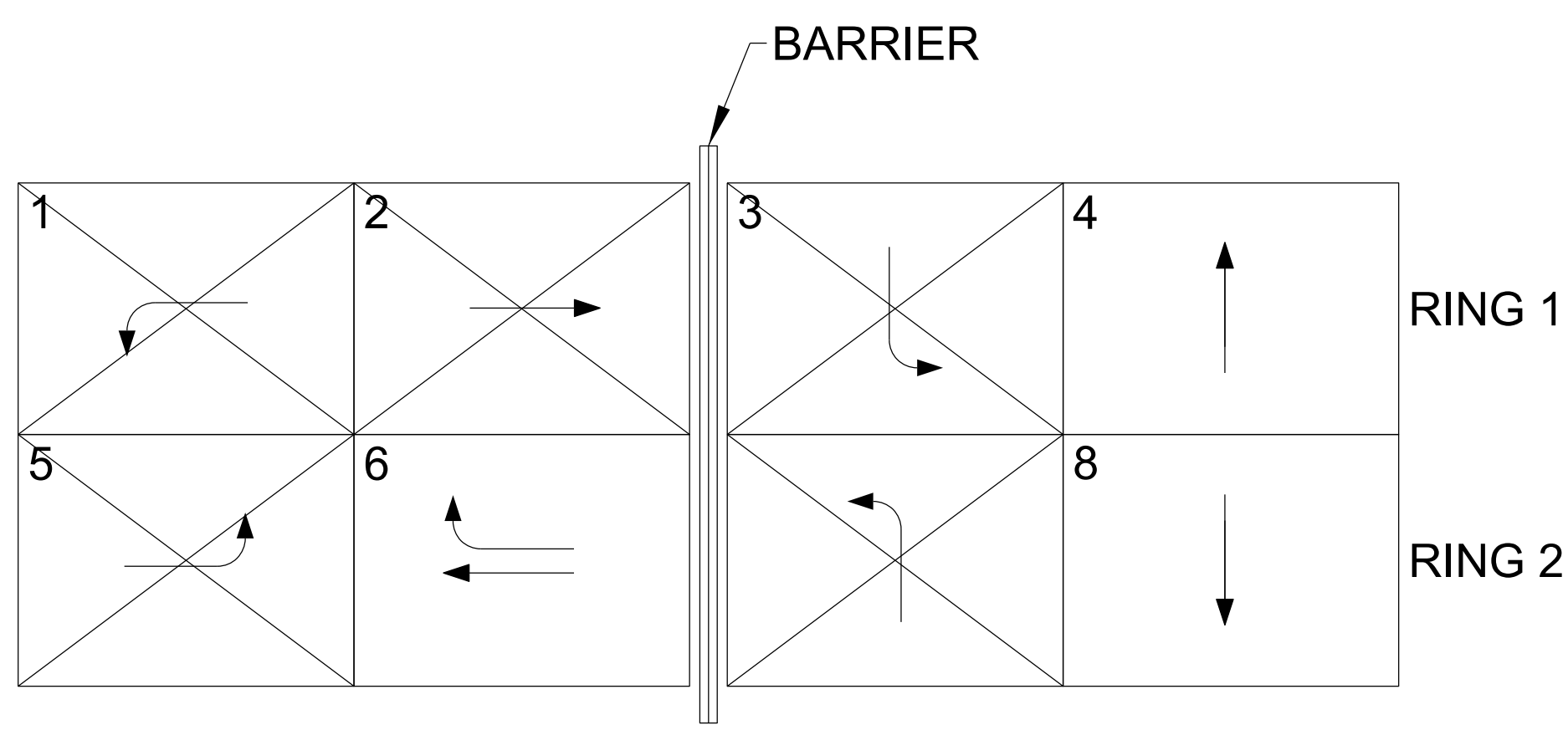
COORDINATES ARE NAD 83(1983), ARE DATUM ADJUSTED BY THE FACTOR OF 0.99996 AND TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SIGNAL POLE
DETAILS
SR 4 WESTBOUND RAMPS
AT PERKINS ROAD
NOT TO SCALE

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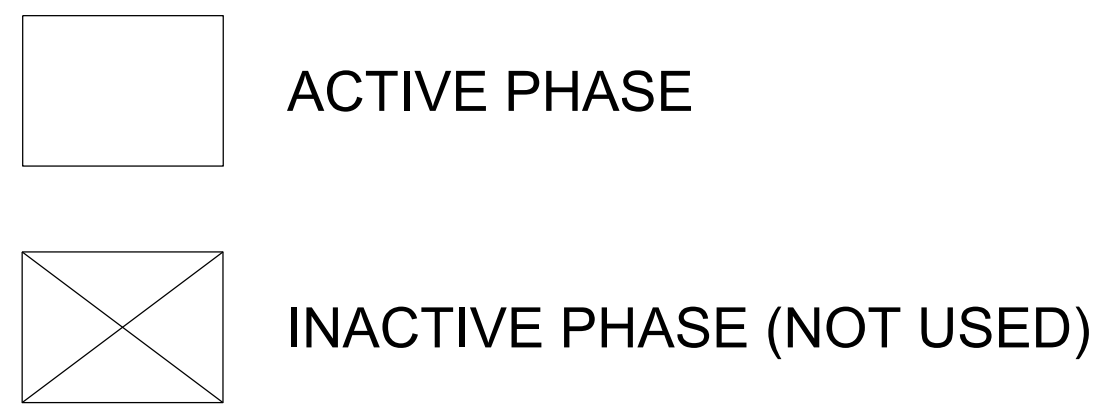
| TYPE | YEAR | PROJECT NO. | SHEET NO. |
|------|------|-------------|-----------|
| ROW | 2020 | STP/NH-4(6) | SIG-3 |
| PIH | 2026 | STP/NH-4(6) | SIG-3 |
| | | | |



BASIC OR SEMI-ACTUATED TIMINGS (SECS)

| PHASE | MINIMUM INITIAL | PASSAGE TIME | MAX GREEN (AM, PM) | CLEARANCE | | RECALL TO | MEMORY POSITION (1) | LEFT TURN OPERATION (2) |
|-------|-----------------|--------------|--------------------|-----------|---------|-----------|---------------------|-------------------------|
| | | | | YELLOW | ALL RED | | | |
| 2 | 9 | 3 | 84, 76 | 4 | 2 | SOFT | L | -- |
| 5 | 9 | 3 | 10, 10 | 3 | 1 | NONE | NL | P+P |
| 6 | 9 | 3 | 70, 62 | 4 | 2 | SOFT | L | -- |
| 8 | 9 | 3 | 24, 32 | 4 | 2 | NONE | NL | PROT. |

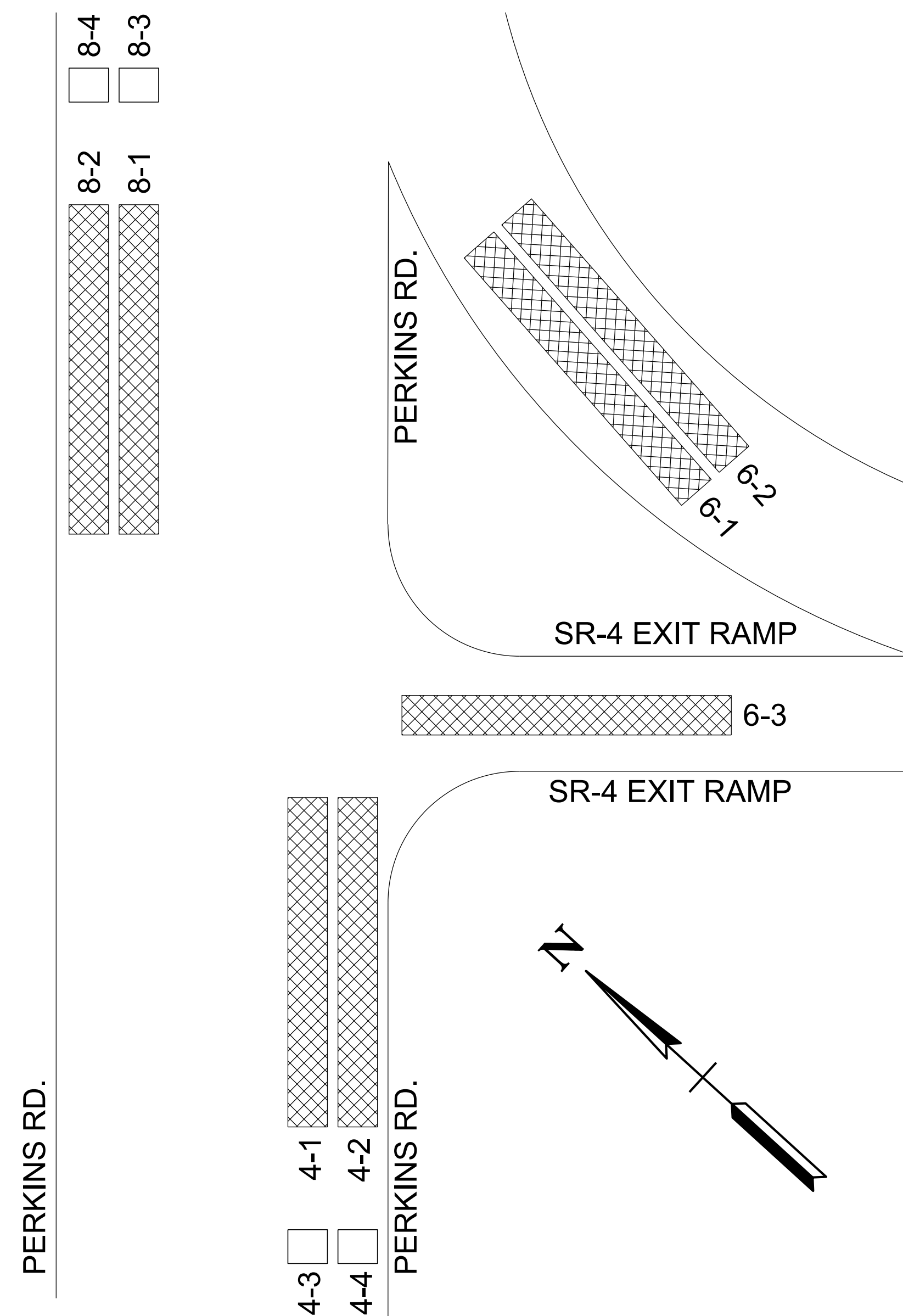
NEMA EIGHT PHASE DESIGNATIONS



- OPERATION IS DUAL ENTRY MODE, FULL SKIP CAPABILITY
- SIGNAL DIRECTION, LAGGING LEFT TURN PHASES ARE NOT ALLOWED
- ALL SIGNAL DISPLAYS AND CLEARANCES SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES
- CONTRACTOR TO CONTACT CITY OF MEMPHIS A MINIMUM OF 30 DAYS PRIOR TO INSTALLATION OF TRAFFIC SIGNAL CONTROLLER FOR PERMANENT SIGNAL TIMING PLANS.

| VIDEO DETECTOR TARGET ASSIGNMENTS | | | | |
|-----------------------------------|---------------|-------------|-----------------|----------|
| TARGET AREA NUMBER | CAMERA NUMBER | TARGET AREA | ASSOCIATE PHASE | COMMENTS |
| 4-1 | 4 | 6' X 50' | 4 | VIDEO |
| 4-2 | 4 | 6' X 50' | 4 | VIDEO |
| 4-3 | 4 | 6' X 6' | 4 | RADAR |
| 4-4 | 4 | 6' X 6' | 4 | RADAR |
| 6-1 | 6 | 6' X 50' | 6 | VIDEO |
| 6-2 | 6 | 6' X 50' | 6 | VIDEO |
| 6-3 | 6 | 6' X 50' | 6 | VIDEO |
| 8-1 | 8 | 6' X 50' | 8 | VIDEO |
| 8-2 | 8 | 6' X 50' | 8 | VIDEO |
| 8-3 | 8 | 6' X 6' | 8 | RADAR |
| 8-4 | 8 | 6' X 6' | 8 | RADAR |

VIDEO DETECTION ZONE DIAGRAM



**PLAN
IN
HAND**

SEAL BY

COORDINATES ARE NAD 83(1983). ARE DATUM ADJUSTED BY THE FACTOR OF 0.99996 AND TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

**SIGNAL PHASING
AND TIMING**
 SR 4 WESTBOUND RAMPS
 AT PERKINS ROAD
 NOT TO SCALE

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| TYPE | YEAR | PROJECT NO. | SHEET NO. |
|------|------|-------------|-----------|
| ROW | 2020 | STP/NH-4(6) | SIG-4 |
| PIH | 2026 | STP/NH-4(6) | SIG-4 |
| | | | |

| PREEMPT TABLE | |
|---------------|-----------------|
| DETECTOR | PHASE(S) CALLED |
| 2 | 2 |
| 4 | 4+8 |
| 8 | 4+8 |

LEGEND

ALL SIGNAL HEADS TO HAVE BACKPLATES ("EXCEPT POLE MOUNTED")

Lamar Ave
D3-1
72"x18"
A

Raines Rd
D3-1
66"x18"
B

CITY TO PROVIDE 18" STREET NAME SIGNS TO THE CONTRACTOR FOR INSTALLATION

PLAN IN HAND

SEALED BY

COORDINATES ARE NAD 83(1983). ARE DATUM ADJUSTED BY THE FACTOR OF 0.99996 AND TIED TO THE TGRN.

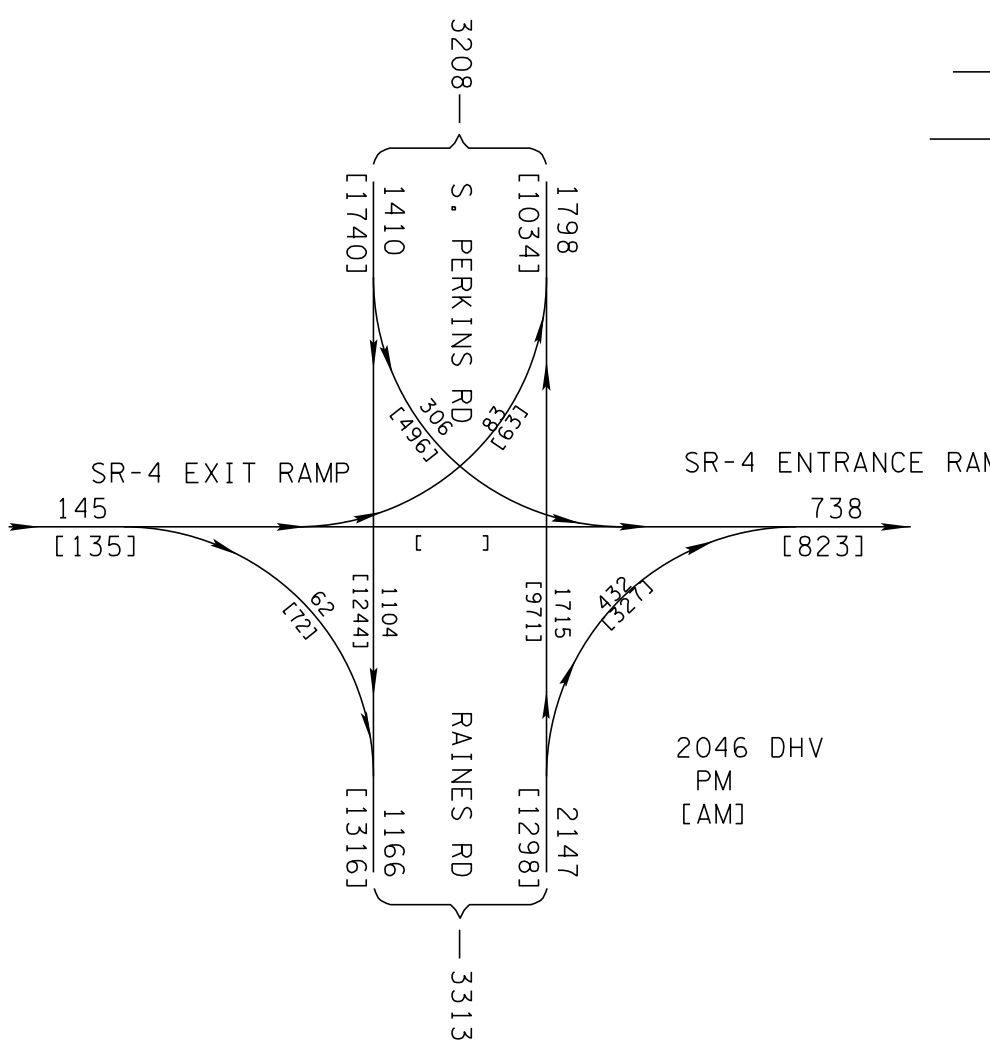
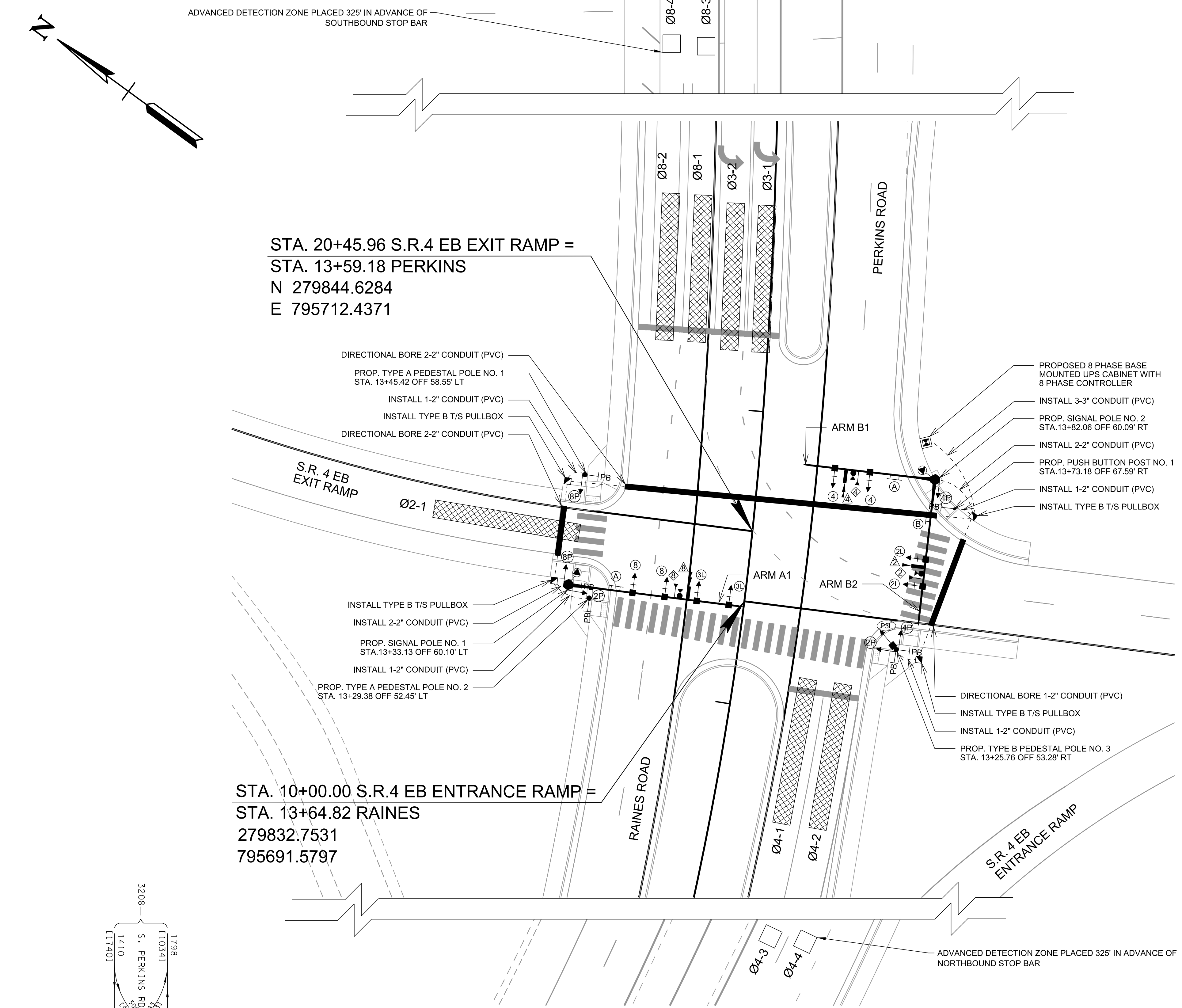
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SIGNAL LAYOUT
SR 4 EASTBOUND RAMPS
AT RAINES ROAD
SCALE: 1"=20'

ADVANCED DETECTION ZONE PLACED 325' IN ADVANCE OF SOUTHBOUND STOP BAR

STA. 20+45.96 S.R.4 EB EXIT RAMP =
STA. 13+59.18 PERKINS
N 279844.6284
E 795712.4371

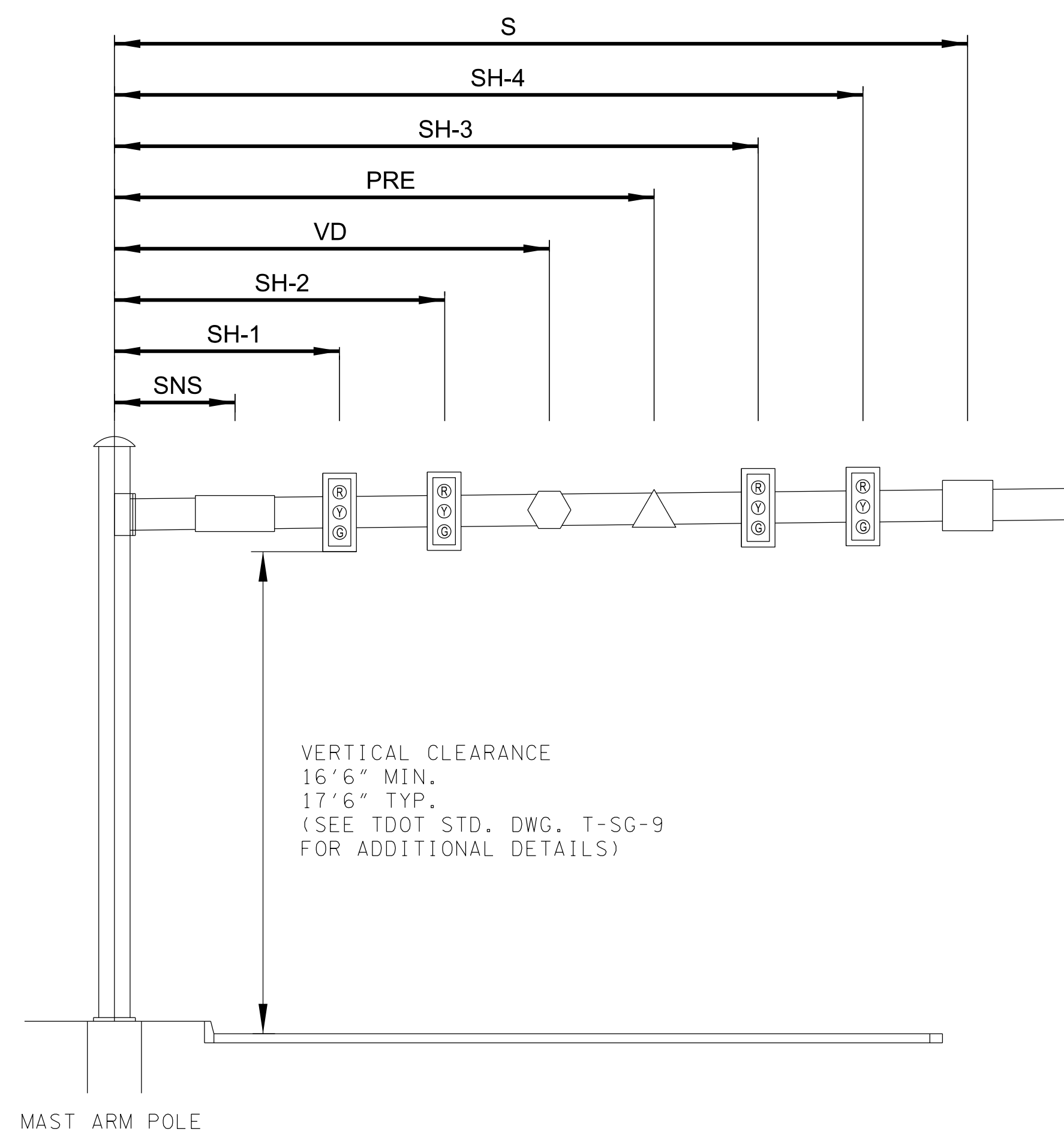
STA. 10+00.00 S.R.4 EB ENTRANCE RAMP =
STA. 13+64.82 RAINES
279832.7531
795691.5797



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| TYPE | YEAR | PROJECT NO. | SHEET NO. |
|------|------|-------------|-----------|
| ROW | 2020 | STP/NH-4(6) | SIG-5 |
| PIH | 2026 | STP/NH-4(6) | SIG-5 |
| | | | |

TYPICAL SIGNAL SUPPORT POLE DATA TABLES



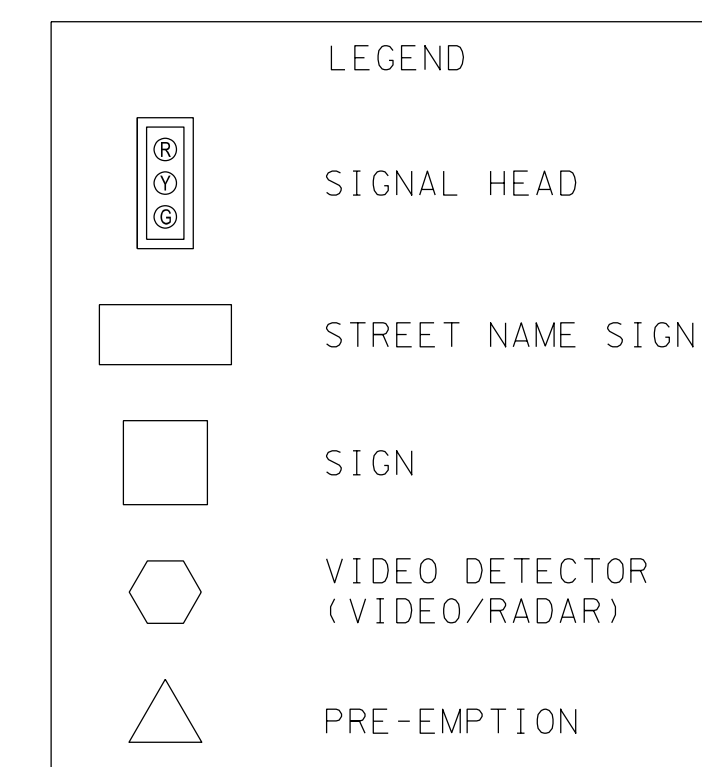
| SIGNAL SUPPORT POLE DATA AND MAST ARM DETAILS | | | | | | | | | | | | | | | | |
|-----------------------------------------------|------------|-----------|-------------|-------------|-----|------------|-------|------|------|------|------|-----|-----|-----|-----|-------------------|
| POLE NO. | STATION | OFFSET | NORTHING | EASTING | ARM | ARM LENGTH | PED-1 | SH-1 | SH-2 | SH-3 | SH-4 | VD | BEA | PRE | SNS | GROUND EL. @ POLE |
| 1 | 13 + 33.13 | 60.10' LT | 795660.7691 | 279884.3818 | A1 | 60' | 0* | 22' | 33' | 44' | 55' | 41' | 0* | 37' | 16' | 313.57 |
| 2 | 13 + 82.09 | 60.09' RT | 795763.2227 | 279804.9070 | B1 | 45' | 0* | 22' | 34' | -- | -- | 30' | 0* | 27' | 14' | 320.97 |
| | | | | | B2 | 50' | | 27' | 36' | -- | -- | 30' | | 33' | 13' | |

* DENOTES POLE MOUNTED SIGNAL EQUIPMENT AS INDICATED ON SIGNAL LAYOUT.

| PUSH BUTTON POST NO. | STATION | OFFSET |
|----------------------|------------|-----------|
| 1 | 13 + 73.18 | 67.59' RT |

| PEDESTAL POLE NO. | STATION | OFFSET |
|-------------------|------------|-----------|
| 1 | 13 + 73.38 | 58.54' LT |
| 2 | 13 + 29.38 | 52.45' LT |
| 3 | 13 + 25.76 | 53.28' RT |

S: SIGN
 SNS: STREET NAME SIGN
 SH-X: SIGNAL HEAD
 VD: VIDEO DETECTOR (VIDEO/RADAR)
 PRE: PRE-EMPTION



PLAN
IN
HAND

SEALED BY

COORDINATES ARE NAD 83(1983), ARE DATUM ADJUSTED BY THE FACTOR OF 0.99996 AND TIED TO THE TGRN.

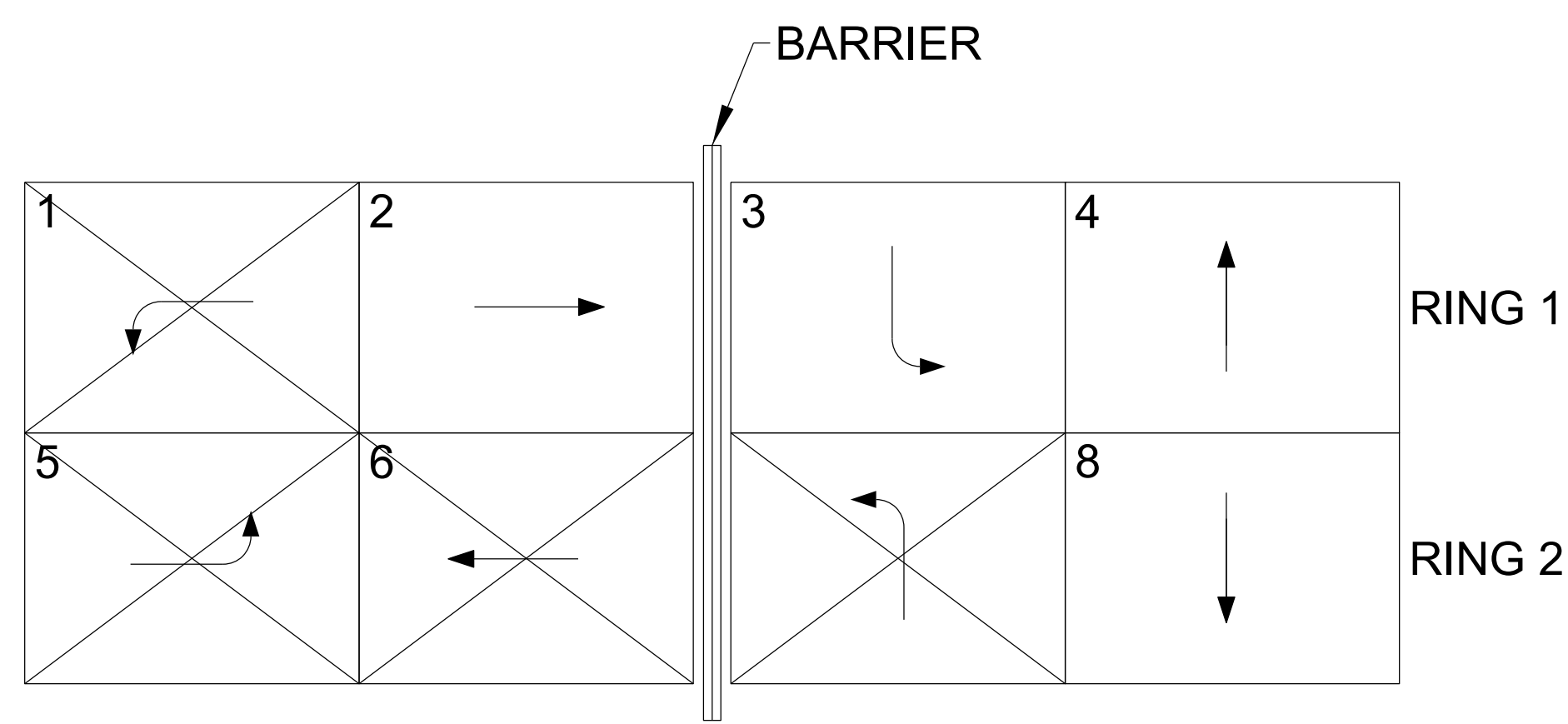
**STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION**

SIGNAL POLE
DETAILS

SR 4 EASTBOUND RAMPS
AT RAINES ROAD
NOT TO SCALE

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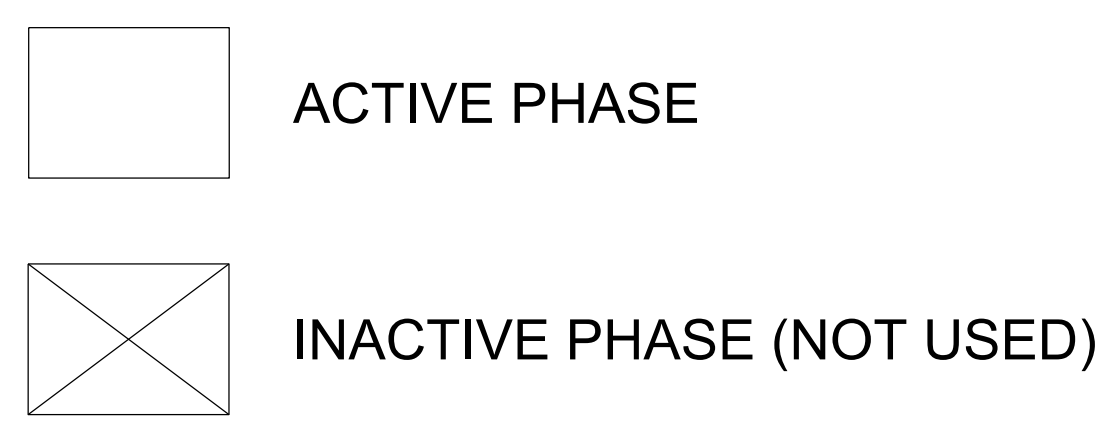
| TYPE | YEAR | PROJECT NO. | SHEET NO. |
|------|------|-------------|-----------|
| ROW | 2020 | STP/NH-4(6) | SIG-6 |
| PIH | 2026 | STP/NH-4(6) | SIG-6 |
| | | | |



BASIC OR SEMI-ACTUATED TIMINGS (SECS)

| PHASE | MINIMUM INITIAL | PASSAGE TIME | MAX GREEN (AM, PM) | CLEARANCE | | RECALL TO | MEMORY POSITION (1) | LEFT TURN OPERATION (2) |
|-------|-----------------|--------------|--------------------|-----------|---------|-----------|---------------------|-------------------------|
| | | | | YELLOW | ALL RED | | | |
| 1 | 9 | 3 | 34, 16 | 3 | 1 | NONE | NL | PROT. |
| 2 | 9 | 3 | 53, 73 | 4 | 2 | SOFT | L | -- |
| 4 | 9 | 3 | 17, 15 | 4 | 2 | NONE | NL | PROT. |
| 6 | 9 | 3 | 91, 93 | 4 | 2 | SOFT | L | -- |

NEMA EIGHT PHASE DESIGNATIONS

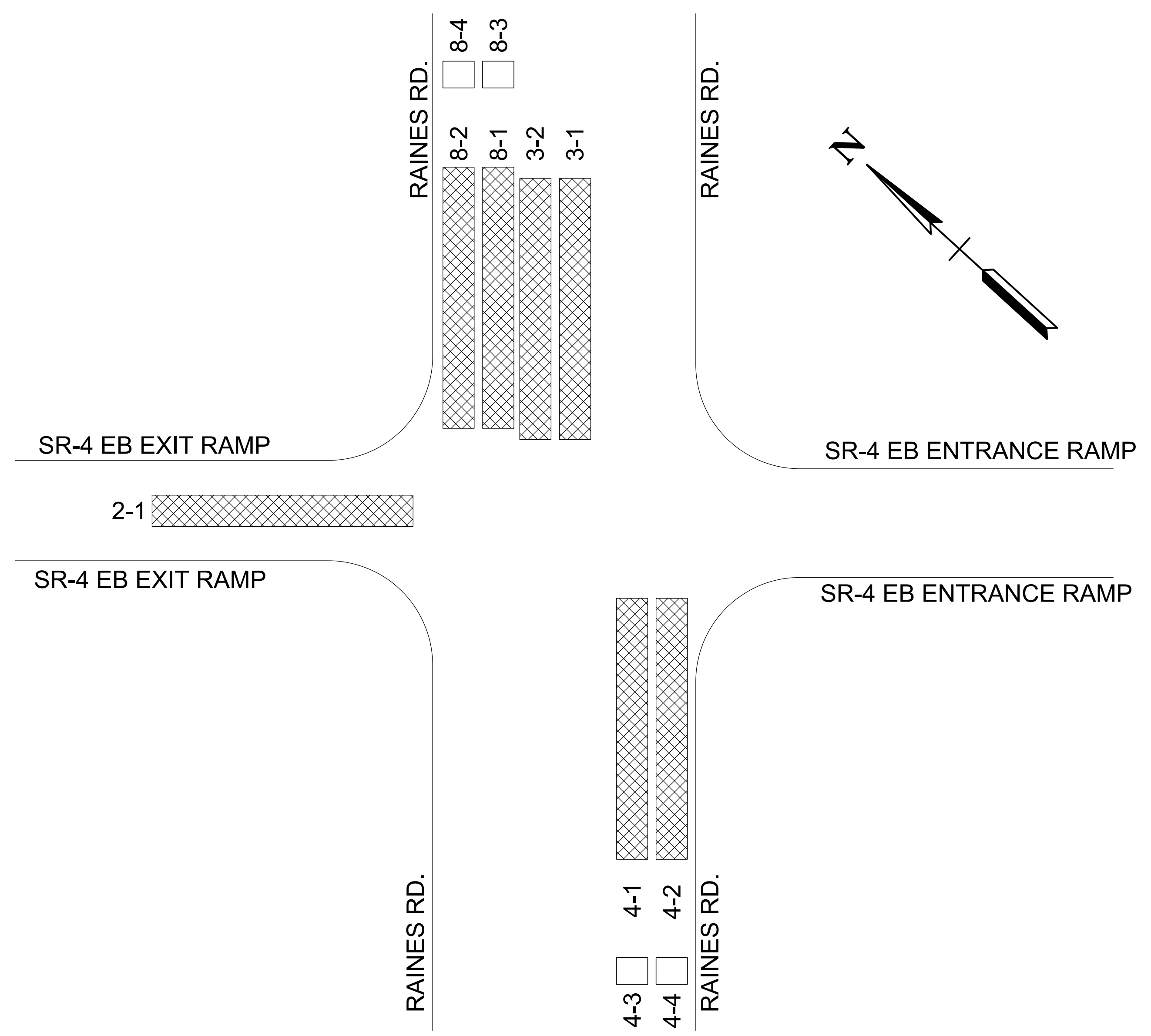


- OPERATION IS DUAL ENTRY MODE, FULL SKIP CAPABILITY
- SIGNAL DIRECTION, LAGGING LEFT TURN PHASES ARE NOT ALLOWED
- ALL SIGNAL DISPLAYS AND CLEARANCES SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES
- CONTRACTOR TO CONTACT CITY OF MEMPHIS A MINIMUM OF 30 DAYS PRIOR TO INSTALLATION OF TRAFFIC SIGNAL CONTROLLER FOR PERMANENT SIGNAL TIMING PLANS.

VIDEO DETECTOR TARGET ASSIGNMENTS

| TARGET AREA NUMBER | CAMERA NUMBER | TARGET AREA | ASSOCIATE PHASE | COMMENTS |
|--------------------|---------------|-------------|-----------------|----------|
| 2-1 | 2 | 6' X 50' | 2 | VIDEO |
| 3-1 | 8 | 6' X 50' | 3 | VIDEO |
| 3-2 | 8 | 6' X 50' | 3 | VIDEO |
| 4-1 | 4 | 6' X 50' | 4 | VIDEO |
| 4-2 | 4 | 6' X 50' | 4 | VIDEO |
| 4-3 | 4 | 6' X 6' | 4 | RADAR |
| 4-4 | 4 | 6' X 6' | 4 | RADAR |
| 8-1 | 8 | 6' X 50' | 8 | VIDEO |
| 8-2 | 8 | 6' X 50' | 8 | VIDEO |
| 8-3 | 8 | 6' X 6' | 8 | RADAR |
| 8-4 | 8 | 6' X 6' | 8 | RADAR |

VIDEO DETECTION ZONE DIAGRAM



**PLAN
IN
HAND**

SEAL BY

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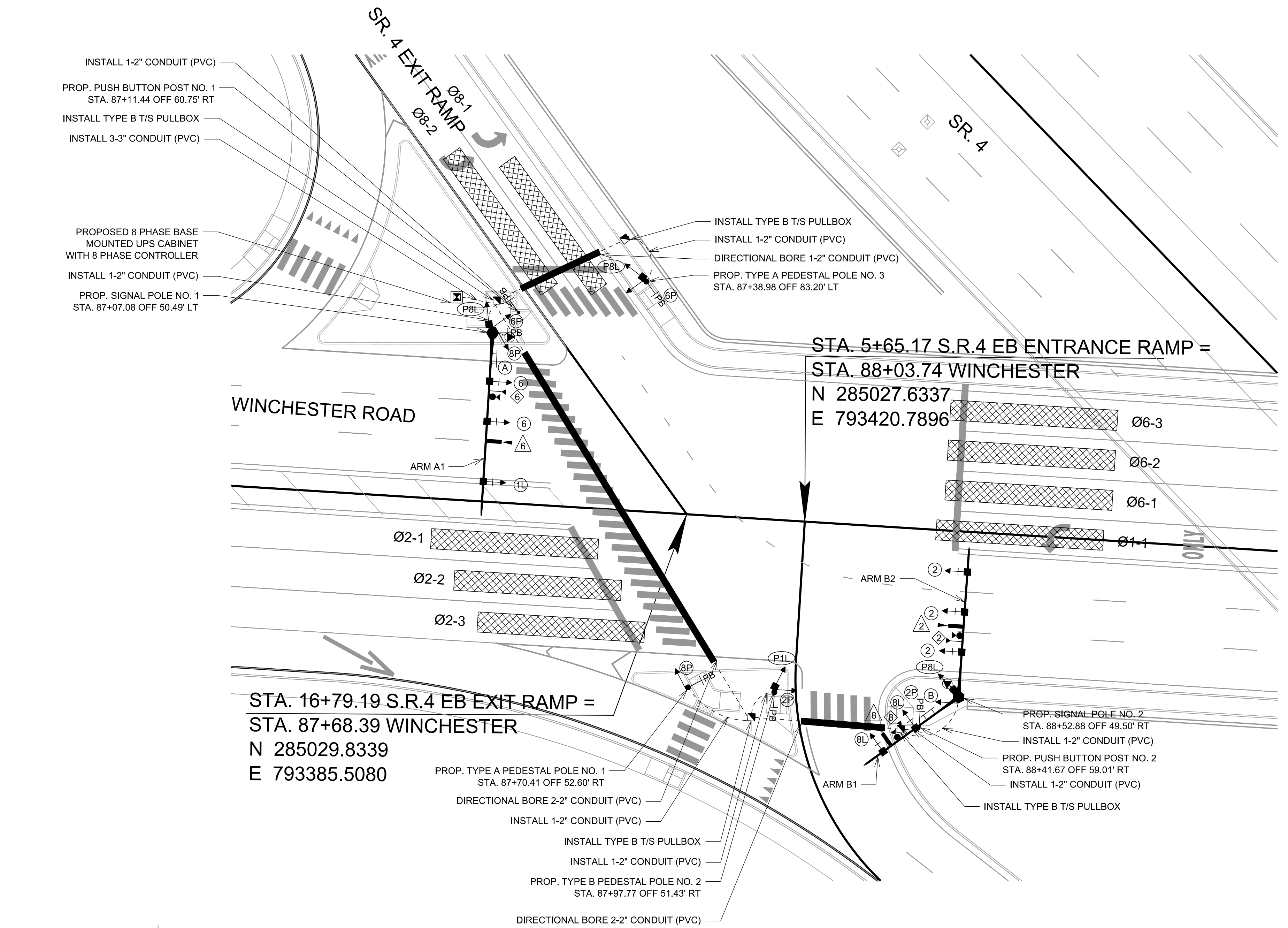
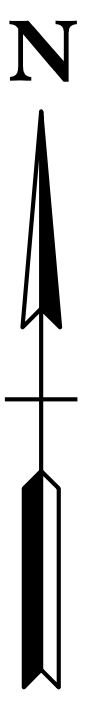
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

**SIGNAL PHASING
AND TIMING**
 SR 4 EASTBOUND RAMP
 AT RAINES ROAD
 NOT TO SCALE

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| TYPE | YEAR | PROJECT NO. | SHEET NO. |
|------|------|-------------|-----------|
| ROW | 2020 | STP/NH-4(6) | SIG-7 |
| PIH | 2026 | STP/NH-4(6) | SIG-7 |
| | | | |

| PREEMPT TABLE | |
|---------------|-----------------|
| DETECTOR | PHASE(S) CALLED |
| 2 | 2+6 |
| 6 | 2+6 |
| 8 | 8 |



LEGEND

PREEMPTION DEVICES

VIDEO DETECTION CAMERA

RADAR DETECTION ZONE

VIDEO DETECTION ZONE

2P, 6P

1L 2, 6 8L, P8L* P1L*

ALL SIGNAL HEADS TO HAVE BACKPLATES (*EXCEPT POLE MOUNTED)

Lamar Ave
 D3-1
 72"x18"
 (A)

Winchester Rd
 D3-1
 84"x18"
 (B)

CITY TO PROVIDE 18" STREET NAME SIGNS TO THE CONTRACTOR FOR INSTALLATION

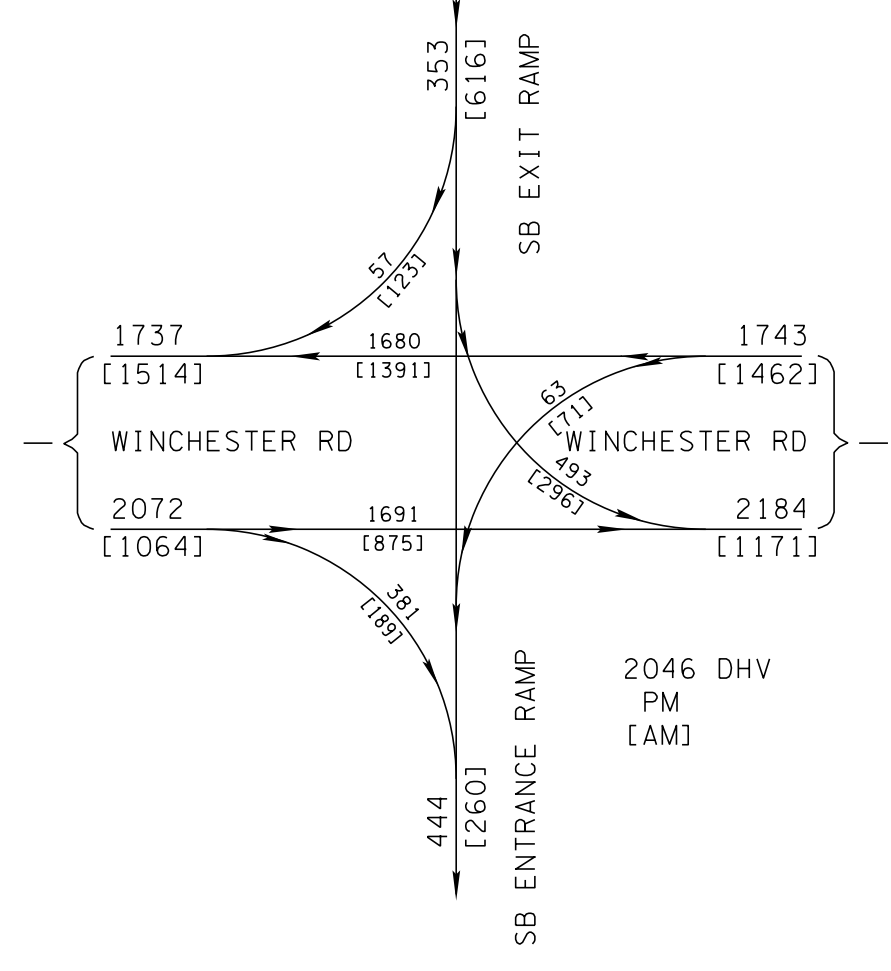
**PLAN
IN
HAND**

SEALED BY

COORDINATES ARE NAD 83(1983). ARE DATUM ADJUSTED BY THE FACTOR OF 0.99996 AND TIED TO THE TGRN.

**STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION**

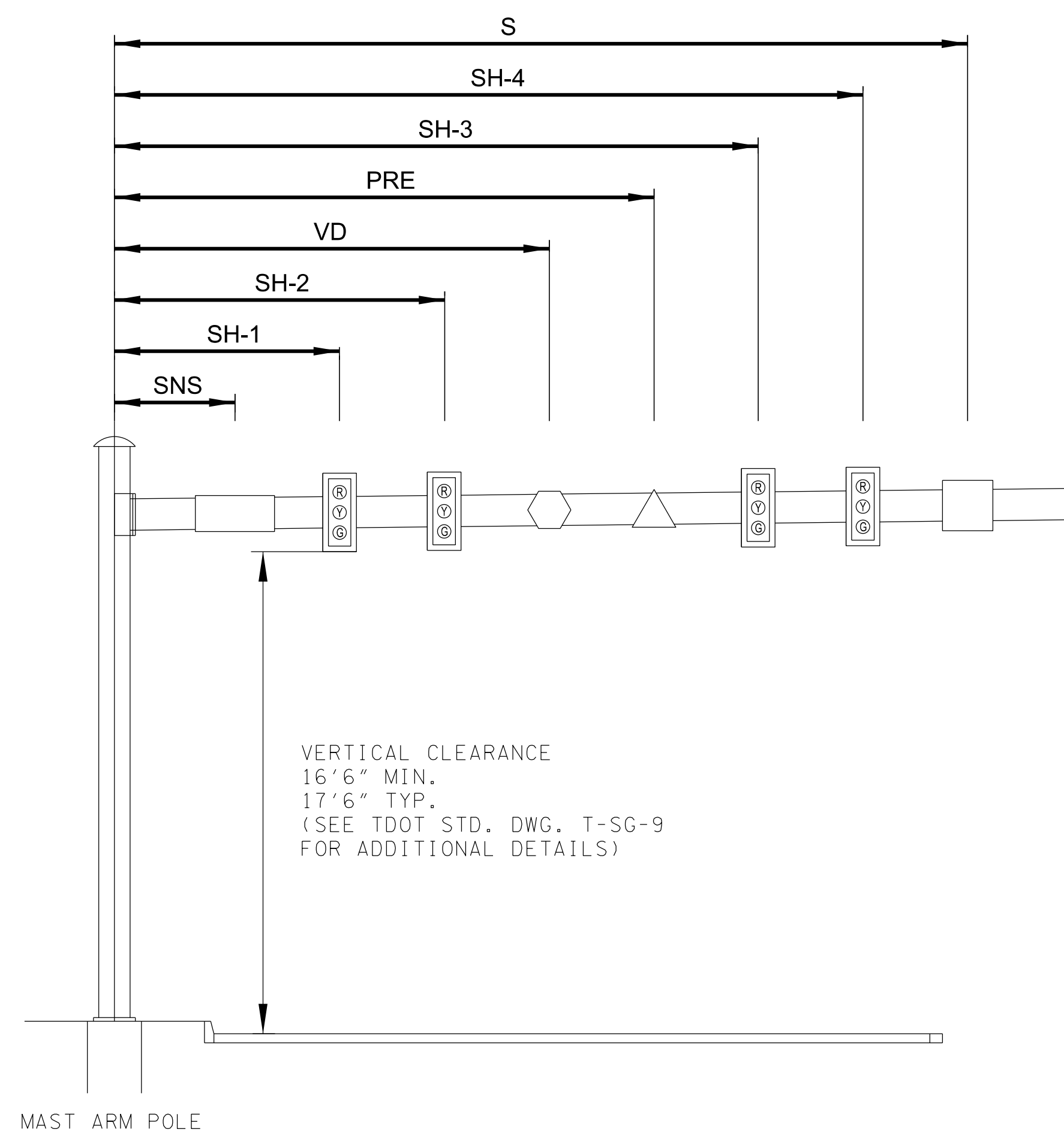
SIGNAL LAYOUT
 SR 4 EASTBOUND RAMPS
 AT WINCHESTER ROAD
 SCALE: 1"=20'



3/9/2026 6:35:34 PM
 K:\MEMO_TPTO\017141018 - Lamar Avenue Signal Design\Cadd\Plans\SIG-7 - SR 4 at Winchester EB off ramp - Intersection Layout.dgn

| TYPE | YEAR | PROJECT NO. | SHEET NO. |
|------|------|-------------|-----------|
| ROW | 2020 | STP/NH-4(6) | SIG-8 |
| PIH | 2026 | STP/NH-4(6) | SIG-8 |
| | | | |

TYPICAL SIGNAL SUPPORT POLE DATA TABLES



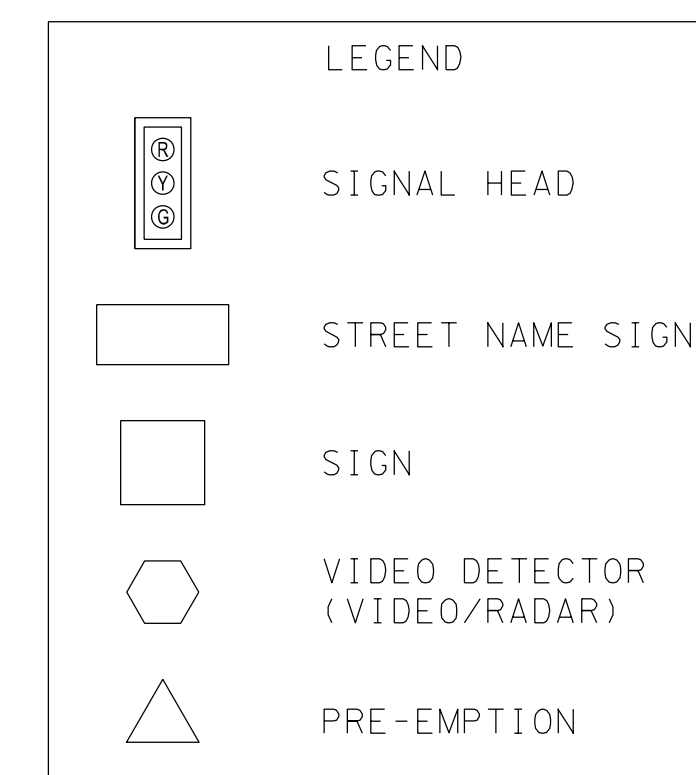
| SIGNAL SUPPORT POLE DATA AND MAST ARM DETAILS | | | | | | | | | | | | | | | | |
|-----------------------------------------------|------------|-----------|-------------|-------------|-----|------------|------|-------|------|------|------|-----|-----|-----|-----|-------------------|
| POLE NO. | STATION | OFFSET | NORTHING | EASTING | ARM | ARM LENGTH | SH-0 | PED-1 | SH-1 | SH-2 | SH-3 | VD | BEA | PRE | SNS | GROUND EL. @ POLE |
| 1 | 87 + 07.08 | 50.49' LT | 793327.4624 | 285084.0433 | A1 | 55' | 0* | 0* | 15' | 27' | 45' | 32' | 0* | 18' | 8' | 291.87 |
| 2 | 88 + 52.89 | 49.50' RT | 793466.7601 | 284975.1706 | B1 | 35' | -- | 0* | 16' | 28' | -- | 25' | 0* | 22' | 10' | 296.82 |
| | | | | | B2 | 45' | | | 14' | 26' | 38' | 21' | | 18' | -- | |

* DENOTES POLE MOUNTED SIGNAL EQUIPMENT AS INDICATED ON SIGNAL LAYOUT.

| PEDESTAL POLE NO. | STATION | OFFSET |
|-------------------|------------|-----------|
| 1 | 87 + 70.41 | 52.60' LT |
| 2 | 87 + 97.77 | 51.43' RT |
| 3 | 87 + 38.98 | 83.20' RT |

| PUSH BUTTON POST NO. | STATION | OFFSET |
|----------------------|------------|-----------|
| 1 | 87 + 11.44 | 60.75' LT |
| 2 | 88 + 41.67 | 59.01' RT |

S: SIGN
SNS: STREET NAME SIGN
SH-X: SIGNAL HEAD
VD: VIDEO DETECTOR (VIDEO/RADAR)
PRE: PRE-EMPTION



PLAN
IN
HAND

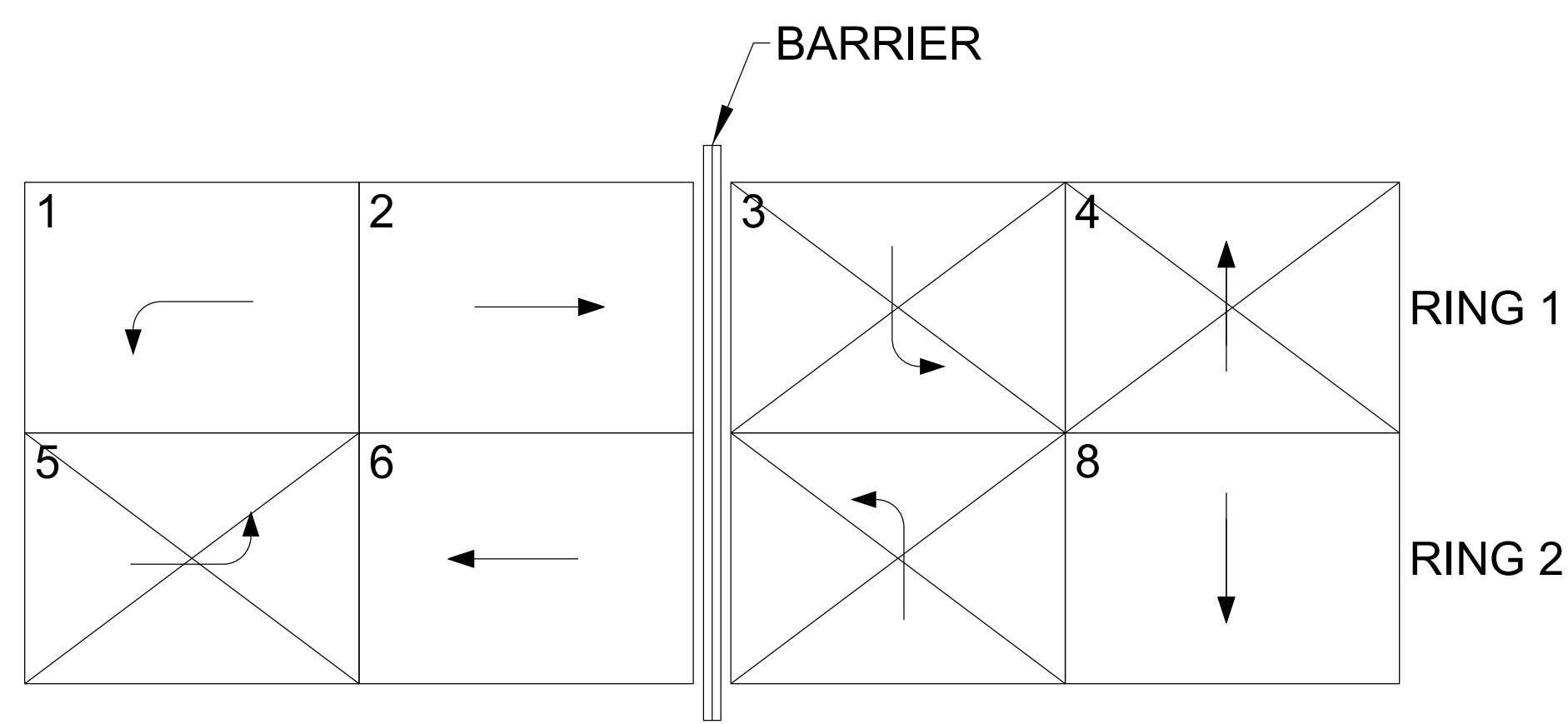
SEALED BY

COORDINATES ARE NAD 83(1983), ARE DATUM ADJUSTED BY THE FACTOR OF 0.99996 AND TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SIGNAL POLE
DETAILS
SR 4 EASTBOUND RAMPS
AT WINCHESTER ROAD
NOT TO SCALE

| TYPE | YEAR | PROJECT NO. | SHEET NO. |
|------|------|-------------|-----------|
| ROW | 2020 | STP/NH-4(6) | SIG-9 |
| PIH | 2026 | STP/NH-4(6) | SIG-9 |
| | | | |



BASIC OR SEMI-ACTUATED TIMINGS (SECS)

| PHASE | MINIMUM INITIAL (AM, PM) | PASSAGE TIME | MAX GREEN (AM, PM) | CLEARANCE | | RECALL TO | MEMORY POSITION (1) | LEFT TURN OPERATION (2) |
|-------|--------------------------|--------------|--------------------|-----------|---------|-----------|---------------------|-------------------------|
| | | | | YELLOW | ALL RED | | | |
| 1 | 4, 4 | 2 | 10, 8 | 3 | 1 | NONE | NL | P+P |
| 2 | 10, 10 | 5 | 41, 43 | 4 | 2 | SOFT | L | -- |
| 4 | 4, 4 | 2 | 23, 23 | 4 | 2 | NONE | NL | PROT. |
| 6 | 4, 10 | 5 | 55, 55 | 4 | 2 | SOFT | L | -- |

NEMA EIGHT PHASE DESIGNATIONS

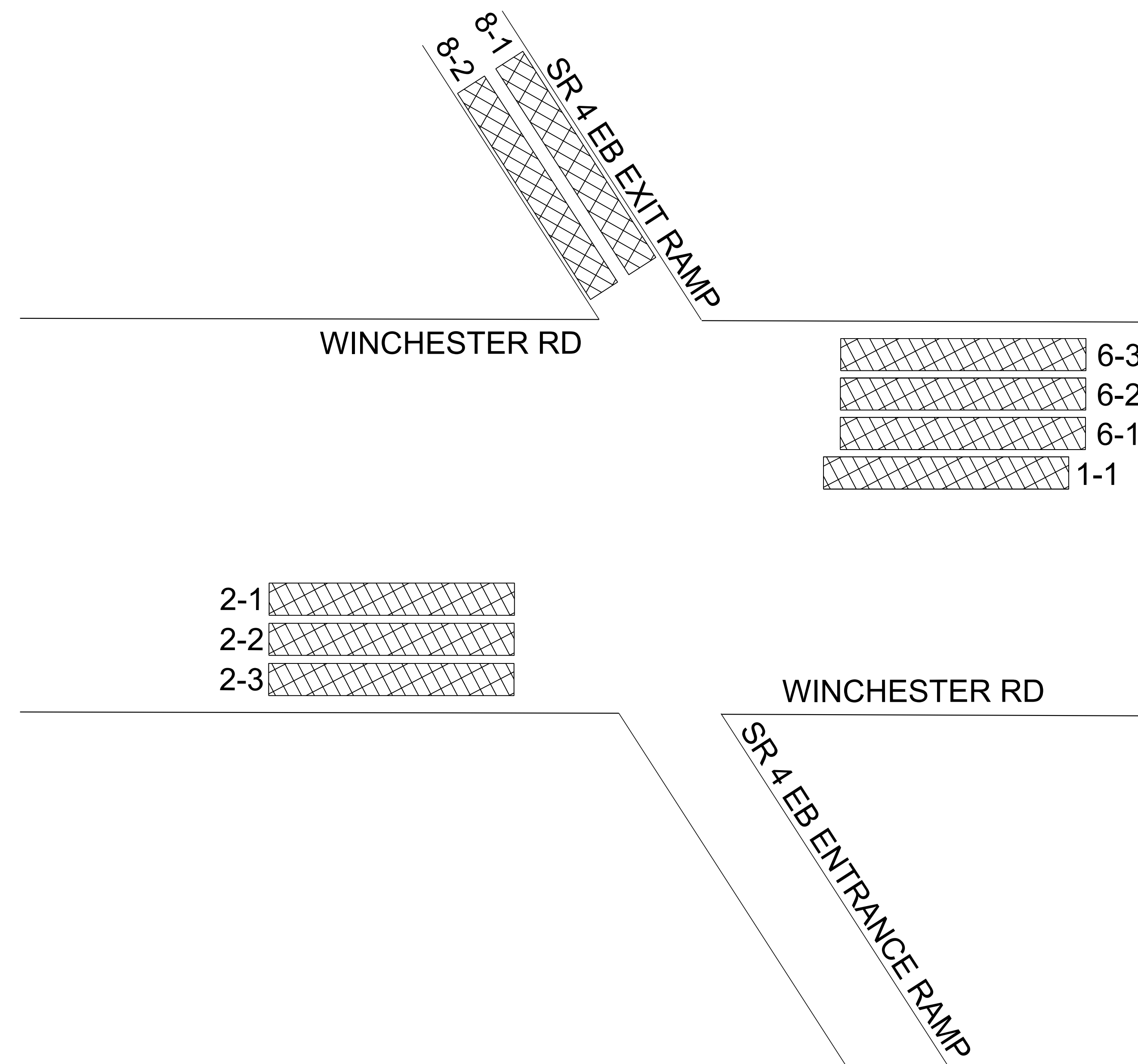
- ACTIVE PHASE
- INACTIVE PHASE (NOT USED)

- OPERATION IS DUAL ENTRY MODE, FULL SKIP CAPABILITY
- SIGNAL DIRECTION, LAGGING LEFT TURN PHASES ARE NOT ALLOWED
- ALL SIGNAL DISPLAYS AND CLEARANCES SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES
- CONTRACTOR TO CONTACT CITY OF MEMPHIS A MINIMUM OF 30 DAYS PRIOR TO INSTALLATION OF TRAFFIC SIGNAL CONTROLLER FOR PERMANENT SIGNAL TIMING PLANS.

VIDEO DETECTOR TARGET ASSIGNMENTS

| TARGET AREA NUMBER | CAMERA NUMBER | TARGET AREA | ASSOCIATE PHASE | COMMENTS |
|--------------------|---------------|-------------|-----------------|----------|
| 1-1 | 6 | 6' X 50' | 1 | VIDEO |
| 2-1 | 2 | 6' X 50' | 2 | VIDEO |
| 2-2 | 2 | 6' X 50' | 2 | VIDEO |
| 2-3 | 2 | 6' X 50' | 2 | VIDEO |
| 6-1 | 6 | 6' X 50' | 6 | VIDEO |
| 6-2 | 6 | 6' X 50' | 6 | VIDEO |
| 6-3 | 6 | 6' X 50' | 6 | VIDEO |
| 8-1 | 8 | 6' X 50' | 8 | VIDEO |
| 8-2 | 8 | 6' X 50' | 8 | VIDEO |

VIDEO DETECTION ZONE DIAGRAM



PLAN
IN
HAND

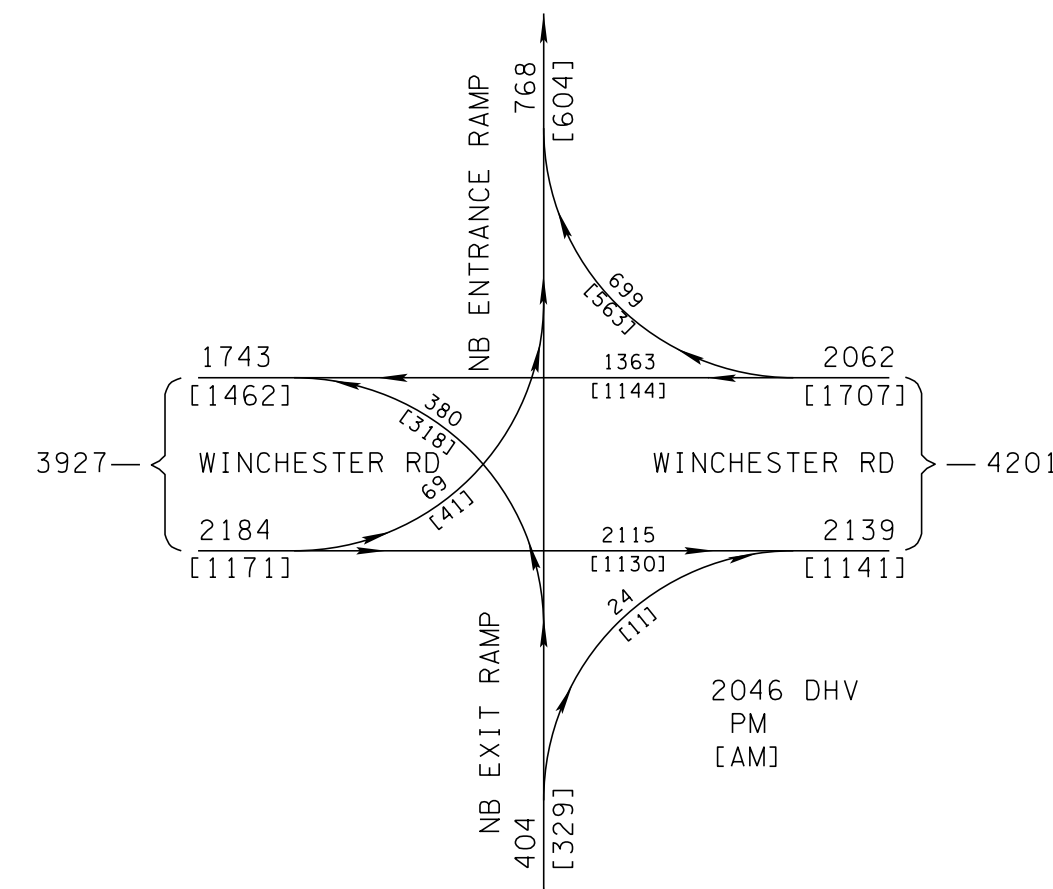
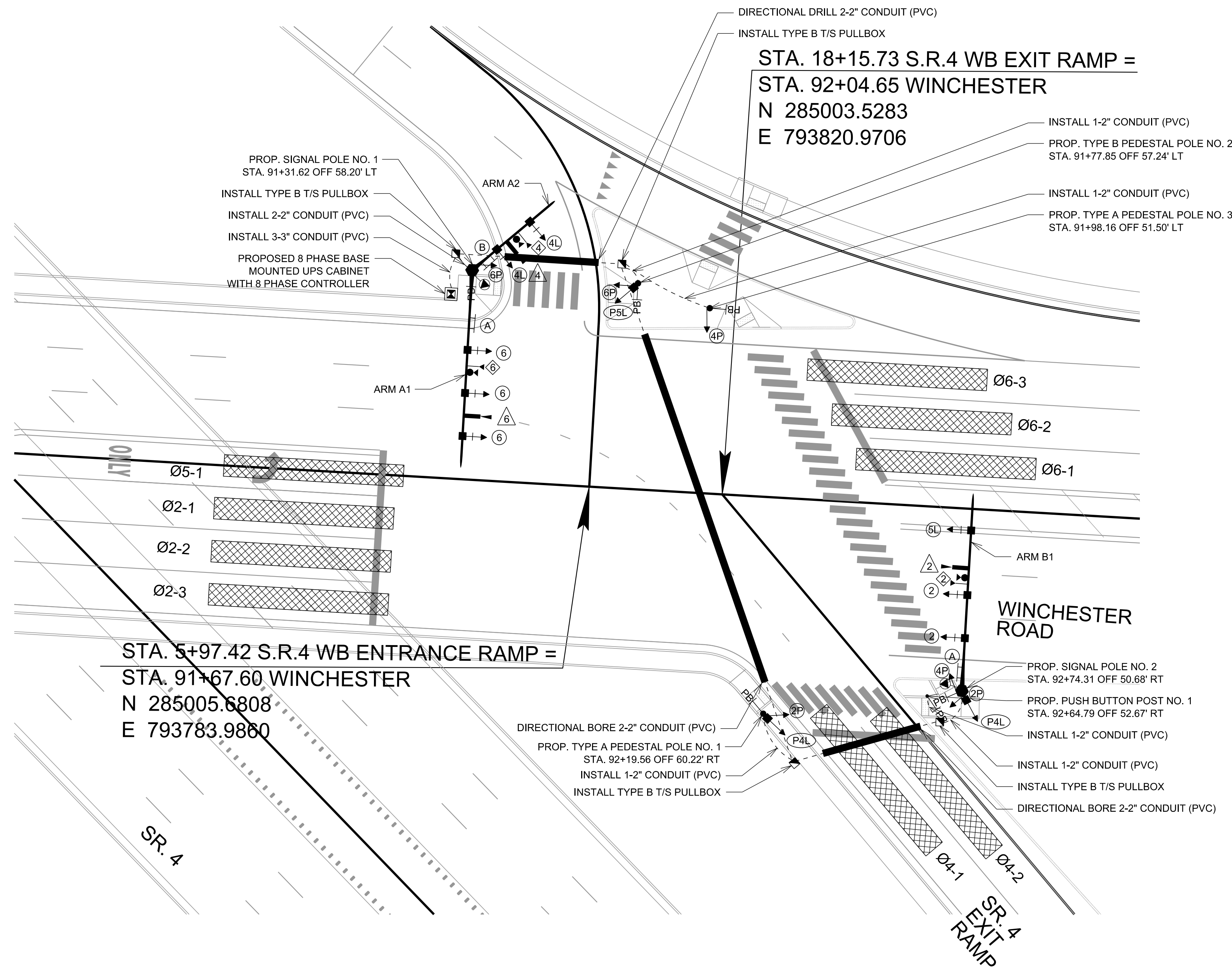
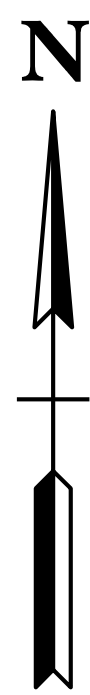
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COORDINATES ARE NAD 83(1983). ARE DATUM ADJUSTED BY THE FACTOR OF 0.99996 AND TIED TO THE TGRN.

**STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION**

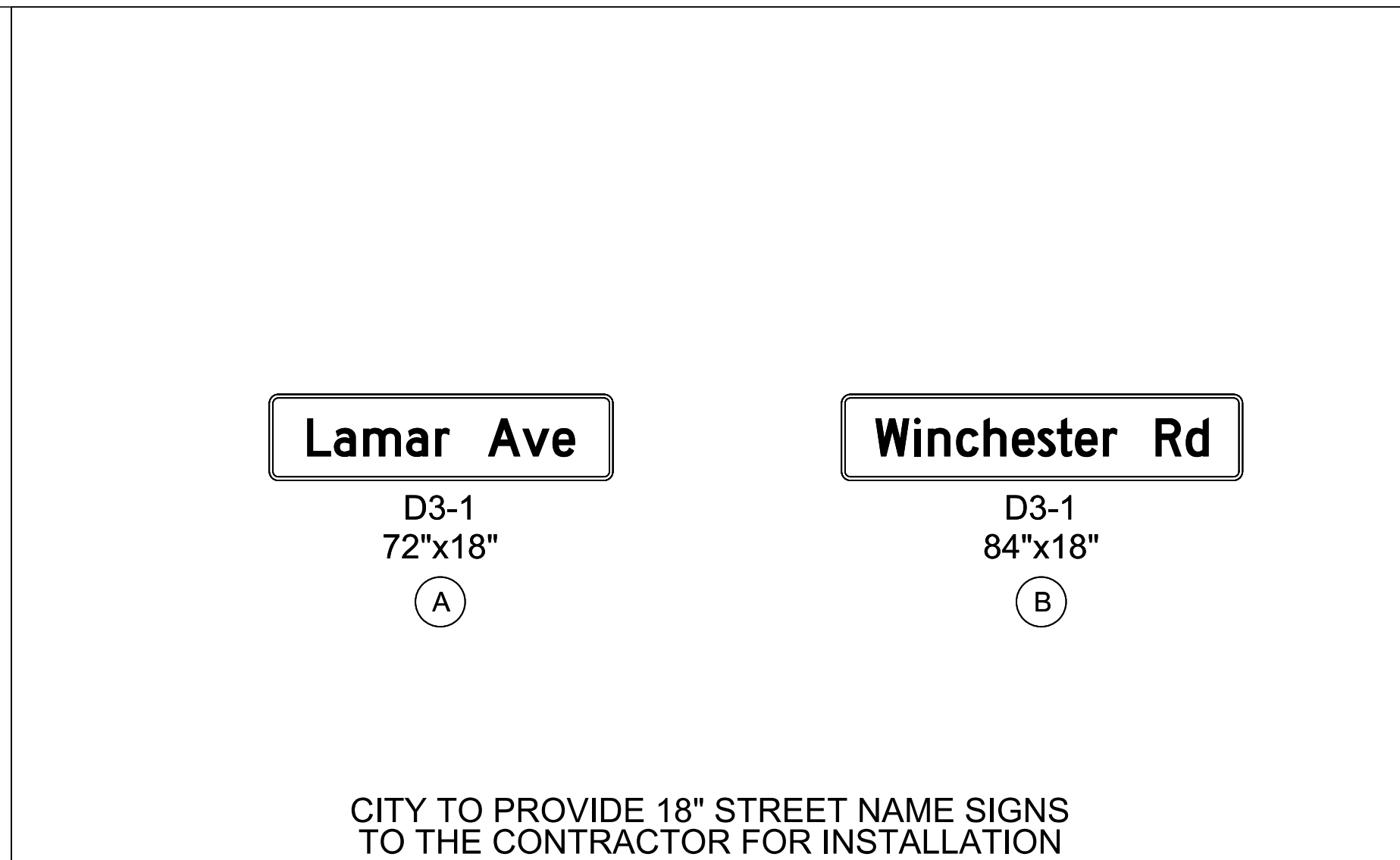
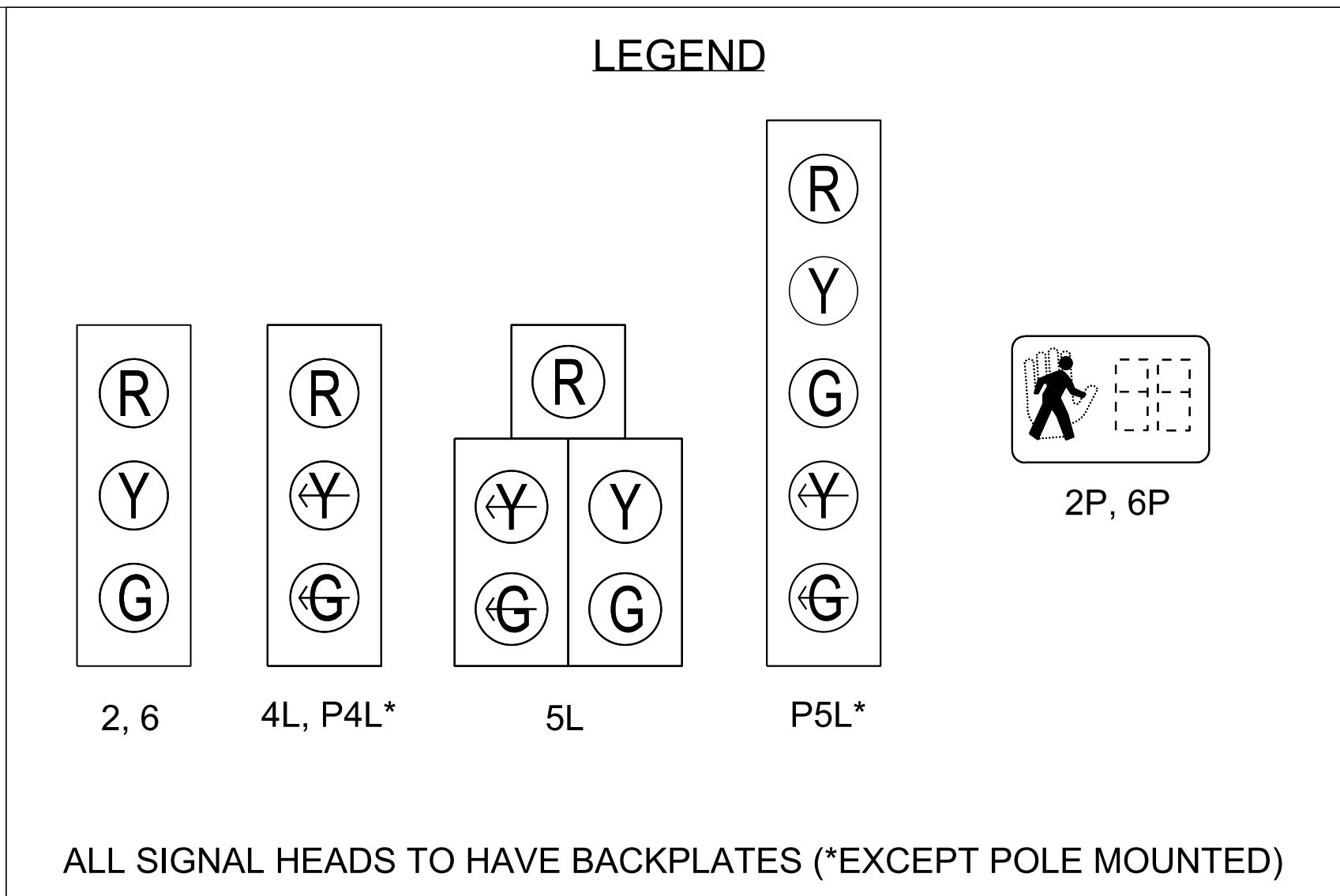
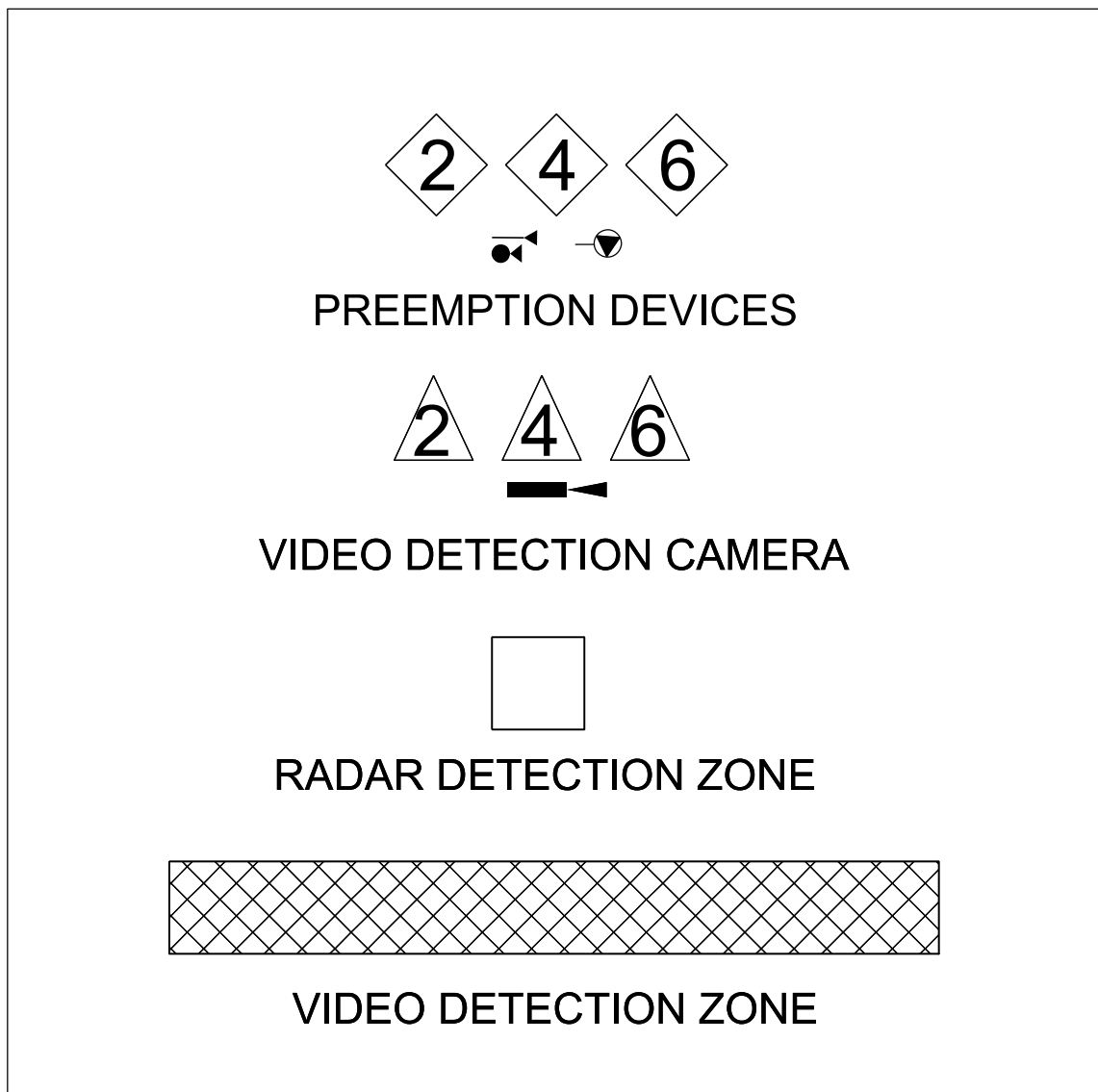
**SIGNAL PHASING
AND TIMING**
SR 4 EASTBOUND RAMP
AT WINCHESTER ROAD
NOT TO SCALE

| TYPE | YEAR | PROJECT NO. | SHEET NO. |
|------|------|-------------|---------------|
| ROW | 2020 | STP/NH-4(6) | SIG-10 |
| PIH | 2026 | STP/NH-4(6) | SIG-10 |
| | | | |



| DETECTOR | PHASE(S) CALLED |
|----------|-----------------|
| 2 | 2+6 |
| 4 | 4 |
| 6 | 2+6 |

PLAN
IN
HAND



SEALED BY

COORDINATES ARE NAD 83(1983). ARE DATUM ADJUSTED BY THE FACTOR OF 0.99996 AND TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

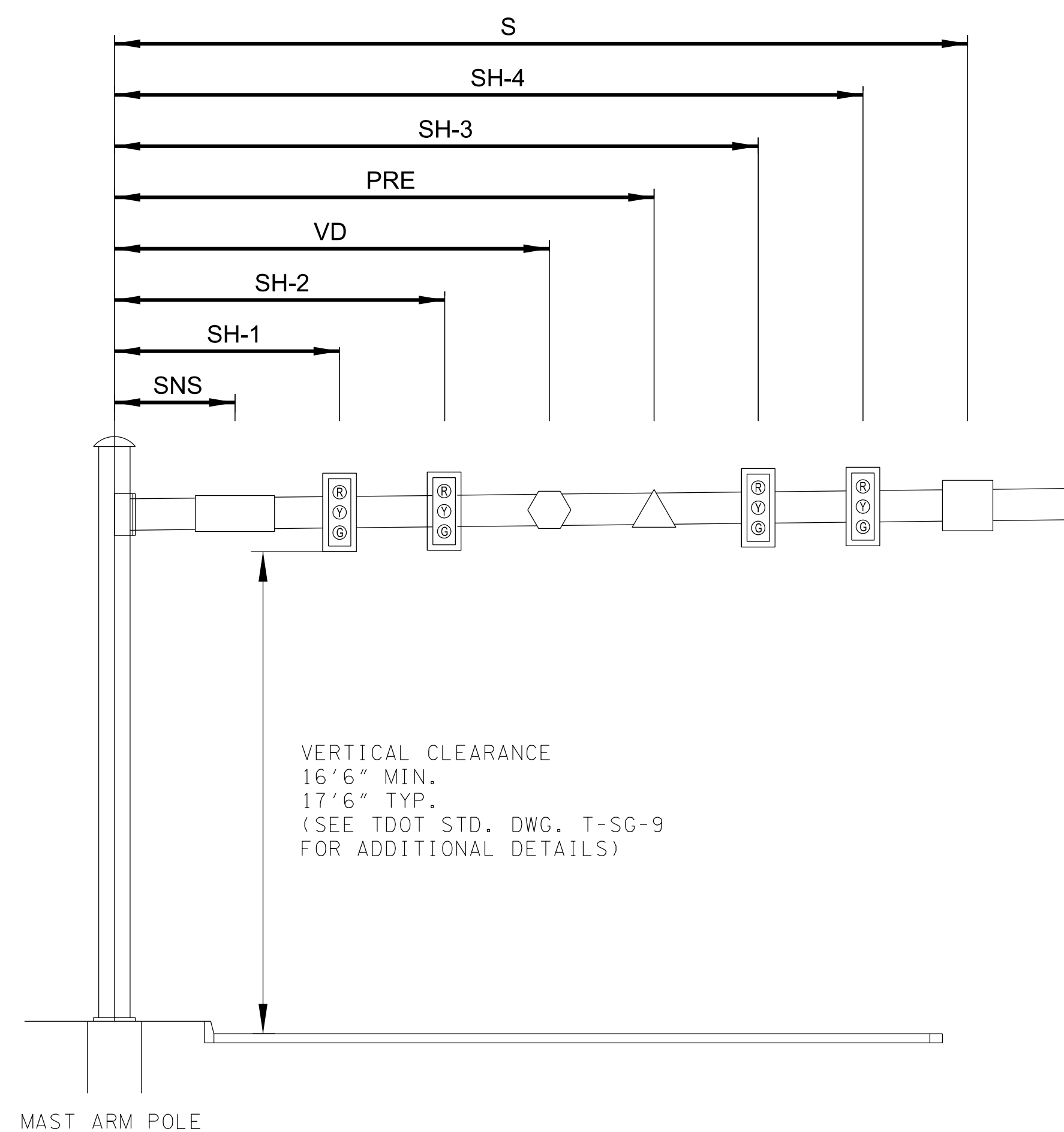
SIGNAL
LAYOUT

SR 4 WESTBOUND RAMPS
AT WINCHESTER ROAD
SCALE: 1"=20'

3/9/2026 6:35:39 PM K:\MEM_TPTO\017141018 - Lamar Avenue Signal Design\Cadd\Plans\SIG-10 - SR 4 at Winchester EB On Ramp - Intersection Layout.dgn

| | | | |
|------|------|-------------|-----------|
| TYPE | YEAR | PROJECT NO. | SHEET NO. |
| ROW | 2020 | STP/NH-4(6) | SIG-11 |
| PIH | 2026 | STP/NH-4(6) | SIG-11 |
| | | | |

TYPICAL SIGNAL SUPPORT POLE DATA TABLES



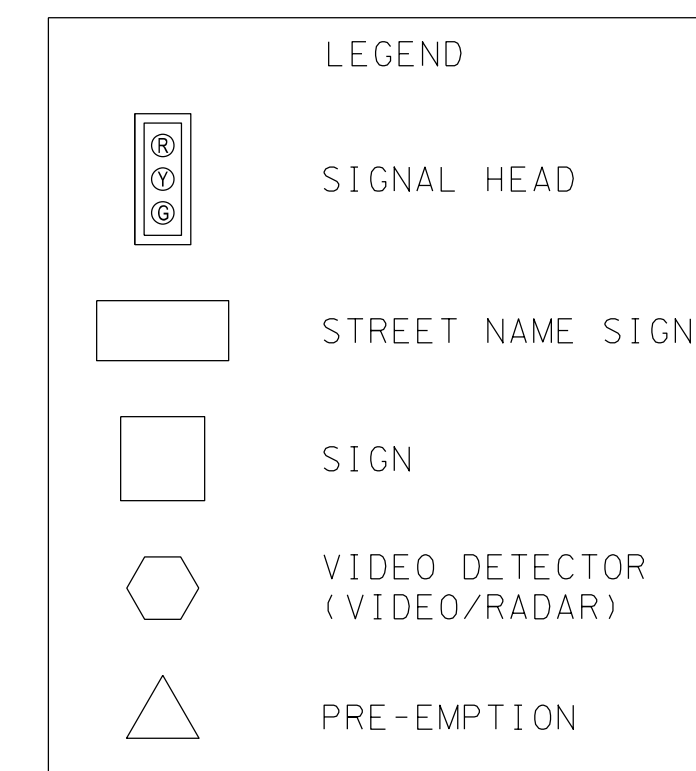
| SIGNAL SUPPORT POLE DATA AND MAST ARM DETAILS | | | | | | | | | | | | | | | | | |
|-----------------------------------------------|------------|-----------|-------------|-------------|-----|------------|-------|-------|------|------|------|-----|-----|-----|-----|-------------------|--|
| POLE NO. | STATION | OFFSET | NORTHING | EASTING | ARM | ARM LENGTH | PED-1 | PED-2 | SH-1 | SH-2 | SH-3 | VD | BEA | PRE | SNS | GROUND EL. @ POLE | |
| 1 | 91 + 31.62 | 58.20' LT | 793751.4423 | 285065.8684 | A1 | 55' | 0* | -- | 22' | 34' | 46' | 40' | 0* | 28' | 15' | 301.09 | |
| | | | | | A2 | 30' | | | 9' | 21' | -- | 13' | | 15' | 5' | | |
| 2 | 92 + 74.31 | 50.68' RT | 793887.5700 | 284948.8850 | B1 | 55' | 0* | 0* | 15' | 27' | 45' | 34' | 0* | 30' | 5' | 304.01 | |

* DENOTES POLE MOUNTED SIGNAL EQUIPMENT AS INDICATED ON SIGNAL LAYOUT.

| PEDESTAL POLE NO. | STATION | OFFSET |
|-------------------|------------|-----------|
| 1 | 92 + 19.56 | 6.22' RT |
| 2 | 91 + 77.85 | 57.24' LT |
| 3 | 91 + 98.16 | 51.50' LT |

| PUSH BUTTON | STATION | OFFSET |
|-------------|------------|-----------|
| 1 | 92 + 64.79 | 52.67' RT |

S: SIGN
 SNS: STREET NAME SIGN
 SH-X: SIGNAL HEAD
 VD: VIDEO DETECTOR (VIDEO/RADAR)
 PRE: PRE-EMPTION



PLAN
IN
HAND

SEALED BY

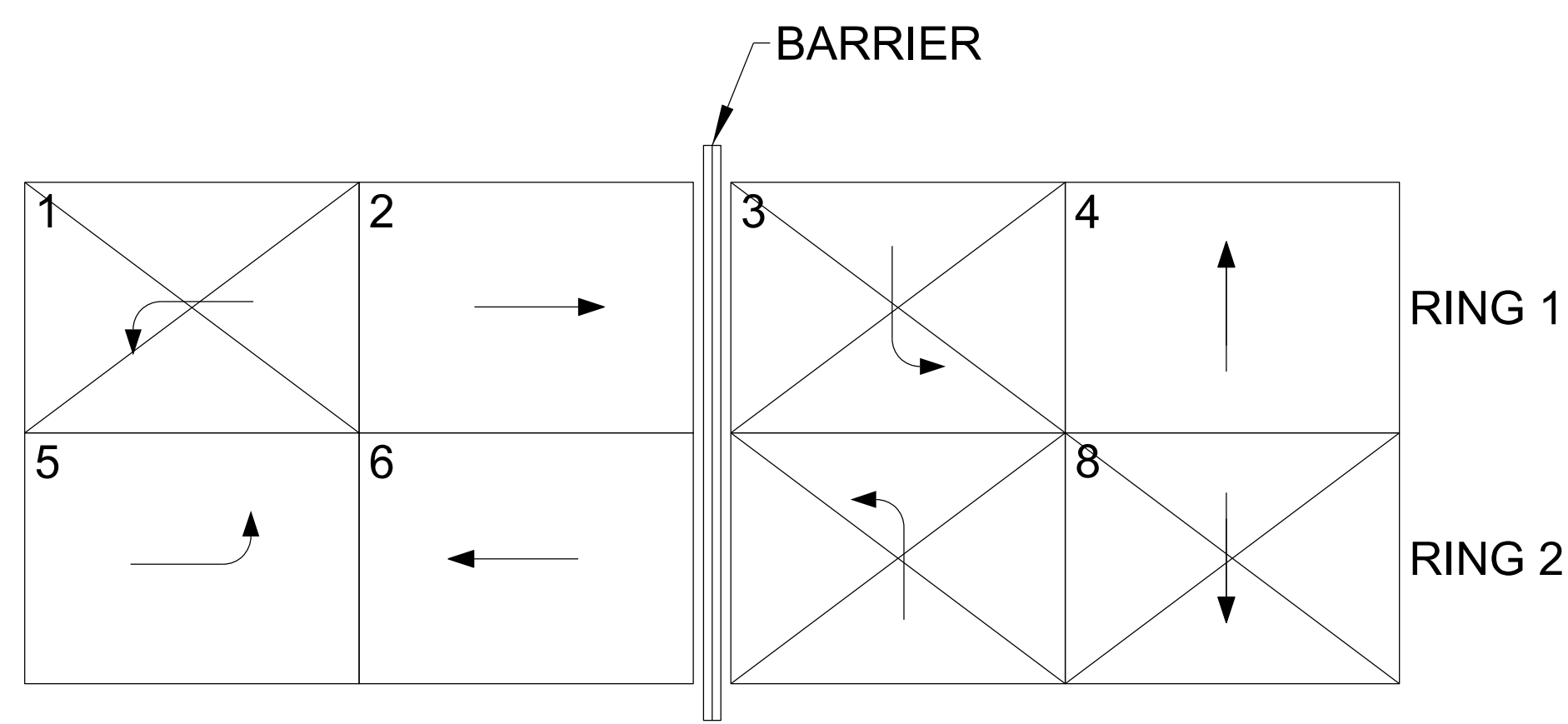
COORDINATES ARE NAD 83(1983), ARE
 DATUM ADJUSTED BY THE FACTOR
 OF 0.99996 AND TIED TO THE TGRN.

**STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION**

**SIGNAL POLE
 DETAILS**
 SR 4 WESTBOUND RAMPS
 AT WINCHESTER ROAD
 NOT TO SCALE

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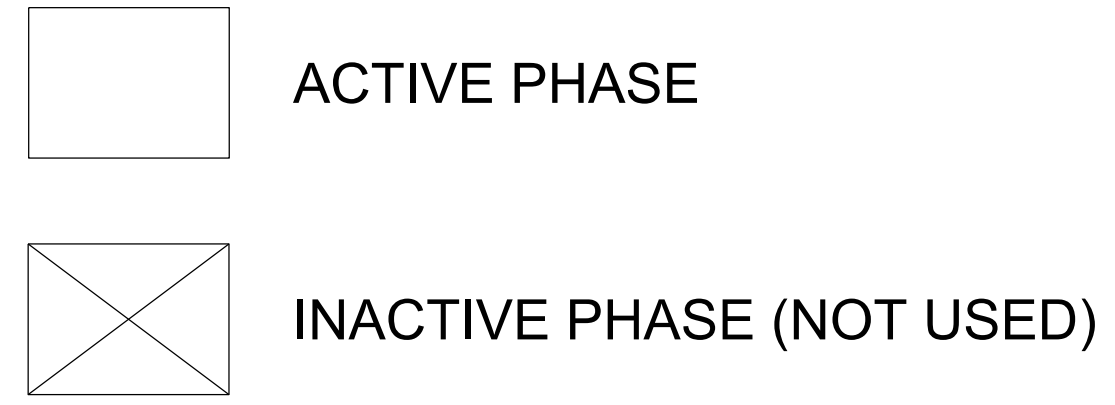
| TYPE | YEAR | PROJECT NO. | SHEET NO. |
|------|------|-------------|-----------|
| ROW | 2020 | STP/NH-4(6) | SIG-12 |
| PIH | 2026 | STP/NH-4(6) | SIG-12 |
| | | | |



BASIC OR SEMI-ACTUATED TIMINGS (SECS)

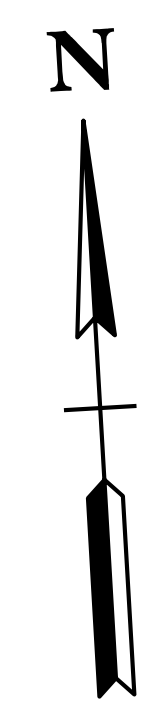
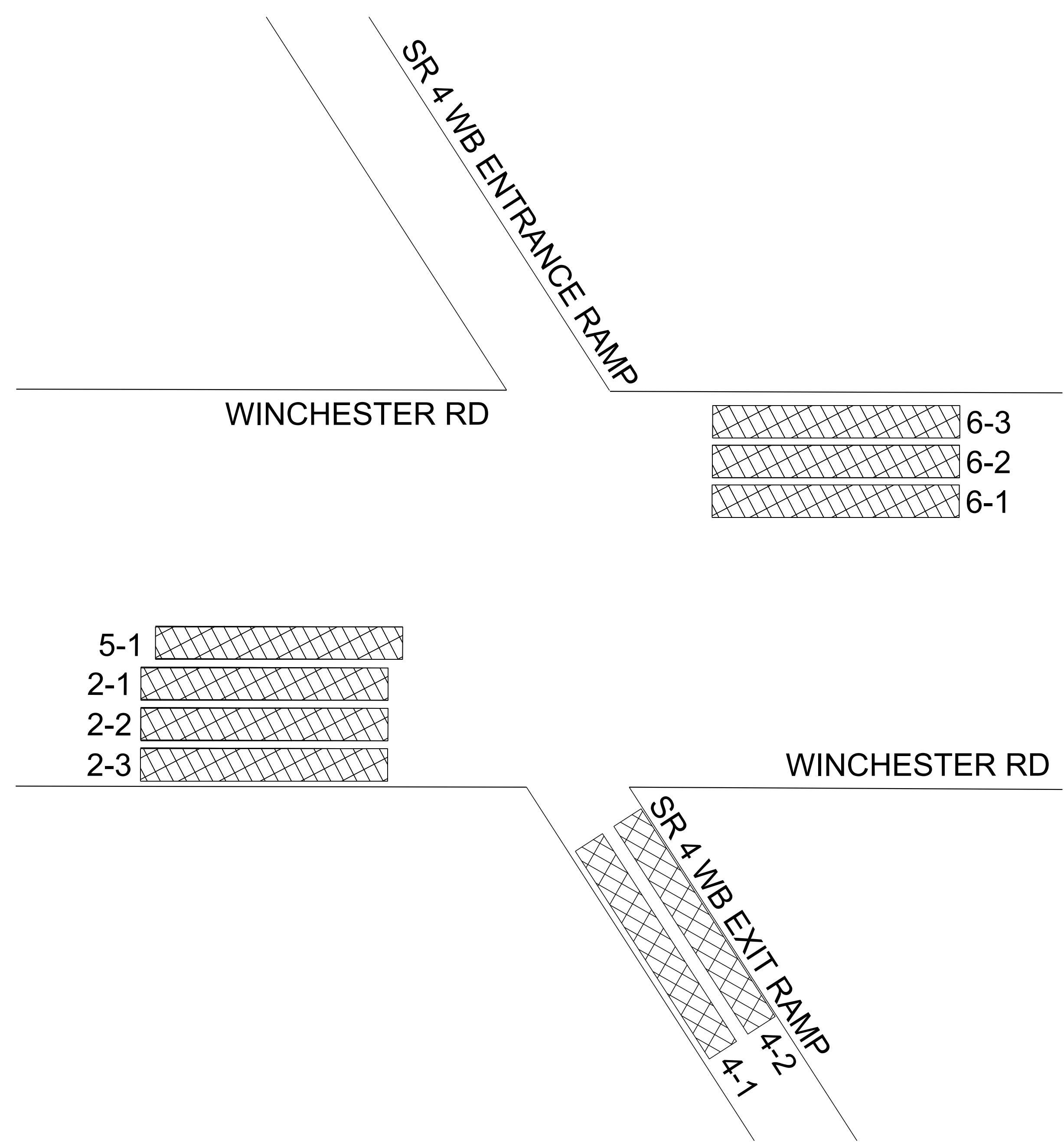
| PHASE | MINIMUM INITIAL | PASSAGE TIME | MAX GREEN | CLEARANCE | | RECALL TO | MEMORY POSITION (1) | LEFT TURN OPERATION (2) |
|-------|-----------------|--------------|-----------|-----------|---------|-----------|---------------------|-------------------------|
| | | | | YELLOW | ALL RED | | | |
| 2 | 10 | 3 | 60 | 4 | 2 | SOFT | L | -- |
| 5 | 4 | 3 | 8 | 3 | 1 | NONE | NL | P+P |
| 6 | 10 | 3 | 48 | 4 | 2 | SOFT | L | -- |
| 8 | 4 | 3 | 18 | 4 | 2 | NONE | NL | PROT. |

NEMA EIGHT PHASE DESIGNATIONS



- OPERATION IS DUAL ENTRY MODE, FULL SKIP CAPABILITY
- SIGNAL DIRECTION, LAGGING LEFT TURN PHASES ARE NOT ALLOWED
- ALL SIGNAL DISPLAYS AND CLEARANCES SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES
- CONTRACTOR TO CONTACT CITY OF MEMPHIS A MINIMUM OF 30 DAYS PRIOR TO INSTALLATION OF TRAFFIC SIGNAL CONTROLLER FOR PERMANENT SIGNAL TIMING PLANS.

VIDEO DETECTION ZONE DIAGRAM



**PLAN
IN
HAND**

| VIDEO DETECTOR TARGET ASSIGNMENTS | | | | |
|-----------------------------------|---------------|-------------|-----------------|----------|
| TARGET AREA NUMBER | CAMERA NUMBER | TARGET AREA | ASSOCIATE PHASE | COMMENTS |
| 2-1 | 2 | 6' X 50' | 2 | VIDEO |
| 2-2 | 2 | 6' X 50' | 2 | VIDEO |
| 2-3 | 2 | 6' X 50' | 2 | VIDEO |
| 4-1 | 4 | 6' X 50' | 4 | VIDEO |
| 4-2 | 4 | 6' X 50' | 4 | VIDEO |
| 5-1 | 2 | 6' X 50' | 5 | VIDEO |
| 6-1 | 6 | 6' X 50' | 6 | VIDEO |
| 6-2 | 6 | 6' X 50' | 6 | VIDEO |
| 6-3 | 6 | 6' X 50' | 6 | VIDEO |

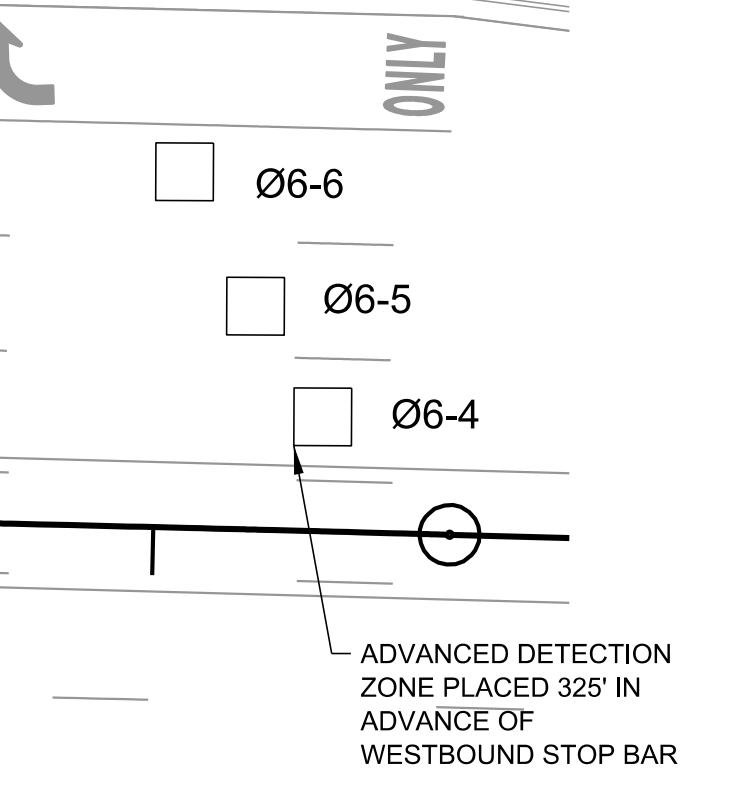
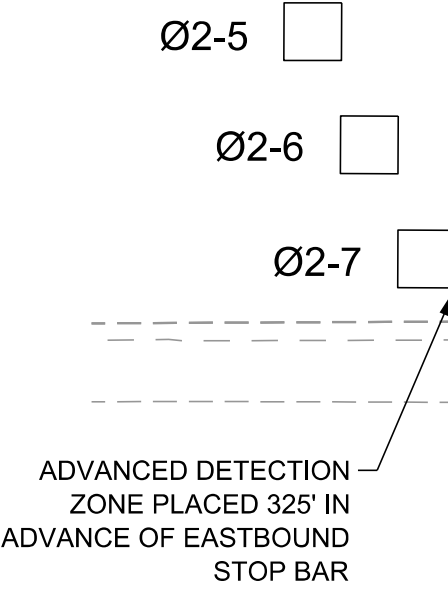
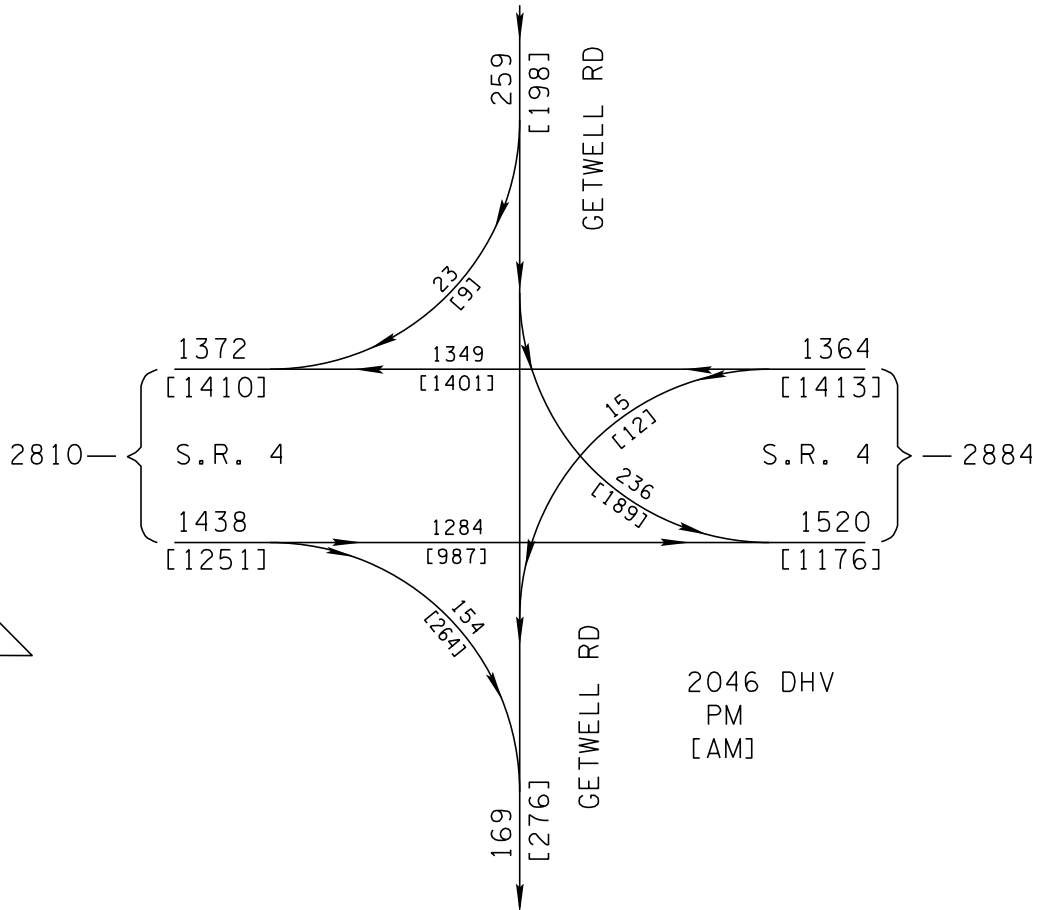
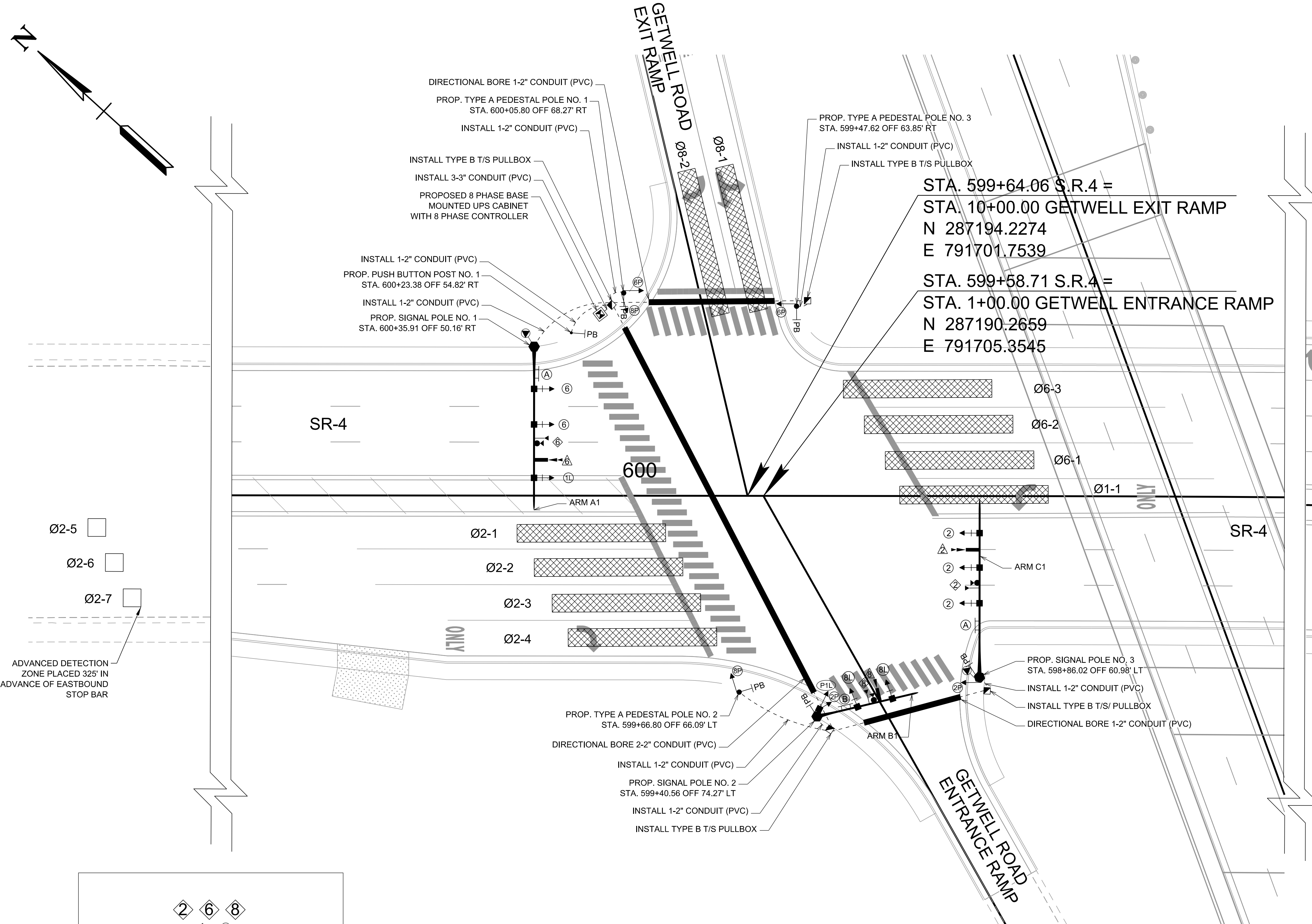
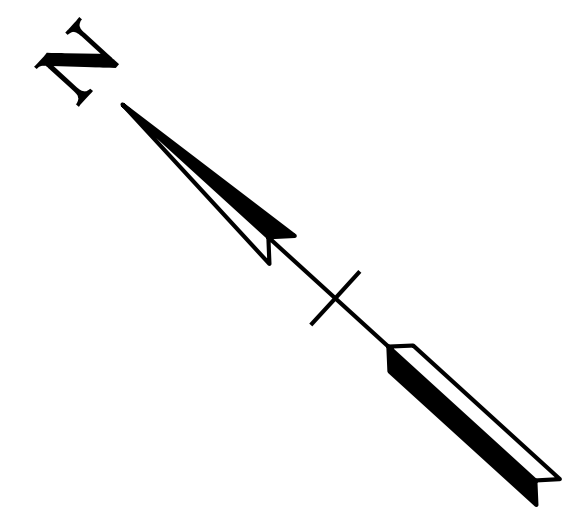
SEALD BY

COORDINATES ARE NAD 83(1983), ARE DATUM ADJUSTED BY THE FACTOR OF 0.99996 AND TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

**SIGNAL PHASING
AND TIMING**
 SR 4 WESTBOUND RAMP
 AT WINCHESTER ROAD
 NOT TO SCALE

| TYPE | YEAR | PROJECT NO. | SHEET NO. |
|------|------|-------------|-----------|
| ROW | 2020 | STP/NH-4(6) | SIG-13 |
| PIH | 2026 | STP/NH-4(6) | SIG-13 |



**PLAN
IN
HAND**

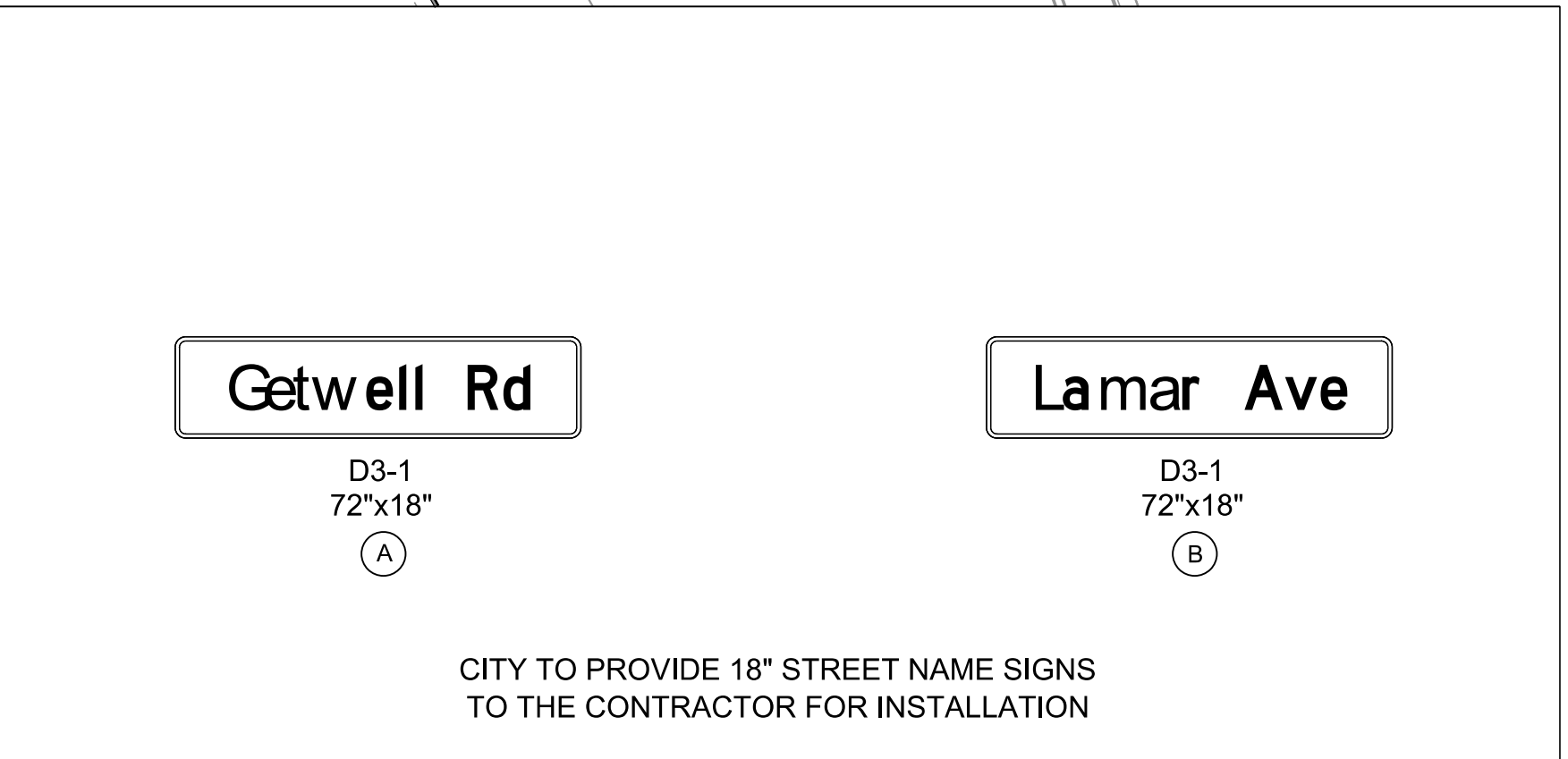
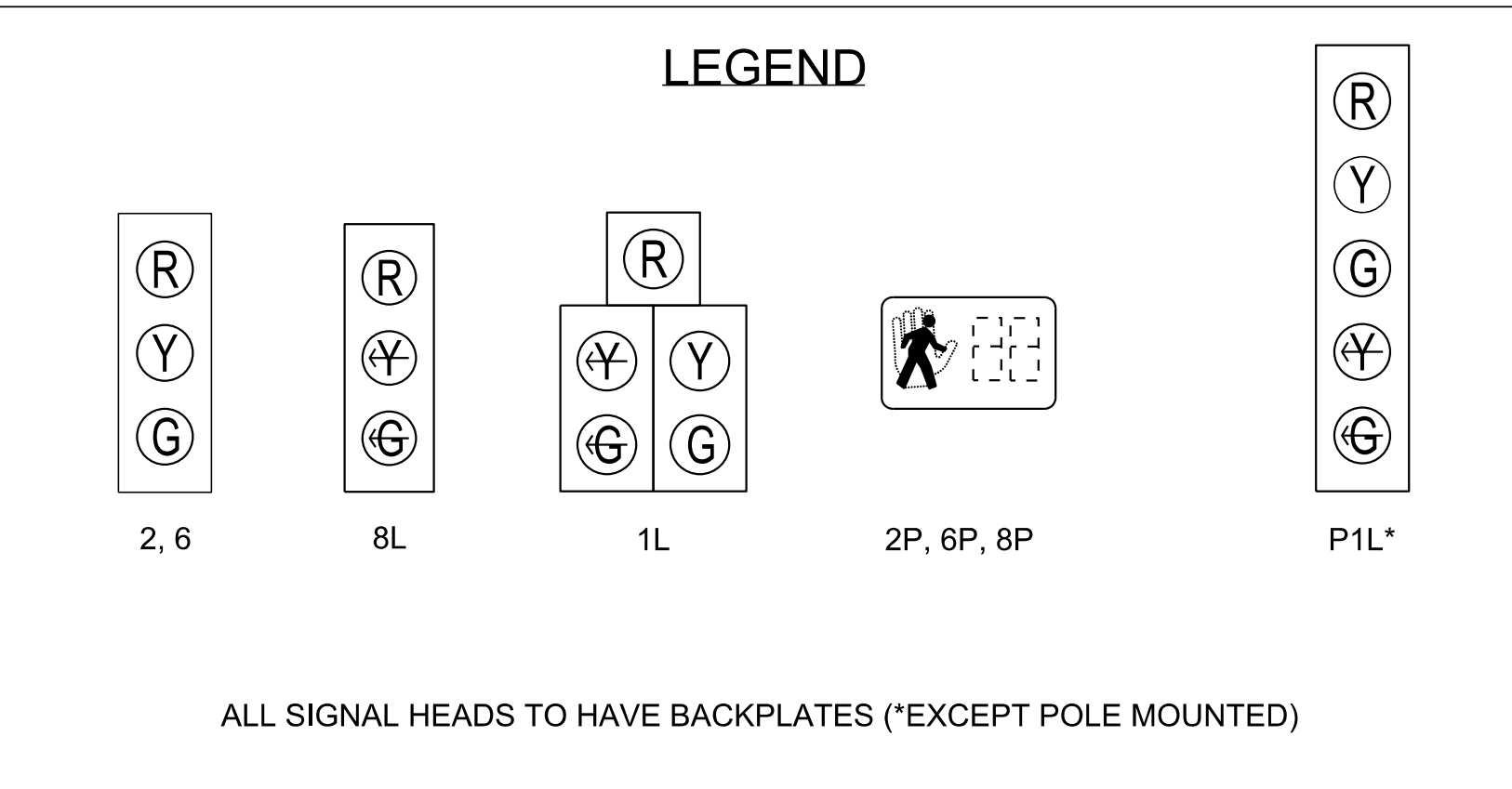
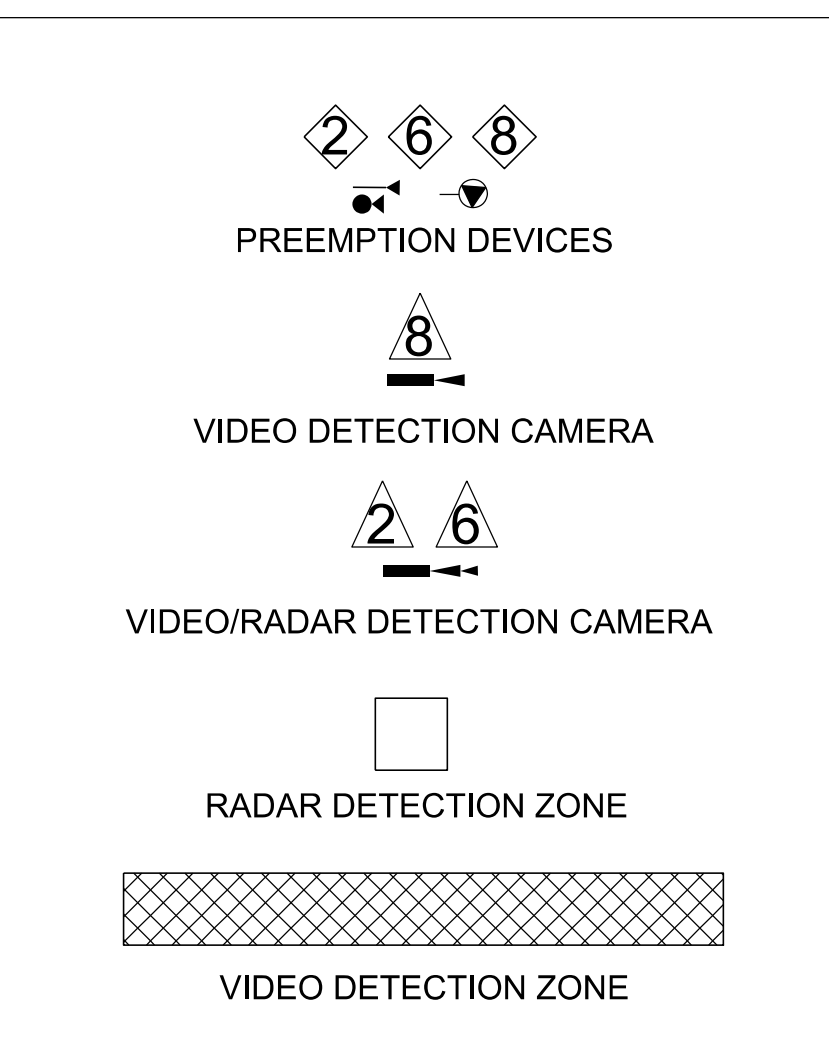
SEALD BY

COORDINATES ARE NAD 83(1983). ARE DATUM ADJUSTED BY THE FACTOR OF 0.99996 AND TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SIGNAL LAYOUT
SR 4 AT GETWELL ROAD

SCALE: 1"=20'



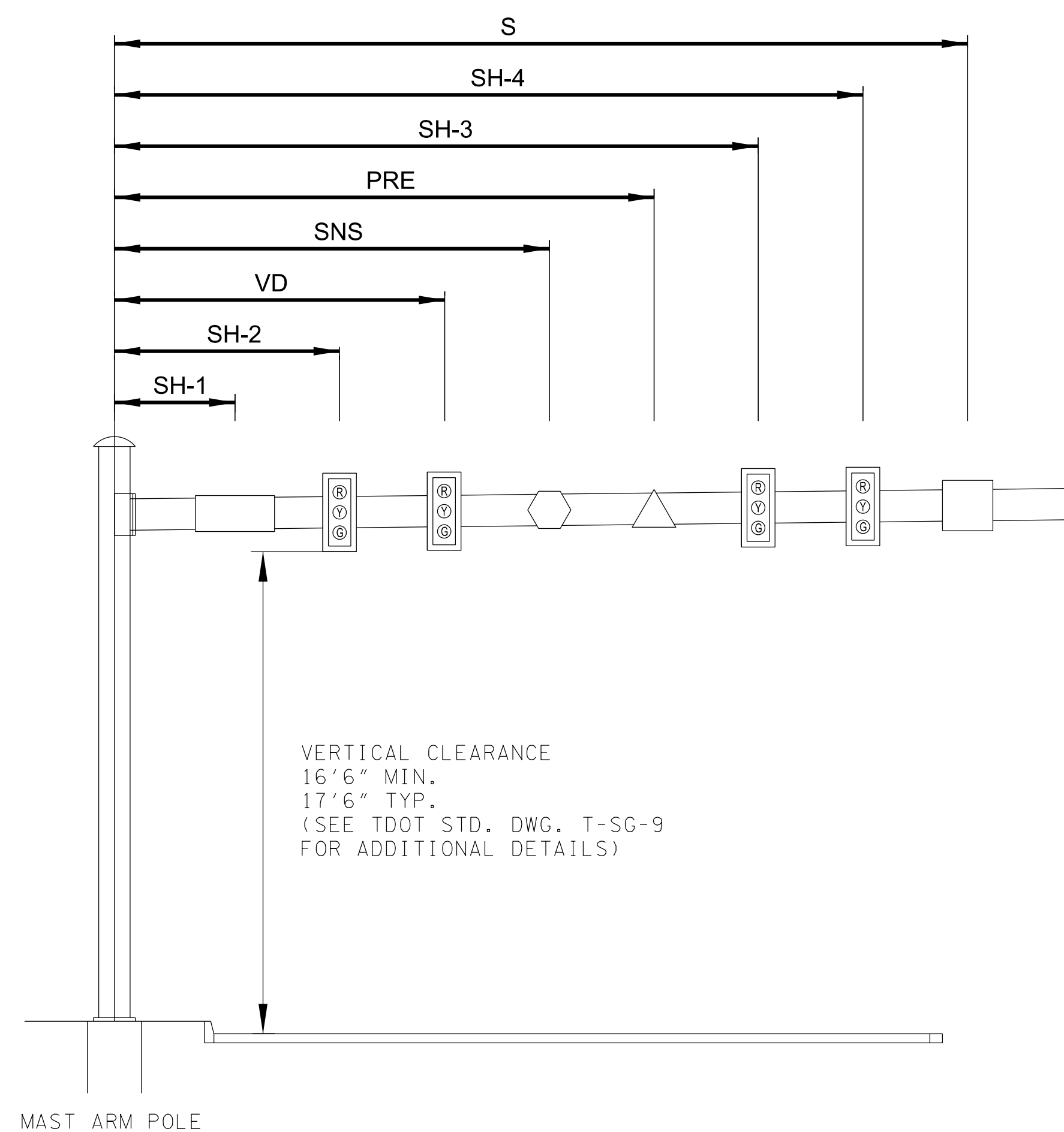
PREEMPT TABLE

| DETECTOR | PHASES CALLED |
|----------|---------------|
| Ø2 | 2+6 |
| Ø6 | 2+6 |
| Ø8 | 8 |

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| TYPE | YEAR | PROJECT NO. | SHEET NO. |
|------|------|-------------|-----------|
| ROW | 2020 | STP/NH-4(6) | SIG-14 |
| PIH | 2026 | STP/NH-4(6) | SIG-14 |
| | | | |

TYPICAL SIGNAL SUPPORT POLE DATA TABLES



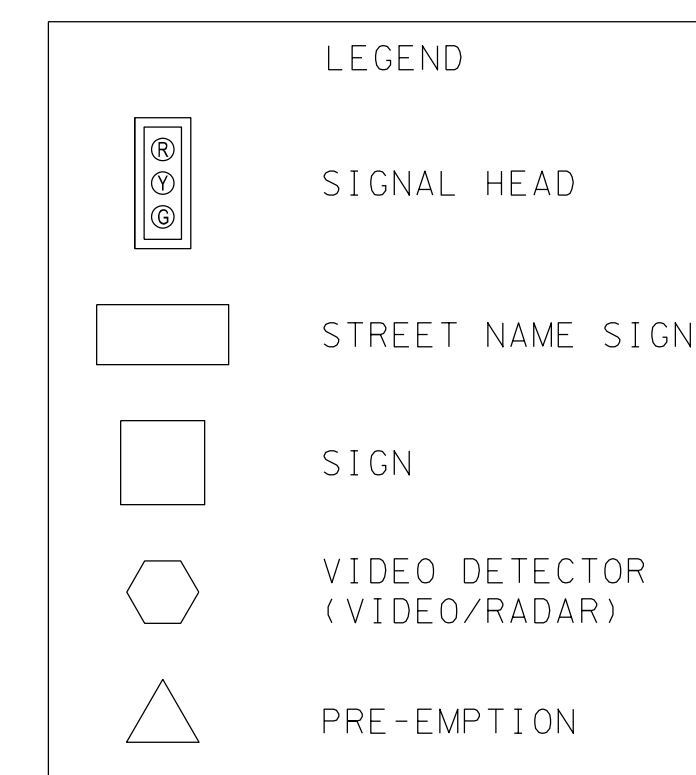
| SIGNAL SUPPORT POLE DATA AND MAST ARM DETAILS | | | | | | | | | | | | | | | | | | |
|-----------------------------------------------|-------------|-----------|-------------|-------------|-----|------------|-------|-------|------|------|------|------|-----|-----|-----|-----|-----|-------------------|
| POLE NO. | STATION | OFFSET | NORTHING | EASTING | ARM | ARM LENGTH | PED-1 | PED-2 | SH-0 | SH-1 | SH-2 | SH-3 | VD | BEA | PRE | SNS | S-1 | GROUND EL. @ POLE |
| 1 | 600 + 35.91 | 50.16' RT | 791690.5609 | 287281.1458 | A1 | 55' | -- | -- | -- | 14' | 26' | 44' | 38' | 0* | 32' | 9' | -- | 273.33 |
| 2 | 599 + 40.56 | 74.27' LT | 791662.6155 | 287126.9037 | B1 | 35' | 0* | 0* | 0* | 14' | 26' | -- | 22' | -- | 20' | 10' | -- | 273.67 |
| 3 | 598 + 86.02 | 60.98' LT | 791709.1638 | 287095.3886 | C1 | 60' | 0* | -- | 0* | 24' | 36' | 48' | 42' | 0* | 30' | 17' | 58' | 274.77 |

* DENOTES POLE MOUNTED SIGNAL EQUIPMENT AS INDICATED ON SIGNAL LAYOUT.

| PEDESTAL POLE NO. | STATION | OFFSET |
|-------------------|-------------|-----------|
| 1 | 600 + 05.80 | 68.27' RT |
| 2 | 599 + 40.56 | 74.27' LT |
| 3 | 599 + 47.62 | 63.85' RT |

| PUSH BUTTON POST NO. | STATION | OFFSET |
|----------------------|-------------|-----------|
| 1 | 600 + 23.38 | 54.82' RT |

S: SIGN
SNS: STREET NAME SIGN
SH-X: SIGNAL HEAD
VD: VIDEO DETECTOR (VIDEO/RADAR)
PRE: PRE-EMPTION



PLAN
IN
HAND

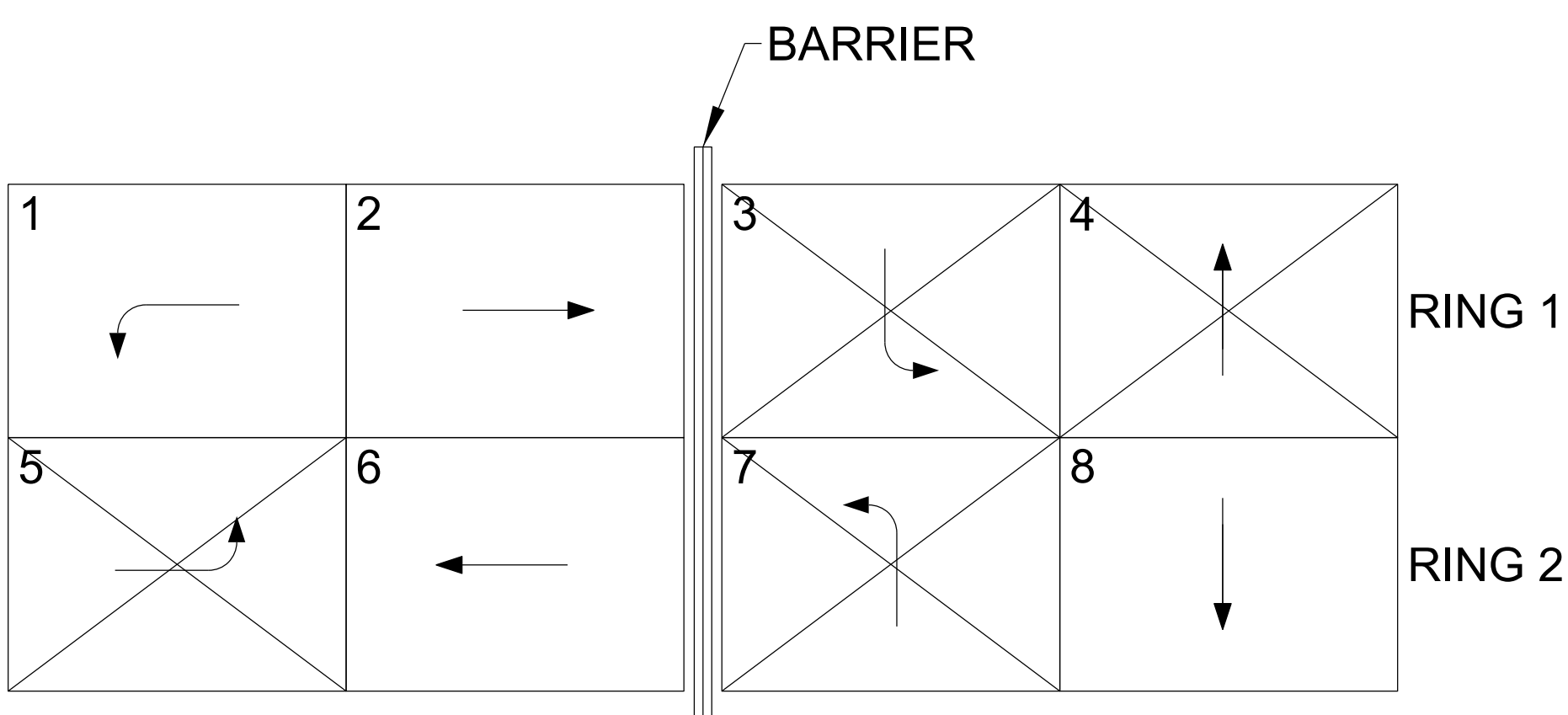
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COORDINATES ARE NAD 83(1983), ARE
DATUM ADJUSTED BY THE FACTOR
OF 0.99996 AND TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

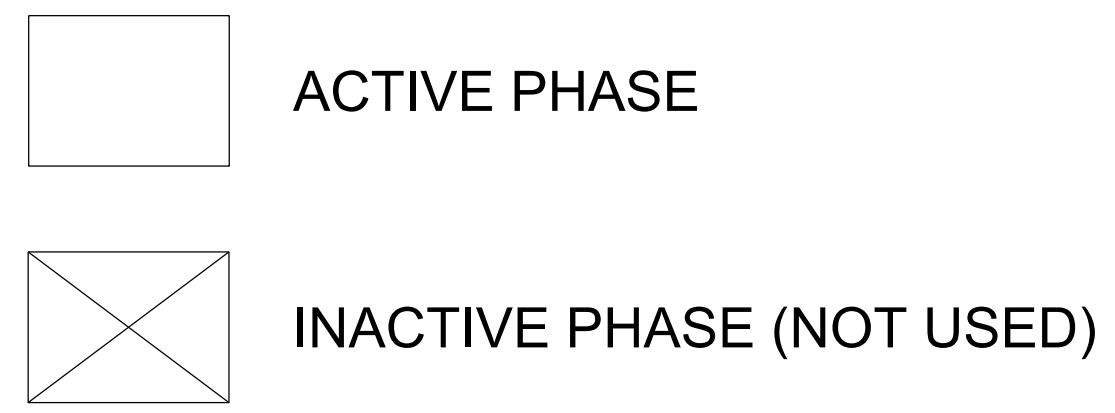
SIGNAL POLE
DETAILS
SR 4 AT GETWELL ROAD
NOT TO SCALE

| TYPE | YEAR | PROJECT NO. | SHEET NO. |
|------|------|-------------|-----------|
| ROW | 2020 | STP/NH-4(6) | SIG-15 |
| PIH | 2026 | STP/NH-4(6) | SIG-15 |
| | | | |



- OPERATION IS DUAL ENTRY MODE, FULL SKIP CAPABILITY
- SIGNAL DIRECTION, LAGGING LEFT TURN PHASES ARE NOT ALLOWED
- ALL SIGNAL DISPLAYS AND CLEARANCES SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES
- CONTRACTOR TO CONTACT CITY OF MEMPHIS A MINIMUM OF 30 DAYS PRIOR TO INSTALLATION OF TRAFFIC SIGNAL CONTROLLER FOR PERMANENT SIGNAL TIMING PLANS.

NEMA EIGHT PHASE DESIGNATIONS

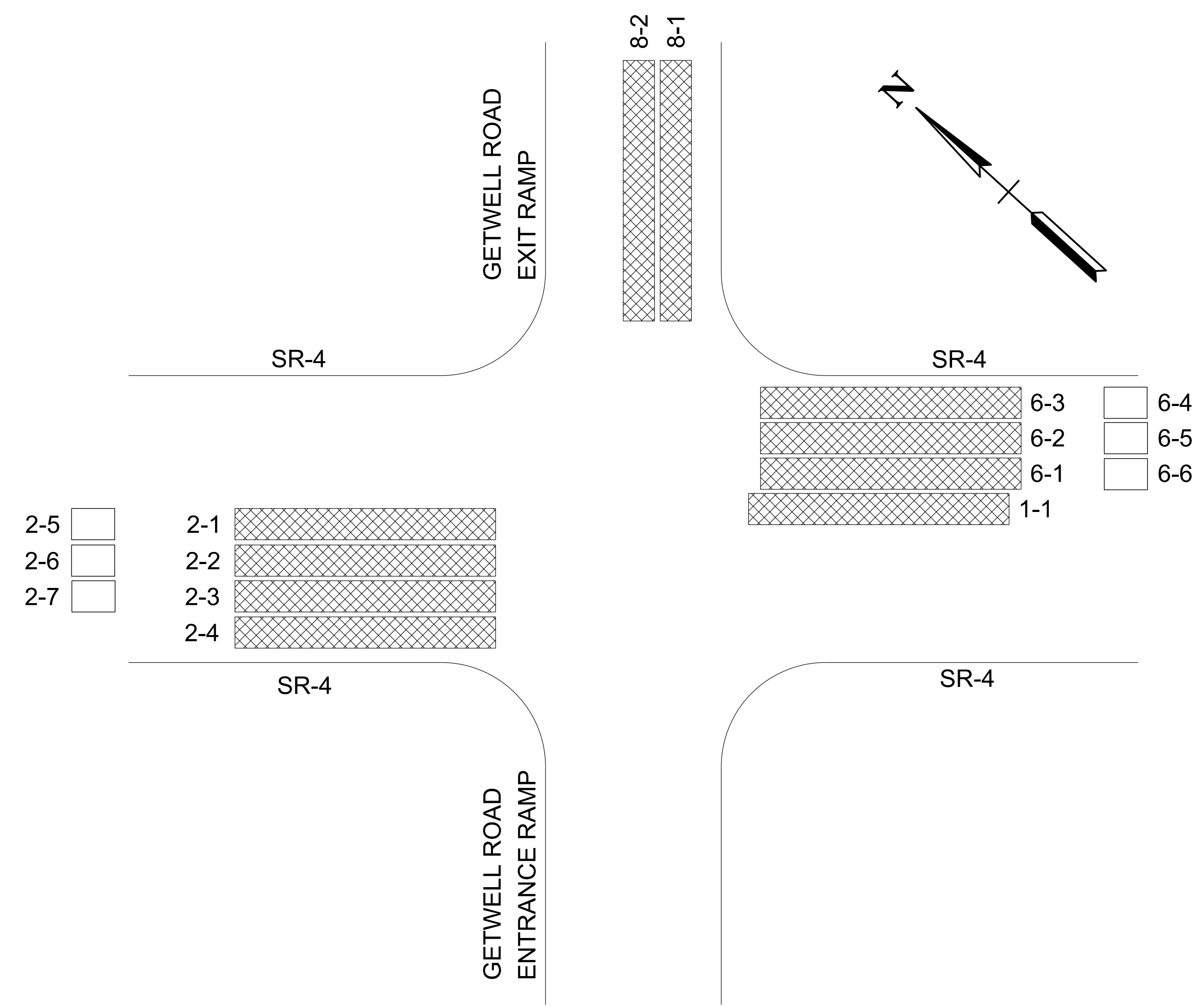


BASIC OR SEMI-ACTUATED TIMINGS (SECS)

| PHASE | MINIMUM INITIAL | PASSAGE TIME | MAX GREEN (AM, PM) | CLEARANCE | | RECALL TO | MEMORY POSITION (1) | LEFT TURN OPERATION (2) |
|-------|-----------------|--------------|--------------------|-----------|---------|-----------|---------------------|-------------------------|
| | | | | YELLOW | ALL RED | | | |
| 2 | 10 | 3 | 35, 35 | 4 | 2 | NONE | NL | PROT. |
| 3 | 4 | 3 | 4, 4 | 3 | 1 | NONE | L | P+P |
| 4 | 10 | 3 | 65, 65 | 4 | 2 | SOFT | L | -- |

| VIDEO DETECTOR TARGET ASSIGNMENTS | | | | |
|-----------------------------------|---------------|-------------|-----------------|----------|
| TARGET AREA NUMBER | CAMERA NUMBER | TARGET AREA | ASSOCIATE PHASE | COMMENTS |
| 1-1 | 6 | 6' X 50' | 1 | VIDEO |
| 2-1 | 2 | 6' X 50' | 2 | VIDEO |
| 2-2 | 2 | 6' X 50' | 2 | VIDEO |
| 2-3 | 2 | 6' X 50' | 2 | VIDEO |
| 2-4 | 2 | 6' X 50' | 2 | VIDEO |
| 2-5 | 2 | 6' X 6' | 2 | RADAR |
| 2-6 | 2 | 6' X 6' | 2 | RADAR |
| 2-7 | 2 | 6' X 6' | 2 | RADAR |
| 6-1 | 6 | 6' X 50' | 6 | VIDEO |
| 6-2 | 6 | 6' X 50' | 6 | VIDEO |
| 6-3 | 6 | 6' X 50' | 6 | VIDEO |
| 6-4 | 6 | 6' X 6' | 6 | RADAR |
| 6-5 | 6 | 6' X 6' | 6 | RADAR |
| 6-6 | 6 | 6' X 6' | 6 | RADAR |
| 8-1 | 8 | 6' X 50' | 8 | VIDEO |
| 8-2 | 8 | 6' X 50' | 8 | VIDEO |

VIDEO DETECTION ZONE DIAGRAM



**PLAN
IN
HAND**

SEALED BY _____

COORDINATES ARE NAD 83(1983), ARE DATUM ADJUSTED BY THE FACTOR OF 0.99996 AND TIED TO THE TGRN.

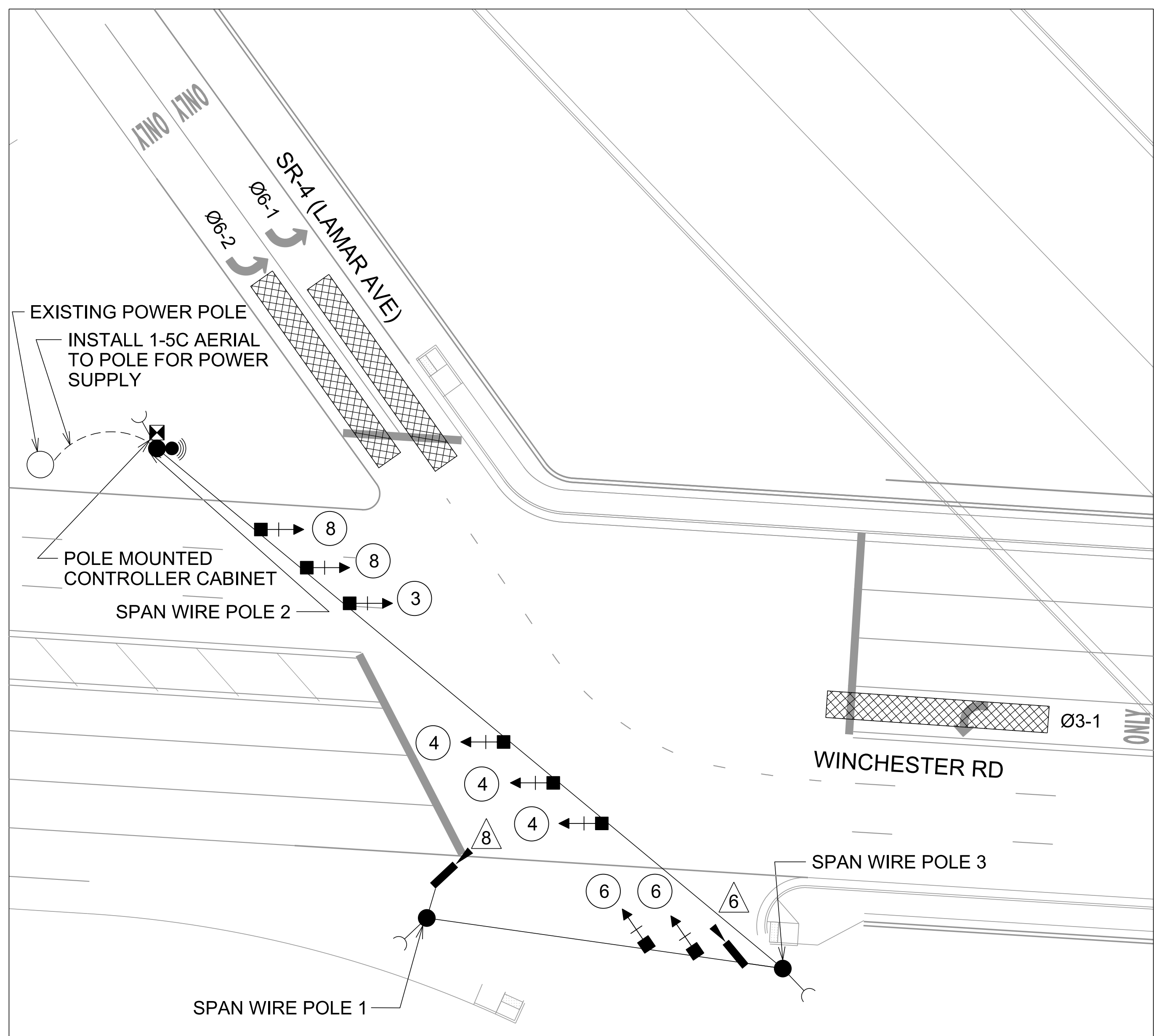
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

**SIGNAL PHASING
AND TIMING**
 SR 4 AT GETWELL ROAD

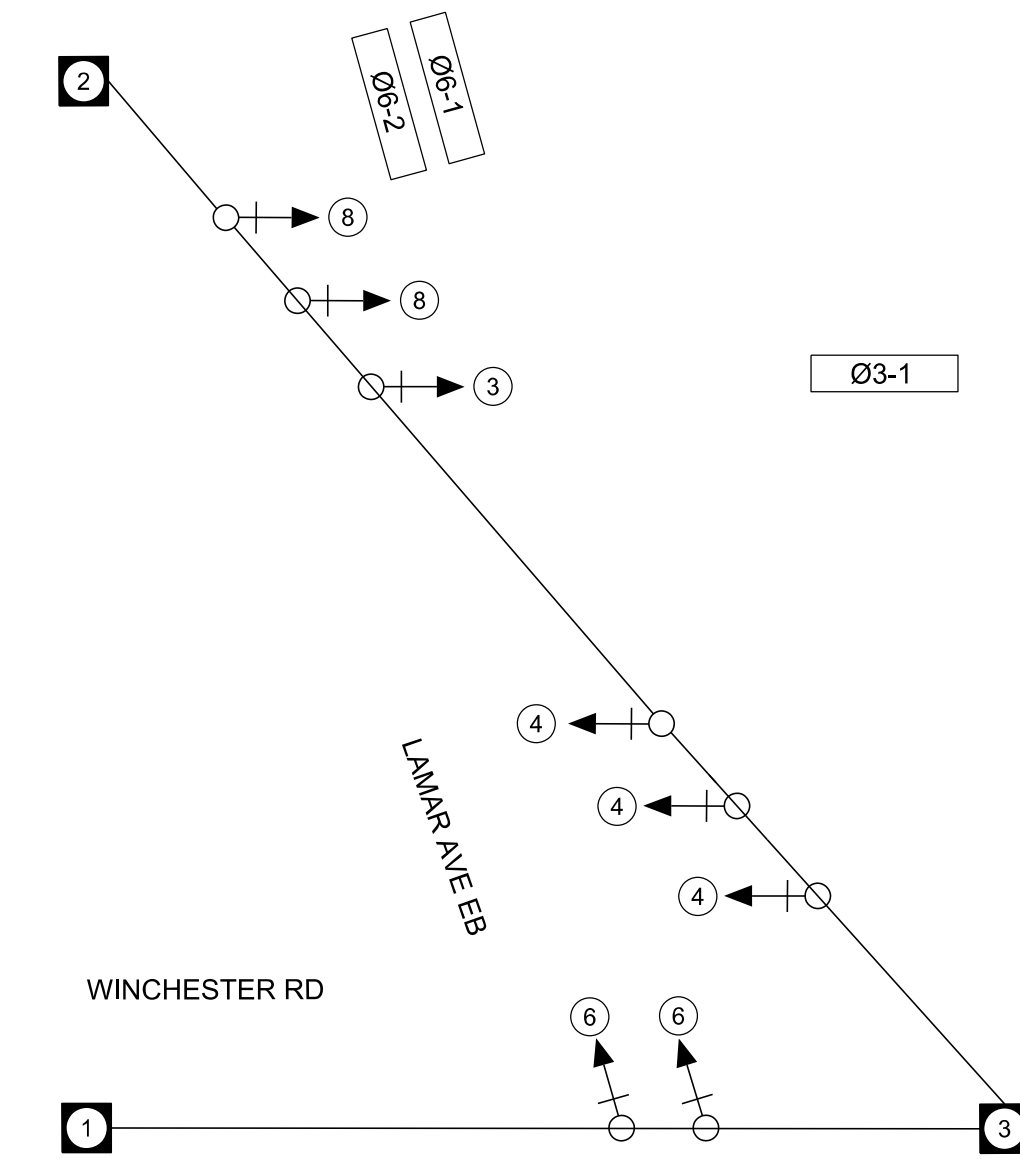
NOT TO SCALE

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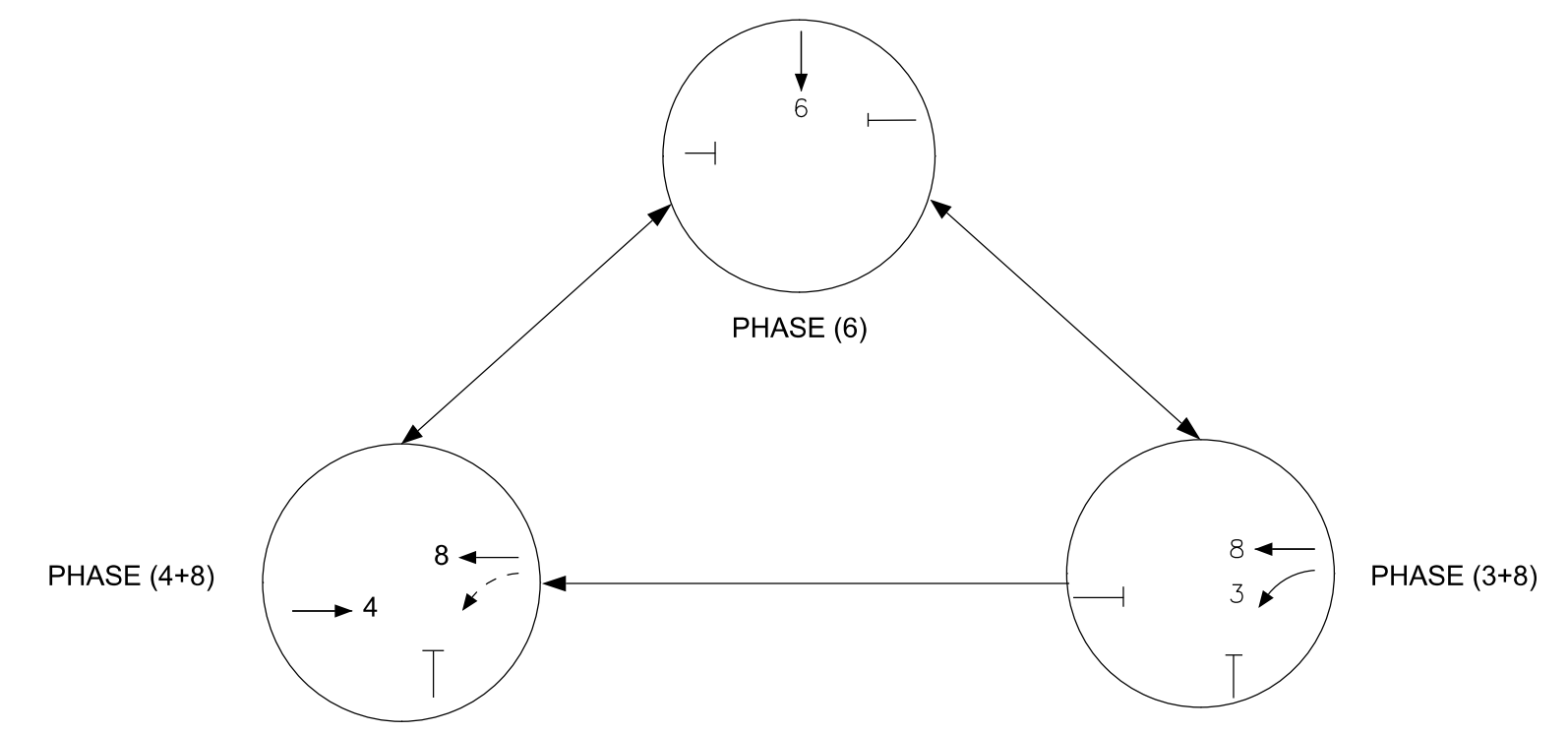
| TYPE | YEAR | PROJECT NO. | SHEET NO. |
|------|------|-------------|-----------|
| ROW | 2020 | STP/NH-4(6) | SIG-16 |
| PIH | 2026 | STP/NH-4(6) | SIG-16 |



SR-4 (LAMAR AVE) AT WEST WINCHESTER RD



PROPOSED SIGNAL HEADS AND DETECTION ZONE IDENTIFICATION



PHASE DIAGRAM

LEGEND

- POLE MOUNTED CONTROLLER CABINET
- SIGNAL HEAD WITH BACKPLATE
- SIGNAL HEAD WITHOUT BACKPLATE
- WOOD POLE
- VIDEO DETECTION CAMERA
- DETECTION ZONE
- PROPOSED WIRELESS POINT-TO-POINT ETHERNET BRIDGE
- PROPOSED GUYING DEVICE - ANGLED
- 5C - 5 CONDUCTOR

DETECTION ZONE ASSIGNMENT CHART

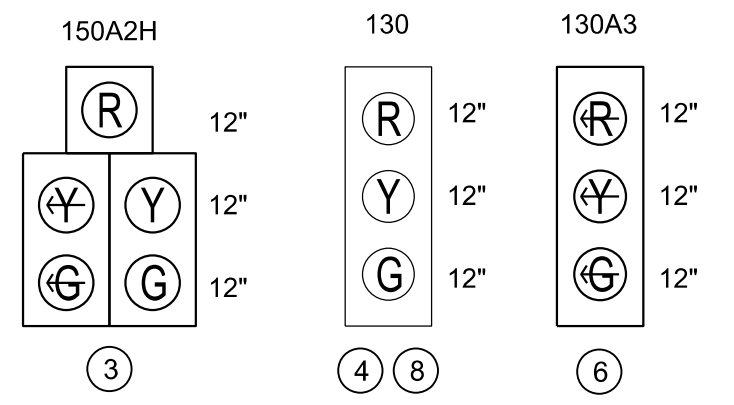
| TARGET AREA # | CAMERA # | TARGET AREA (FT) | ASSOC. Ø | COMMENTS |
|---------------|----------|------------------|----------|-----------|
| 3-1 | Ø6-1 | 1@6X50 | 3 | PRESENCE |
| 6-1 | Ø6-2 | 1@6X50 | 6 | PRESENCE* |
| 6-2 | Ø6-3 | 1@6X50 | 6 | PRESENCE* |

*3 SECOND DELAY

COLOR SEQUENCE CHART

| SIGNAL HEAD | PHASE 6 | | | | PHASE 3 + 8 | | | | PHASE 4 + 8 | | | FLASH | SIGNAL HEAD | | | |
|-------------|---------------------|---|---|---|---------------------|---|---|---|---------------------|---|---|-------|-------------|---|----|---|
| | CLEARANCE TO PHASE: | | | | CLEARANCE TO PHASE: | | | | CLEARANCE TO PHASE: | | | | | | | |
| | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | | | | | | |
| 3 | R | R | R | R | R | R | R | R | R | R | R | G | Y | R | FR | 3 |
| 4 | R | R | R | R | R | R | R | R | R | R | R | G | Y | R | FR | 4 |
| 6 | G | Y | R | Y | R | R | R | R | R | R | R | R | R | R | FR | 6 |
| 8 | R | R | R | R | R | G | Y | R | G | G | G | G | Y | R | FR | 8 |

PROPOSED SIGNAL DISPLAYS



SIGNAL SUPPORT POLE DETAILS

| POLE | VERTICAL SHAFT LENGTH | SPAN WIRE ATTACHMENT HEIGHT | TYPE | MATERIAL | POLE LOCATION | |
|------|-----------------------|-----------------------------|------|----------|---------------|-----------|
| | | | | | N | E |
| 1 | 45' | 28 | -- | WOOD | 284973.38 | 793361.2 |
| 2 | 45' | 32 | -- | WOOD | 285089.58 | 793294.41 |
| 3 | 45' | 28 | -- | WOOD | 284960.87 | 793449.32 |
| | | 32 | | | | |

NOTES:

- ALL WOOD SIGNAL SUPPORT POLES SHALL BE EMBEDDED A MINIMUM OF SIX (6) FEET.
- ALL WOOD SIGNAL SUPPORT POLES SHALL BE GUYED AS PER T-SG-1.

PLAN
IN
HAND

SEALED BY

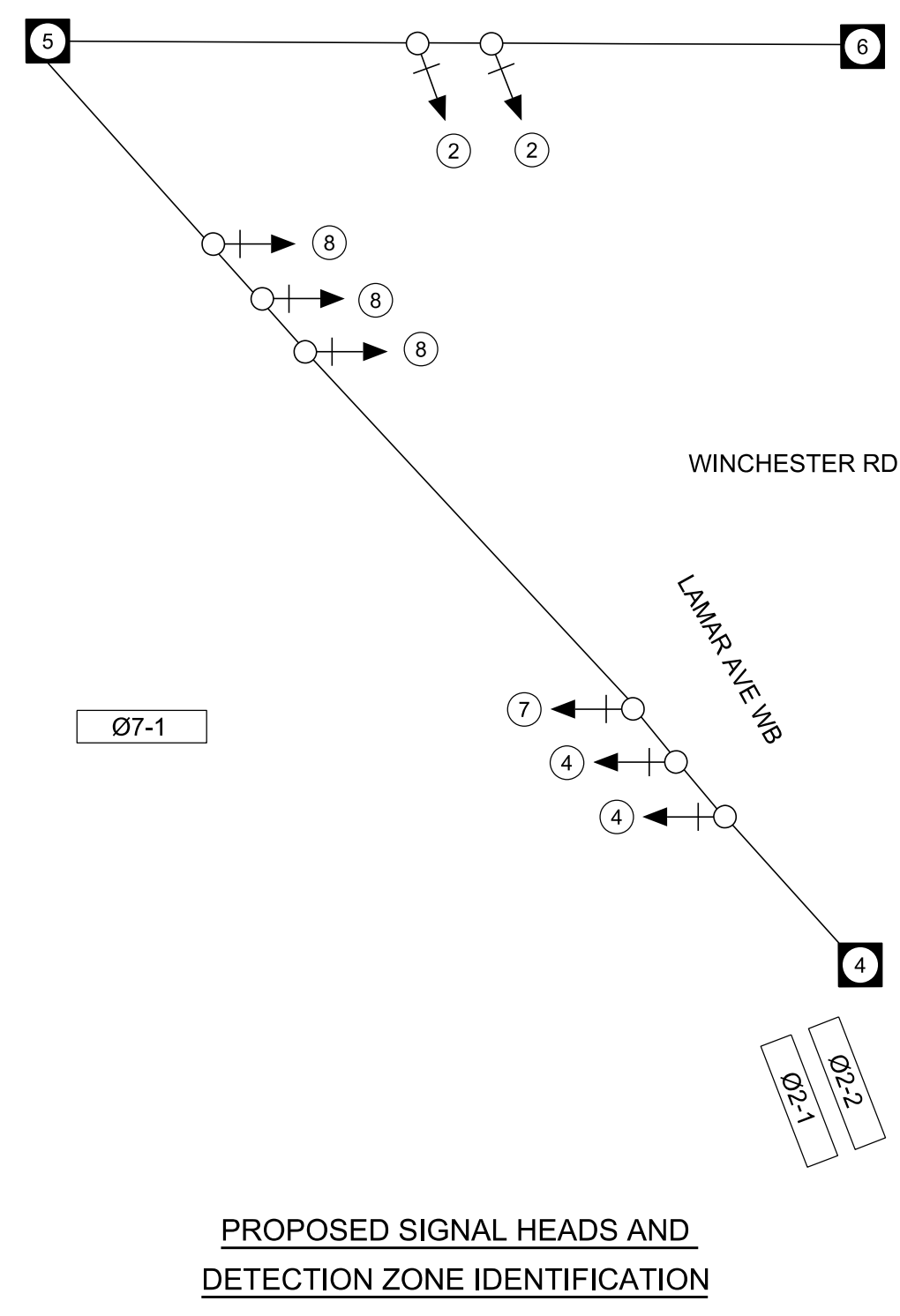
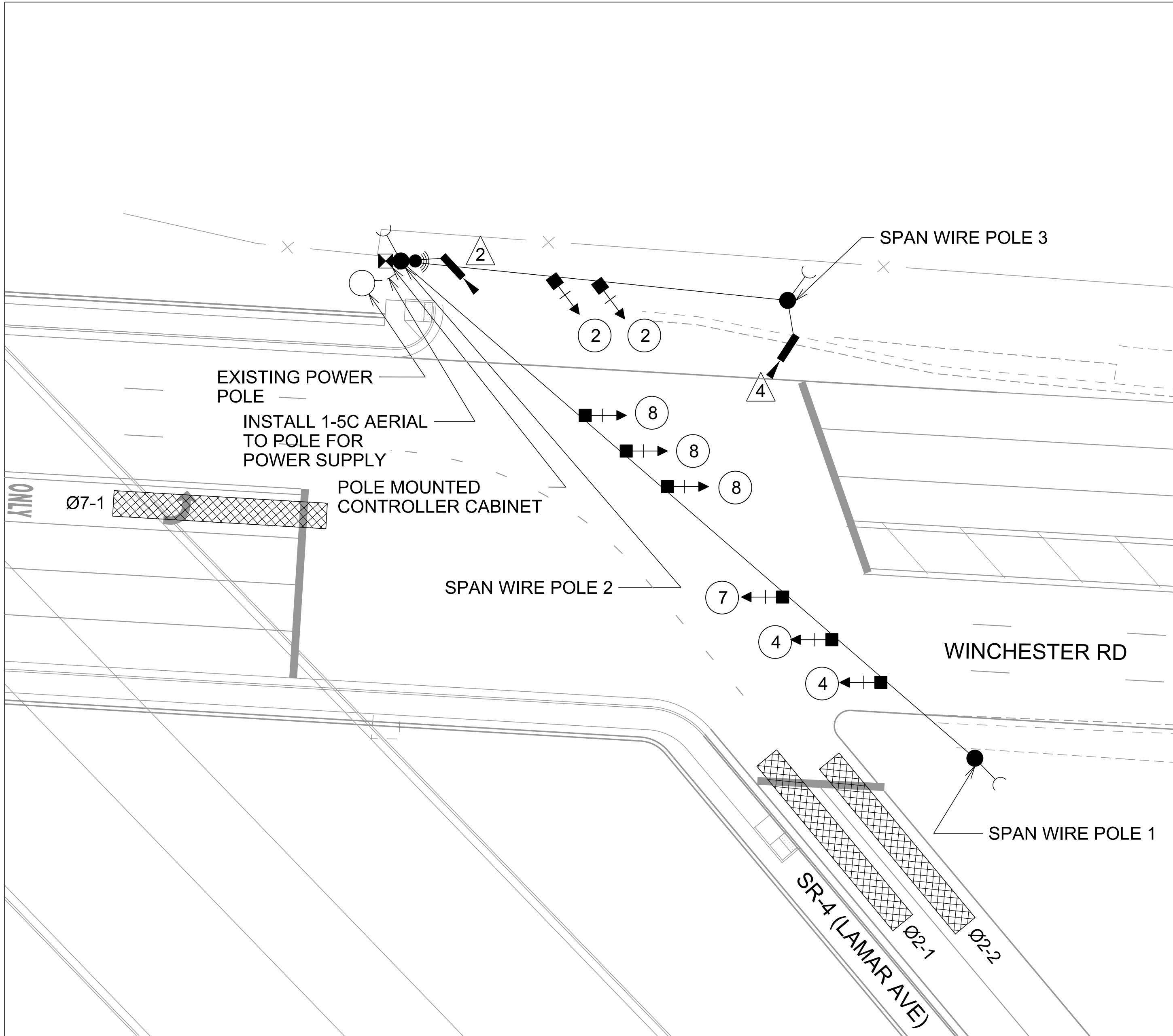
COORDINATES ARE NAD 83(1983), ARE DATUM ADJUSTED BY THE FACTOR OF 0.99996 AND TIED TO THE TGRN.

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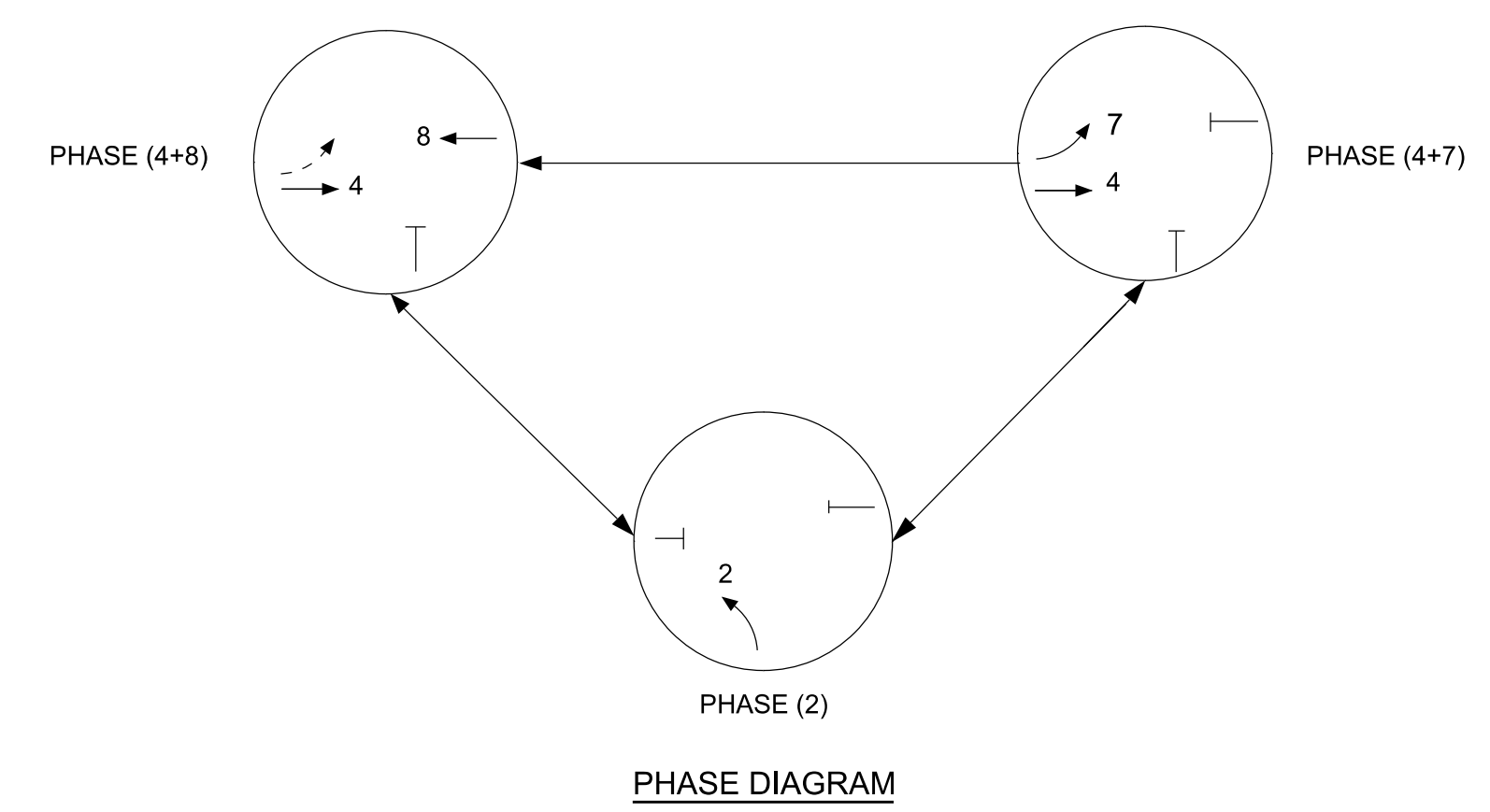
TEMPORARY SIGNAL
LAYOUT AND DETAILS
SR 4 (LAMAR AVENUE)
AT WEST WINCHESTER ROAD
SCALE: 1"=20'

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| TYPE | YEAR | PROJECT NO. | SHEET NO. |
|------|------|-------------|-----------|
| ROW | 2020 | STP/NH-4(6) | SIG-17 |
| PIH | 2026 | STP/NH-4(6) | SIG-17 |
| | | | |



- LEGEND**
- POLE MOUNTED CONTROLLER CABINET
 - SIGNAL HEAD WITH BACKPLATE
 - SIGNAL HEAD WITHOUT BACKPLATE
 - WOOD POLE
 - VIDEO DETECTION CAMERA
 - DETECTION ZONE
 - PROPOSED WIRELESS POINT-TO-POINT ETHERNET BRIDGE
 - PROPOSED GUYING DEVICE - ANGLED
 - 5C - 5 CONDUCTOR



SR-4 (LAMAR AVE) AT EAST WINCHESTER RD

DETECTION ZONE ASSIGNMENT CHART

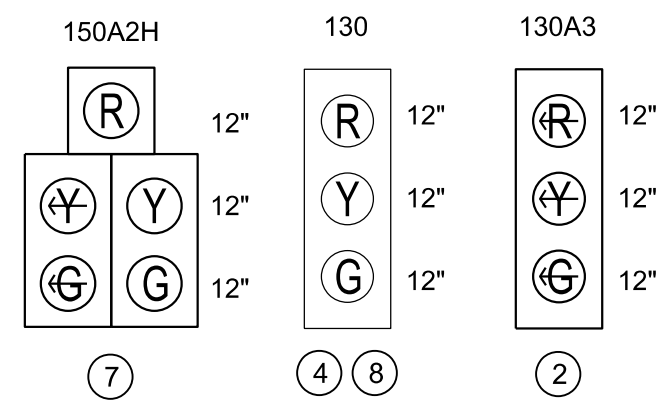
| TARGET AREA # | CAMERA # | TARGET AREA (FT) | ASSOC. Ø | COMMENTS |
|---------------|----------|------------------|----------|-----------|
| 2-1 | 2 | 1@6X50 | 2 | PRESENCE* |
| 2-2 | 2 | 1@6X50 | 2 | PRESENCE* |
| 7-1 | 4 | 1@6X50 | 7 | PRESENCE |

*3 SECOND DELAY

COLOR SEQUENCE CHART

| SIGNAL HEAD | PHASE 2 | | | | PHASE 4 + 7 | | | | PHASE 4 + 8 | | FLASH | SIGNAL HEAD |
|-------------|---------------------|-------|---|-------|---------------------|------|------|---|---------------------|---|-------|-------------|
| | CLEARANCE TO PHASE: | | | | CLEARANCE TO PHASE: | | | | CLEARANCE TO PHASE: | | | |
| | 4 + 7 | 4 + 8 | 2 | 4 + 8 | 1 | 2 | 1 | 2 | | | | |
| 2 | G | Y | R | Y | R | R | R | R | R | R | FR | 2 |
| 4 | R | R | R | R | R | G | Y | R | G | G | FR | 4 |
| 7 | R | R | R | R | R | G,GA | Y,YA | R | G,YA | G | FR | 7 |
| 8 | R | R | R | R | R | R | R | R | R | G | FR | 8 |

PROPOSED SIGNAL DISPLAYS



SIGNAL SUPPORT POLE DETAILS

| POLE | VERTICAL SHAFT LENGTH | SPAN WIRE ATTACHMENT HEIGHT | TYPE | MATERIAL | POLE LOCATION | |
|------|-----------------------|-----------------------------|------|----------|---------------|-----------|
| | | | | | N | E |
| 1 | 45' | 33 | -- | WOOD | 284946.46 | 793899.24 |
| 2 | 45' | 28 | -- | WOOD | 285074.51 | 793751.46 |
| 3 | 45' | 28 | -- | WOOD | 285064.36 | 793851.05 |

NOTES:

- ALL WOOD SIGNAL SUPPORT POLES SHALL BE EMBEDDED A MINIMUM OF SIX (6) FEET.
- ALL WOOD SIGNAL SUPPORT POLE SHALL BE GUYED AS PERT-SG-1.

PLAN
IN
HAND

SEALED BY

COORDINATES ARE NAD 83(1983), ARE DATUM ADJUSTED BY THE FACTOR OF 0.99996 AND TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

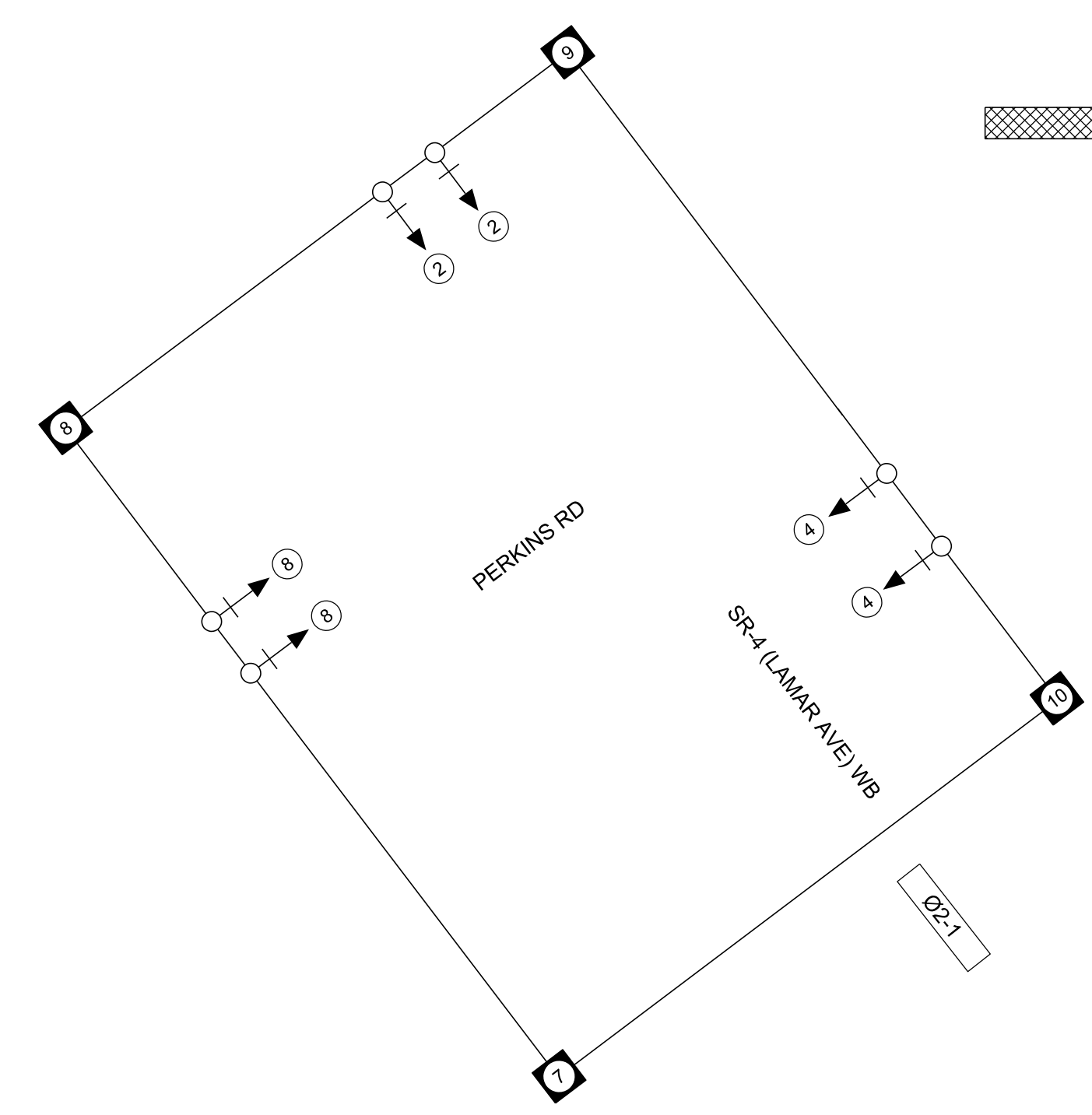
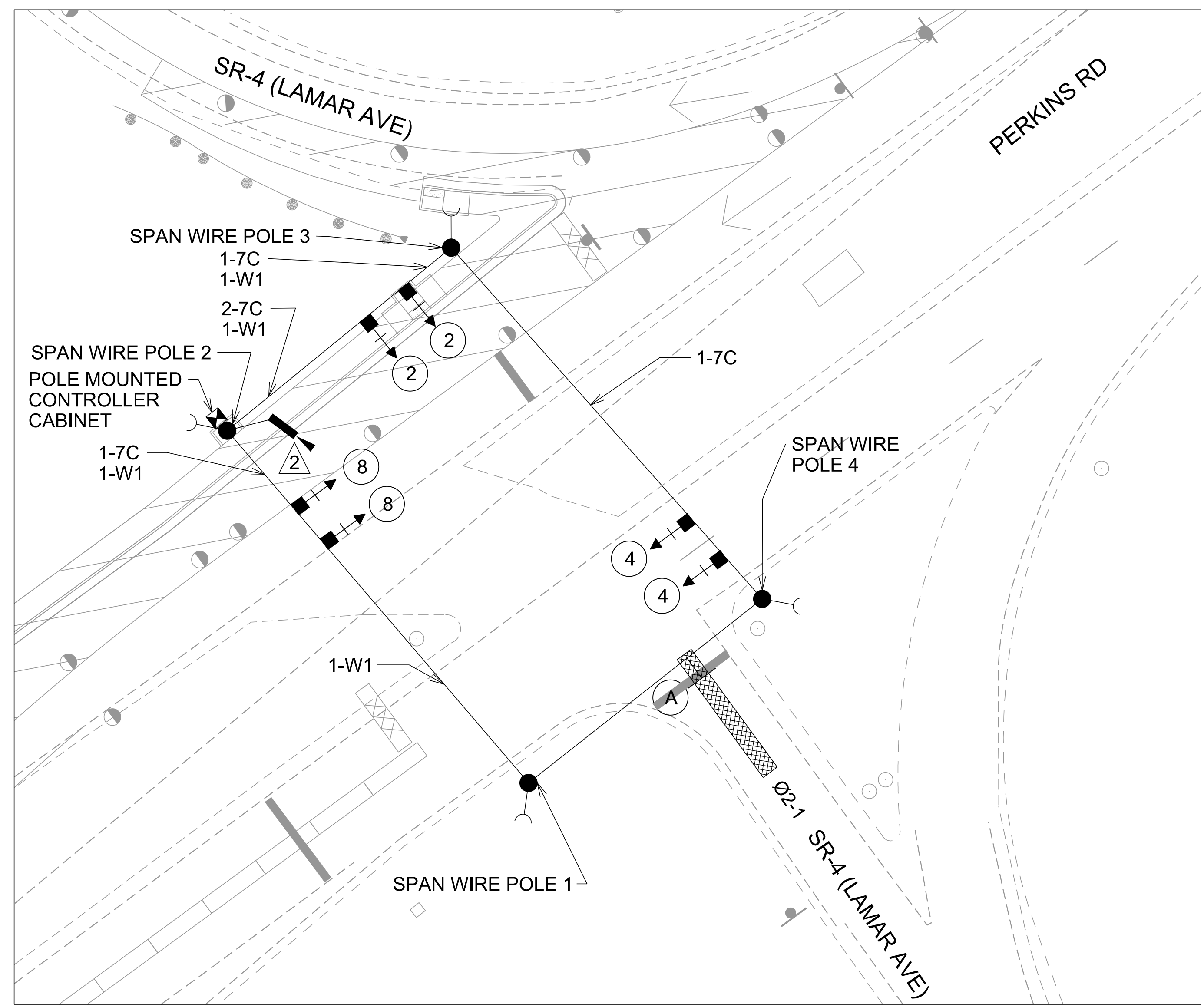
**TEMPORARY SIGNAL
LAYOUT AND DETAILS**
SR 4 (LAMAR AVENUE)
AT EAST WINCHESTER ROAD
SCALE: 1"=20'

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| TYPE | YEAR | PROJECT NO. | SHEET NO. |
|------|------|-------------|-----------|
| ROW | 2020 | STP/NH-4(6) | SIG-18 |
| PIH | 2026 | STP/NH-4(6) | SIG-18 |
| | | | |

LEGEND

- POLE MOUNTED CONTROLLER CABINET
- SIGNAL HEAD WITH BACKPLATE
- SIGNAL HEAD WITHOUT BACKPLATE
- WOOD POLE
- VIDEO DETECTION CAMERA
- SIGN
- DETECTION ZONE
- PROPOSED WIRELESS POINT-TO-POINT ETHERNET BRIDGE
- PROPOSED GUYING DEVICE - ANGLED
- 5C - 5 CONDUCTOR
- 7C - 7 CONDUCTOR
- W1 - VIDEO DETECTION CABLE



PROPOSED SIGNAL HEADS AND DETECTION ZONE IDENTIFICATION

SR-4 (LAMAR AVE) WB RAMPS AT PERKINS RD

PLAN
IN
HAND

DETECTION ZONE ASSIGNMENT CHART

| TARGET AREA # | CAMERA # | TARGET AREA (FT) | ASSOC. Ø | COMMENTS |
|---------------|----------|------------------|----------|-----------|
| 2-1 | 2 | 1@6X50 | 2 | PRESENCE* |

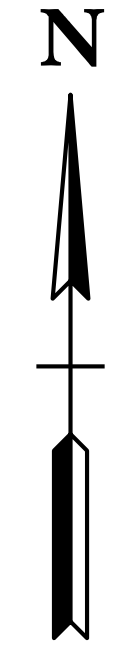
*3 SECOND DELAY

COLOR SEQUENCE CHART

| SIGNAL HEAD | PHASE 2 | | | PHASE 4 + 8 | | | FLASH | SIGNAL HEAD |
|-------------|---------------------------|----|----|-----------------------|----|----|-------|-------------|
| | CLEARANCE TO PHASE: 4 + 8 | | | CLEARANCE TO PHASE: 2 | | | | |
| | 1 | 2 | | 1 | 2 | | | |
| 2 | GA | YA | RA | RA | RA | RA | FR | 2 |
| 4 | R | R | R | G | Y | R | FR | 4 |
| 8 | R | R | R | R | Y | R | FR | 8 |



PHASE DIAGRAM (LAMAR AVE WB RAMPS)



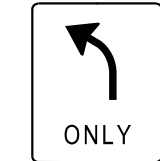
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COORDINATES ARE NAD 83(1983). ARE DATUM ADJUSTED BY THE FACTOR OF 0.99996 AND TIED TO THE TGRN.

**STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION**

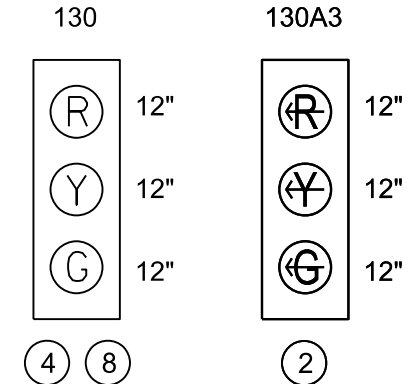
**TEMPORARY SIGNAL
LAYOUT AND DETAILS**
SR 4 WESTBOUND RAMPS
AT PERKINS ROAD
SCALE: 1"=20'

PROPOSED SIGNS



R3-5L
30"x36"

PROPOSED SIGNAL DISPLAYS



| SIGNAL SUPPORT POLE DETAILS | | | | | | |
|-----------------------------|-----------------------|-----------------------------|------|----------|---------------|-----------|
| POLE | VERTICAL SHAFT LENGTH | SPAN WIRE ATTACHMENT HEIGHT | TYPE | MATERIAL | POLE LOCATION | |
| | | | | | N | E |
| 1 | 45' | 27 | -- | WOOD | 280404.77 | 796586.67 |
| | | 29 | | | | |
| 2 | 45' | 26 | -- | WOOD | 280489.27 | 796514.39 |
| | | 29 | | | | |
| 3 | 45' | 26 | -- | WOOD | 280533.18 | 796569.12 |
| | | 28 | | | | |
| 4 | 45' | 27 | -- | WOOD | 280448.91 | 796642.71 |
| | | 28 | | | | |

NOTES:

- ALL SIGNAL SUPPORT POLES SHALL BE EMBEDDED A MINIMUM OF SIX (6) FEET.
- ALL WOOD SIGNAL SUPPORT POLES SHALL BE GUYED AS PER T-SG-1.

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