LIMITED ACCESS HIGHWAY

BY RESOLUTION OF HIGHWAY COMMISSION
DATED Oct. 4, 1956

THE ORIGINAL APPROVED TITLE SHEET, INCLUDING ORIGINAL SIGNATURES, IS FILED IN THE VDOT CENTRAL OFFICE PLAN LIBRARY. ANY MISUSE OF ELECTRONIC FILES, INCLUDING SCANNED SIGNATURES, IS ILLEGAL AND ENFORCED TO THE FULL EXTENT OF THE LAW.

FUNCTIONAL CLASSIFICATION: URBAN MINOR ARTERIAL STREET SYSTEM (GS-6)

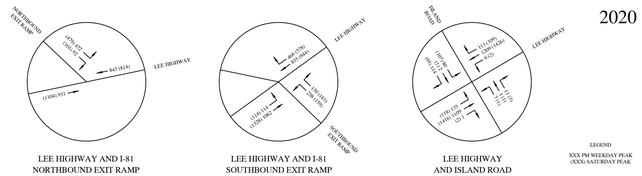
DESIGN VELOCITY: 40 MPH (SEE PLAN AND PROFILE SHEETS FOR HORIZONTAL AND VERTICAL CURVE DESIGN SPEED DATA)

TRANSITION CURVE: TC-5.11 ULS (URBAN LOW SPEED)

THIS PROJECT WILL BE CONSTRUCTED IN ACCORDANCE WITH THE VDOT 2020 ROAD AND BRIDGE SPECIFICATIONS, THE LOCALLY ADMINISTERED PROJECTS MANUAL WITH REVISIONS, THE VDOT 2016 ROAD AND BRIDGE STANDARDS REVISED MAY 2020, THE 2009 MUTCD, THE 2011 VIRGINIA SUPPLEMENT TO THE MUTCD, AND THE 2011 VIRGINIA WORK AREA PROTECTION MANUAL REVISED SEPTEMBER 2019

PROJECTED TRAFFIC DATA

2020


NORTHBOUND EXIT RAMP
(429) 452
(1001) 1074
LEE HIGHWAY
841 (818)
(1166) 931
LEE HIGHWAY
(1) 1
(1) 1
(1) 1

BY RESOLUTION OF HIGHWAY COMMISSION
DATED Oct. 4, 1956

RIGHT OF WAY DATA SHEET

PARCEL NO.	LANDOWNER	SHEET NO.	AREA													
			TOTAL	FEE TAKING		PRESCRIPTIVE R/W		FEE REMAINDER		EASEMENTS						
										PERMANENT		UTILITY		TEMPORARY		PROFFERS
			ACRES OR SQUARE FEET	ACRES OR SQ. FEET	HECTARES OR SQ. METERS	ACRES OR SQ. FEET	HECTARES OR SQ. METERS	ACRES OR SQ. FEET	HECTARES OR SQ. METERS	ACRES OR SQ. FEET	HECTARES OR SQ. METERS	ACRES OR SQ. FEET	HECTARES OR SQ. METERS	ACRES OR SQ. FEET	HECTARES OR SQ. METERS	YES / NO
001	NATIONAL RETAIL PROPERTIES, LP	2.2	0.660 AC.	———		———		0.660 AC.		———		———		0.054 AC.		NO
002	MICHAEL S. SETZER AND ARLENE C. SETZER	2.2	1.908 AC.	———		———		1.908 AC.		———		———		0.054 AC.		NO
003	BILL R. LESTER AND JOANN LESTER	2.3	1.235 AC.	0.150 AC.		———		1.085 AC.		———		———		0.194 AC.		NO
004	CITY OF BRISTOL, VIRGINIA	2.3	25.9 AC.	———		———		25.9 AC.		———		———		———		NO

CITY OF BRISTOL
VIRGINIA
CITY OF
BRISTOL, VIRGINIA
300 LEE STREET
BRISTOL, VA 24201
(276) 645-7360

REVISIONS

DATE

COMMONWEALTH OF VIRGINIA
JACOB S. CHANDLER
Lic. No. 0402066571
PROFESSIONAL ENGINEER

COMMONWEALTH OF VIRGINIA
CHARLES C. BREWSTER
Lic. No. 002407
LAND SURVEYOR

WIDENING OF
LEE HIGHWAY PHASE - 1B
AND
I-81 EXIT 5 RAMPS
PROJECT 0011-102-728 UPC 105309

RIGHT-OF-WAY
DATA SHEET

DATE:
JANUARY 2022

DRAWING NO.
T30-229

FILE NAME: LEE HIGHWAY EXIT 5 PHASE 1B RAMPS

SHEET NUMBER
2.1 OF 10

LIMITED ACCESS HIGHWAY

BY RESOLUTION OF HIGHWAY COMMISSION
DATED Oct. 4, 1956

CONTROL POINTS

CP	Northing	Easting	Elev	Description
54	3408982.77	10412101.01	1832.63	1/2" REBAR
55	3408891.65	10411747.25	1826.14	1/2" REBAR
56	3408625.39	10411566.48	1798.88	1/2" REBAR
57	3408420.11	10409596.49	1812.03	1/2" REBAR
58	3408409.25	10409783.72	1818.25	1/2" REBAR
59	3408115.47	10409778.77	1793.05	1/2" REBAR
60	3408105.96	10410239.23	1788.18	1/2" REBAR
61	3408391.35	10411870.33	1812.49	1/2" REBAR
62	3409024.47	10412464.34	1828.70	NAIL/CAP
63	3408273.89	10412755.05	1827.43	1/2" REBAR

INTERSTATE 81 (EXIT 5)

LONG CRESCENT ROAD

NORTHBOUND EXIT RAMP

LEE HIGHWAY

OLD ABINGDON HIGHWAY

END CONSTRUCTION
STA. 20+35.00

BEGIN PROJECT 0011-102-728,
PE 101, R 201, C 501
STA. 81+10.00

END CONSTRUCTION
STA. 88+95.00

CP 57 CP 58 CP 59 CP 60

EXISTING R/W

PROPOSED TCE

PROPERTY LINE

001 NATIONAL RETAIL PROPERTIES LP
DB. 625, PG. 397
TAX PARCEL NO. 263-A-28
0.66 ACRES TOTAL

002 MICHAEL S. SETZER AND ARLENE C. SETZER
DB. 484, PG. 734
TAX PARCEL NO. 263-A-27
1.81 ACRES TOTAL

LINE	BEARING	DISTANCE
L11	N 78°37'16" E	149.62
L12	S 11°35'57" E	15.70
L13	S 78°37'16" W	149.69
L14	N 11°22'43" W	15.70
L15	N 78°37'16" E	57.93
L16	N 72°35'04" E	28.57
L17	S 11°22'43" E	29.71
L18	S 78°37'16" W	86.25
L19	N 11°35'57" W	11.00
L20	N 72°35'04" E	46.50
L21	N 78°31'53" E	67.16
L22	S 78°37'16" W	142.46
L23	S 11°39'37" E	394.37
L24	S 69°05'02" W	84.20
L25	S 56°48'02" W	90.30

PARCEL NO.	LANDOWNER
001	NATIONAL RETAIL PROPERTIES, LP
002	MICHAEL S. SETZER AND ARLENE C. SETZER
003	BILL R. LESTER AND JOANN LESTER
004	CITY OF BRISTOL, VIRGINIA

CITY OF
BRISTOL, VIRGINIA
300 LEE STREET
BRISTOL, VA 24201
(276) 645-7360

REVISIONS

DATE	
11-15-21	REVISED LAYOUT OF NORTHBOUND EXIT RAMP AND LEE HIGHWAY / ISLAND ROAD INTERSECTION ALSO REMOVED BIORETENTION POND AND RELATED STORM DRAINAGE PIPES

JACOB S. CHANDLER
Lic. No. 0402066571
PROFESSIONAL ENGINEER
COMMONWEALTH OF VIRGINIA

CHARLES C. BREWSTER
Lic. No. 002407
LAND SURVEYOR
COMMONWEALTH OF VIRGINIA

WIDENING OF
LEE HIGHWAY PHASE - 1B
AND
I-81 EXIT 5 RAMPS
PROJECT 0011-102-728 UPC 105309

GENERAL LAYOUT
OF
IMPROVEMENTS

DATE:
JANUARY 2022

DRAWING NO.
T30-229

FILE NAME: LEE HIGHWAY
EXIT 5 PHASE 1B RAMPS

SHEET NUMBER
2.2 OF 10

LIMITED ACCESS HIGHWAY

BY RESOLUTION OF HIGHWAY COMMISSION
DATED Oct. 4, 1956

CONTROL POINTS

CP	Northing	Easting	Elev	Description
54	3408982.77	10412101.01	1832.63	1/2" REBAR
55	3408891.65	10411747.25	1826.14	1/2" REBAR
56	3408625.39	10411566.48	1798.88	1/2" REBAR
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62	3409024.47	10412464.34	1828.70	NAIL/CAP
63	3408273.89	10412755.05	1827.43	1/2" REBAR

CURVE	CHORD	RADIUS	ARC
C11	N 56°52'49" E 223.01	1108.00	223.39
C12	N 63°21'46" E 27.33	1108.00	27.33
C13	S 58°07'54" W 16.45	1264.50	16.45
C14	S 50°07'47" W 29.33	188.88	29.36

LINE	BEARING	DISTANCE
L1	S 11°05'21" W	44.54
L2	S 85°38'20" W	53.61
L3	S 66°40'06" W	25.91
L4	S 52°02'45" W	66.77
L5	S 20°34'22" W	45.86
L6	S 57°45'33" W	128.70
L7	S 84°43'25" E	73.82
L8	S 38°12'55" E	50.87
L9	S 66°22'04" E	70.06
L10	S 20°34'22" W	47.55

PARCEL NO.	LANDOWNER
001	NATIONAL RETAIL PROPERTIES, LP
002	MICHAEL S. SETZER AND ARLENE C. SETZER
003	BILL R. LESTER AND JOANN LESTER
004	CITY OF BRISTOL, VIRGINIA

CITY OF BRISTOL, VIRGINIA
DB. 574, PG. 276
TAX PARCEL NO. 224-1-2
25.9 ACRES TOTAL

004

BILL R. LESTER AND JOANN LESTER
DB. 293, PG. 176
TAX PARCEL NO. 224-A-A1004
1.24 ACRES TOTAL

003

END CONSTRUCTION
STA. 46+50.00

BEGIN CONSTRUCTION
STA. 97+50.00

END PROJECT 0011-102-728,
PE 101, R 201, C 501
STA. 112+70.00

END CONSTRUCTION
STA. 37+40.00

ISLAND ROAD

LEE HIGHWAY

SOUTHBOUND ENTRANCE RAMP

SOUTHBOUND EXIT RAMP

INTERSTATE 81 (EXIT 5)

CP 54 CP 55 CP 56 CP 61 CP 62

D-901 LIGHT POLE
D-902 LIGHT POLE
D-903 LIGHT POLE
D-904 SERVICE CENTER
VACUUM, AIR PUMP, DOM. AND HOSE BIB
D-1 SIGN
D-2 SIGN

STRUCTURES D-1, D-2, D-901, D-902, D-903, AND D-904 ARE TO BE REMOVED BY OTHERS

VDOT LAND USE PERMIT 103-50948

INSTALL TY. W-2

EXISTING R/W
PROPERTY LINE
PROPOSED R/W
PROPOSED TCE
EXISTING FENCE
END LIMITED ACCESS LINE TERMINATE EXISTING FENCE
EXISTING R/W AND LIMITED ACCESS LINE
PROPOSED R/W AND LIMITED ACCESS LINE

0 50 100 150

REVISIONS

DATE	
11-15-21	1 REVISED LAYOUT OF NORTHBOUND EXIT RAMP AND LEE HIGHWAY / ISLAND ROAD INTERSECTION ALSO REMOVED BIORETENTION POND AND RELATED STORM DRAINAGE PIPES

CITY OF BRISTOL, VIRGINIA
300 LEE STREET
BRISTOL, VA 24201
(276) 645-7360

COMMONWEALTH OF VIRGINIA
JACOB S. CHANDLER
Lic. No. 0402066571
PROFESSIONAL ENGINEER

COMMONWEALTH OF VIRGINIA
CHARLES C. BREWSTER
Lic. No. 002107
LAND SURVEYOR

WIDENING OF
LEE HIGHWAY PHASE - 1B
AND
I-81 EXIT 5 RAMPS
PROJECT 0011-102-728 UPC 105309

GENERAL LAYOUT
OF
IMPROVEMENTS

DATE:
JANUARY 2022

DRAWING NO.
T30-229

FILE NAME: LEE HIGHWAY EXIT 5 PHASE 1B RAMPS

SHEET NUMBER
2.3 OF 10

GENERAL SPECIFICATIONS

1. THE CONTRACTOR SHALL PROVIDE TO THE CITY THE NAME OF AN INDIVIDUAL HOLDING "RESPONSIBLE LAND DISTURBER CERTIFICATION". SAID PERSON SHALL BE IN CHARGE OF AND RESPONSIBLE FOR CARRYING OUT LAND DISTURBING ACTIVITIES PURSUANT TO VIRGINIA EROSION AND SEDIMENT CONTROL LAW.
2. THE CONTRACTOR SHALL CONTACT MISS UTILITY 72 HOURS BEFORE BEGINNING EXCAVATION, 1-800-552-7001.
3. UNDERGROUND UTILITIES SHOWN IN THIS PLAN ARE APPROXIMATIONS BASED ON FIELD LOCATIONS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE EXACT LOCATION PRIOR TO AND DURING CONSTRUCTION.
4. THE CONTRACTOR SHALL PERFORM ALL ROADWAY CONSTRUCTION ACTIVITIES IN ACCORDANCE WITH THE CURRENT EDITIONS OF VDOT "ROAD AND BRIDGE SPECIFICATIONS" AND "ROAD AND BRIDGE STANDARDS".
5. ALL REQUIRED STAKING SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
6. THE CONTRACTOR SHALL PROVIDE ALL VDOT REQUIRED FIELD INSPECTIONS FOR SOIL AND AGGREGATE COMPACTION, CONCRETE PLACEMENT, ASPHALT PLACEMENT, PAVEMENT MARKINGS, AND SURFACE TREATMENTS.
7. CARE SHALL BE EXERCISED TO PROTECT EXISTING UTILITIES AND DRAINAGE STRUCTURES DURING ALL PHASES OF DEMOLITION AND RECONSTRUCTION.
8. THE GRADE LINE DENOTES TOP OF FINISHED PAVEMENT UNLESS SHOWN OTHERWISE ON TYPICAL SECTIONS OR PLANS.
9. EROSION CONTROL MEASURES SHALL BE PLACED IN ACCORDANCE WITH THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK, THIRD EDITION, 1992.
10. ALL PERIMETER EROSION AND SEDIMENT CONTROLS SHALL BE INSTALLED PRIOR TO ANY LAND DISTURBING ACTIVITIES.
11. THE CONTRACTOR SHALL FULLY UNDERSTAND THE TERMS AND CONDITIONS OF THE PROJECT CONTRACT, PLANS, PERMITS, SPECIFICATIONS AND STANDARDS RELATED TO EROSION AND SEDIMENT CONTROL, STORMWATER MANAGEMENT AND STORMWATER POLLUTION PREVENTION PLAN REQUIREMENTS FOR AFFECTED ACTIVITIES ASSOCIATED WITH THIS PROJECT, THE VIRGINIA STORMWATER MANAGEMENT PROGRAM (VSMP), AND THE GENERAL PERMIT FOR THE DISCHARGE OF STORMWATER FROM CONSTRUCTION ACTIVITIES ISSUED BY THE VIRGINIA DEPARTMENT OF CONSERVATION AND RECREATION.
12. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY SITE CONDITIONS PRIOR TO CONSTRUCTION AND TO NOTIFY THE ENGINEER OF ANY VARIATIONS PRIOR TO COMMENCEMENT OF WORK.
13. CARE SHALL BE EXERCISED TO PROTECT EXISTING UTILITIES AND STRUCTURES DURING ALL PHASES OF PROJECT WORK. THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR DAMAGE TO ANY UTILITIES ENCOUNTERED WITHIN CONSTRUCTION LIMITS.
14. PROPERTY LINES SHALL BE FIELD VERIFIED PRIOR TO CONSTRUCTION. THEREAFTER, THE CONTRACTOR SHALL NOT ENTER UPON NOR CAUSE DAMAGE TO ANY ADJACENT PROPERTIES WITHOUT WRITTEN PERMISSION OF SAID PROPERTY OWNERS. GRADING, CLEARING AND ERECTION OR REMOVAL OF FENCES, VEGETATION OR THE LIKE SHALL BE FULLY COORDINATED WITH ADJACENT PROPERTY OWNERS.
15. THE CONTRACTOR SHALL MAINTAIN THROUGH ACCESS TO ALL PROPERTIES ADJACENT TO THE PROJECT. A MINIMUM OF ONE TRAFFIC LANE SHALL REMAIN OPEN AT ALL TIMES TO THESE PROPERTIES.
16. THE CITY WILL PROVIDE A CONTROL STAKEOUT PRIOR TO CONTRACTOR'S MOBILIZATION. CONTROL SHALL CONSIST OF RIGHT-OF-WAY LIMITS, LIMITS OF TEMPORARY CONSTRUCTION EASEMENTS, AND HORIZONTAL/VERTICAL CONTROL POINTS. THEREAFTER, CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CONSTRUCTION STAKEOUT FOR THE PROJECT.

CONTACTS

WATER

BRISTOL VIRGINIA UTILITIES
15022 LEE HIGHWAY
BRISTOL, VA
PHILIP KING
276-698-9761

SANITARY SEWER

BRISTOL VIRGINIA UTILITIES
15022 LEE HIGHWAY
BRISTOL, VA
PHILIP KING
276-698-9761

ELECTRIC AND FIBER OPTIC

BRISTOL VIRGINIA UTILITIES
15022 LEE HIGHWAY
BRISTOL, VA
RICHARD ATKINS
276-645-8732

GAS

ATMOS ENERGY CORPORATION
15440 LEE HIGHWAY
BRISTOL, VA
JOE BLAYLOCK
276-451-0356

TELEPHONE

CENTURYLINK
2 SPRUCE STREET
BRISTOL, TN
MARCY BUCKLES
423-989-2243

CABLE

CHARTER COMMUNICATIONS
10417 WALLACE ALLEY ST.
KINGSPORT, TN
MIKE ALEXANDER
423-791-3808

Miss Utility of Virginia

NOTE:
ALL MATERIALS SHALL BE FROM VDOT APPROVED LISTS AND WILL BE RECEIVED BY VDOT APPROVED METHODS OF ACCEPTANCE

LEGEND

- DITCH
- CUT/FILL LINE
- CONSTRUCTION LIMITS
- PROPERTY LINE
- EXISTING RIGHT OF WAY – R/W
- PROPOSED RIGHT OF WAY – R/W
- PROPOSED UTILITY EASEMENT – AS DESCRIBED
- PROPOSED CONSTRUCTION EASEMENT – TCE
- PROPOSED DRAINAGE EASEMENT – AS DECRIBED
- BASELINE
- GUARDRAIL
- EXISTING DRAINAGE PIPE
- PROPOSED DRAINAGE PIPE
- EXISTING PAVEMENT/CURB
- EXISTING FENCE
- PROPOSED FENCE
- EXISTING SEWER LINE
- PROPOSED SEWER LINE
- EXISTING GAS LINE
- EXISTING WATER LINE
- EXISTING UNDERGROUND TELEPHONE LINE
- EXISTING UNDERGROUND ELECTRIC LINE
- PROPOSED UNDERGROUND LIGHTING CIRCUIT INSTALLED IN CONDUIT
- AREAS FOR PAVEMENT DEMOLITION OF EXISTING ROADWAY, BRING TO FINISH GRADE, TOP SOIL, SEED, AND STRAW
- PAVEMENT
- CONCRETE
- PAVEMENT MILLING AND/OR REPLACEMENT

VERIFY THAT REQUIRED PAVEMENT DESIGN DEPTHS WILL BE OBTAINED IN THIS AREA IF MILLED TO PROPOSED GRADES – IF NOT FULL DEPTH PAVEMENT REPLACEMENT INSTALLATION WILL BE REQUIRED

- PAVEMENT MILLING
- FIRE HYDRANT
- WATER VALVE
- BORE HOLE
- CLEAN OUT
- GROUND LIGHT
- POWER POLE
- GUY WIRE
- MAILBOX
- DROP INLET
- STORM MANHOLE
- SEWER MANHOLE
- SIGN
- EXISTING PROPERTY CORNER
- R/W MONUMENT
- EXISTING LIGHT POLE
- PROPOSED LIGHT POLE
- ELECTRIC VAULT
- TELEPHONE POLE
- GAS LINE MARKER
- GAS VALVE

CITY OF
BRISTOL, VIRGINIA
300 LEE STREET
BRISTOL, VA 24201
(276) 645-7360

REVISIONS

DATE

COMMONWEALTH OF VIRGINIA
JACOB S. CHANDLER
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WIDENING OF
LEE HIGHWAY PHASE - 1B
AND
I-81 EXIT 5 RAMPS
PROJECT 0011-102-728 UPC 105309

GENERAL
SPECIFICATIONS
AND DETAILS

DATE:
JANUARY 2022

DRAWING NO.
T30-229

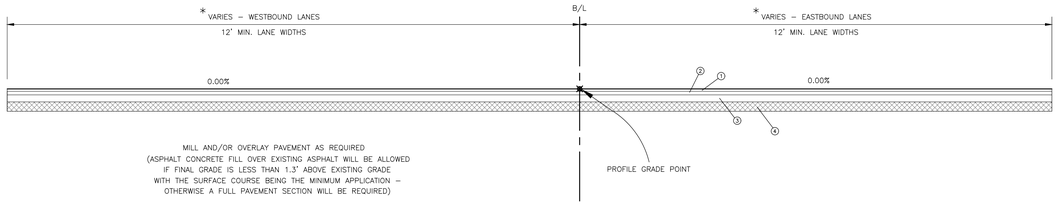
FILE NAME: LEE HIGHWAY EXIT 5 PHASE 1B RAMPS

SHEET NUMBER
3.1 OF 10

BY RESOLUTION OF HIGHWAY COMMISSION
DATED Oct. 4, 1956

NOTES:

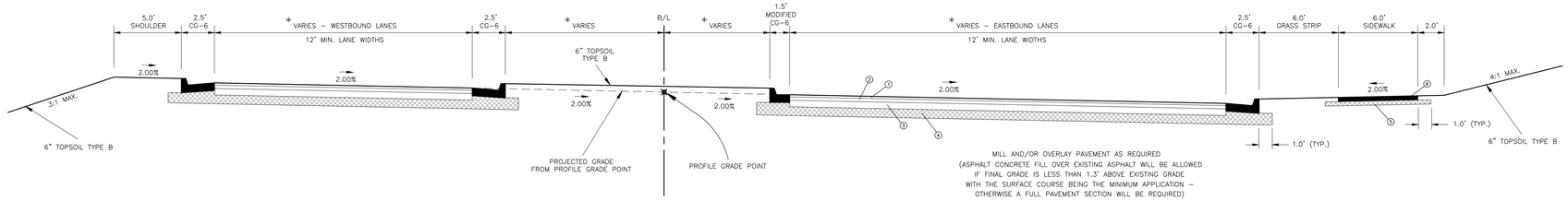
1. SURFACE COURSE - 165 POUNDS PER SQ. YD. CONCRETE TYPE SM-12.5D
2. INTERMEDIATE COURSE - 230 POUNDS PER SQ. YD. OF CONCRETE TYPE IM-19.0A
3. BASE COURSE - ASPHALT CONCRETE BASE COURSE TYPE BM-25.0A (8" DEPTH)
4. SUBBASE COURSE - AGGREGATE BASE MATERIAL TYPE I NO. 21-B (6" DEPTH)
5. AGGREGATE BASE MATERIAL TYPE I NO. 21-B (4" DEPTH)
6. 4" CLASS "A3" CONCRETE



TYPICAL SECTION

LEE HIGHWAY

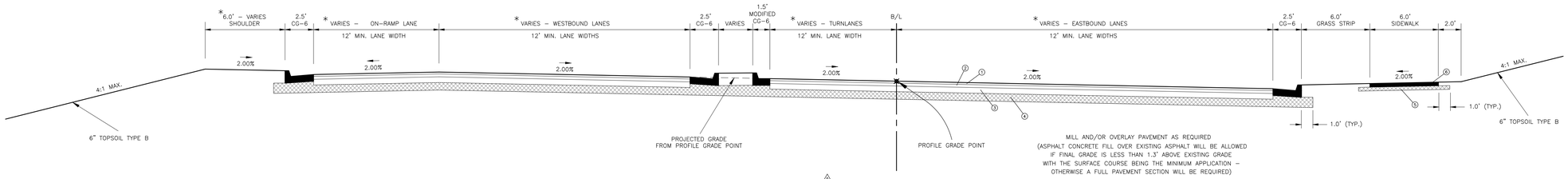
STA. 101+43 (LR / LR)



TYPICAL SECTION

LEE HIGHWAY

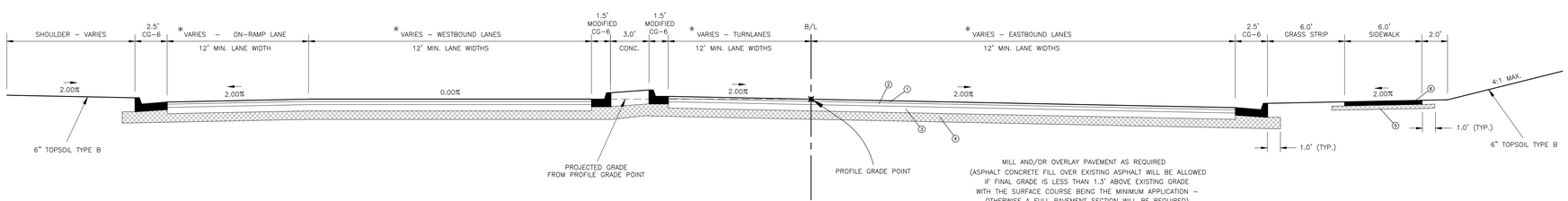
STA. 102+25 (LR / FULL SUPERELEVATION) TO STA. 103+50



TYPICAL SECTION

LEE HIGHWAY

STA. 103+90 TO STA. 105+67 (FULL SUPERELEVATION / LR)



TYPICAL SECTION

LEE HIGHWAY

STA. 106+49 (LR / LT)

* SEE SHEETS 5.1 THROUGH 5.7 FOR PAVEMENT AND BACK OF CURB STATIONS/OFFSETS

CITY OF BRISTOL, VIRGINIA
300 LEE STREET
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REVISIONS

DATE	
11-15-21	1 REVISED LAYOUT OF NORTHBOUND EXIT RAMP AND LEE HIGHWAY / ISLAND ROAD INTERSECTION ALSO REMOVED BIORETENTION POND AND RELATED STORM DRAINAGE PIPES

JACOB S. CHANDLER
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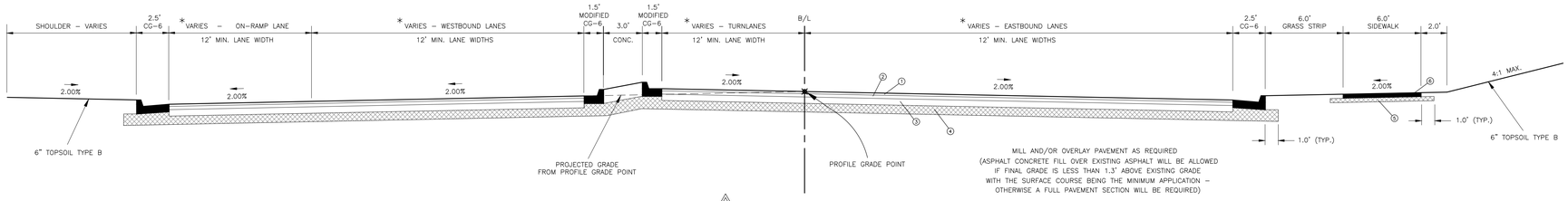
GENERAL SPECIFICATIONS AND DETAILS

DATE: JANUARY 2022

DRAWING NO. T30-229

FILE NAME: LEE HIGHWAY EXIT 5 PHASE 1B RAMPS

BY RESOLUTION OF HIGHWAY COMMISSION
DATED Oct. 4, 1956

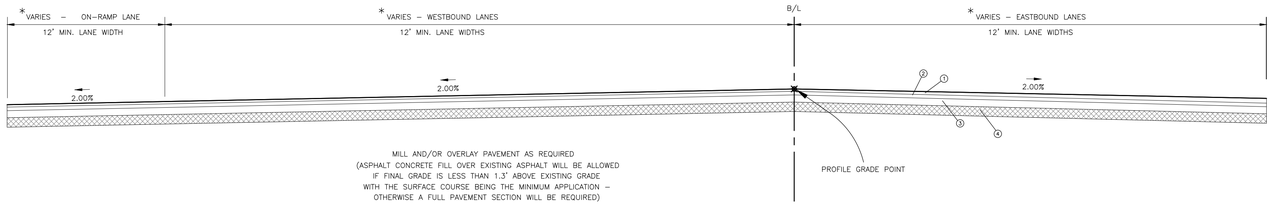


1

TYPICAL SECTION

LEE HIGHWAY

STA. 107+31 (LT / NC) TO STA. 108+00



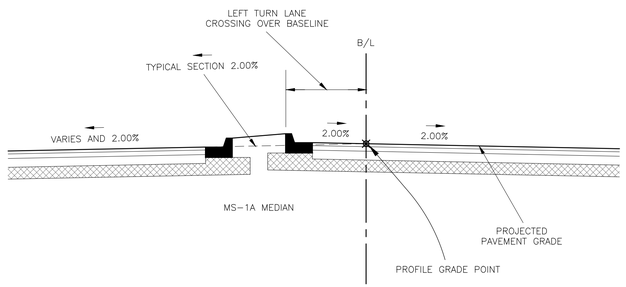
TYPICAL SECTION

LEE HIGHWAY

STA. 108+20 TO STA. 109+05

NOTES:

1. SURFACE COURSE - 165 POUNDS PER SQ. YD. CONCRETE TYPE SM-12.5D
2. INTERMEDIATE COURSE - 230 POUNDS PER SQ. YD. OF CONCRETE TYPE IM-19.0A
3. BASE COURSE - ASPHALT CONCRETE BASE COURSE TYPE BM-25.0A (8" DEPTH)
4. SUBBASE COURSE - AGGREGATE BASE MATERIAL TYPE I NO. 21-B (6" DEPTH)
5. AGGREGATE BASE MATERIAL TYPE I NO. 21-B (4" DEPTH)
6. 4" CLASS "A3" CONCRETE



LEFT TURN LANE CROSS SLOPE DETAIL

IN CASES OF WHERE THE LEFT TURN LANE CROSSES THE BASELINE MAINTAIN THE 2.00% CROSS SLOPE OF THE ADJOINING TROUGH LANE FOR THE LEFT TURN LANE SIDE OF THE MS-1A MEDIAN ONLY. FOR THE THROUGH LANES ON THE OPPOSITE SIDE OF THE MS-1A MEDIAN USE THE SLOPE OF THE TYPICAL SECTION.

AT INTERSECTIONS THE ELEVATED LEFT TURN LANE WILL BE TRANSITIONED INTO THE TYPICAL SECTION CROSS SLOPE STARTING 10' FROM THE NOSE OF THE MEDIAN.

PAVEMENT DESIGNS

LEE HIGHWAY MAINLINE, AND TURN LANES

SURFACE COURSE - 165 POUNDS PER SQ. YD. CONCRETE TYPE SM-12.5D

INTERMEDIATE COURSE - 230 POUNDS PER SQ. YD. OF CONCRETE TYPE IM-19.0A

BASE COURSE - ASPHALT CONCRETE BASE COURSE TYPE BM-25.0A (8" DEPTH)

SUBBASE COURSE - AGGREGATE BASE MATERIAL TYPE I NO. 21-B (6" DEPTH)

EXIT RAMPS

SURFACE COURSE - 220 POUNDS PER SQ. YD. CONCRETE TYPE SM-12.5E

INTERMEDIATE COURSE - 230 POUNDS PER SQ. YD. OF CONCRETE TYPE IM-19.0A

BASE COURSE - ASPHALT CONCRETE BASE COURSE TYPE BM-25.0A (8" DEPTH)

SUBBASE COURSE - AGGREGATE BASE MATERIAL TYPE I NO. 21-B (6" DEPTH)

ALL OTHER STREETS AND COMMERCIAL ENTRANCES

SURFACE COURSE - 2" VDOT SM-12.5D

BASE COURSE - 3" VDOT B-25.0D

SUBBASE COURSE - 8" VDOT TYPE I, 21A OR 21B

* SEE SHEETS 5.1 THROUGH 5.7 FOR PAVEMENT AND BACK OF CURB STATIONS/OFFSETS

CITY OF BRISTOL, VIRGINIA
300 LEE STREET
BRISTOL, VA 24201
(276) 645-7360

REVISIONS

2 REVISED LAYOUT OF NORTHBOUND EXIT RAMP AND LEE HIGHWAY / ISLAND ROAD INTERSECTION ALSO REMOVED BIORETENTION POND AND RELATED STORM DRAINAGE PIPES — DATE 11-15-21

2

JACOB S. CHANDLER
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CHARLES C. BREWSTER
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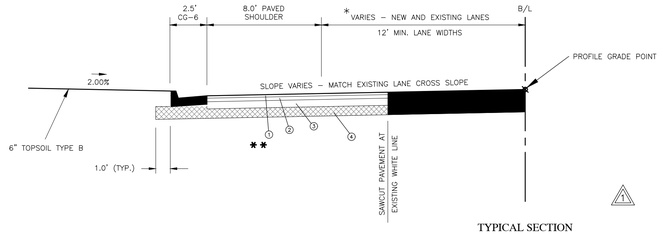
WIDENING OF
LEE HIGHWAY PHASE - 1B
AND
I-81 EXIT 5 RAMPS
PROJECT 0011-102-728 UPC 105309

GENERAL
SPECIFICATIONS
AND DETAILS

DATE:
JANUARY 2022

DRAWING NO.
T30-229

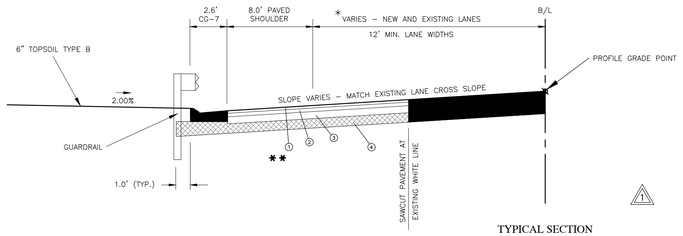
FILE NAME: LEE HIGHWAY EXIT 5 PHASE 1B RAMPS



TYPICAL SECTION

NORTHBOUND EXIT RAMP

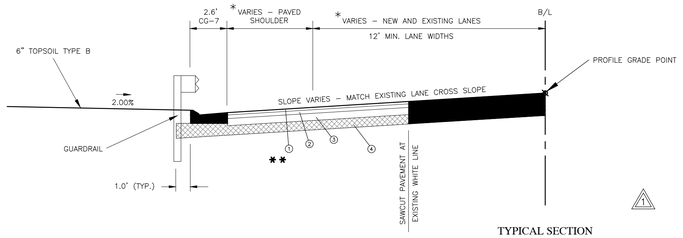
STA. 11+25 TO STA. 12+14



TYPICAL SECTION

NORTHBOUND EXIT RAMP

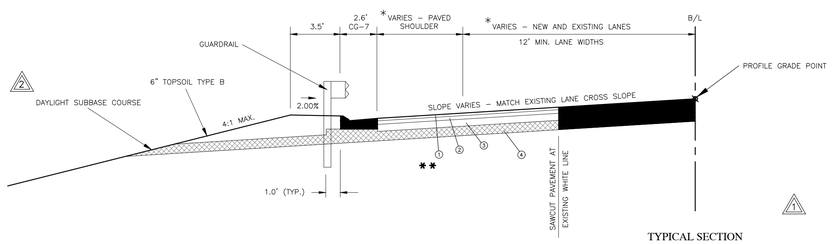
STA. 12+14 TO STA. 15+02



TYPICAL SECTION

NORTHBOUND EXIT RAMP

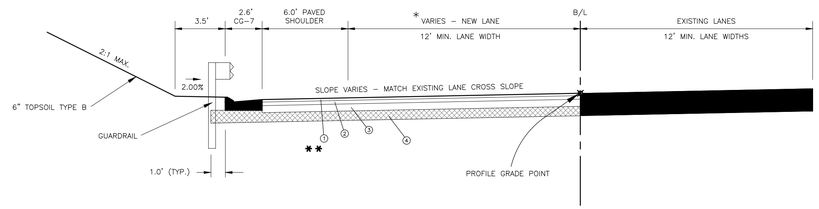
STA. 15+02 TO STA. 16+25



TYPICAL SECTION

NORTHBOUND EXIT RAMP

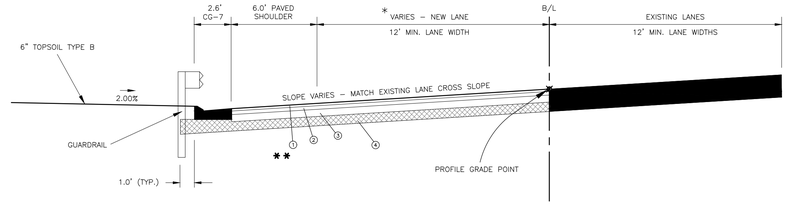
STA. 16+25 TO STA. 16+99



TYPICAL SECTION

SOUTHBOUND EXIT RAMP

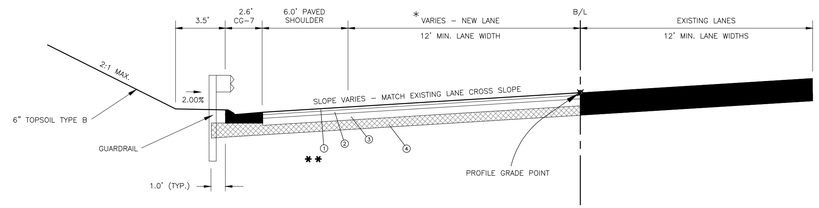
STA. 31+30



TYPICAL SECTION

SOUTHBOUND EXIT RAMP

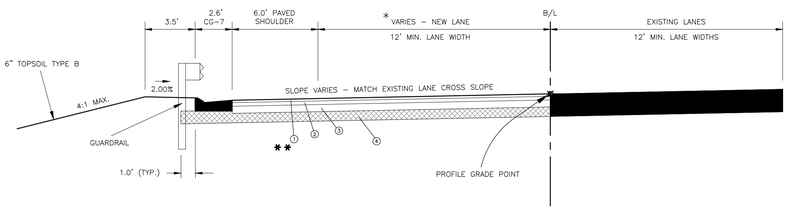
STA. 31+50 TO STA. 32+25



TYPICAL SECTION

SOUTHBOUND EXIT RAMP

STA. 32+50 TO STA. 33+50



TYPICAL SECTION

SOUTHBOUND EXIT RAMP

STA. 33+75 TO STA. 36+80

NOTES:

** (1) SURFACE COURSE - 220 POUNDS PER SQ. YD. CONCRETE TYPE SM-12.5E (EXIT RAMPS ONLY)

(2) INTERMEDIATE COURSE - 230 POUNDS PER SQ. YD. OF CONCRETE TYPE IM-19.0A

(3) BASE COURSE - ASPHALT CONCRETE BASE COURSE TYPE BM-25.0A (8" DEPTH)

(4) SUBBASE COURSE - AGGREGATE BASE MATERIAL TYPE I NO. 21-B (6" DEPTH)

(5) AGGREGATE BASE MATERIAL TYPE I NO. 21-B (4" DEPTH)

(6) 4" CLASS "A3" CONCRETE

* SEE SHEETS 5.1 THROUGH 5.7 FOR PAVEMENT AND BACK OF CURB STATIONS/OFFSETS

CITY OF BRISTOL VA TENN GOOD PLACE TO LIVE VIRGINIA

CITY OF
BRISTOL, VIRGINIA
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(276) 645-7360

REVISIONS

1 — REVISED LAYOUT OF NORTHBOUND EXIT RAMP AND LEE HIGHWAY / ISLAND ROAD INTERSECTION ALSO REMOVED BIORETENTION POND AND RELATED STORM DRAINAGE PIPES — DATE 11-15-21

2

COMMONWEALTH OF VIRGINIA
JACOB S. CHANDLER
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CHARLES C. BREWSTER
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LAND SURVEYOR

WIDENING OF
LEE HIGHWAY PHASE - 1B
AND
I-81 EXIT 5 RAMPS
PROJECT 0011-102-728 UPC 105309

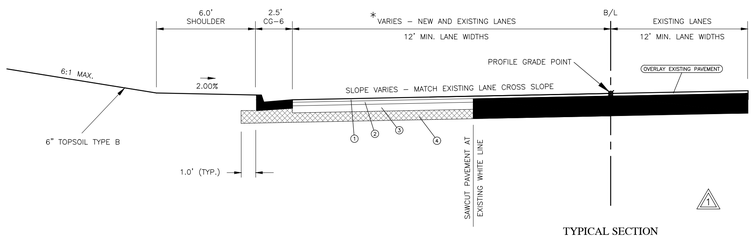
GENERAL
SPECIFICATIONS
AND DETAILS

DATE:
JANUARY 2022

DRAWING NO.
T30-229

FILE NAME: LEE HIGHWAY EXIT 5 PHASE 1B RAMPS

BY RESOLUTION OF HIGHWAY COMMISSION
DATED Oct. 4, 1956



TYPICAL SECTION
ISLAND ROAD
STA. 41+20 TO STA. 44+66

NOTES:

1. SURFACE COURSE - 165 POUNDS PER SQ. YD. CONCRETE TYPE SM-12.5D
2. INTERMEDIATE COURSE - 230 POUNDS PER SQ. YD. OF CONCRETE TYPE IM-19.0A
3. BASE COURSE - ASPHALT CONCRETE BASE COURSE TYPE BM-25.0A (8" DEPTH)
4. SUBBASE COURSE - AGGREGATE BASE MATERIAL TYPE I NO. 21-B (6" DEPTH)
5. AGGREGATE BASE MATERIAL TYPE I NO. 21-B (4" DEPTH)
6. 4" CLASS "A3" CONCRETE

* SEE SHEETS 5.1 THROUGH 5.7 FOR PAVEMENT AND BACK OF CURB STATIONS/OFFSETS

CITY OF
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300 LEE STREET
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DATE	REVISIONS
11-15-21	1 REVISED LAYOUT OF NORTHBOUND EXIT RAMP AND LEE HIGHWAY / ISLAND ROAD INTERSECTION ALSO REMOVED BIORETENTION POND AND RELATED STORM DRAINAGE PIPES

2

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COMMONWEALTH OF VIRGINIA

WIDENING OF
LEE HIGHWAY PHASE - 1B
AND
I-81 EXIT 5 RAMPS
PROJECT 0011-102-728 UPC 105309

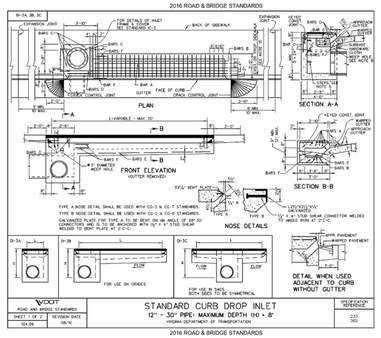
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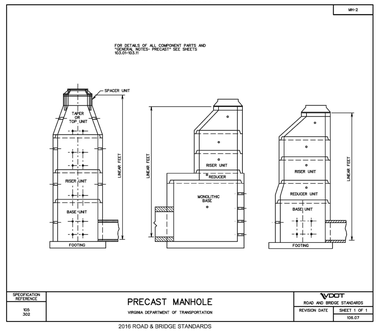
FILE NAME: LEE HIGHWAY EXIT 5 PHASE 1B RAMPS

2016 ROAD & BRIDGE STANDARDS



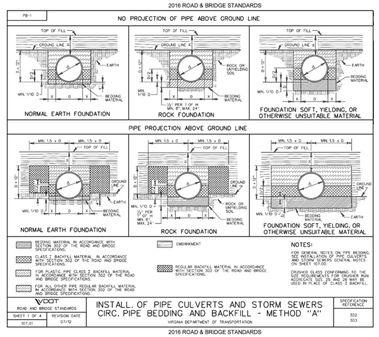
STANDARD CURB DROP INLET
12" - 30" PIPE MAXIMUM DEPTH (H) = 8'

2016 ROAD & BRIDGE STANDARDS



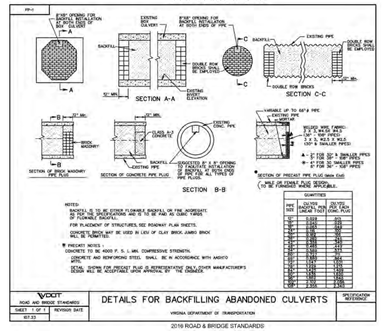
PRECAST MANHOLE

2016 ROAD & BRIDGE STANDARDS



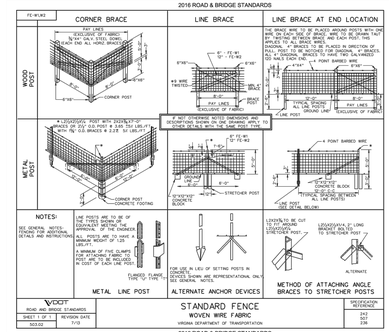
INSTALL. OF PIPE CULVERTS AND STORM SEWERS
CIRC. PIPE BEDDING AND BACKFILL - METHOD "A"

2016 ROAD & BRIDGE STANDARDS



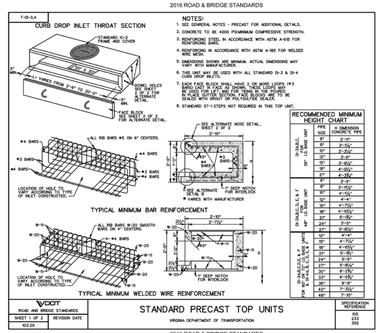
DETAILS FOR BACKFILLING ABANDONED CULVERTS

2016 ROAD & BRIDGE STANDARDS



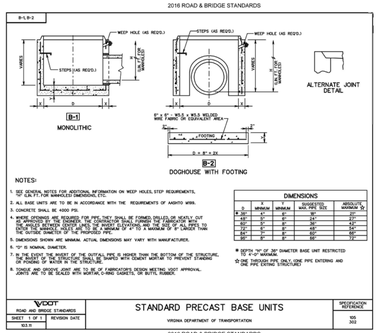
STANDARD FENCE
WOVEN WIRE FABRIC

2016 ROAD & BRIDGE STANDARDS



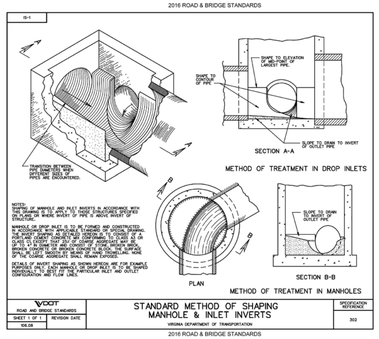
STANDARD PRECAST TOP UNITS

2016 ROAD & BRIDGE STANDARDS



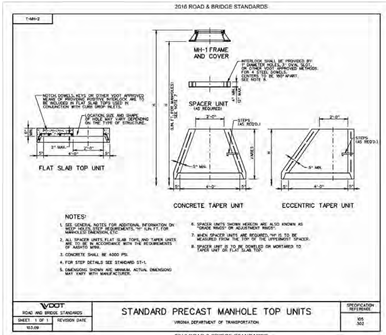
STANDARD PRECAST BASE UNITS

2016 ROAD & BRIDGE STANDARDS



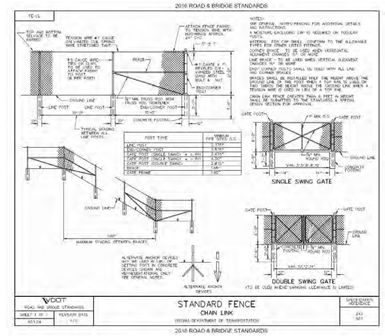
STANDARD METHOD OF SHAPING
MANHOLE & INLET INVERTS

2016 ROAD & BRIDGE STANDARDS



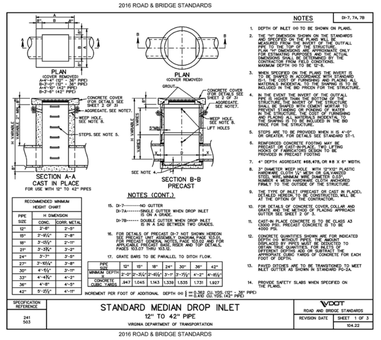
STANDARD PRECAST MANHOLE TOP UNITS

2016 ROAD & BRIDGE STANDARDS



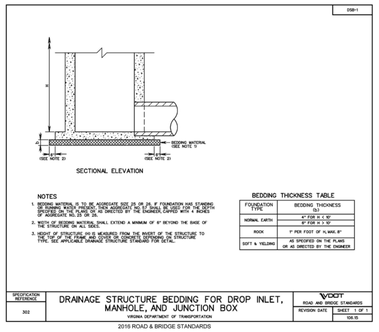
STANDARD FENCE
CHAIN LINK

2016 ROAD & BRIDGE STANDARDS



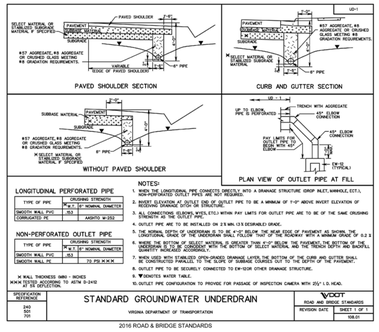
STANDARD MEDIAN DROP INLET
12" TO 42" PIPE

2016 ROAD & BRIDGE STANDARDS



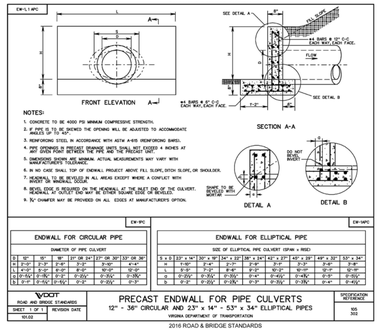
DRAINAGE STRUCTURE BEDDING FOR DROP INLET, MANHOLE, AND JUNCTION BOX

2016 ROAD & BRIDGE STANDARDS



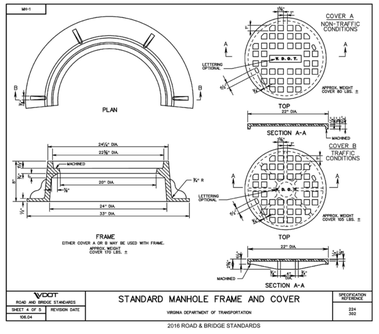
STANDARD GROUNDWATER UNDERDRAIN

2016 ROAD & BRIDGE STANDARDS



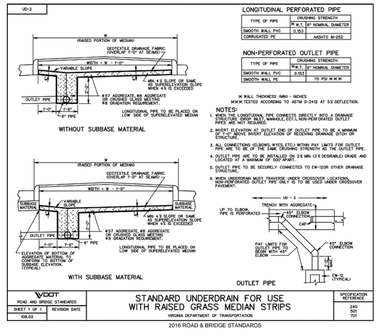
PRECAST ENDWALL FOR PIPE CULVERTS
12" - 36" CIRCULAR AND 23" x 14" - 53" x 34" ELLIPTICAL PIPES

2016 ROAD & BRIDGE STANDARDS



STANDARD MANHOLE FRAME AND COVER

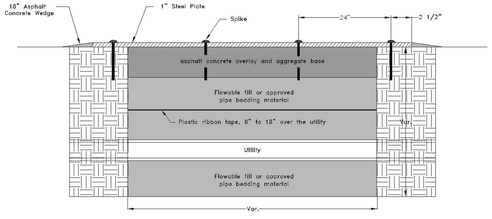
2016 ROAD & BRIDGE STANDARDS



STANDARD UNDERDRAIN FOR USE
WITH RAISED GRASS MEDIAN STRIPS

DETAIL OF PLATE STEEL PLACEMENT AND
TYPICAL BACKFILLING METHOD
FOR OPEN CUT REPAIR

Asphalt concrete overlay shown under steel plate only to denote dimensions and location. Placed after removal of plate.
Asphalt concrete wedge shall provide a smooth transition from existing asphalt concrete to steel plate travel surface.
Bituminous sealer shall be placed around holes and on bottom of spike heads.



CITY OF BRISTOL VA PAVEMENT CUT DETAIL

CITY OF BRISTOL
VA TENN
GOOD PLACE TO LIVE
VIRGINIA

CITY OF
BRISTOL, VIRGINIA
300 LEE STREET
BRISTOL, VA 24201
(276) 645-7360

REVISIONS

DATE

COMMONWEALTH OF VIRGINIA
JACOB S. CHANDLER
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WIDENING OF
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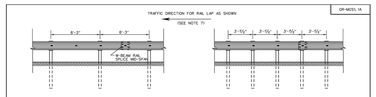
DRAWING NO.
T30-229

FILE NAME: LEE HIGHWAY
EXIT 5 PHASE 1B RAMPS

SHEET NUMBER
3.6 OF 10

GR-MGS1A

TRAFFIC DIRECTION FOR RAIL LAP AS SHOWN (SEE NOTE 7)



GR-MGS1
(6'-3" POST SPACING)
MIN. DISTANCE FROM FACE OF RAIL TO FIXED OBJECT = 60"

GR-MGS1A
(3'-1½" POST SPACING)
MIN. DISTANCE FROM FACE OF RAIL TO FIXED OBJECT = 48"



SPLICE DETAIL
RAIL SPLICE SHALL BE PLACED MID-SPAN ON STANDARD POST SPACING (6'-3").

DESIGN SPEED	FLARE RATES: SHY LINE		OFFSET	
	MIN	LINE	FLARE	FLARE
MPH	L	OFFSET	RATE	RATE
10	8'	35'-1"	15:1	▲
20	8'	35'-1"	15:1	▲
30	8'	35'-1"	15:1	▲
40	8'	35'-1"	15:1	▲
50	8.5'	21'-1"	15:1	▲
60	9'	16'-1"	8:1	▲
70	9'	12'-1"	8:1	▲
80	9'	9'-1"	8:1	▲
30	4'	13'-1"	7:1	▲
40	4'	9'-1"	7:1	▲
50	4'	6'-1"	7:1	▲
60	4'	4'-1"	7:1	▲
70	4'	3'-1"	7:1	▲
80	4'	2'-1"	7:1	▲

* SUGGESTED MINIMUM FLARE RATE FOR SEMI-RIGID BARRIER SYSTEMS.

NOTES:
1. GUARDRAIL LOCATIONS SHOWN ON PLANS ARE APPROXIMATE ONLY AND SHALL BE ADJUSTED DURING CONSTRUCTION IF AND AS DIRECTED BY THE ENGINEER.
2. FOR DETAILS OF POST AND BLOCKOUTS SEE SHEET NO. 506.05.
3. FOR DESIGN OF GUARDRAILS AND ASSOCIATED TERMINALS SEE STANDARD NO. GR-MGS.
4. RAIL ELEMENTS WITH DEPRESSED OR PUNCHED HOLES SHALL BE USED ON THE UPSTREAM END OF ALL RUNS. SEE DETAIL 1A.
5. ALL OR-MGS1 OR OR-MGS1A RAIL SHALL BE MANUFACTURED TO A LENGTH OF 25' MIN - 27' MAX AS MEASURED PER AASHTO M180.
6. ALL GUARDRAIL POSTS SHALL BE SET PLUMB, POST SIGN, EXCEPT AT LOCATIONS WHERE THE GRADE BREAK POINT OF THE FOOT SLOPE IS LESS THAN 1' FROM THE BACK OF POST, THE POST SHALL BE SET AND ALIGNED WITHOUT ALTERATION OF FLANGE, AS PER FOLLOWING SIZE OF TYPE SPECIFICATIONS.
7. ALL W-BEAM RAILS SHALL BE LAPPED IN THE DIRECTION OF ADJACENT TRAFFIC FOR THE RIGHT SIDE ROADWAY.
8. ADJUSTING EXISTING GUARDRAIL TO MEET THE MGS STANDARD IS NOT PERMITTED.

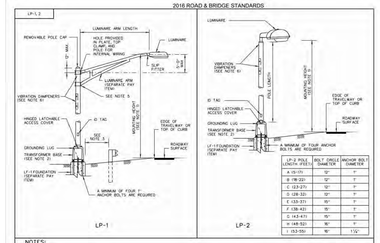
DESCRIPTION	ITEM CODE
GUARDRAIL OR MGS	703301
GUARDRAIL OR MGS STEEL POST	703302
GUARDRAIL OR MGS WOOD POST	703303
GUARDRAIL ENDING OR MGS FLARE	703304 LT
GUARDRAIL ENDING OR MGS W-BEAM TO POST	703304 LS

SPECIFICATION REFERENCE	A COPY OF THE ORIGINAL SEALED AND SIGNED DRAWING IS ON FILE IN THE CENTRAL OFFICE.
226 606	MIDWEST GUARDRAIL SYSTEM (STANDARD AND REDUCED POST SPACING) VIRGINIA DEPARTMENT OF TRANSPORTATION

VDOT ROAD AND BRIDGE STANDARDS
REVISION DATE: NEW 03/17
SHEET: 1 OF 3
SGR.04

2016 ROAD & BRIDGE STANDARDS

LP-1, 2



LP-1 POLE LENGTH (FEET)	BOLT CIRCLE DIAMETER	ANCHOR BOLT DIAMETER
A (30-ft)	10"	1"
B (*W-22)	10"	1"
C (22-27)	10"	1"
D (28-32)	10"	1"
E (33-37)	10"	1"
F (38-42)	15"	1"
G (43-47)	15"	1"
H (48-52)	15"	1"
I (53-55)	15"	1¼"

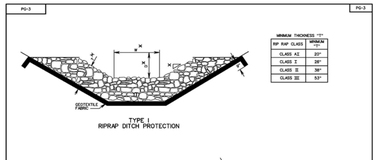
NOTES:
1. THE MOUNTING HEIGHT SHOWN IN THE CONTRACT DOCUMENTS SHALL BE MEASURED FROM THE TOP OF THE ROADWAY SURFACE TO THE CENTER OF THE LUMINAIRE HEIGHT SHOWN.
2. *DENOTES TRANSFORMER BASE WIDTH WITH 3 INCHES (3IN) TURN-OF-THE-NUT ANCHOR BOLT PROJECTION ABOVE THE TOP OF THE FOUNDATION.
3. THE TRANSFORMER BASE SHALL BE GROUNDED USING THE NEAR SIDE LOOP AND THE FOUNDATION GROUNDING SYSTEM AS DETAILED ON THE STANDARD.
4. ALL LP-1 AND LP-1 POLES SHALL BE INSTALLED ON BREAKAWAY OR NON-BREAKAWAY BASES AS SHOWN IN THE PLANS. ALL LP-2 POLES SHALL BE INSTALLED ON NON-BREAKAWAY BASES AS SHOWN IN THE PLANS.
5. POLE CLAMP SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS WITHOUT THE USE OF SPACERS OR SHIMS.
6. FIRST AND SECOND MODE VIBRATION DAMPENERS SHALL BE DESIGNED AND INSTALLED ON ALL ALUMINUM POLES.

SPECIFICATION REFERENCE	A COPY OF THE ORIGINAL SEALED AND SIGNED DRAWING IS ON FILE IN THE CENTRAL OFFICE.
700	LIGHTING POLE INSTALLATION DETAILS VIRGINIA DEPARTMENT OF TRANSPORTATION

VDOT ROAD AND BRIDGE STANDARDS
SHEET: 1 OF 1
REVISION DATE: 03/18

2016 ROAD & BRIDGE STANDARDS

PG-3



MINIMUM THICKNESS "T" RIP RAP CLASS	GRADING +0%-
CLASS A1	20"
CLASS I	28"
CLASS II	36"
CLASS III	52"

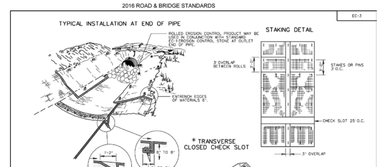
NOTES:
RIP RAP BEDDING MATERIAL
GEOTEXTILE FABRIC TO BE PROVIDED UNDER ALL RIP RAP AS SHOWN IN THE PLANS. SEE SPECIFICATIONS FOR GEOTEXTILE FABRIC REQUIREMENTS.
RIPRAP INSTALLATIONS OF CLASS I, II AND III MATERIALS SHALL HAVE AN INTERMEDIATE GRADATION BEDDING LAYER OF CLASS A1 RIP RAP UNLESS OTHERWISE SHOWN ON THE PLANS OR DIRECTED BY THE ENGINEER.
SEE TYPICAL SECTION SHOWN ON PLANS FOR SIZE & SLOPE BOTTOM WIDTH AND DEPTH OF CHANNEL OR LIMITS OF RIPRAP PLACEMENT.

SPECIFICATION REFERENCE	A COPY OF THE ORIGINAL SEALED AND SIGNED DRAWING IS ON FILE IN THE CENTRAL OFFICE.
244 605	STANDARD RIP RAP DITCH & SLOPE PROTECTION PG-3 VIRGINIA DEPARTMENT OF TRANSPORTATION

VDOT ROAD AND BRIDGE STANDARDS
SHEET: 1 OF 1
REVISION DATE: 10/5.02
SPECIFICATION REFERENCE: 245 414

2016 ROAD & BRIDGE STANDARDS

EC-3



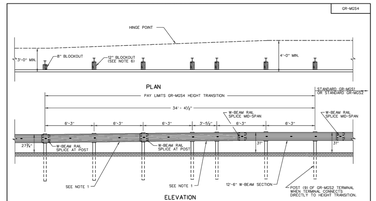
NOTES:
1. STAKES SHALL BE WOOD OR METAL AS RECOMMENDED BY THE MANUFACTURER AND SHALL BE A MINIMUM OF 18" IN LENGTH. STAKES SHALL HAVE A MINIMUM OF 18" IN LENGTH SHALL BE USED.
2. ALL EC-3 MATERIALS ARE TO BE IN ACCORDANCE WITH THE APPROVED PRODUCTS LIST.
3. ECO MATERIAL SHALL BE INSTALLED TO LIE SMOOTH AND FLAT ON THE SOIL SURFACE. ENSURE GOOD CONTACT WITH THE SOIL. USE APPROPRIATE STAPLES AS RECOMMENDED BY THE MANUFACTURER.
4. IF MORE THAN 3 LINES OF MATERIAL ARE REQUIRED PARALLEL TO THE FLOW OF THE DITCH, MATERIAL SHALL BE OVERLAPPED SHINGLE STYLE WITH THE UPSTREAM SECTION ON TOP OF THE DOWNSTREAM SECTION. OVERLAP SHALL BE 12" MINIMUM OR TWICE THE LARGEST ELEVATION OF THE SOIL.
5. FOR SOURCES OF APPROVED MATERIALS SEE VDOT'S APPROVED PRODUCTS LIST FOR STD EC-3, CATEGORY 1, 2, 3, 4.
6. CHECK DAM SHALL NOT BE USED FOR LOCATIONS IN LIVE STREAM.

SPECIFICATION REFERENCE	A COPY OF THE ORIGINAL SEALED AND SIGNED DRAWING IS ON FILE IN THE CENTRAL OFFICE.
244 605	ROLLED EROSION CONTROL PRODUCT SOIL STABILIZATION MAT (PERMANENT DITCH INSTALLATION 3 VIRGINIA DEPARTMENT OF TRANSPORTATION

VDOT ROAD AND BRIDGE STANDARDS
REVISION DATE: 07/16
SHEET: 1 OF 3
EC-3

2016 ROAD & BRIDGE STANDARDS

GR-MGS3



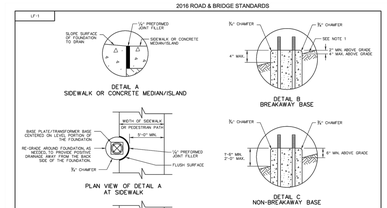
W BEAM END PANEL DETAIL
ITEM CODE 02897 EACH

SPECIFICATION REFERENCE	A COPY OF THE ORIGINAL SEALED AND SIGNED DRAWING IS ON FILE IN THE CENTRAL OFFICE.
226 606	MIDWEST GUARDRAIL SYSTEM (TRAILING END ANCHORAGE) VIRGINIA DEPARTMENT OF TRANSPORTATION

VDOT ROAD AND BRIDGE STANDARDS
REVISION DATE: NEW 03/17
SHEET: 1 OF 3
SGR.08

2016 ROAD & BRIDGE STANDARDS

LF-1



TYPE	N	O	VERTICAL BARS
4	2'-9"	9"	8 #8

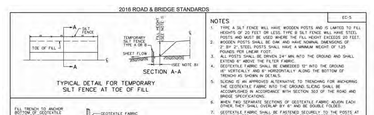
NOTES:
1. CONDUIT ELBOWS SHALL HAVE A 90° BEND. THE BEND RADIUS SHALL BE IN ACCORDANCE WITH THE N.E.C.
2. THE BOLT SUPPLIED SHALL BE FURNISHED BY THE LIGHTING POLE MANUFACTURER AND SHALL BE OF CENTERED ON FOUNDATION.
3. THE NUMBER, ORIENTATION AND SIZE OF CONDUITS ENTERING AND EXITING FOUNDATIONS SHALL BE AS SHOWN IN THE CONTRACT DOCUMENTS. EACH FOUNDATION SHALL BE PERMANENTLY MARKED TO INDICATE ALL SIDES FROM WHICH CONDUITS ENTER AND EXIT THE FOUNDATION. THE MARKING SHALL BE FASHIONED FOR CONCRETE AND SHALL BE 12" DEEP AND 4" TO 6" LONG. MARK PERPENDICULAR TO AND CENTERED ON THIS MARKING.
4. NO MORTAR GROUT OR CONCRETE SHALL BE PLACED BETWEEN BOTTOM OF BASE PLATE AND TOP OF FOUNDATION.
5. ANCHOR BOLTS SHALL BE OF STRAIGHT, THREADED REINFORCING STEEL. NO ALUMINUM OR GALVANIZED BOLTS MAY BE USED TO KEEP ANCHOR BOLTS ALIGNED DURING CONCRETE PLACEMENT.
6. FOUNDATIONS SHALL NOT BE INSTALLED IN THE CENTER OF A DRAINAGE DITCH. IF APPROVED BY THE ENGINEER, FOUNDATIONS MAY BE INSTALLED IN THE SIDE SLOPE OF A DRAINAGE DITCH. IN SUCH CASES, THE TOP OF THE FOUNDATION SHALL NOT BE PLACED IN THE FRONT SLOPE UNLESS THE ENGINEER DETERMINES THAT BACK SLOPE STABILITY IS NOT FEASIBLE.
7. A 24" MIN MINIMUM DEPTH OF COVER SHALL BE PROVIDED FOUNDATIONS TO PROTECT AGAINST FROST HEAVE. THE DEPTH OF COVER SHALL BE MEASURED FROM THE TOP OF FINISHED GRADE OR TOP OF UNPAVED SHOULDER SURFACE ADJACENT TO THE FOUNDATION.
8. IF POOR SOIL CONDITIONS OR HIGH WATER TABLE IS ENCOUNTERED DURING EXCAVATION, THE CONTRACTOR SHALL NOTIFY THE ENGINEER PRIOR TO PROCEEDING WITH FOUNDATION INSTALLATION.

SPECIFICATION REFERENCE	A COPY OF THE ORIGINAL SEALED AND SIGNED DRAWING IS ON FILE IN THE CENTRAL OFFICE.
700	LIGHTING POLE FOUNDATION INSTALLATION DETAILS VIRGINIA DEPARTMENT OF TRANSPORTATION

VDOT ROAD AND BRIDGE STANDARDS
REVISION DATE: 09/17
SHEET: 1 OF 2
TRN.02

2016 ROAD & BRIDGE STANDARDS

EC-5



NOTES
1. TYPE A SILT FENCE WILL HAVE WOODEN POSTS AND IS LIMITED TO FILL HEIGHTS OF 20 FEET OR LESS. TYPE B SILT FENCE WILL HAVE STEEL POSTS AND MUST BE USED WHERE THE FILL HEIGHT EXCEEDS 20 FEET.
2. WOODEN POSTS SHALL BE OAK AND HAVE NOMINAL DIMENSIONS OF 2" X 2". STEEL POSTS SHALL HAVE A MINIMUM WEIGHT OF 1.33 POUNDS PER LINEAR FOOT.
3. ALL POSTS SHALL BE DRIVEN 24" MIN INTO THE GROUND AND SHALL NOT BE SPACED MORE THAN 10 FEET APART.
4. GEOTEXTILE FABRIC SHALL BE EMBEDDED 6" INTO THE GROUND 6" VERTICALLY AND 6" HORIZONTALLY ALONG THE BOTTOM OF THE TRENCH (SEE DETAIL).
5. SLICING IS AN APPROVED ALTERNATIVE TO TRENCHING FOR ANCHORING THE GEOTEXTILE FABRIC INTO THE GROUND. SLICING SHALL BE ACCOMPLISHED IN ACCORDANCE WITH SECTION 303 OF THE ROAD AND BRIDGE SPECIFICATIONS.
6. WHEN TWO CONSECUTIVE SECTIONS OF GEOTEXTILE FABRIC MEURN EACH OTHER THEY SHALL OVERLAP BY 6" AND BE SOUNDLY FASTENED.
7. GEOTEXTILE FABRIC SHALL BE FASTENED SECURELY TO THE POSTS AT INTERVALS OF 6" MAX. USE STAPLES AT LEAST 1" LONG TO FASTEN FABRIC.
8. WHEN THE DISTANCE FROM THE TOE OF THE FILL TO THE FILL FENCE IS NOT PROVIDED IN THE PLANS, A MINIMUM OF 5 FEET WILL BE USED.
9. SPECIAL CARE SHALL BE TAKEN NOT TO DAMAGE THE GEOTEXTILE FABRIC DURING INSTALLATION.
10. THE GEOTEXTILE FABRIC FOR SILT FENCE SHALL BE FROM THE VDOT MATERIALS APPROVED LIST 83.

SPECIFICATION REFERENCE	A COPY OF THE ORIGINAL SEALED AND SIGNED DRAWING IS ON FILE IN THE CENTRAL OFFICE.
244 308	TEMPORARY SILT BARRIERS SILT FENCE (TYPE A & B) VIRGINIA DEPARTMENT OF TRANSPORTATION

VDOT ROAD AND BRIDGE STANDARDS
REVISION DATE: 04/20
SHEET: 1 OF 2
TEMP.07

2016 ROAD & BRIDGE STANDARDS

EC-3



NOTES:
1. SLOPE SURFACE SHALL BE SMOOTH AND FREE OF ROCKS LUMPS OF DIRT, DEBRIS AND STICKS. MAY SHALL BE PLACED FLAT ON SLOPE AS FOR PAPER SOIL STAKES.
2. STAKES SHALL BE WOOD OR METAL AS RECOMMENDED BY THE MANUFACTURER AND SHALL BE A MINIMUM OF 18" IN LENGTH.
3. ALL EC-3 MATERIALS SHALL BE IN ACCORDANCE WITH THE APPROVED PRODUCTS LIST.
4. FOR SOURCES OF APPROVED MATERIALS SEE VDOT'S APPROVED PRODUCTS LIST FOR STD EC-3 CATEGORY 1, 2, 3, 4.
5. SLOPES SHALL BE DOSED IMMEDIATELY PRIOR TO INSTALLATION
6. CHECK DAM SHALL NOT BE USED FOR LOCATIONS IN LIVE STREAM.

SPECIFICATION REFERENCE	A COPY OF THE ORIGINAL SEALED AND SIGNED DRAWING IS ON FILE IN THE CENTRAL OFFICE.
244 605	ROLLED EROSION CONTROL PRODUCT SOIL STABILIZATION MAT (PERMANENT SLOPE INSTALLATION VIRGINIA DEPARTMENT OF TRANSPORTATION

VDOT ROAD AND BRIDGE STANDARDS
REVISION DATE: 07/16
SHEET: 2 OF 3
EC-3

2016 ROAD & BRIDGE STANDARDS

GR-MGS4

NOTES:
1. HEIGHT TRANSITION FROM 31" OR MORE TO 27⅞" (29.5" NO. REQUIRE SPECIAL FABRICATION) OR 15 W-BEAM CRS (SEE ST 36 SHEET 2) TO A SINGLE 27⅞ W-BEAM WITH 5⅝" x 25½" SLOTTED HOLES AT 3'-1½" SPACING.
2. TRANSITION FROM 27⅞" W-BEAM TO 31" W-BEAM — THE OR-MGS3 STANDARD END LOCATES THE SPLICE IN THE 31" W-BEAM.
3. STANDARD 6 FOOT POSTS WILL BE USED UNLESS OTHERWISE NOTED ON PLANS.
4. STANDARD OR-MGS4 TRANSITION WILL BE PAID FOR AS EACH COMPLETE IN PLACE.
5. END TERMINAL WILL BE A VDOT APPROVED PRODUCT MEETING NCHRP 350 CRITERIA.
6. FOR IN-DEPTH DEPTH OF THE OR-MGS4 TRANSITION IN MOUNDED PLACES SEE STANDARD OR-MGS4 TERMINAL WHEN THE TERMINAL TIES DIRECTLY TO THE OR-MGS4 HEIGHT TRANSITION.

ITEM CODE 02888 GUARDRAIL HEIGHT TRANSITION OR-MGS4 EACH

SPECIFICATION REFERENCE	A COPY OF THE ORIGINAL SEALED AND SIGNED DRAWING IS ON FILE IN THE CENTRAL OFFICE.
226 606 609	MIDWEST GUARDRAIL SYSTEM (TRANSITION FROM MGS 31" HEIGHT TO GR-2 27¾" HEIGHT) VIRGINIA DEPARTMENT OF TRANSPORTATION

VDOT ROAD AND BRIDGE STANDARDS
REVISION DATE: 09/17
SHEET: 1 OF 1
SGR.05

2016 ROAD & BRIDGE STANDARDS

LF-1

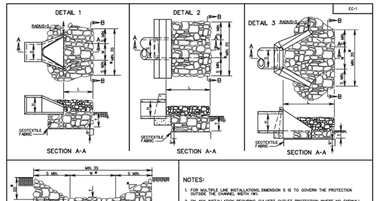
NOTES:
1. IF NEEDED IN SLOPED CONDITIONS TO MAINTAIN POSITIVE DRAINAGE AROUND THE FOUNDATION AND TO PROVIDE THE CLEARANCES SHOWN IN DETAIL B, THE CONTRACTOR SHALL RE-GRADE AND ADD RETAINING CURB AS DIRECTED BY THE ENGINEER. THE TYPE OF RETAINING CURB TO BE DESIGNED, RECOMMEND AND RETAINING CURB SHALL BE INCLUDED IN THE PRICE BID FOR FOUNDATION.
2. WHEN FOUNDATION IS ADJACENT TO THE BACK EDGE OF SIDEWALK, BUT NOT BEHIND THE SIDEWALK THE TOP OF THE FOUNDATION SHALL BE ELEVATED 2 INCHES MINIMUM ABOVE THE SIDEWALK GRADE.

SPECIFICATION REFERENCE	A COPY OF THE ORIGINAL SEALED AND SIGNED DRAWING IS ON FILE IN THE CENTRAL OFFICE.
700	LIGHTING POLE FOUNDATION INSTALLATION DETAILS VIRGINIA DEPARTMENT OF TRANSPORTATION

VDOT ROAD AND BRIDGE STANDARDS
SHEET: 2 OF 2
REVISION DATE: 07/18
TRN.01

2016 ROAD & BRIDGE STANDARDS

EC-1



TYPE OF OUTLET PROTECTION MATERIAL	MINIMUM OUTLET PROTECTION FOR DESIGN STORM	MINIMUM "T" UNDERD
CLASS AE	CLASS AE DRY RIPRAP	8 Sys	16
CLASS I	CLASS I DRY RIPRAP	10 Sys	24
CLASS II	CLASS II DRY RIPRAP	14 Sys	36

NOTES:
1. FOR TOE WALL INSTALLATION, DIMENSION X IS TO CONFORM TO THE DEPTH OF THE CHANNEL BOTTOM.
2. ON ANY INSTALLATIONS REQUIRING OUTLET PROTECTION WHERE AN ENDWALL OR PIPE OUTLET IS NOT SHOWN, THE CONTRACTOR SHALL CONSTRUCT A TOE WALL AS SPECIFIED.
3. GEOTEXTILE FABRIC TO BE INSTALLED UNDER CLASS AI, II AND III MATERIALS IN ACCORDANCE WITH THE SPECIFICATIONS.
4. * 1 - SHEETS IS CIRCULAR CULVERT OR PIPE FOR BOX CULVERTS OR ARCH CULVERT, USE THE WIDTH OF THE BARREL OR RISE/SPAN FOR BOX CULVERTS OR ARCH CULVERT.
5. FOR TYPICAL SECTION SHOWN ON PLANS FOR SIDE & SLOPE BOTTOM WIDTH AND DEPTH OF CHANNEL OR LIMITS OF RIPRAP PLACEMENT.

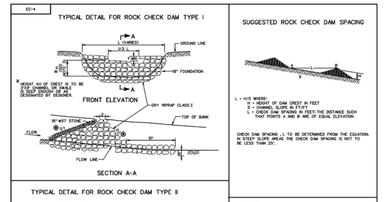
OUTLET PROTECTION MINIMUM LENGTH (L)	
TYPE I & II INSTALLATION	3H
TYPE III INSTALLATION	5H

SPECIFICATION REFERENCE	
245 414	CULVERT OUTLET PROTECTION VIRGINIA DEPARTMENT OF TRANSPORTATION

VDOT ROAD AND BRIDGE STANDARDS
REVISION DATE:
SHEET: 1 OF 1
10.02

2016 ROAD & BRIDGE STANDARDS

EC-4



NOTES:
1. ROCK CHECK DAMS THAT ARE DESIGNATED ON THE PLANS AS A TEMPORARY INSTALLATION SHALL BE REMOVED AND THE SITE LEFT IN PLACE AS A PERMANENT INSTALLATION.
2. WHERE DRAINAGE AREAS EXCEED 5 ACRE OR STEEP GRADE CONDITIONS EXIST, THE CONTRACTOR SHALL INSTALL ROCK CHECK DAMS WITH MINIMUM DIMENSIONS OF TOP-OF-FILL WIDTH OF 8' MINIMUM.
3. A. IF ROCK DAM IS LOCATED WHERE FLOW ZONE AND 45-DEGREE FLOW LINE INTERSECT, THE ROCK DAM SHALL BE CONSTRUCTED SO THAT NO STONE MATERIAL IS TO BE PLACED.
4. ALTERNATIVE MATERIAL TO BE ADDED'S SPEC 1157 MAY BE SUBSTITUTED FOR #1 COARSE AGGREGATE AT CONTRACTOR'S DISCRETION.
5. SEE STANDARD EC-3 FOR DETAILS FOR ROCK CHECK DAMS IN DRAINAGE DITCHES.
6. CHECK DAM SHALL NOT BE USED FOR LOCATIONS IN LIVE STREAM.

SPECIFICATION REFERENCE	
207 603	ROCK CHECK DAMS TYPE I & II VIRGINIA DEPARTMENT OF TRANSPORTATION

VDOT ROAD AND BRIDGE STANDARDS
REVISION DATE:
SHEET: 1 OF 1
10.06

2016 ROAD & BRIDGE STANDARDS

GR-MBW

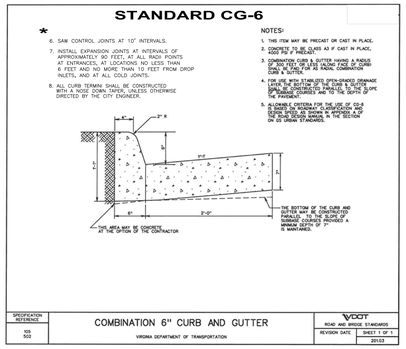
SPECIFICATION REFERENCE	
231 606	STANDARD GUARDRAIL HARDWARE W-BEAM GUARDRAIL HARDWARE VIRGINIA DEPARTMENT OF TRANSPORTATION

VDOT ROAD AND BRIDGE STANDARDS
SHEET: 2 OF 3
REVISION DATE:
SGR.02

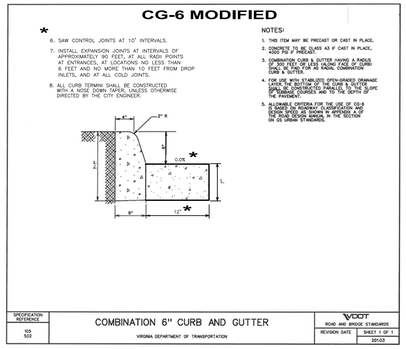
2016 ROAD & BRIDGE STANDARDS

EC-2

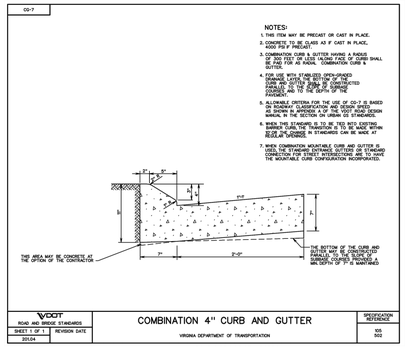
SEE SHEET EC-2 FOR DETAILS
CENTER ROW MAY BE STAGGERED UP TO 2" FROM ADJACENT ROW IF LESS THAN 4'-0"
3' MAX.
4:1 OR FLATTER
2 MAX.
STEEPER THAN 4:1
EDGE AND END JOINTS TO BE OVERLAPPED 3" MINIMUM

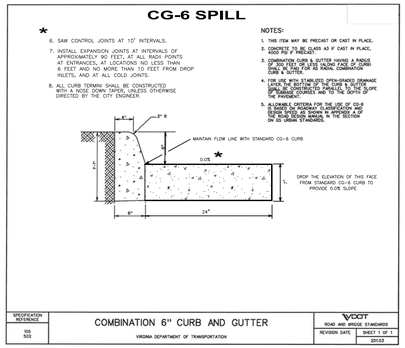


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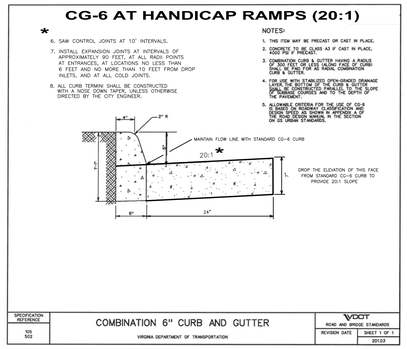


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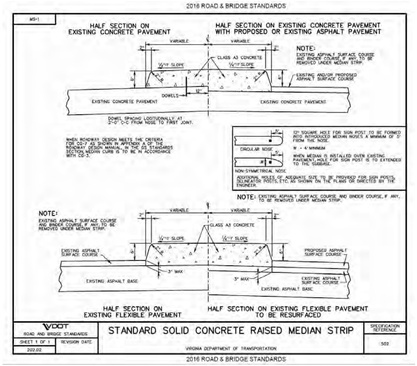




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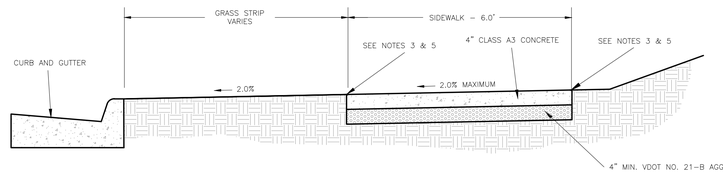


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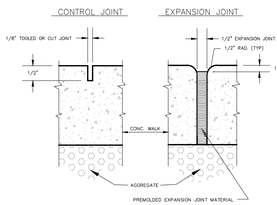


NOTES

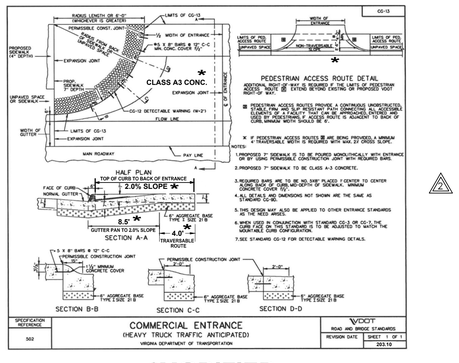
1. CONCRETE TO BE CLASS A3.
2. 1/8" TOOLED OR CUT CONTROL JOINTS AT 4' TO 6' INTERVALS.
3. 1/2" TOOLED EDGES ON SIDEWALK.
4. 1/2" PREMOLDED EXPANSION JOINT EVERY 100' (MIN.) LATERALLY.
5. 1/2" PREMOLDED EXPANSION JOINT CONTINUOUSLY ALONG FACE OF FIXED OBJECT (EXCEPT EXISTING CURB AND GUTTER AND NEW CG-2 CURB).
6. SIDEWALK TO BE BROOM FINISHED PERPENDICULAR TO PATH OF TRAVEL.



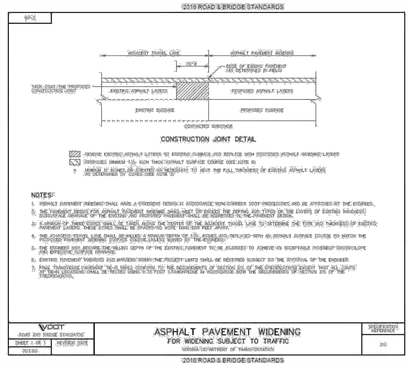
CONCRETE SIDEWALK

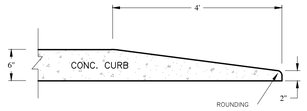


TYPICAL DETAIL OF SIDEWALK JOINTS

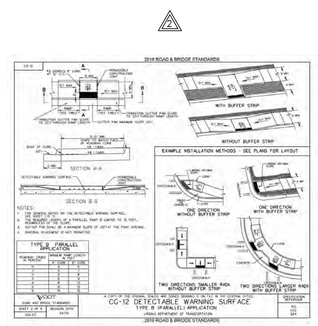


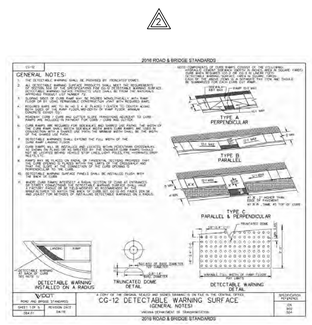
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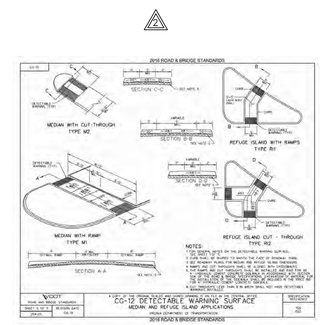




NOSE DOWN CURB







ADA COMPLIANCE NOTES

1. ALL PEDESTRIAN FACILITY CONSTRUCTION MUST COMPLY WITH THE ACCESSIBILITY STANDARDS IN THE ARCHITECTURAL BARRIERS ACT (ABA) OF 1968, THE REHABILITATION ACT OF 1973 (SECTION 504) , AND THE AMERICANS WITH DISABILITIES ACT (ADA) OF 1990.
2. ABSOLUTE MAXIMUM CROSS SLOPE IS 2.0% .
3. NO GAPS IN JOINTS GREATER THAN ½". ALL JOINTS SHOULD BE PERPENDICULAR OR DIAGONAL TO THE DOMINANT DIRECTION OF TRAVEL.
4. FIELD PERSONNEL MUST ENSURE THAT ANY GUTTER PAN SLOPE IS ADJUSTED IN THE CROSSWALK AREA FROM AN 8.3% (12:1) TO A MAXIMUM OF 5% (20:1).
5. PARALLEL RAMPS HAVE AT MINIMUM A LEVEL 5' X 5' LANDING AT THE BOTTOM OF THE RAMP. THE LENGTH OF A PARALLEL RAMP IS LIMITED TO 15' AFTER WHICH THE 8.33% (12:1) MAXIMUM SLOPE CAN BE WARPED TO MATCH THE ADJOINING ROADWAY GRADE.
6. TRUNCATED DOMES MUST BE PLACED AT THE BACK-OF-CURB AND EXTEND A MINIMUM OF 24 INCHES DEEP FOR THE ENTIRE WIDTH OF THE RAMP (EXCLUDING FLARE SIDES). RADIAL SECTIONS MUST BE FIELD-MODIFIED AS RECOMMENDED BY THE MANUFACTURER OR FACTORY FABRICATED TO MATCH THE BACK OF CURB RADIUS.
7. PEDESTRIAN SIGNALS PUSHBUTTONS ARE LOCATED NO HIGHER THAN 42" FROM THE GROUND AND WITHIN 24" REACH FROM A LEVEL LANDING WITH MINIMUM DIMENSIONS OF 30" X 48" (THIS LANDING IS INDICATED ON THE PLANS AS A 48:1 SLOPE AND TERMINATES AT THE LINE FOR THE RAMP).

CITY OF BRISTOL VIRGINIA
BRISTOL VA TENN GOOD PLACE TO LIVE

CITY OF
BRISTOL, VIRGINIA
300 LEE STREET
BRISTOL, VA 24201
(276) 645-7360

REVISIONS
DATE

COMMONWEALTH OF VIRGINIA
JACOB S. CHANDLER
Lic. No. 0402066571
PROFESSIONAL ENGINEER

COMMONWEALTH OF VIRGINIA
CHARLES C. BREWSTER
Lic. No. 002407
LAND SURVEYOR

WIDENING OF
LEE HIGHWAY PHASE - 1B
AND
I-81 EXIT 5 RAMPS
PROJECT 0011-102-728 UPC 105309

GENERAL
SPECIFICATIONS
AND DETAILS

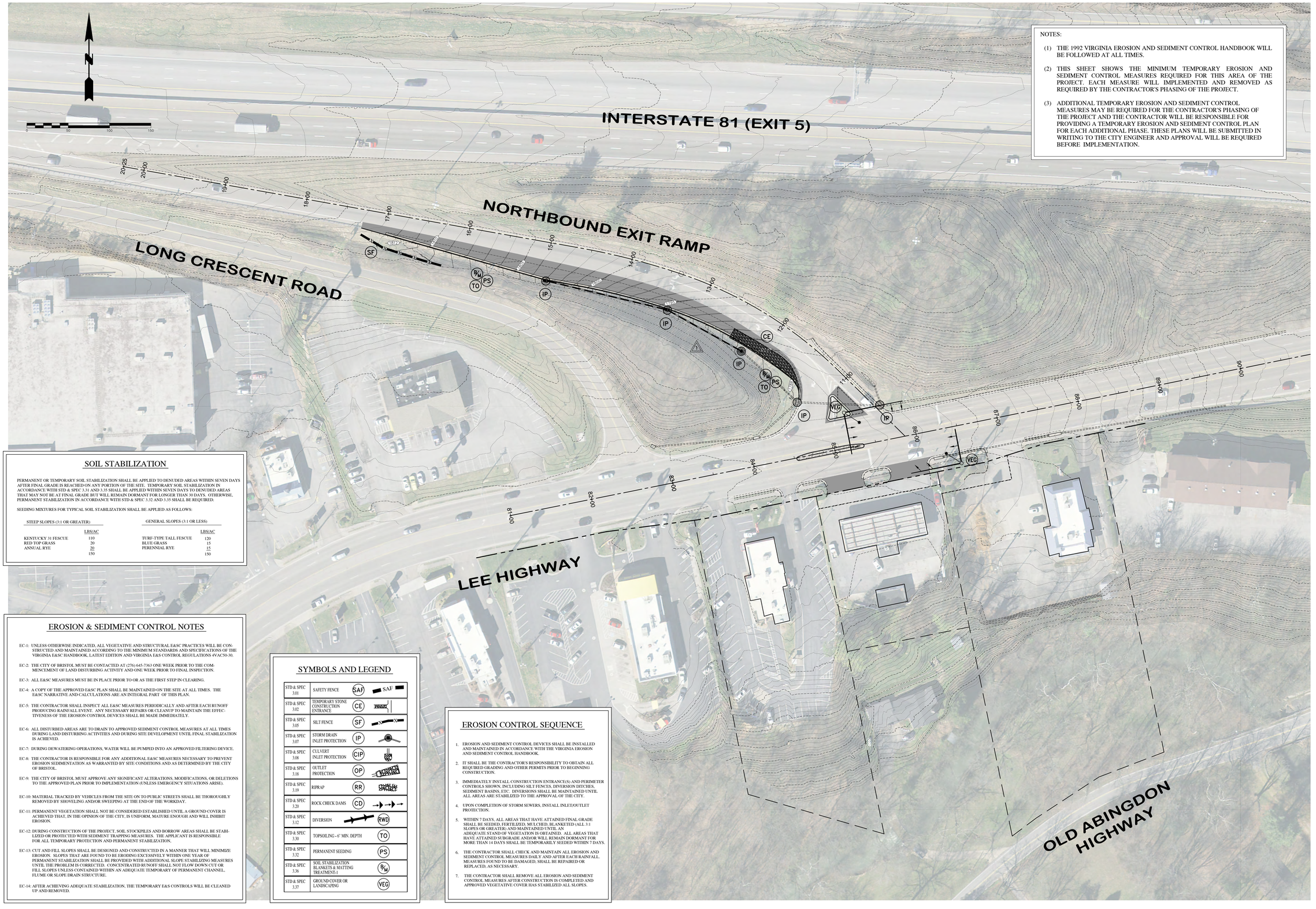
DATE:
JANUARY 2022

DRAWING NO.
T30-229

FILE NAME: LEE HIGHWAY EXIT 5 PHASE 1B RAMPS

LIMITED ACCESS HIGHWAY

BY RESOLUTION OF HIGHWAY COMMISSION
DATED Oct. 4, 1956



NOTES:

(1) THE 1992 VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK WILL BE FOLLOWED AT ALL TIMES.

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(3) ADDITIONAL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES MAY BE REQUIRED FOR THE CONTRACTOR'S PHASING OF THE PROJECT AND THE CONTRACTOR WILL BE RESPONSIBLE FOR PROVIDING A TEMPORARY EROSION AND SEDIMENT CONTROL PLAN FOR EACH ADDITIONAL PHASE. THESE PLANS WILL BE SUBMITTED IN WRITING TO THE CITY ENGINEER AND APPROVAL WILL BE REQUIRED BEFORE IMPLEMENTATION.

SOIL STABILIZATION

PERMANENT OR TEMPORARY SOIL STABILIZATION SHALL BE APPLIED TO DENUDED AREAS WITHIN SEVEN DAYS AFTER FINAL GRADE IS REACHED ON ANY PORTION OF THE SITE. TEMPORARY SOIL STABILIZATION IN ACCORDANCE WITH STD & SPEC 3.31 AND 3.35 SHALL BE APPLIED WITHIN SEVEN DAYS TO DENUDED AREAS THAT MAY NOT BE AT FINAL GRADE BUT WILL REMAIN DORMANT FOR LONGER THAN 30 DAYS. OTHERWISE, PERMANENT STABILIZATION IN ACCORDANCE WITH STD & SPEC 3.32 AND 3.35 SHALL BE REQUIRED.

SEEDING MIXTURES FOR TYPICAL SOIL STABILIZATION SHALL BE APPLIED AS FOLLOWS:

STEEP SLOPES (3:1 OR GREATER)	LBS/AC	GENERAL SLOPES (3:1 OR LESS)	LBS/AC
KENTUCKY 31 FESCUE	110	TURF-TYPE TALL FESCUE	120
RED TOP GRASS	20	BLUE GRASS	15
ANNUAL RYE	20	PERENNIAL RYE	15
	150		150

EROSION & SEDIMENT CONTROL NOTES

EC-1: UNLESS OTHERWISE INDICATED, ALL VEGETATIVE AND STRUCTURAL E&SC PRACTICES WILL BE CONSTRUCTED AND MAINTAINED ACCORDING TO THE MINIMUM STANDARDS AND SPECIFICATIONS OF THE VIRGINIA E&SC HANDBOOK, LATEST EDITION AND VIRGINIA E&S CONTROL REGULATIONS 4VAC50-30.

EC-2: THE CITY OF BRISTOL MUST BE CONTACTED AT (276) 645-7363 ONE WEEK PRIOR TO THE COMMENCEMENT OF LAND DISTURBING ACTIVITY AND ONE WEEK PRIOR TO FINAL INSPECTION.

EC-3: ALL E&SC MEASURES MUST BE IN PLACE PRIOR TO OR AS THE FIRST STEP IN CLEARING.

EC-4: A COPY OF THE APPROVED E&SC PLAN SHALL BE MAINTAINED ON THE SITE AT ALL TIMES. THE E&SC NARRATIVE AND CALCULATIONS ARE AN INTEGRAL PART OF THIS PLAN.

EC-5: THE CONTRACTOR SHALL INSPECT ALL E&SC MEASURES PERIODICALLY AND AFTER EACH RUNOFF PRODUCING RAINFALL EVENT. ANY NECESSARY REPAIRS OR CLEANUP TO MAINTAIN THE EFFECTIVENESS OF THE EROSION CONTROL DEVICES SHALL BE MADE IMMEDIATELY.

EC-6: ALL DISTURBED AREAS ARE TO DRAIN TO APPROVED SEDIMENT CONTROL MEASURES AT ALL TIMES DURING LAND DISTURBING ACTIVITIES AND DURING SITE DEVELOPMENT UNTIL FINAL STABILIZATION IS ACHIEVED.

EC-7: DURING DEWATERING OPERATIONS, WATER WILL BE PUMPED INTO AN APPROVED FILTERING DEVICE.

EC-8: THE CONTRACTOR IS RESPONSIBLE FOR ANY ADDITIONAL E&SC MEASURES NECESSARY TO PREVENT EROSION SEDIMENTATION AS WARRANTED BY SITE CONDITIONS AND AS DETERMINED BY THE CITY OF BRISTOL.

EC-9: THE CITY OF BRISTOL MUST APPROVE ANY SIGNIFICANT ALTERATIONS, MODIFICATIONS, OR DELETIONS TO THE APPROVED PLAN PRIOR TO IMPLEMENTATION (UNLESS EMERGENCY SITUATIONS ARISE).

EC-10: MATERIAL TRACKED BY VEHICLES FROM THE SITE ON TO PUBLIC STREETS SHALL BE THOROUGHLY REMOVED BY SHOVELING AND/OR SWEEPING AT THE END OF THE WORKDAY.

EC-11: PERMANENT VEGETATION SHALL NOT BE CONSIDERED ESTABLISHED UNTIL A GROUND COVER IS ACHIEVED THAT, IN THE OPINION OF THE CITY, IS UNIFORM, MATURE ENOUGH AND WILL INHIBIT EROSION.

EC-12: DURING CONSTRUCTION OF THE PROJECT, SOIL STOCKPILES AND BORROW AREAS SHALL BE STABILIZED OR PROTECTED WITH SEDIMENT TRAPPING MEASURES. THE APPLICANT IS RESPONSIBLE FOR ALL TEMPORARY PROTECTION AND PERMANENT STABILIZATION.

EC-13: CUT AND FILL SLOPES SHALL BE DESIGNED AND CONSTRUCTED IN A MANNER THAT WILL MINIMIZE EROSION. SLOPES THAT ARE FOUND TO BE ERODING EXCESSIVELY WITHIN ONE YEAR OF PERMANENT STABILIZATION SHALL BE PROVIDED WITH ADDITIONAL SLOPE STABILIZING MEASURES UNTIL THE PROBLEM IS CORRECTED. CONCENTRATED RUNOFF SHALL NOT FLOW DOWN CUT OR FILL SLOPES UNLESS CONTAINED WITHIN AN ADEQUATE TEMPORARY OF PERMANENT CHANNEL, FLUME OR SLOPE DRAIN STRUCTURE.

EC-14: AFTER ACHIEVING ADEQUATE STABILIZATION, THE TEMPORARY E&S CONTROLS WILL BE CLEANED UP AND REMOVED.

SYMBOLS AND LEGEND

STD & SPEC 3.01	SAFETY FENCE	SAF
STD & SPEC 3.02	TEMPORARY STONE CONSTRUCTION ENTRANCE	CE
STD & SPEC 3.05	SILT FENCE	SF
STD & SPEC 3.07	STORM DRAIN INLET PROTECTION	IP
STD & SPEC 3.08	CULVERT INLET PROTECTION	CIP
STD & SPEC 3.18	OUTLET PROTECTION	OP
STD & SPEC 3.19	RIPRAP	RR
STD & SPEC 3.20	ROCK CHECK DAMS	CD
STD & SPEC 3.12	DIVERSION	RWD
STD & SPEC 3.30	TOPSOILING - 6" MIN. DEPTH	TO
STD & SPEC 3.32	PERMANENT SEEDING	PS
STD & SPEC 3.36	SOIL STABILIZATION BLANKETS & MATTING TREATMENT-1	BM
STD & SPEC 3.37	GROUND COVER OR LANDSCAPING	VEG

EROSION CONTROL SEQUENCE

1. EROSION AND SEDIMENT CONTROL DEVICES SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK.
2. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN ALL REQUIRED GRADING AND OTHER PERMITS PRIOR TO BEGINNING CONSTRUCTION.
3. IMMEDIATELY INSTALL CONSTRUCTION ENTRANCE(S) AND PERIMETER CONTROLS SHOWN, INCLUDING SILT FENCES, DIVERSION DITCHES, SEDIMENT BASINS, ETC. DIVERSIONS SHALL BE MAINTAINED UNTIL ALL AREAS ARE STABILIZED TO THE APPROVAL OF THE CITY.
4. UPON COMPLETION OF STORM SEWERS, INSTALL INLET/OUTLET PROTECTION.
5. WITHIN 7 DAYS, ALL AREAS THAT HAVE ATTAINED FINAL GRADE SHALL BE SEEDED, FERTILIZED, MULCHED, BLANKETED (ALL 3:1 SLOPES OR GREATER) AND MAINTAINED UNTIL AN ADEQUATE STAND OF VEGETATION IS OBTAINED. ALL AREAS THAT HAVE ATTAINED SUBGRADE AND/OR WILL REMAIN DORMANT FOR MORE THAN 14 DAYS SHALL BE TEMPORARILY SEEDED WITHIN 7 DAYS.
6. THE CONTRACTOR SHALL CHECK AND MAINTAIN ALL EROSION AND SEDIMENT CONTROL MEASURES DAILY AND AFTER EACH RAINFALL. MEASURES FOUND TO BE DAMAGED, SHALL BE REPAIRED OR REPLACED, AS NECESSARY.
7. THE CONTRACTOR SHALL REMOVE ALL EROSION AND SEDIMENT CONTROL MEASURES AFTER CONSTRUCTION IS COMPLETED AND APPROVED VEGETATIVE COVER HAS STABILIZED ALL SLOPES.

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DATE	REVISIONS
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EROSION AND SEDIMENT
PLAN AND GRADING PLAN

DATE:
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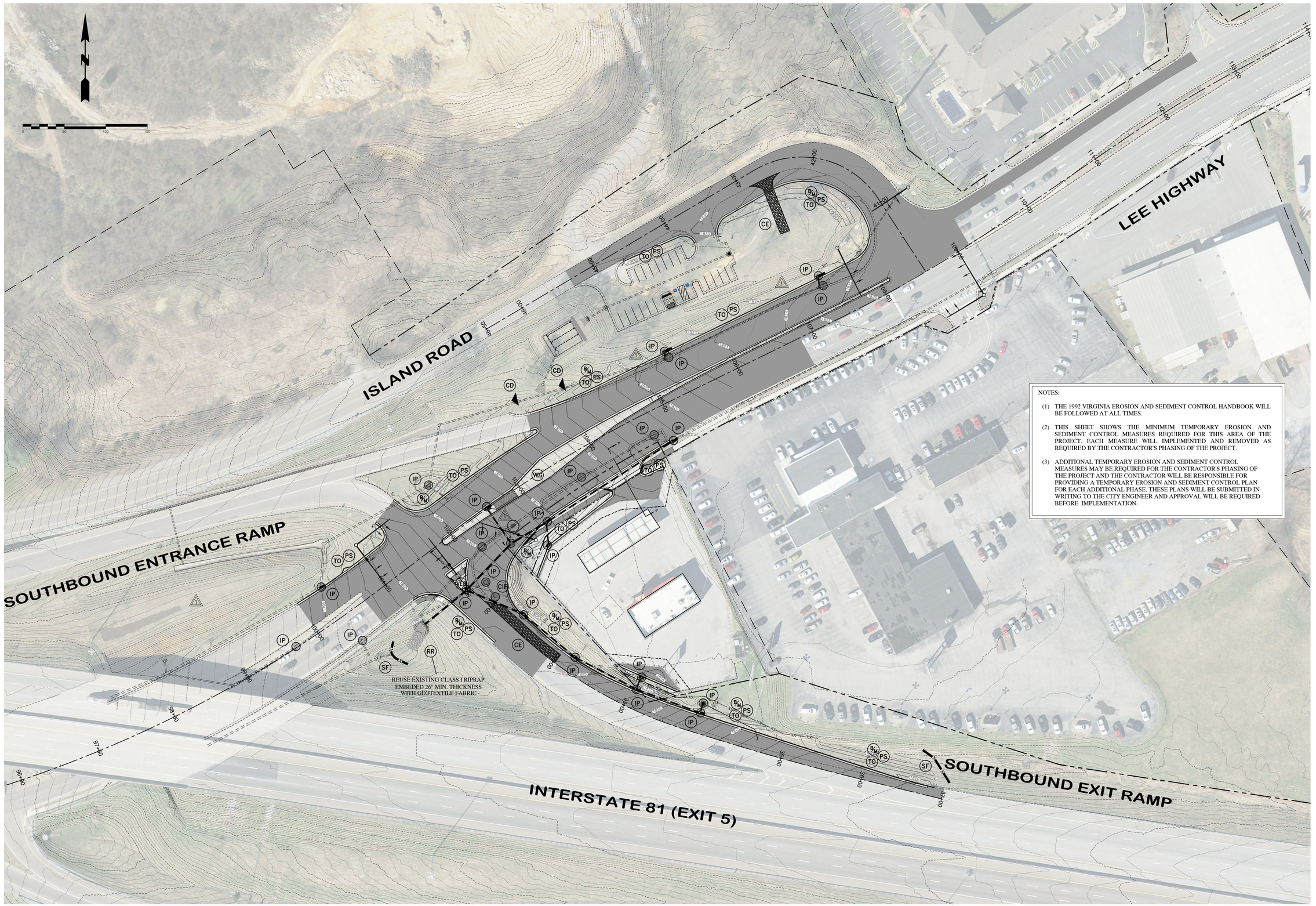
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FILE NAME: LEE HIGHWAY
EXIT 5 PHASE 1B RAMPS

SHEET NUMBER
4.1 OF 10

LIMITED ACCESS HIGHWAY

BY RESOLUTION OF HIGHWAY COMMISSION
DATED Oct. 4, 1956



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EXIT 5 PHASE 1B RAMPS

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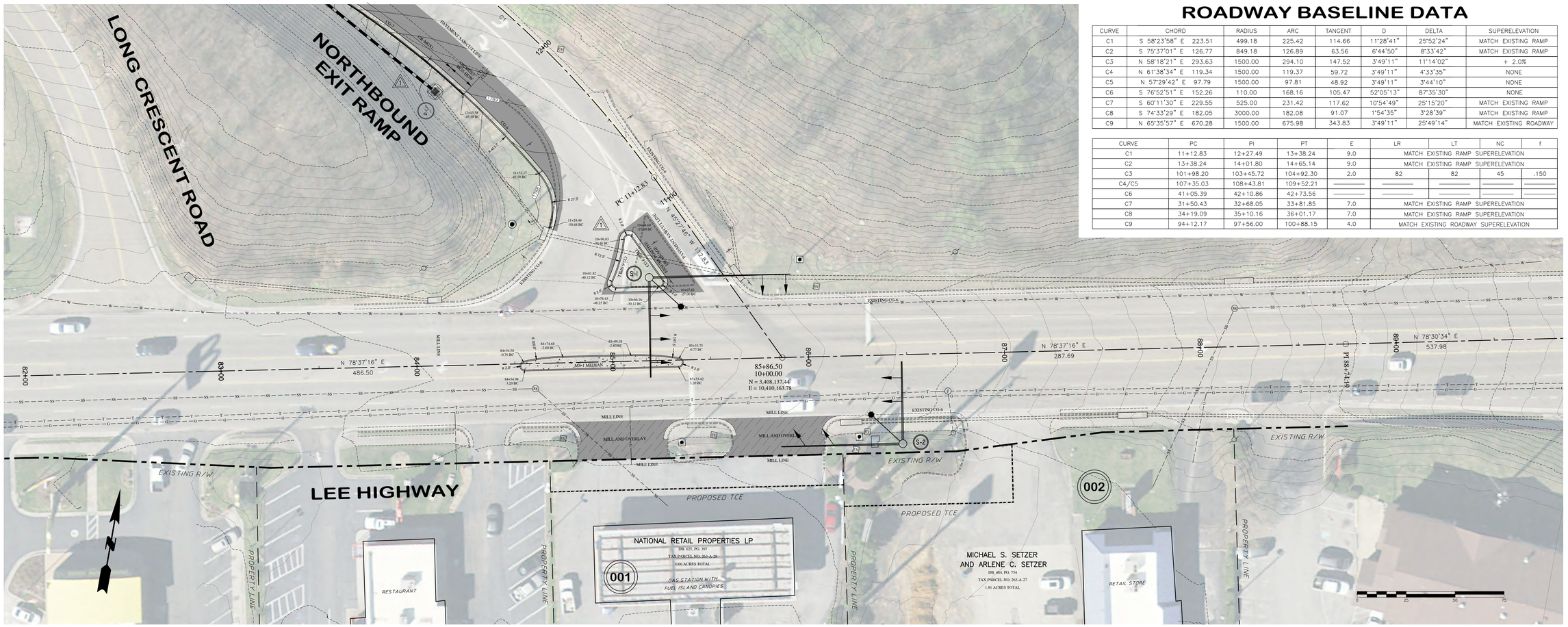
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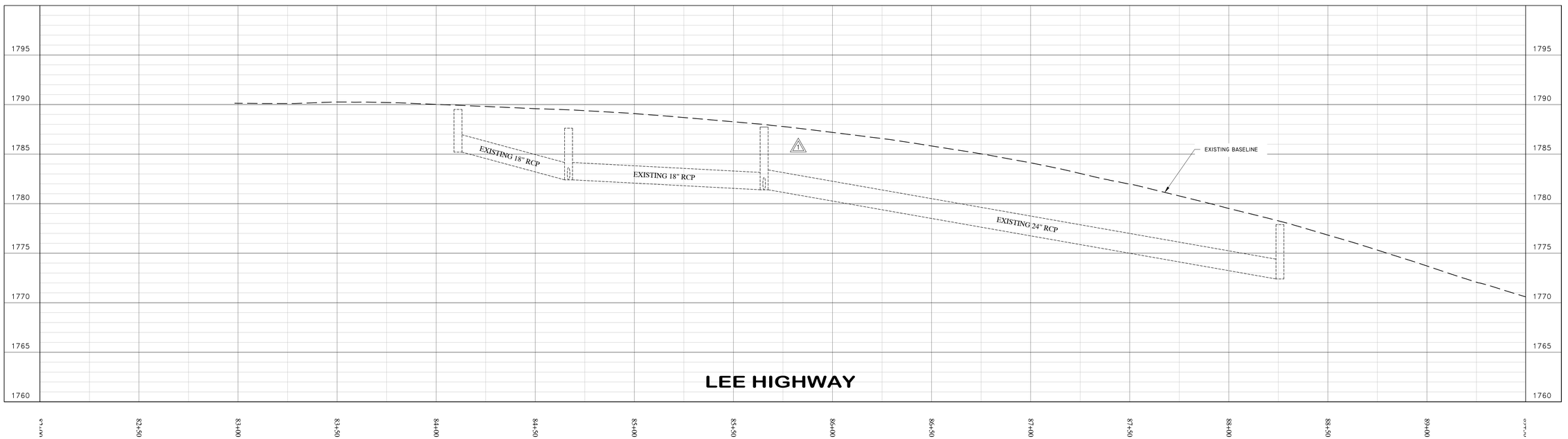
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ROADWAY BASELINE DATA

CURVE	CHORD	RADIUS	ARC	TANGENT	D	DELTA	SUPERELEVATION
C1	S 58°23'58" E 223.51	499.18	225.42	114.66	11°28'41"	25°52'24"	MATCH EXISTING RAMP
C2	S 75°37'01" E 126.77	849.18	126.89	63.56	6°44'50"	8°33'42"	MATCH EXISTING RAMP
C3	N 58°18'21" E 293.63	1500.00	294.10	147.52	3°49'11"	11°14'02"	+ 2.0%
C4	N 61°38'34" E 119.34	1500.00	119.37	59.72	3°49'11"	4°33'35"	NONE
C5	N 57°29'42" E 97.79	1500.00	97.81	48.92	3°49'11"	3°44'10"	NONE
C6	S 76°52'51" E 152.26	110.00	168.16	105.47	52°05'13"	87°35'30"	NONE
C7	S 60°11'30" E 229.55	525.00	231.42	117.62	10°54'49"	25°15'20"	MATCH EXISTING RAMP
C8	S 74°33'29" E 182.05	3000.00	182.08	91.07	1°54'35"	3°28'39"	MATCH EXISTING RAMP
C9	N 65°35'57" E 670.28	1500.00	675.98	343.83	3°49'11"	25°49'14"	MATCH EXISTING ROADWAY

CURVE	PC	PI	PT	E	LR	LT	NC	f
C1	11+12.83	12+27.49	13+38.24	9.0	MATCH EXISTING RAMP SUPERELEVATION			
C2	13+38.24	14+01.80	14+65.14	9.0	MATCH EXISTING RAMP SUPERELEVATION			
C3	101+98.20	103+45.72	104+92.30	2.0	82	82	45	.150
C4/C5	107+35.03	108+43.81	109+52.21	———	———	———	———	———
C6	41+05.39	42+10.86	42+73.56	———	———	———	———	———
C7	31+50.43	32+68.05	33+81.85	7.0	MATCH EXISTING RAMP SUPERELEVATION			
C8	34+19.09	35+10.16	36+01.17	7.0	MATCH EXISTING RAMP SUPERELEVATION			
C9	94+12.17	97+56.00	100+88.15	4.0	MATCH EXISTING ROADWAY SUPERELEVATION			





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REVISIONS

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COMMONWEALTH OF VIRGINIA
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WIDENING OF
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AND
I-81 EXIT 5 RAMPS
PROJECT 0011-102-728 UPC 105309

LEE HIGHWAY
Sta. 84+00 to Sta. 89+00

DATE:
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DRAWING NO.
T30-229

FILE NAME: LEE HIGHWAY EXIT 5 PHASE 1B RAMPS

SHEET NUMBER
5.1 OF 10

LIMITED ACCESS HIGHWAY

BY RESOLUTION OF HIGHWAY COMMISSION
DATED Oct. 4, 1956

SOUTHBOUND ENTRANCE RAMP

VERIFY THAT REQUIRED PAVEMENT DESIGN DEPTHS WILL BE OBTAINED IN THIS AREA IF MILLED TO PROPOSED GRADES - IF NOT FULL DEPTH PAVEMENT REPLACEMENT INSTALLATION WILL BE REQUIRED

MATCH LINE

RAISE GRATE OF EXISTING DROP INLET 2.0'

RESET THROAT

LEE HIGHWAY

SOUTHBOUND EXIT RAMP

EXISTING R/W

PROPOSED R/W

PROPOSED TCE

D-902 LIGHT POLE

D-903 LIGHT POLE

D-904 SERVICE CENTER
VACUUM, AIR PUMP, SIGN, AND HOSE BIB

D-2 SIGN

FUEL ISLAND CANOPY

END LIMITED ACCESS LINE
+08.92
62.71 LT

BILL R. LESTER
AND JOANN LESTER
DB. 293, PG. 176
TAX PARCEL NO. 224-A-33/34
1.24 ACRES TOTAL

003

STRUCTURES D-1, D-2, D-901, D-902, D-903, AND D-904 ARE TO BE REMOVED AND DISPOSED OF BY CONTRACTOR

SECTION A-A

PROPOSED PAVEMENT | CG-13 ENTEANCE | PROPOSED PAVEMENT | EXISTING PAVEMENT

-2.00% | -8.33% | 8.13% | 0.99% | -1.21% | -5.28%

SUPERELEVATION OF EXISTING REVERSE CURVE | LR = 82' | LR = 82' | 2% SUPERELEVATION

PROPOSED EDGE OF WESTBOUND THRU LANE
PROPOSED BASELINE
EXISTING BASELINE
PROPOSED EDGE OF EASTBOUND THRU LANE

ADJUST FRAME AND COVER TO ROADWAY RIM = 1795.78

A-1.1 EW-1 STA. 101+08.5 66.6 RT

ADJUST FRAME AND COVER TO ROADWAY RIM = 1811.82

ADJUST FRAME AND COVER TO ROADWAY RIM = 1810.66

5.52%

18" RCP | 24" RCP | 6" PVC | 15" RCP | EXISTING SEWER LINE

STA = 100+00.00
ELEV = 1793.64

EXISTING 24" RCP

A-1.2 DI-3B CENTER OF BASE STA. 101+73.7 64.4 RT

EXISTING TELEPHONE CONDUIT COORDINATE CROSSING WITH CENTURYLINK

B-2.30 MH-2 STA. 102+52.6 51.3 RT

B-2.34 DI-3B STA. 102+53.1 0.6 LT

B-2.31 DI-3B CENTER OF BASE STA. 103+03.5 54.2 RT

MATCH LINE

LEE HIGHWAY

CITY OF BRISTOL VA TENN GOOD PLACE TO LIVE VIRGINIA

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DATE	REVISIONS
11-15-21	4 REVISED LAYOUT OF NORTHBOUND EXIT RAMP AND LEE HIGHWAY / ISLAND ROAD INTERSECTION ALSO REMOVED BIORETENTION POND AND RELATED STORM DRAINAGE PIPES

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LEE HIGHWAY
Sta. 98+00 to Sta. 104+00

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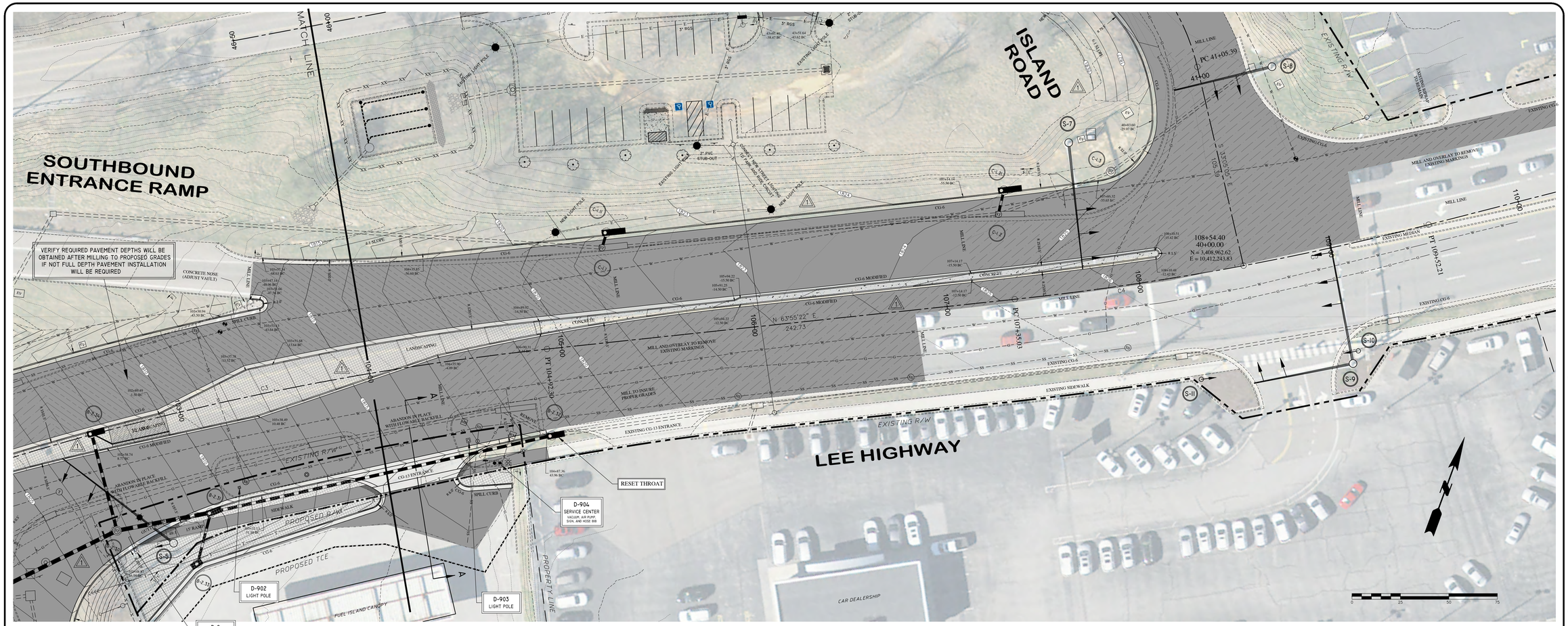
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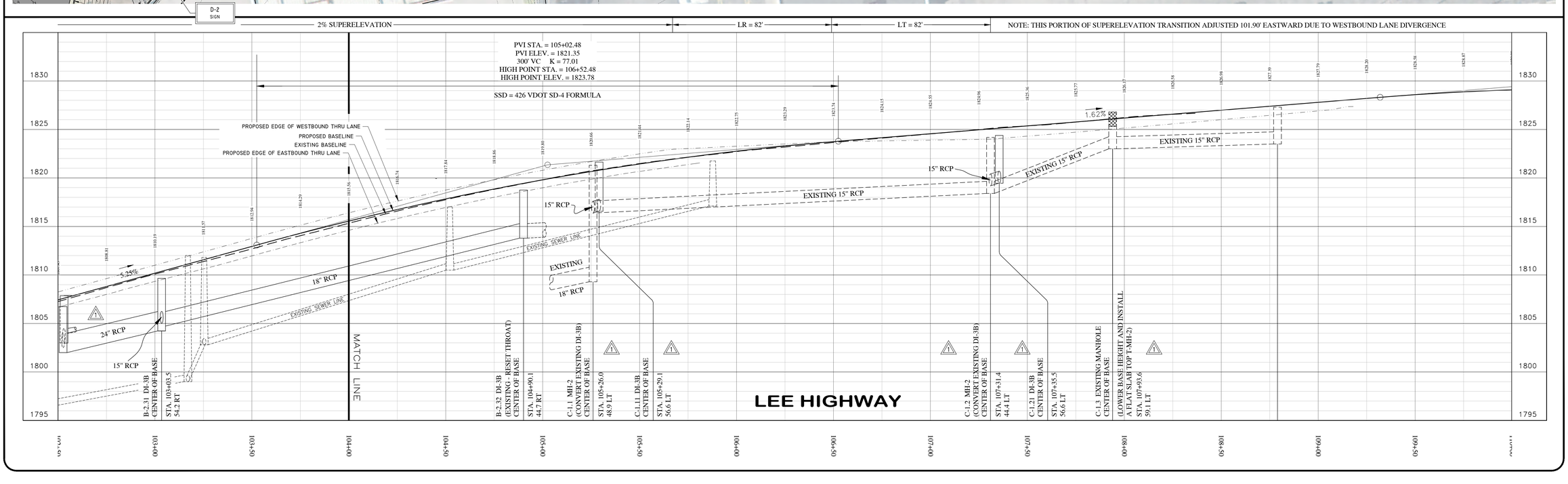
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SHEET NUMBER
5.2 OF 10

LIMITED ACCESS HIGHWAY

BY RESOLUTION OF HIGHWAY COMMISSION
DATED Oct. 4, 1956





CITY OF BRISTOL VIRGINIA
BRISTOL VA TENN
GOOD PLACE TO LIVE

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LEE HIGHWAY
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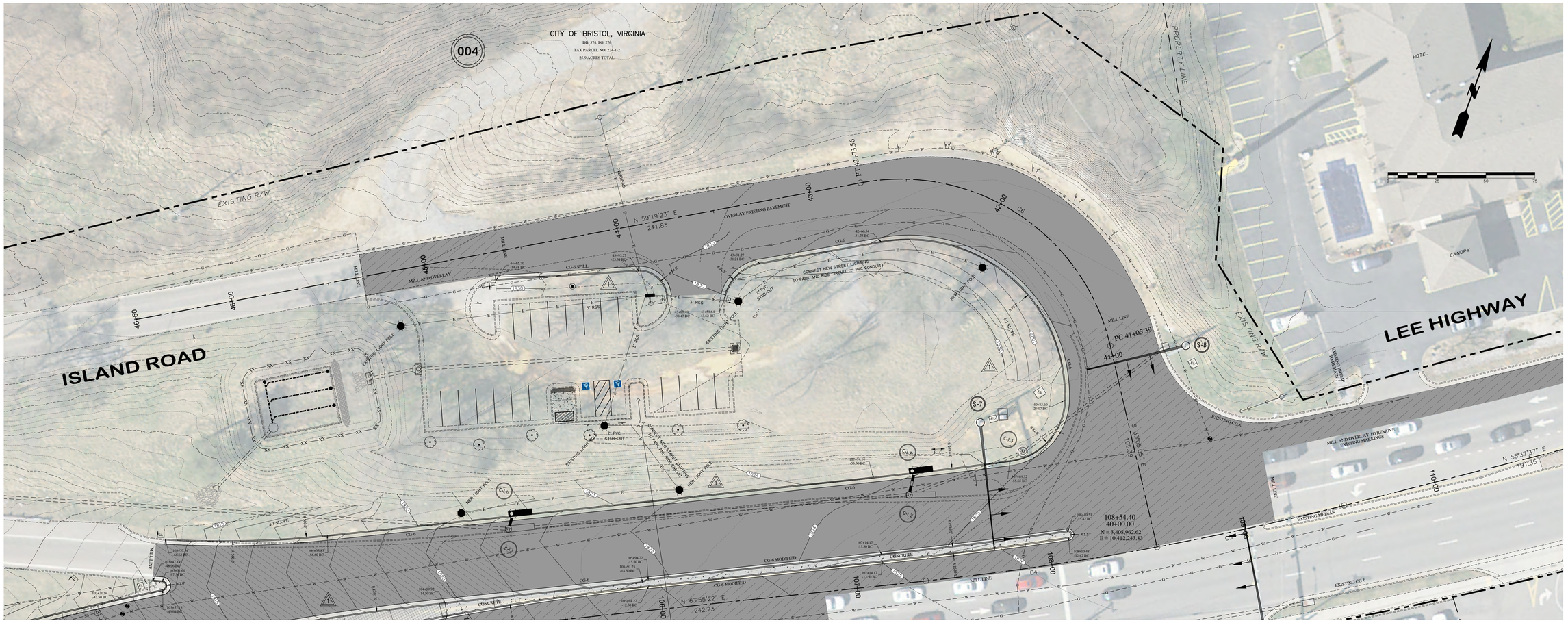
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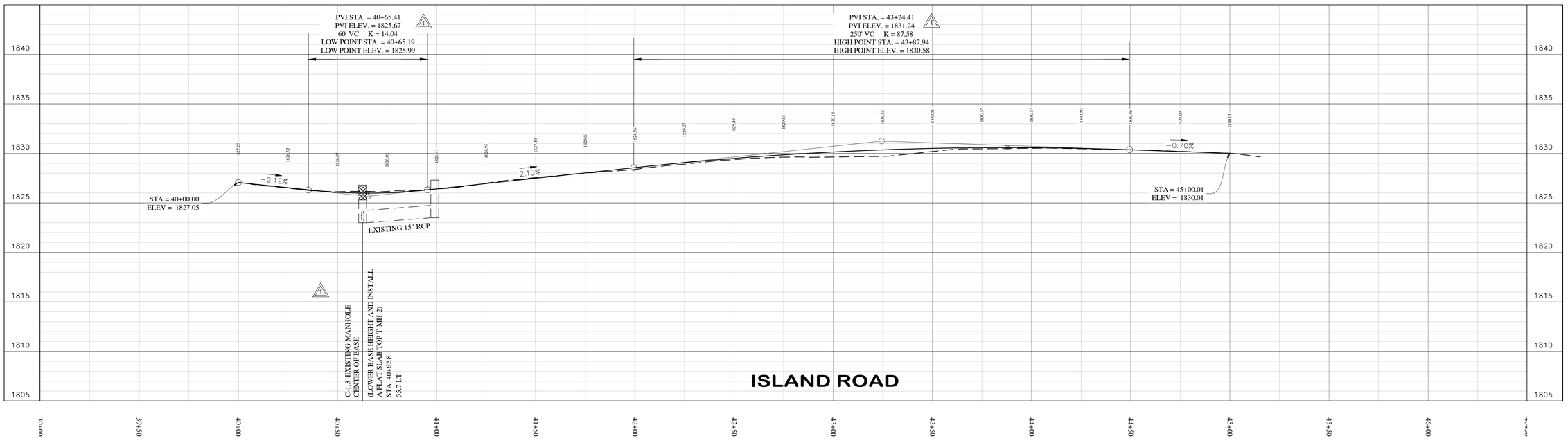
FILE NAME: LEE HIGHWAY EXIT 5 PHASE 1B RAMPS

SHEET NUMBER
5.3 OF 10

LIMITED ACCESS HIGHWAY

BY RESOLUTION OF HIGHWAY COMMISSION
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ISLAND ROAD
Sta. 40+00 to Sta. 45+50

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PROPOSED R/W

PROPOSED TCE

BILL R. LESTER
AND JOANN LESTER
DB. 293, PG. 176
TAX PARCEL NO. 72-A-33(3)
1.24 ACRES TOTAL

003

D-902
LIGHT POLE

PROPOSED R/W

D-2
SIGN

STRUCTURES D-1, D-2, D-901, D-902, D-903, AND D-904 ARE TO BE REMOVED AND DISPOSED OF BY CONTRACTOR

RAISE GRATE OF EXISTING DROP INLET 2.0'

RELOCATE VDOT ELECTRICAL CIRCUITS ALONG RAMP - SEE SHEET 6.4

SUBSIDENCE REPAIR AREA NO. 1
VDOT SOIL SURVEY AND GEOLOGY REPORT

D-901
LIGHT POLE

D-1
SIGN

EXISTING R/W AND LIMITED ACCESS LINE

PROPOSED R/W AND LIMITED ACCESS LINE

PROPOSED TCE

PROPERTY LINE

EXISTING R/W

VDOT LAND USE PERMIT 303-50948

RELOCATE VDOT ELECTRICAL CIRCUITS ALONG RAMP - SEE SHEET 6.4

101+66.68
30+00.00
N = 7408,625.87
E = 10,411,645.88

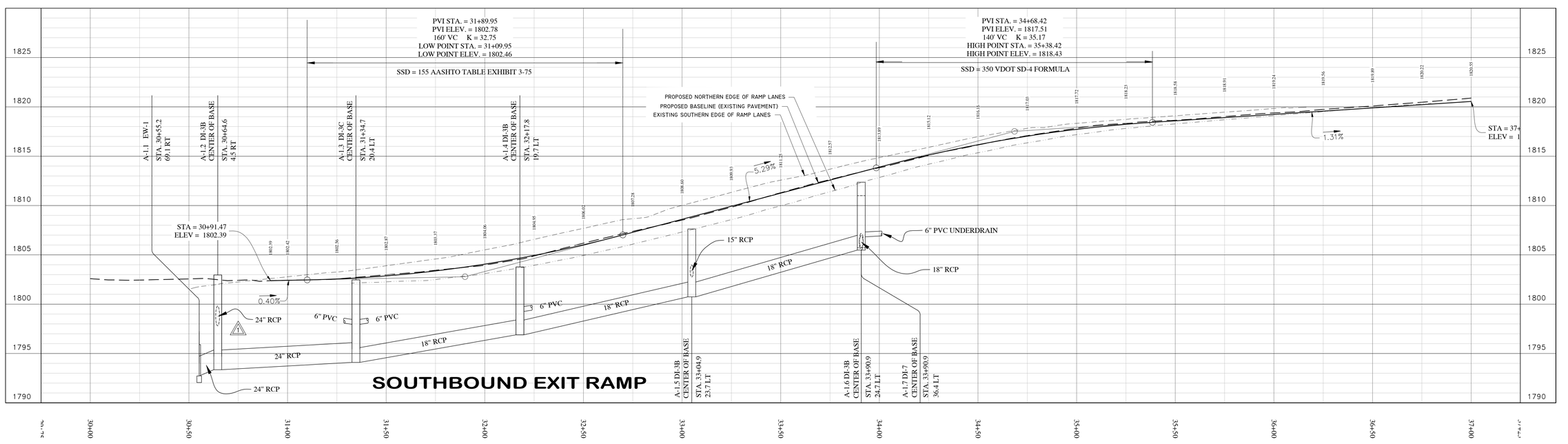
N 52°41'26" E
78.53

N 52°41'26" E
473.50

LEE HIGHWAY

SOUTHBOUND EXIT RAMP

INTERSTATE 81



REVISIONS	DATE
REVISED LAYOUT OF NORTHBOUND EXIT RAMP AND LEE HIGHWAY / ISLAND ROAD INTERSECTION ALSO REMOVED BIORETENTION POND AND RELATED STORM DRAINAGE PIPES	11-15-21

CITY OF
BRISTOL, VIRGINIA
300 LEE STREET
BRISTOL, VA 24201
(276) 645-7360

JACOB S. CHANDLER
Lic. No. 0402066571
PROFESSIONAL ENGINEER
COMMONWEALTH OF VIRGINIA

CHARLES C. BREWSTER
Lic. No. 002107
LAND SURVEYOR
COMMONWEALTH OF VIRGINIA

WIDENING OF
LEE HIGHWAY PHASE - 1B
AND
I-81 EXIT 5 RAMPS
PROJECT 0011-102-728 UPC 105309

I-81 EXIT 5
SOUTHBOUND EXIT RAMP
Sta. 30+00 to Sta. 37+00

DATE:
JANUARY 2022

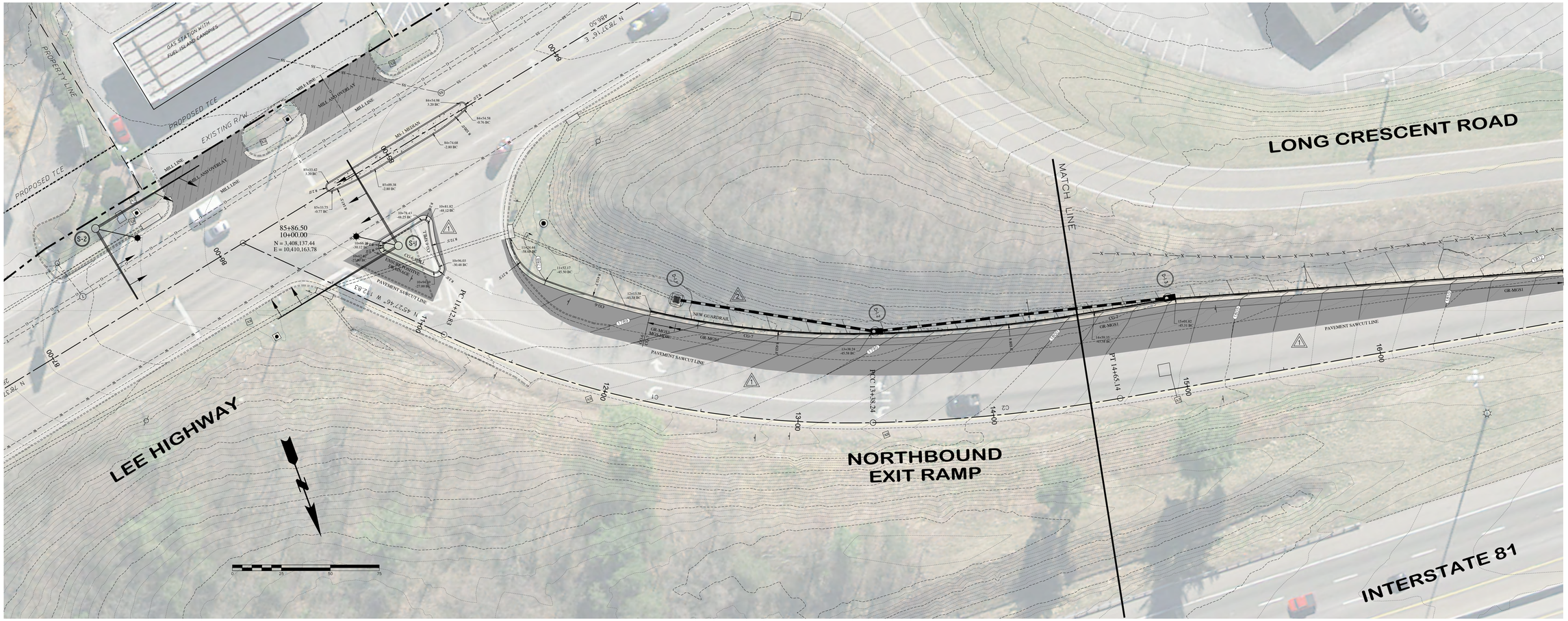
DRAWING NO.
T30-229

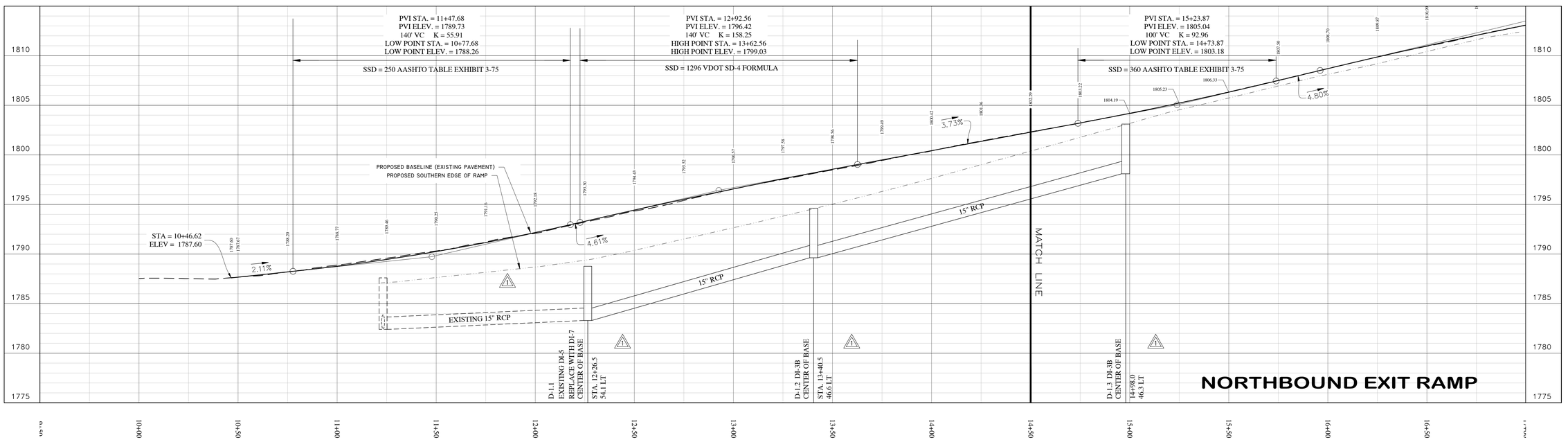
FILE NAME: LEE HIGHWAY EXIT 5 PHASE 1B RAMPS

SHEET NUMBER
5.5 OF 10

LIMITED ACCESS HIGHWAY

BY RESOLUTION OF HIGHWAY COMMISSION
DATED Oct. 4, 1956





CITY OF BRISTOL
VA TENN
BRISTOL
GOOD PLACE TO LIVE
VIRGINIA

CITY OF
BRISTOL, VIRGINIA
300 LEE STREET
BRISTOL, VA 24201
(276) 645-7360

REVISIONS

DATE	
11-15-21	1 REVISED LAYOUT OF NORTHBOUND EXIT RAMP, AND LEE HIGHWAY / ISLAND ROAD INTERSECTION ALSO REMOVED BIORETENTION POND AND RELATED STORM DRAINAGE PIPES

COMMONWEALTH OF VIRGINIA
JACOB S. CHANDLER
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PROFESSIONAL ENGINEER

COMMONWEALTH OF VIRGINIA
CHARLES C. BREWSTER
Lic. No. 002407
LAND SURVEYOR

WIDENING OF
LEE HIGHWAY PHASE - 1B
AND
I-81 EXIT 5 RAMPS
PROJECT 0011-102-728 UPC 105309

I-81 EXIT 5
NORTHBOUND EXIT RAMP
Sta. 10+00 to Sta. 15+00

DATE:
JANUARY 2022

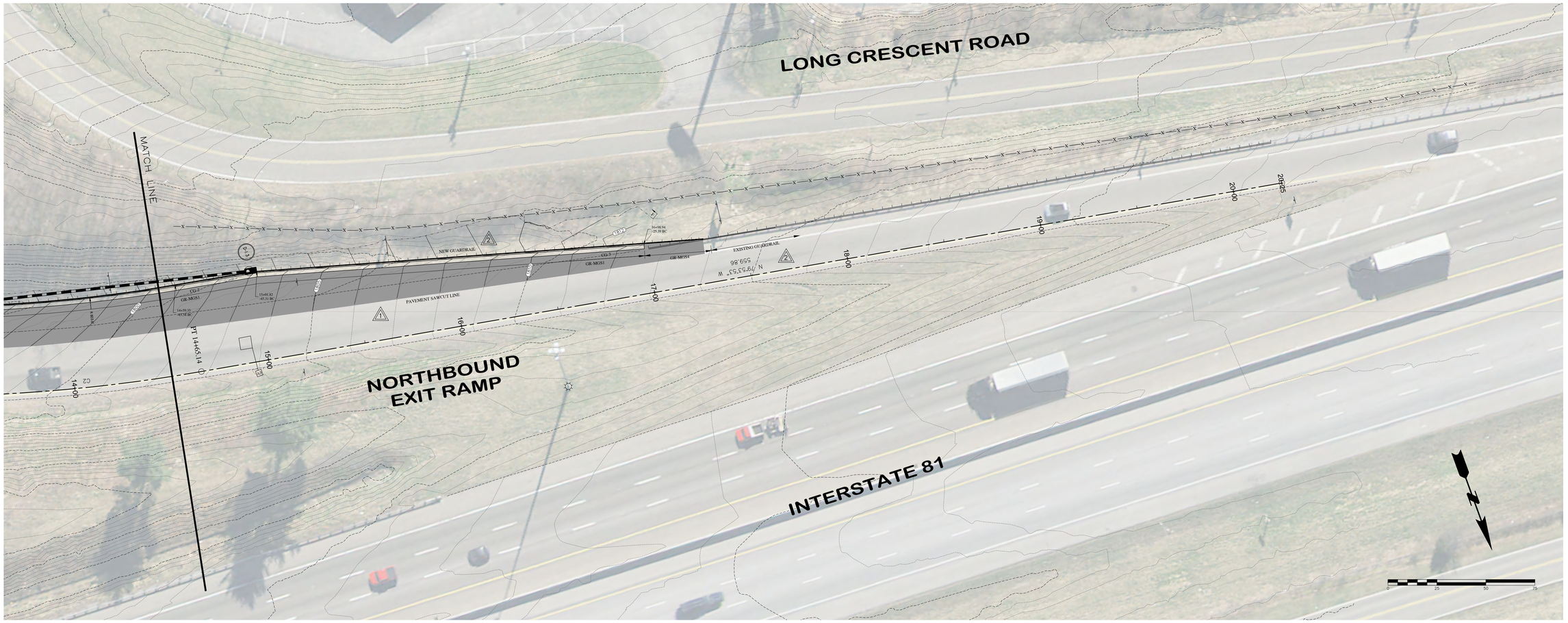
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T30-229

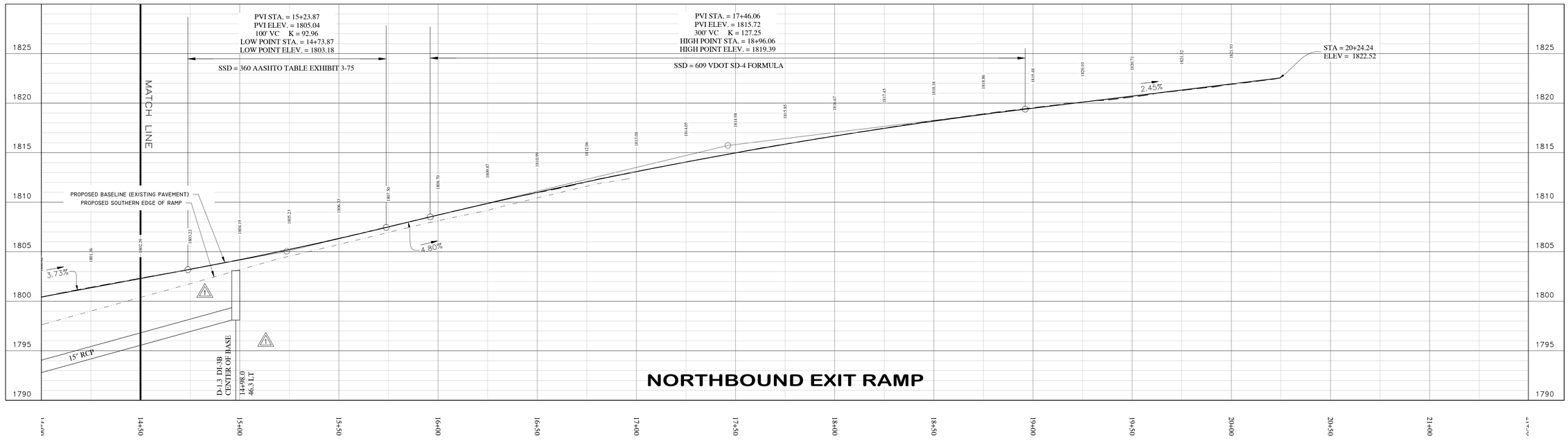
FILE NAME: LEE HIGHWAY
EXIT 5 PHASE 1B RAMPS

SHEET NUMBER
5.6 OF 10

LIMITED ACCESS HIGHWAY

BY RESOLUTION OF HIGHWAY COMMISSION
DATED Oct. 4, 1956





CITY OF BRISTOL VIRGINIA

CITY OF
BRISTOL, VIRGINIA
300 LEE STREET
BRISTOL, VA 24201
(276) 645-7360

DATE	REVISIONS
11-15-21	2 REVISED LAYOUT OF NORTHBOUND EXIT RAMP AND LEE HIGHWAY / ISLAND ROAD INTERSECTION ALSO REMOVED BIORETENTION POND AND RELATED STORM DRAINAGE PIPES

COMMONWEALTH OF VIRGINIA
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WIDENING OF
LEE HIGHWAY PHASE - 1B
AND
I-81 EXIT 5 RAMPS
PROJECT 0011-102-728 UPC 105309

I-81 EXIT 5
NORTHBOUND EXIT RAMP
Sta. 15+00 to Sta. 20+50

DATE:
JANUARY 2022

DRAWING NO.
T30-229

FILE NAME: LEE HIGHWAY EXIT 5 PHASE 1B RAMPS

SHEET NUMBER
5.7 OF 10

	LEE HIGHWAY AND I-81 NORTHBOUND EXIT RAMP																
	02-06				08-03				04				02-05				
		CLEAR TO				CLEAR TO				CLEAR TO				CLEAR TO			
SIGNAL	R/W	08-03	04	02-05	R/W	04	02-05	02-06	R/W	02-05	02-06	08-03	R/W	02-06	08-03	04	FLASH
2	G	Y	Y	G	R	R	R	R	R	R	R	R	G	G	Y	Y	Y
4A	R	R	R	R	R	R	R	R	<-G	<-Y	<-Y	<-Y	R	R	R	R	R
4B	R	R	R	R	R	R	R	R	G->	Y->	Y->	Y->	R	R	R	R	R
5	<-FY	<-SY	<-SY	<-SY	<-R	<-R	<-R	<-R	<-R	<-R	<-R	<-R	<-G	<-SY	<-SY	<-SY	<-R
6	G	Y	Y	Y	R	R	R	R	R	R	R	R	R	R	R	R	Y
8/3	R	R	R	R	<-G/G	Y	Y	Y	R	R	R	R	R	R	R	R	R
3	<-R	<-R	<-R	<-R	<-G	<-Y	<-Y	<-Y	<-R	<-R	<-R	<-R	<-R	<-R	<-R	<-R	<-R

SIGNAL SEQUENCE

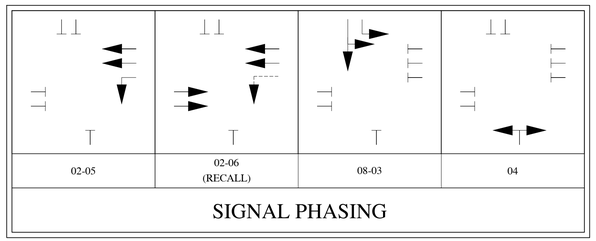
I-81 NORTHBOUND EXIT RAMP AND LEE HIGHWAY								
INITIAL TIMING CHART								
PHASE	1	2	3	4	5	6	7	8
MOVEMENT	WB LEFT	EB THRU	NB LEFT	SB THRU	EB LEFT	WB THRU	SB LEFT	NB THRU
PHASE ON		X	X	X	X	X		X
PHASE OFF	X						X	
INTERVAL	PHASE TIMINGS							
MIN. GREEN	0.0	15.0	5.0	15.0	5.0	15.0	0.0	15.0
PASSAGE	0.0	3.0	3.0	3.0	3.0	3.0	0.0	3.0
YELLOW	0.0	4.1	5.0	3.0	4.1	4.1	0.0	5.0
RED	0.0	4.4	2.7	4.6	4.4	4.4	0.0	2.7
MAX. 1	0.0	40.0	30.0	40.0	30.0	40.0	0.0	40.0
MAX. 2	X	X	X	X	X	X	X	X
MIN. GAP	0.0	3.0	3.0	3.0	3.0	3.0	0.0	3.0
LEADING PED WALK	X	X	X	X	X	X	X	X
PED. WALK INTERVAL		0		0		0		0
PED. COUNTDOWN INTERVAL		0		0		0		0
PED. CLEARANCE INTERVAL		0		0		0		0
PED. BUFFER INTERVAL		0		0		0		0
MODE	MIN. RECALL				MIN. RECALL			

NOTE: COMPARE WITH THE EXISTING TIMINGS FOR THE INTERSECTION AND ADJUST AS APPROPRIATE.

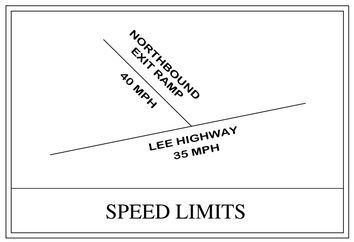
I-81 NORTHBOUND EXIT RAMP AND LEE HIGHWAY									
CLEARANCE INTERVAL CHART									
PHASE		1	2	3	4	5	6	7	8
CONTROLLER	YELLOW	0.0	4.1	5.0	3.0	4.1	4.1	0.0	5.0
INPUTS	RED	0.0	4.4	2.7	4.6	4.4	4.4	0.0	2.7

NOTE: THE CLEARANCE INTERVALS SHOWN ON THE CLEARANCE INTERVAL CHART ARE THE CALCULATED MINIMUM INTERVALS USING THE VDOT MEMORANDUM TE-306.1.

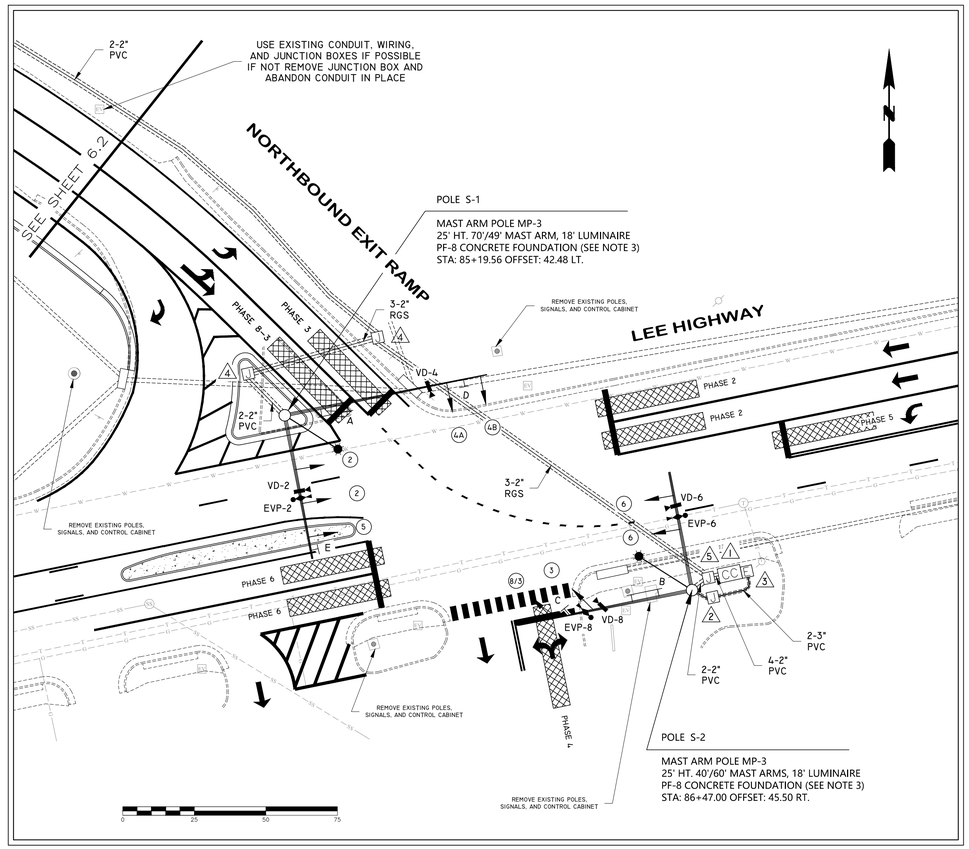
VDOT HAS INSTALLED COMMUNICATIONS EQUIPMENT IN THE EXISTING CONTROLLERS THAT WILL BE SALVAGED AND REUSED IN THE NEW CONTROLLERS. VDOT WILL BE RESPONSIBLE FOR THE REINSTALLATION OF THIS EQUIPMENT. (SEE NOTE 25)



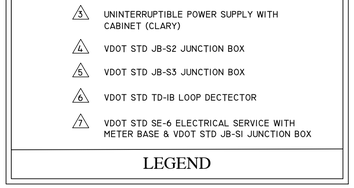
SIGNAL PHASING



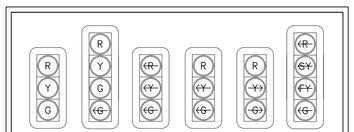
SPEED LIMITS



LEE HIGHWAY AND I-81 NORTHBOUND EXIT RAMP



SIGNS



SIGNAL HEADS

VIDEO DETECTION CAMERA

EMERGENCY PREEMPTION DETECTOR

1 CONTROL CABINET

2 VDOT STD SE-3 TYPE A ELECTRICAL SERVICE WITH METER BASE & VDOT STD JB-SI JUNCTION BOX

3 UNINTERRUPTIBLE POWER SUPPLY WITH CABINET (CLARY)

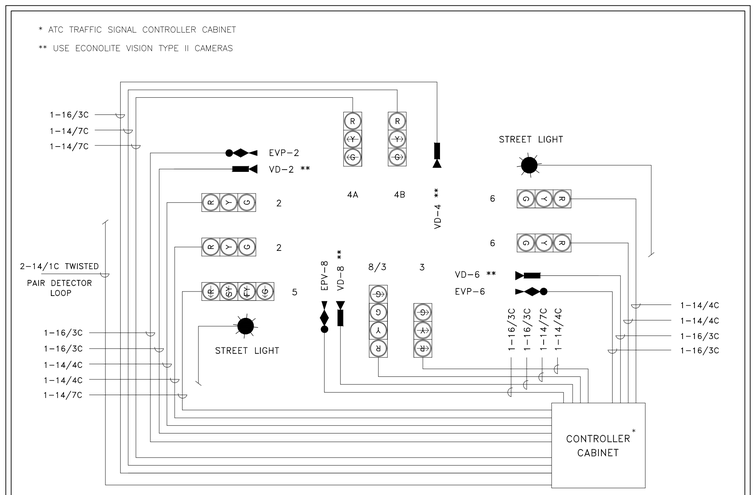
4 VDOT STD JB-S2 JUNCTION BOX

5 VDOT STD JB-S3 JUNCTION BOX

6 VDOT STD TD-IB LOOP DECTECTOR

7 VDOT STD SE-6 ELECTRICAL SERVICE WITH METER BASE & VDOT STD JB-SI JUNCTION BOX

LEGEND



WIRING DIAGRAM

GENERAL NOTES

1. THIS PROJECT WILL BE CONSTRUCTED IN ACCORDANCE WITH: THE PLANS; THE VIRGINIA DEPARTMENT OF TRANSPORTATION (VDOT) 2016 ROAD AND BRIDGE SPECIFICATIONS; THE VDOT 2016 ROAD AND BRIDGE STANDARDS; AND THE VIRGINIA WORK AREA PROTECTION MANUAL, 2011 EDITION W/ LATEST REVISION.
2. MAST ARM POLES SHALL BE IN ACCORDANCE WITH VDOT STD. MP-3. CONTRACTOR SHALL FIELD VERIFY ALL MAST ARM LENGTHS PRIOR TO INSTALLATION. POLE INSTALLER SHALL BE RESPONSIBLE FOR DESIGN OF POLE FOUNDATIONS, INCLUDING ANY REQUIRED GEOTECHNICAL EXPLORATION.
3. TRAFFIC SIGNAL POLE FOUNDATION DEPTHS AND ABOVE GROUND FOUNDATION PROJECTIONS/REVEAL (IF NEEDED) SHALL BE DETERMINED BY THE CONTRACTOR IN ACCORDANCE WITH VDOT STD. PF-2/PF-8 CONCRETE FOUNDATION STANDARDS AFTER THE SIGNAL POLE FOUNDATION SOIL TEST BORES ARE COMPLETED. SIGNAL POLES AND FOUNDATIONS SHALL BE IN ACCORDANCE WITH THE SPECIAL PROVISIONS OF THE CURRENT SOUTHERN REGION OPERATIONS (SWRO)-REGIONAL SIGNAL CONTRACT INCLUDING MAXIMUM LOADING CONDITIONS. THE POLE SUPPLIER SHALL PROVIDE FOUNDATION DESIGNS AND SHOP DRAWINGS THAT ARE SIGNED AND SEALED BY A VIRGINIA LICENSED PROFESSIONAL ENGINEER. THE TOP OF ALL SIGNAL POLE FOUNDATIONS SHALL BE INSTALLED 4 INCH ABOVE THE HIGHEST POINT OF THE ROADWAY PAVEMENT IN WHICH THE MAST ARM IS EXTENDED OVER TO ALLOW FOR REQUIRED SIGNAL HEAD TO PAVEMENT DISTANCES PER THE MUTCD. THE CONTRACTOR SHALL CONTACT THE PROJECT INSPECTOR 48 HOURS PRIOR TO THE NEED FOR VERIFICATION.
4. SIGNALS ON MAST ARMS SHALL BE MOUNTED IN ACCORDANCE WITH VDOT STD. SM-3. ALL INDICATIONS SHALL HAVE LED INDICATIONS.
5. SIGNS ON MAST ARMS SHALL BE INSTALLED IN ACCORDANCE WITH VDOT STD. SMD-2 AND THE NUMBER OF SIGN HANGER ASSEMBLIES WILL BE BASED ON THE FOLLOWING SIGN WIDTHS. ONE ASSEMBLY FOR SIGNS 5 FEET OR LESS IN WIDTH, TWO EACH FOR SIGNS 5-10 FEET IN WIDTH AND 3 EACH FOR SIGNS 10 FEET OR GREATER IN WIDTH.
6. VIDEO DETECTION CAMERA PLACEMENTS MAY BE FIELD ADJUSTED AS NECESSARY TO PROVIDE OPTIMAL DETECTION CAPABILITIES. LOADING SHALL REMAIN WITHIN THE LIMITS OF THE REGIONAL SIGNAL CONTRACTOR SPECIFICATIONS. WIRING SHALL BE ADJUSTED AS NECESSARY IF CAMERA LOCATIONS ARE MODIFIED.
7. THE ELECTRIC SERVICE CONNECTION AND SERVICE LINE LOCATIONS MAY BE FIELD ADJUSTED AS NECESSARY PROVIDED ALL EQUIPMENT REMAIN WITHIN THE RIGHT OF WAY, DOES NOT CONFLICT WITH UTILITIES, REMAIN OUTSIDE OF THE PAVEMENT SECTIONS, AND IS APPROVED BY THE CITY ENGINEER. ELECTRICAL SERVICE SHALL BE IN ACCORDANCE WITH VDOT STD. SE-3 TYPE A OR SE-6. SERVICE TO BE 120/240 VOLT, SINGLE PHASE WITH 1-50 AMP SINGLE POLE BREAKER, 1-20 AMP SINGLE POLE FOR STREET LIGHTS, 1-20 AMP SINGLE POLE SPARE. ELECTRIC SERVICE SHALL BE COORDINATED WITH RICHARD ADKINS OF BRISTOL VIRGINIA UTILITY (BVU) AT (276) 645-8730.
8. CONTRACTOR AND SHALL MEET CITY AND BRISTOL VIRGINIA UTILITY SPECIFICATIONS AND REQUIREMENTS.
9. THE ATC TRAFFIC SIGNAL CONTROLLER SHALL BE FULLY COMPATIBLE WITH THE EXISTING MASTER CONTROLLER AND LOCAL CONTROLLERS LOCATED ALONG PROJECT ARTERIAL. THE ATC TRAFFIC SIGNAL CONTROLLER SHALL HAVE 2 USB 2.0 PORTS, 4 ETHERNET PORTS, 128MBYTES OF DDR2 DRAM, 64 MBYTES OF FLASH, 2MB OF SRAM AND BE FULLY COMPLIANT WITH ATC STANDARD VERSION 5.2B AND THE PROPOSED ATC STANDARD 6.10. THE DIMENSIONS OF THE CONTROLLER SHALL BE NO BIGGER THAN 14.84" W X 8.50" H X 6.13" D.
10. THE TRAFFIC SIGNAL CONTROLLER CABINET SHALL COMPATIBLE WITH SELECTED CONTROLLER AND BUILT TO VDOT SPECIFICATIONS AND TO BE FURNISHED BY THE CONTRACTOR AND SHALL REST IN PHASE 02-06.
11. THE CONTROLLER CABINET FOUNDATIONS SHALL BE CONSTRUCTED IN ACCORDANCE WITH VDOT STD. CF-5.
12. EACH CABINET AND POLE FOUNDATION SHALL BE PERMANENTLY MARKED TO INDICATE THE LOCATION OF ALL CONDUITS CAST IN THE FOUNDATION. THE MARKINGS SHALL CONSIST OF AN ARROW 4 TO 6 INCHES LONG AND LETTER DESIGNATION AS FOLLOWS: (S)-SPARE CONDUIT; (T)-CONDUIT WITH SIGNAL OR DETECTOR CABLES: (E)-CONDUIT WITH ELECTRICAL SERVICE CONDUCTORS FOR THE TRAFFIC SIGNAL. THE MARKINGS SHALL BE ETCHED WITH A TROWEL ¼" DEEP IN CONCRETE WHILE THE CONCRETE IS BEING FINISHED.
13. CONDUITS SHALL CONFORM TO THE REQUIREMENTS OF SECTION 238-02 PARAGRAPH (A) & (B) OF THE VDOT ROAD AND BRIDGE SPECIFICATIONS AND INSTALLED IN ACCORDANCE WITH VDOT STD. ECI-1 AND ECI-2.
14. THE CONTRACTOR SHALL CONTACT BRISTOL VIRGINIA UTILITIES (1-800-552-7001) PRIOR TO ANY CONSTRUCTION ACTIVITIES.
15. ALL MATERIALS SHALL BE FROM APPROVED MATERIALS LIST; AVAILABLE AT WWW.VIRGINIADOT.ORG.
16. CONTRACTOR SHALL SUBMIT TO THE CITY A TRAFFIC CONTROL PLAN FOR ANY ACTIVITIES THAT DISRUPT OR CONSTRICT TRAFFIC FLOW. CONTRACTOR SHALL IMPLEMENT AN APPROVED TRAFFIC CONTROL PLAN INCLUDING SIGNS, CHANNELIZATION DEVICES, AND OTHER MEASURES AS REQUIRED TO PROTECT WORKERS AND MOTORISTS.
17. NO WORK SHALL IMPEDE PEDESTRIAN TRAFFIC.
18. NO WORK SHALL BE PERFORMED OVER TRAFFIC WITHOUT PROPER WORK ZONE INSTALLATION.
19. UPON ENERGIZING, A 72 HOUR FLASH PERIOD (IN NO CASE LESS THAN 24 HOURS) PRIOR TO STOP AND GO OPERATION IS REQUIRED UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER.
20. SIGNAL POLE FOUNDATION SHALL CONFORM TO VDOT STD.PF-8 AND HAVE 1 ADDITIONAL 2" CONDUIT STUBBED AND CAPPED.
21. INCLUDED IN THE COST OF PVC CONDUIT SHALL BE #8 AWG EQUIPMENT GROUNDING CONDUCTOR (EGC). EGC SHOWN ON THE PLANS ARE REQUIRED ONLY IF THE CONDUIT IS NON-METALLIC.
22. PEDESTAL POLE AND FOUNDATIONS SHALL BE IN ACCORDANCE WITH VDOT STD. PF-2.
23. PEDESTRIAN SIGNALS MOUNTED ON PEDESTAL POLES SHALL BE MOUNTED IN ACCORDANCE WITH VDOT STD. SMB-1 AND WHEN MOUNTED ON SIGNAL POLES SHALL BE IN ACCORDANCE WITH VDOT STD.SMB-3. PEDESTRIAN SIGNALS SHALL BE ACTUATED IN ACCORDANCE WITH VDOT STD. PA-2 AND INDICATED IN ACCORDANCE WITH VDOT STD. SP-3.
24. ALL TRAFFIC SIGNAL HEAD SECTIONS SHALL BE 12" ALUMINUM (WITH ALUMINUM VISORS) AND INCLUDE HI-VISIBILITY ALUMINUM BACKPLATES.
25. SALVAGEABLE SIGNAL EQUIPMENT SHALL BECOME THE PROPERTY OF VDOT. CONTRACTOR SHALL DELIVER SALVAGEABLE EQUIPMENT TO VDOT BRISTOL DISTRICT SIGNAL SHOP ATTN: STEVE FORRESTER. EXISTING FIBER OPTIC COMMUNICATIONS TO BE RECONNECTED.
26. LUMINAIRES FOR SIGNAL POLES WILL BE AUTOBAHN SERIES ATB2 LED ROADWAY WITH 40BLEDEI3 PERFORMANCE PACKAGE, MULTI-VOLT, GRAY, COLOR TEMPERATURE 3000K, AND TYPE III OPTICS.
27. CONTRACTOR TO ENSURE THAT D4 SOFTWARE IS UPGRADED IN EACH TRAFFIC SIGNAL CONTROLLER CABINET.
28. CONTRACTOR TO UNSURE THAT COMMUNICATION (FIBER DROP) IS INCLUDED AT EACH TRAFFIC SIGNAL CONTROLLER CABINET.

CITY OF BRISTOL, VIRGINIA
300 LEE STREET
BRISTOL, VA 24201
(276) 645-7360

REVISIONS	DATE
REVISED AS PER VDOT COMMENTS	11-5-18
1 REVISED LAYOUT OF NORTHBOUND EXIT RAMP AND LEE HIGHWAY / ISLAND ROAD INTERSECTION ALSO REMOVED BIORETENTION POND AND RELATED STORM DRAINAGE PIPES	11-15-21

JACOB S. CHANDLER
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WIDENING OF
LEE HIGHWAY PHASE - 1B
AND
I-81 EXIT 5 RAMPS
PROJECT 0011-102-728 UPC 105309

SIGNALIZATION PLAN
LEE HIGHWAY AND I-81 NORTHBOUND EXIT RAMP

DATE:
JANUARY 2022

DRAWING NO.
T30-229

FILE NAME: LEE HIGHWAY EXIT 5 PHASE 1B RAMPS

BY RESOLUTION OF HIGHWAY COMMISSION
DATED Oct. 4, 1956

VDOT STD TD-1B LOOP DECTECTORS
INSTALL TWO 6'X6' SQUARE (THREE TURN) LOOPS
CONNECT BOTH LOOPS IN SERIES AND
USE #14 AWG LEAD-IN CABLE (278 uH)

REMOVE JUNCTION BOX AND ABANDON CONDUIT IN PLACE

STA. 14+70

USE EXISTING CONDUIT, WIRING, AND JUNCTION BOXES IF POSSIBLE IF NOT REMOVE JUNCTION BOX AND ABANDON CONDUIT IN PLACE

2-2" PVC

USE EXISTING CONDUIT, WIRING, AND JUNCTION BOXES IF POSSIBLE IF NOT REMOVE JUNCTION BOX AND ABANDON CONDUIT IN PLACE

NORTHBOUND EXIT RAMP

SEE SHEET 6.1

NORTHBOUND EXIT RAMP

POLE S-1

MAST ARM POLE MP-3
25' HT. 70'/49' MAST ARM, 18' LUMINAIRE
PF-8 CONCRETE FOUNDATION (SEE NOTE 3)
STA: 85+19.56 OFFSET: 42.48 LT.

3-2" RGS

REMOVE EXISTING POLES, SIGNALS, AND CONTROL CABINET

LEE HIGHWAY

PHASE 3

PHASE 8-3

VD-4

D

PHASE 2

PHASE 2

PHASE 5

2-2" PVC

4A

4B

VD-2

EVP-2

3-2" RGS

VD-6

EVP-6

REMOVE EXISTING POLES, SIGNALS, AND CONTROL CABINET

E

PHASE 6

PHASE 6

8/3

C

B

VD-8

EVP-8

2-3" PVC

2-2" PVC

4-2" PVC

REMOVE EXISTING POLES, SIGNALS, AND CONTROL CABINET

PHASE 4

POLE S-2

MAST ARM POLE MP-3
25' HT. 40'/60' MAST ARMS, 18' LUMINAIRE
PF-8 CONCRETE FOUNDATION (SEE NOTE 3)
STA: 86+47.00 OFFSET: 45.50 RT.

REMOVE EXISTING POLES, SIGNALS, AND CONTROL CABINET

0 25 50 75

N

LEGEND

- VIDEO DETECTION CAMERA
- EMERGENCY PREEMPTION DETECTOR
- 1 CONTROL CABINET
- 2 VDOT STD SE-3 TYPE A ELECTRICAL SERVICE WITH METER BASE & VDOT STD JB-SI JUNCTION BOX
- 3 UNINTERRUPTIBLE POWER SUPPLY WITH CABINET (CLARY)
- 4 VDOT STD JB-S2 JUNCTION BOX
- 5 VDOT STD JB-S3 JUNCTION BOX
- 6 VDOT STD TD-IB LOOP DECTECTOR
- 7 VDOT STD SE-6 ELECTRICAL SERVICE WITH METER BASE & VDOT STD JB-SI JUNCTION BOX

LEE HIGHWAY AND I-81 NORTHBOUND EXIT RAMP 1

CITY OF BRISTOL, VIRGINIA
300 LEE STREET
BRISTOL, VA 24201
(276) 645-7360

DATE	REVISIONS
11-5-18	REVISED AS PER VDOT COMMENTS
11-15-21	REVISED LAYOUT OF NORTHBOUND EXIT RAMP AND LEE HIGHWAY / ISLAND ROAD INTERSECTION ALSO REMOVED BIORETENTION POND AND RELATED STORM DRAINAGE PIPES 1

2

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WIDENING OF
LEE HIGHWAY PHASE - 1B
AND
I-81 EXIT 5 RAMPS
PROJECT 0011-102-728 UPC 105309

SIGNALIZATION PLAN
LEE HIGHWAY AND I-81 NORTHBOUND EXIT RAMP

DATE: JANUARY 2022

DRAWING NO. T30-229

FILE NAME: LEE HIGHWAY EXIT 5 PHASE 1B RAMPS

SHEET NUMBER
6.2 OF 10

BY RESOLUTION OF HIGHWAY COMMISSION
DATED Oct. 4, 1956

LEE HIGHWAY AND I-81 SOUTHBOUND EXIT RAMP

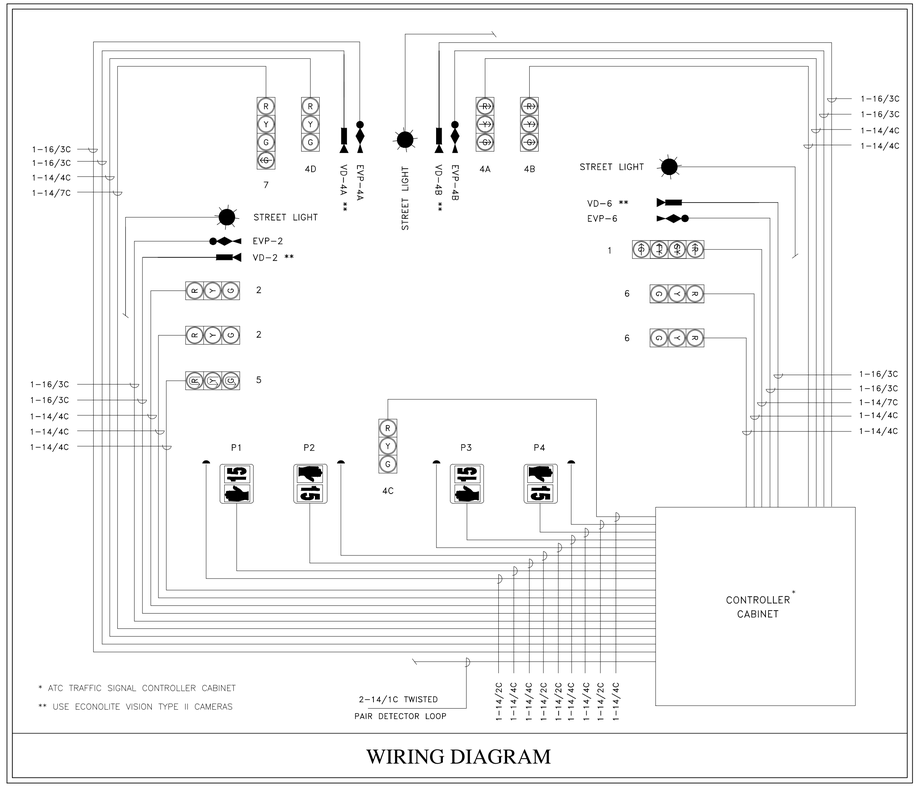
SIGNAL	02-06 R/W	02-06 CLEAR TO 04	02-06 CLEAR TO 01-05	04 R/W	04 CLEAR TO 01-05	04 CLEAR TO 02-06	01-05 R/W	01-05 CLEAR TO 02-06	01-05 CLEAR TO 04	CROSSWALK R/W	CROSSWALK CLEAR TO 04	CROSSWALK CLEAR TO 01-05	FLASH
1	<-FY	<-SY	<-SY	R	R	R	<-G	<-SY	<-SY	<-FY	<-SY	<-SY	R
2	G	Y	Y	R	R	R	R	R	R	G	Y	Y	Y
4A	R->	R->	R->	G->	Y->	Y->	R->	R->	R->	R->	R->	R->	R->
4B	R->	R->	R->	G->	Y->	Y->	R->	R->	R->	R->	R->	R->	R->
4C	R	R	R	G	Y	Y	R	R	R	R	R	R	R
4D	R	R	R	G	Y	Y	R	R	R	R	R	R	R
5	v--R	v--R	v--R	v--R	v--R	v--R	v--G	v--Y	v--Y	v--R	v--R	v--R	v--R
6	G	Y	Y	R	R	R	R	R	R	G	Y	Y	Y
7	R	R	R	G/G->	Y	Y	R	R	R	R	R	R	R
P6	WALK	STEADY	STEADY	STEADY	STEADY	WALK	STEADY	WALK	STEADY	WALK	STEADY	STEADY	OFF

SIGNAL SEQUENCE

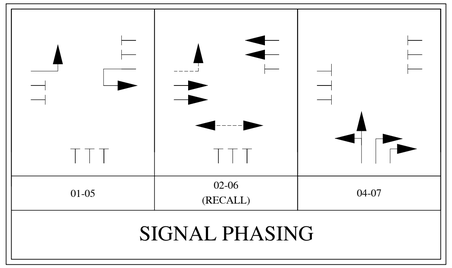
I-81 SOUTHBOUND EXIT RAMP AND LEE HIGHWAY — INITIAL TIMING CHART								
PHASE	1	2	3	4	5	6	7	8
MOVEMENT	WB LEFT	EB THRU	NB LEFT	SB THRU	EB LEFT	WB THRU	SB LEFT	NB THRU
PHASE ON	X	X		X	X	X	X	
PHASE OFF			X					X
INTERVAL	PHASE TIMINGS							
MIN. GREEN	5.0	15.0	0.0	15.0	5.0	15.0	5.0	0.0
PASSAGE	3.0	3.0	0.0	3.0	3.0	3.0	3.0	0.0
YELLOW	4.7	4.7	0.0	3.7	4.7	4.7	3.7	0.0
RED	5.8	5.8	0.0	2.9	5.8	5.8	2.9	0.0
MAX. 1	30.0	40.0	0.0	40.0	30.0	40.0	30.0	0.0
MAX. 2	X	X	X	X	X	X	X	X
MIN. GAP	3.0	3.0	0.0	3.0	3.0	3.0	3.0	0.0
LEADING PED WALK	X	X	X	X	X	X	X	X
PED. WALK INTERVAL		0		0		7		0
PED. COUNTDOWN INTERVAL		0		0		34		0
PED. CLEARANCE INTERVAL		0		0		39		0
PED. BUFFER INTERVAL		0		0		5		0
MODE	MIN. RECALL				MIN. RECALL			

I-81 SOUTHBOUND EXIT RAMP AND LEE HIGHWAY — CLEARANCE INTERVAL CHART									
PHASE		1	2	3	4	5	6	7	8
CONTROLLER	YELLOW	4.7	4.7	0.0	3.7	4.7	4.7	3.7	0.0
INPUTS	RED	5.8	5.8	0.0	2.9	5.8	5.8	2.9	0.0

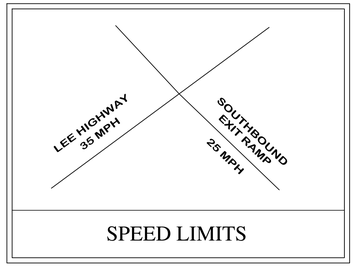
NOTE: THE CLEARANCE INTERVALS SHOWN ON THE CLEARANCE INTERVAL CHART ARE THE CALCULATED MINIMUM INTERVALS USING THE VDOT MEMORANDUM TE-306.1.



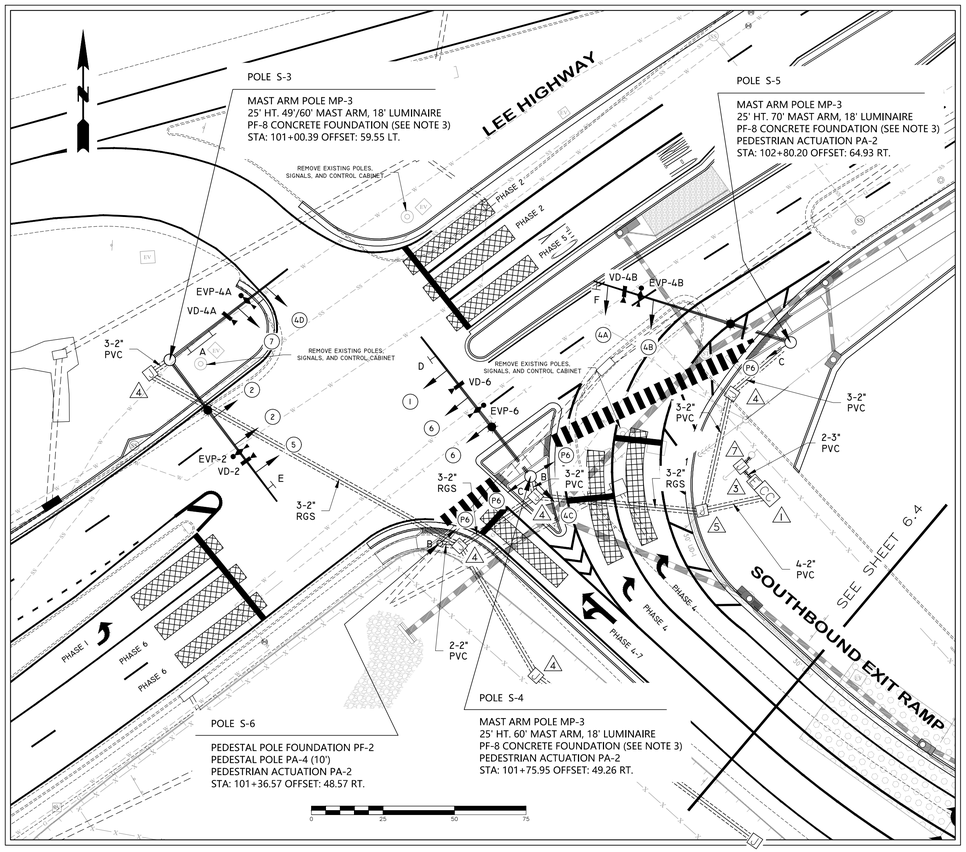
WIRING DIAGRAM



SIGNAL PHASING

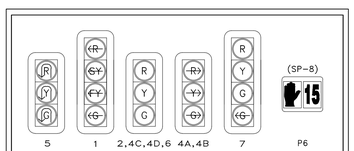


SPEED LIMITS



LEE HIGHWAY AND I-81 SOUTHBOUND EXIT RAMP ⚠1

VDOT HAS INSTALLED COMMUNICATIONS EQUIPMENT IN THE EXISTING CONTROLLERS THAT WILL BE SALVAGED AND REUSED IN THE NEW CONTROLLERS. VDOT WILL BE RESPONSIBLE FOR THE REINSTALLATION OF THIS EQUIPMENT. (SEE NOTE 25)

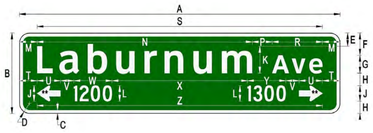


HI-VISIBILITY ALUMINUM BACK PLATES REQUIRED. INSTALL PEDESTRIAN SIGNALS WITH PUSH BUTTONS AND R10-3E SIGNS.

SIGNAL HEADS

- VIDEO DETECTION CAMERA
- EMERGENCY PREEMPTION DETECTOR
- 1 CONTROL CABINET
- 2 VDOT STD SE-3 TYPE A ELECTRICAL SERVICE WITH METER BASE & VDOT STD JB-SI JUNCTION BOX
- 3 UNINTERRUPTIBLE POWER SUPPLY WITH CABINET (CLARY)
- 4 VDOT STD JB-S2 JUNCTION BOX
- 5 VDOT STD JB-S3 JUNCTION BOX
- 6 VDOT STD TD-IB LOOP DECTECTOR
- 7 VDOT STD SE-6 ELECTRICAL SERVICE WITH METER BASE & VDOT STD JB-SI JUNCTION BOX

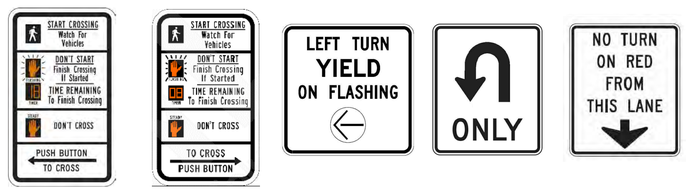
LEGEND



USE VIRGINIA STANDARD HIGHWAY SIGNS 2011 EDITION REVISION 1 - MARCH 2015
D3-V1b SIGN STANDARD DETAILS
WITH 8" STREET NAMES AND 6" BLOCK NUMBERS



(A)
QTY - 1



(B)	(C)	(D)	(E)	(F)
R10-3E(L) (9"x15")	R10-3E(R) (9"x15")	R10-VI (36"X36") ⚠2	R3-5 (MODIFIED) (30"X36")	R10-11b (30"X42")
QTY - 2	QTY - 2	QTY - 1	QTY - 1	QTY - 1

SIGNS

CITY OF BRISTOL VA TENN GOOD PLACE TO LIVE VIRGINIA

CITY OF
BRISTOL, VIRGINIA
300 LEE STREET
BRISTOL, VA 24201
(276) 645-7360

REVISIONS	DATE
REVISED AS PER VDOT COMMENTS	11-5-18
⚠1 REVISED LAYOUT OF NORTHBOUND EXIT RAMP AND LEE HIGHWAY / ISLAND ROAD INTERSECTION ALSO REMOVED BIORETENTION POND AND RELATED STORM DRAINAGE PIPES	11-15-21

COMMONWEALTH OF VIRGINIA
JACOB S. CHANDLER
Lic. No. 0402066571
PROFESSIONAL ENGINEER

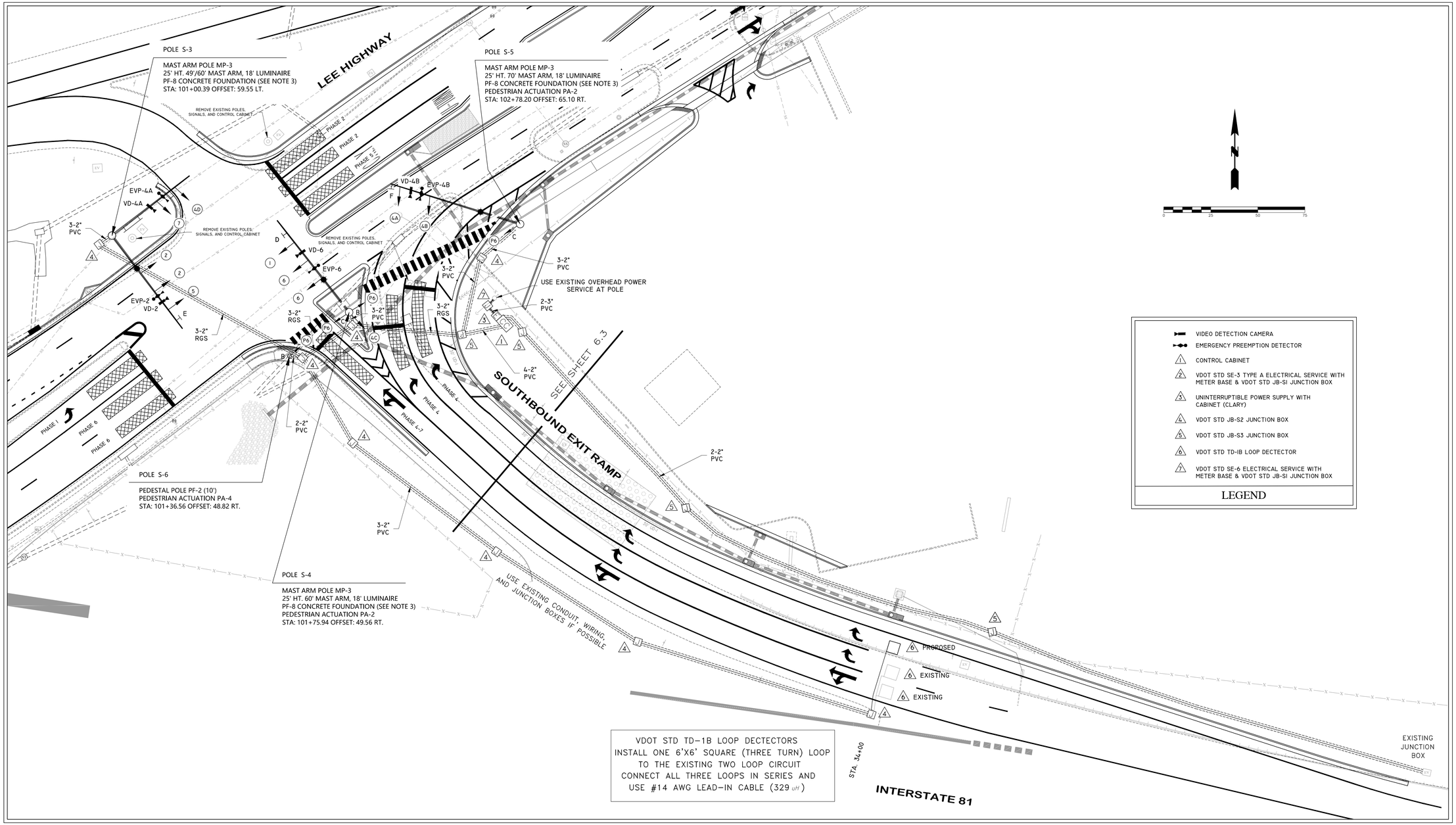
COMMONWEALTH OF VIRGINIA
CHARLES C. BREWSTER
Lic. No. 002407
LAND SURVEYOR

WIDENING OF
LEE HIGHWAY PHASE - 1B
AND
I-81 EXIT 5 RAMPS
PROJECT 0011-102-728 UPC 105309

SIGNALIZATION PLAN
LEE HIGHWAY AND I-81 SOUTHBOUND EXIT RAMP

DATE: JANUARY 2022
DRAWING NO. T30-229
FILE NAME: LEE HIGHWAY EXIT 5 PHASE 1B RAMPS

SHEET NUMBER
6.3 OF 10



VDOT STD TD-1B LOOP DECTECTORS
INSTALL ONE 6'X6' SQUARE (THREE TURN) LOOP
TO THE EXISTING TWO LOOP CIRCUIT
CONNECT ALL THREE LOOPS IN SERIES AND
USE #14 AWG LEAD-IN CABLE (329 uH)

- VIDEO DETECTION CAMERA
- EMERGENCY PREEMPTION DETECTOR
- (1) CONTROL CABINET
- (2) VDOT STD SE-3 TYPE A ELECTRICAL SERVICE WITH METER BASE & VDOT STD JB-SI JUNCTION BOX
- (3) UNINTERRUPTIBLE POWER SUPPLY WITH CABINET (CLARY)
- (4) VDOT STD JB-S2 JUNCTION BOX
- (5) VDOT STD JB-S3 JUNCTION BOX
- (6) VDOT STD TD-IB LOOP DECTECTOR
- (7) VDOT STD SE-6 ELECTRICAL SERVICE WITH METER BASE & VDOT STD JB-SI JUNCTION BOX

LEGEND

LEE HIGHWAY AND I-81 SOUTHBOUND EXIT RAMP (1)

CITY OF BRISTOL, VIRGINIA
300 LEE STREET
BRISTOL, VA 24201
(276) 645-7360

DATE	REVISIONS
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11-15-21	REVISED LAYOUT OF NORTHBOUND EXIT RAMP AND LEE HIGHWAY / ISLAND ROAD INTERSECTION ALSO REMOVED BIORETENTION POND AND RELATED STORM DRAINAGE PIPES (1)

(4)

COMMONWEALTH OF VIRGINIA
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PROFESSIONAL ENGINEER

COMMONWEALTH OF VIRGINIA
CHARLES C. BREWSTER
Lic. No. 002407
LAND SURVEYOR

WIDENING OF
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AND
I-81 EXIT 5 RAMPS
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SIGNALIZATION PLAN
LEE HIGHWAY AND I-81 SOUTHBOUND EXIT RAMP

DATE:
JANUARY 2022

DRAWING NO.
T30-229

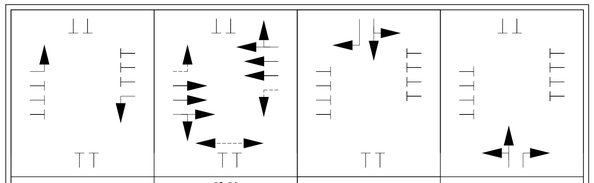
FILE NAME: LEE HIGHWAY EXIT 5 PHASE 1B RAMPS

SHEET NUMBER
6.4 OF 10

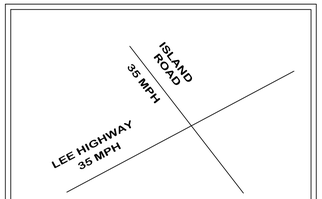
BY RESOLUTION OF HIGHWAY COMMISSION
DATED Oct. 4, 1956

	LEE HIGHWAY AND ISLAND ROAD																				
	02-06				08-03				04-07				01-05				CROSSWALK				
		CLEAR TO				CLEAR TO				CLEAR TO				CLEAR TO				CLEAR TO			
SIGNAL	R/W	08-03	04-07	01-05	R/W	04-07	01-05	02-06	R/W	01-05	02-06	08-03	R/W	02-06	08-03	04-07	R/W	08-03	04-07	01-05	FLASH
1	R	R	R	R	R	R	R	R	R	R	R	R	<-G	<-Y	<-Y	<-Y	R	R	R	R	R
2	G	Y	Y	Y	R	R	R	R	R	R	R	R	R	R	R	R	G	Y	Y	Y	Y
8/3	R	R	R	R	<-G/G	<-Y/Y	<-Y/Y	<-Y/Y	R	R	R	R	R	R	R	R	R	R	R	R	R
8	R	R	R	R	G	Y	Y	Y	R	R	R	R	R	R	R	R	R	R	R	R	R
4/7	R	R	R	R	R	R	R	R	<-G/G	<-Y/Y	<-Y/Y	<-Y/Y	R	R	R	R	R	R	R	R	R
4	R	R	R	R	R	R	R	R	G	Y	Y	Y	R	R	R	R	R	R	R	R	R
5	R	R	R	R	R	R	R	R	R	R	R	R	<-G	<-Y	<-Y	<-Y	R	R	R	R	R
6	G	Y	Y	Y	R	R	R	R	R	R	R	R	R	R	R	R	G	Y	Y	Y	Y
P6	WALK	STEADY	STEADY	STEADY	STEADY	STEADY	STEADY	WALK	STEADY	STEADY	WALK	STEADY	STEADY	WALK	STEADY	STEADY	WALK	STEADY	STEADY	STEADY	OFF

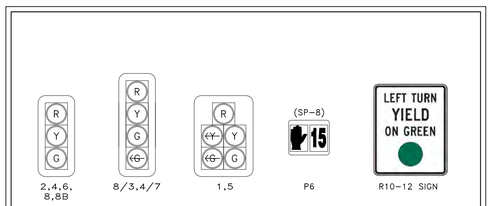
EXISTING SIGNAL SEQUENCE 1



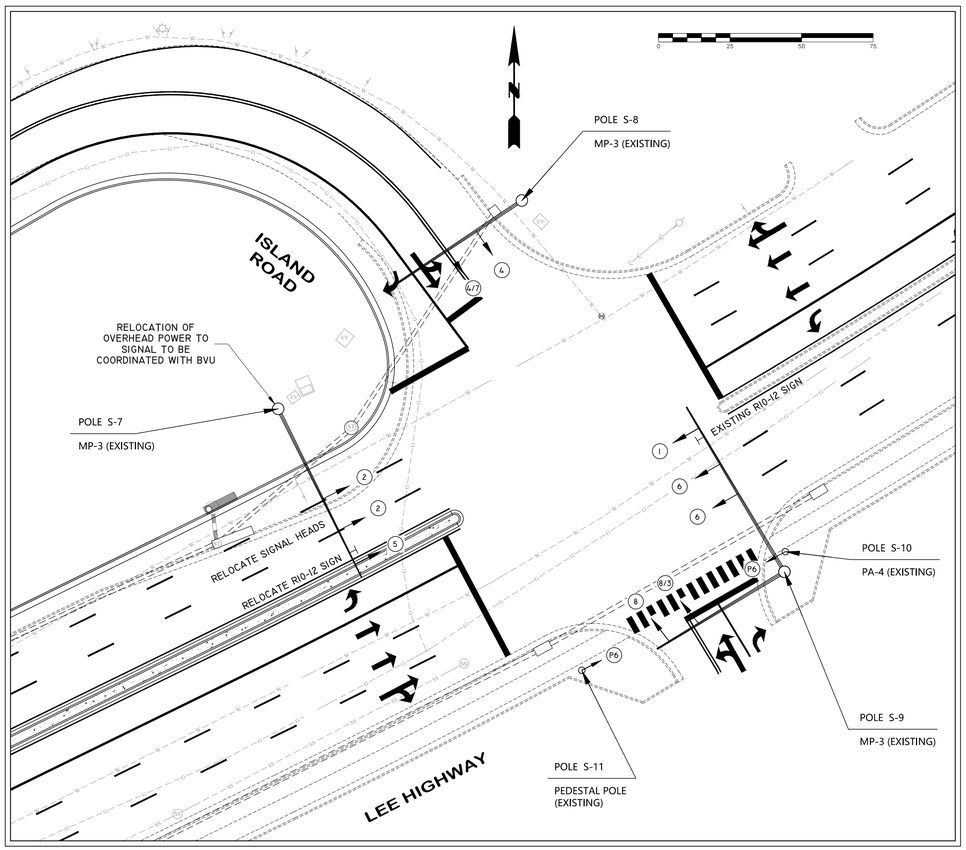
EXISTING SIGNAL PHASING 1



SPEED LIMITS



EXISTING SIGNAL HEADS / SIGNAGE 1



LEE HIGHWAY AND ISLAND ROAD 1

1 NOTE:

THE SIGNALS AT THIS INTERSECTION WILL BE USED IN THEIR CURRENT EXISTING CONFIGURATION WITH NO CHANGES IN HARDWARE OR TIMINGS OTHER THAN THOSE LISTED BELOW.

(1) THE ELECTRIC POWER DROP WILL BE RELOCATED BY BVU UTILITIES.

(2) THE SIGNAL HEADS / SIGNAGE POSITIONS FOR PHASES 2 AND 5 WILL BE ADJUSTED FOR THE NEW WESTBOUND LANE CONFIGURATION.

CITY OF BRISTOL, VIRGINIA
300 LEE STREET
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(276) 645-7360

DATE	REVISIONS
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11-15-21	1 REVISED LAYOUT OF NORTHBOUND EXIT RAMP AND LEE HIGHWAY / ISLAND ROAD INTERSECTION ALSO REMOVED BIORETENTION POND AND RELATED STORM DRAINAGE PIPES

2

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LAND SURVEYOR

WIDENING OF
LEE HIGHWAY PHASE - 1B
AND
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PROJECT 0011-102-728 UPC 105309

SIGNALIZATION PLAN
LEE HIGHWAY AND ISLAND ROAD

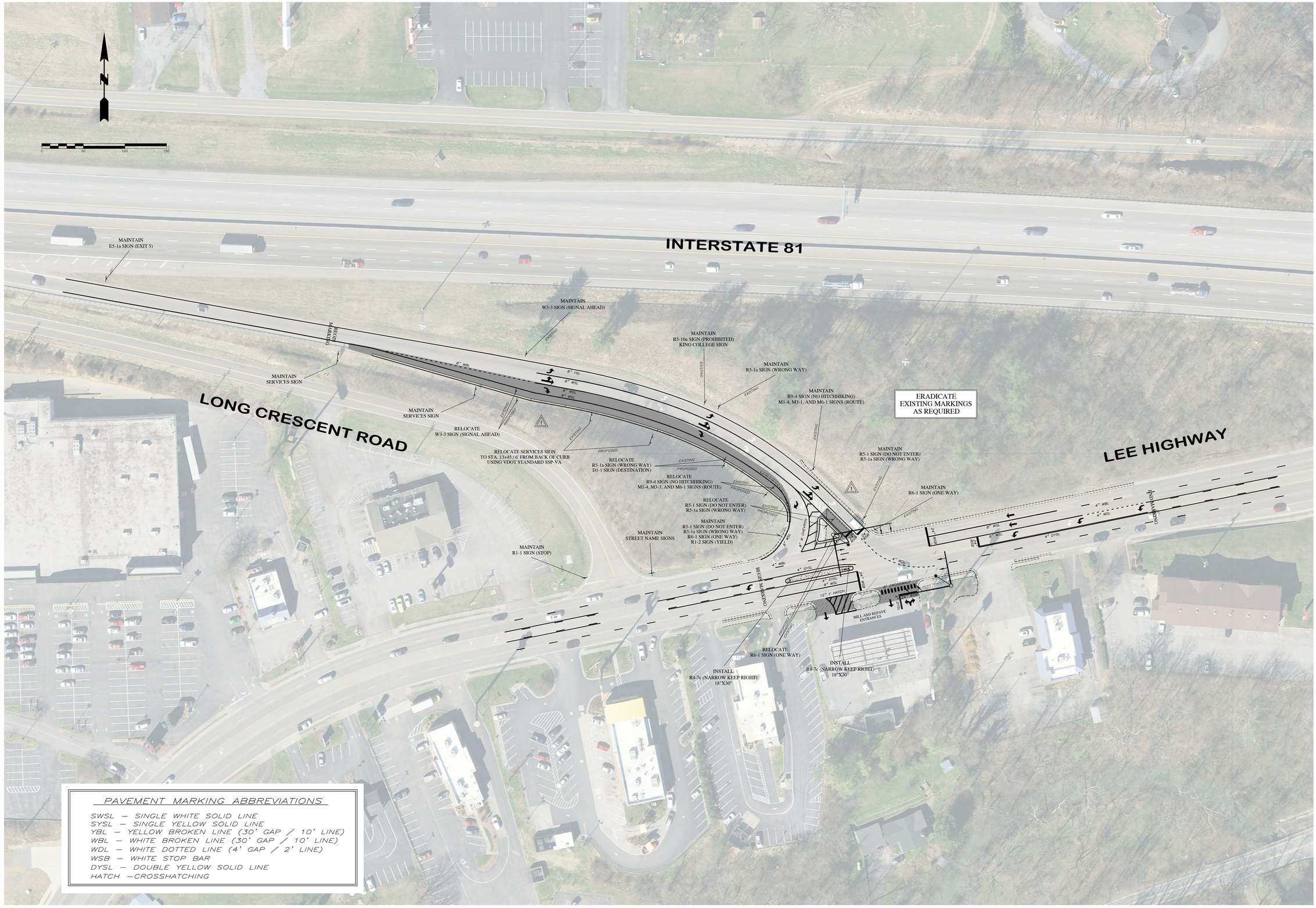
DATE:
JANUARY 2022

DRAWING NO.
T30-229

FILE NAME: LEE HIGHWAY EXIT 5 PHASE 1B RAMPS

LIMITED ACCESS HIGHWAY

BY RESOLUTION OF HIGHWAY COMMISSION
DATED Oct. 4, 1956



PAVEMENT MARKING ABBREVIATIONS

SWSL – SINGLE WHITE SOLID LINE
SYSL – SINGLE YELLOW SOLID LINE
YBL – YELLOW BROKEN LINE (30' GAP / 10' LINE)
WBL – WHITE BROKEN LINE (30' GAP / 10' LINE)
WDL – WHITE DOTTED LINE (4' GAP / 2' LINE)
WSB – WHITE STOP BAR
DYSL – DOUBLE YELLOW SOLID LINE
HATCH –CROSSHATCHING

CITY OF BRISTOL
VA TENN
GOOD PLACE TO LIVE
VIRGINIA

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REVISIONS	DATE
2 REVISED LAYOUT OF NORTHBOUND EXIT RAMP AND LEE HIGHWAY / ISLAND ROAD INTERSECTION ALSO REMOVED BIORETENTION POND AND RELATED STORM DRAINAGE PIPES	11-15-21

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WIDENING OF
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PERMANENT SIGNAGE
AND
PAVEMENT MARKINGS
PLAN

DATE:
JANUARY 2022

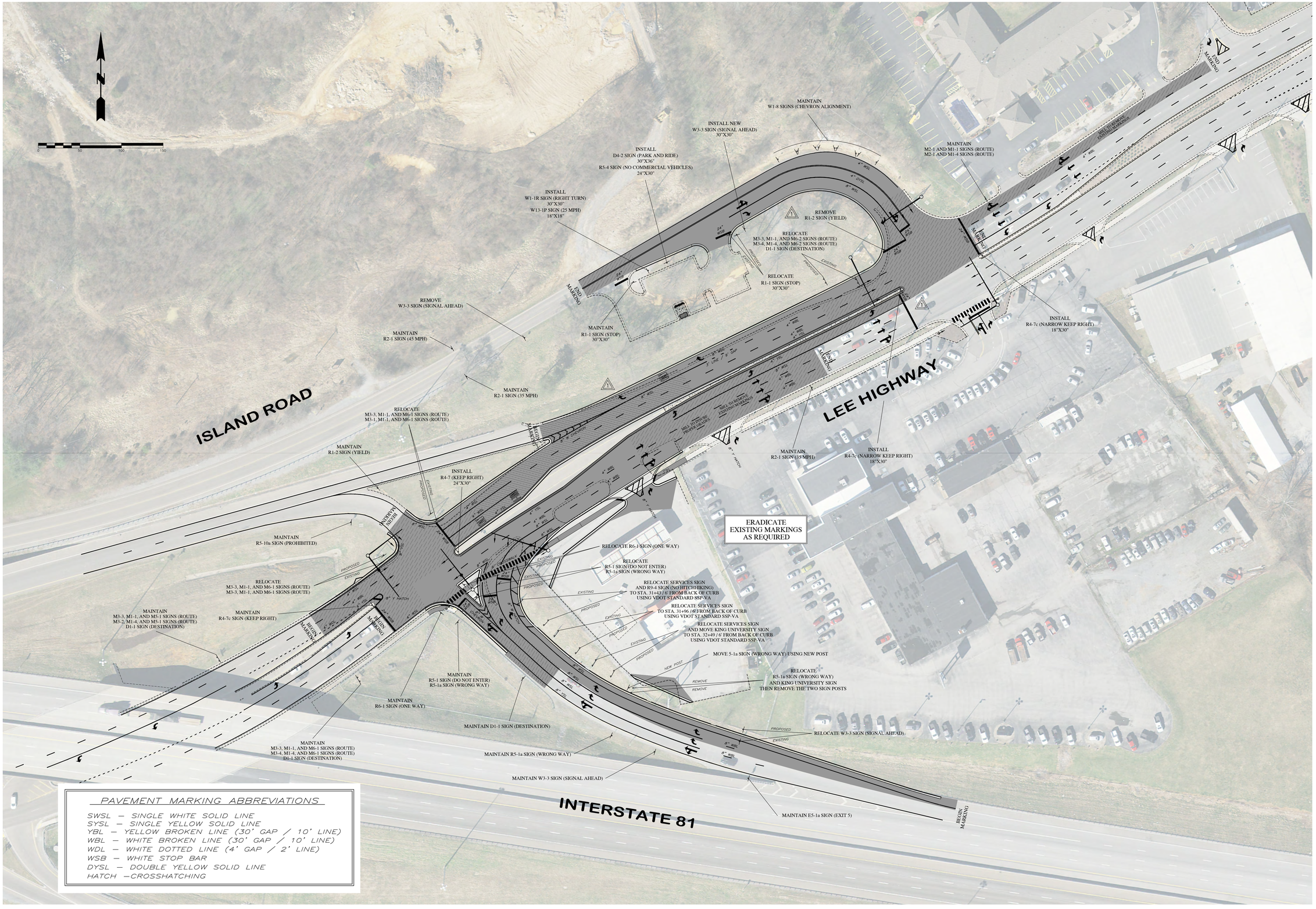
DRAWING NO.
T30-229

FILE NAME: LEE HIGHWAY
EXIT 5 PHASE 1B RAMPS

SHEET NUMBER
7.1 OF 10

LIMITED ACCESS HIGHWAY

BY RESOLUTION OF HIGHWAY COMMISSION
DATED Oct. 4, 1956



PAVEMENT MARKING ABBREVIATIONS

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AND
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T30-229

FILE NAME: LEE HIGHWAY
EXIT 5 PHASE 1B RAMPS

SHEET NUMBER
7.2 OF 10

TRANSPORTATION MANAGEMENT PLAN

1). Project Category

A). This will be a Type B project.

B). The length of the work zone near the NB Off-Ramp is approximately 1900'.
The length of the work zone on Rte. 11 near the SB-Off Ramp is approximately 1600'.
The length of the work zone on Rte. 11 near the SB-On Ramp is approximately 1400'.
The width of the work area will vary.

C). The work zone, active hours - No Restrictions

D). The traffic in this area consists primarily of local traffic and through traffic including truck traffic.

2). Temporary Traffic Control (TTC) Plan:

A). Major components will consist of General Notes, Typical Sections and Special Details.

B). Specific traffic control figures and notes from the 2011 W.A.P.M. Revision 2.1 that may be used for Traffic Control are:

TTC-1.1, Page 6H-8, 6H-9
TTC-4.2, Page 6H-14, 6H-15
TTC-5.2, Page 6H-16, 6H-17
TTC-6.2, Page 6H-18, 6H-19
TTC-7.1, Page 6H-20, 6H-21
TTC-16.2, Page 6H-40, 6H-41
TTC-17.2, Page 6H-42, 6H-43
TTC-18.2, Page 6H-44, 6H-45
TTC-19.2, Page 6H-46, 6H-47
TTC-21.1, Page 6H-50, 6H-51
TTC-22.2, Page 6H-52, 6H-53
TTC-23.2, Page 6H-54, 6H-55
TTC-26.2, Page 6H-60, 6H-61
TTC-27.2, Page 6H-62, 6H-63
TTC-29.2, Page 6H-64, 6H-65
TTC-34.2, Page 6H-74, 6H-75
TTC-35.1, Page 6H-76, 6H-77
TTC-36.2, Page 6H-78, 6H-79
TTC-38.2, Page 6H-82, 6H-83
TTC-40.2, Page 6H-86, 6H-87
TTC-42.2, Page 6H-90, 6H-91
TTC-52.2, Page 6H-110, 6H-111
TTC-53.0, Page 6H-112, 6H-113
TTC-55.1, Page 6H-116, 6H-117
TTC-57.2, Page 6H-120, 6H-121
TTC-58.1, Page 6H-122, 6H-123
TTC-60.0, Page 6H-126, 6H-127

3). Public Communication Strategies:

Project Description:

- Construction of roadway widening, sidewalk construction.
- Mill and overlay of existing roadway.
- Roadway reconstruction.

Traffic Impacts:

- Temporary lane closures.

Goals:

- To inform the public about the project
- To minimize disruption through proactive information dissemination efforts
- To gather public support for the project
- To establish a crisis communications plan

Messages:

- Benefits and purpose of the project
- Traffic Impacts and information on alternate routes
- Contacts for more information

Public Meetings:

- To Be Determined.

Crisis Communications Plan:

- As with any crisis, emergency responders (911) should be notified immediately if necessary.
- The Project Construction Engineer or his designee should be notified immediately.
- If the emergency is traffic related, the Project Construction Engineer or his designee should immediately notify the Public Works Director Jacob Chander 276-642-2316. The Public Works Director will work together with the VDOT Traffic Operations Center to inform the traveling public, emergency responders and the media about delays and unexpected changes in traffic patterns using the contact list and other resources if necessary.

Target Audience	Contact Method	Phone Number, E-mail or Address	Responsible Charge
Motorists	News Release, weekly traffic information (Roadwatch) and the Traffic Operations Center	See District Communications news release distribution list (e-mail and fax)	Public Works Director Jacob Chandler (276)642-2316
POLICE Virginia State Police City of Bristol Police Department FIRE / RESCUE City of Bristol Fire Department	Phone	 Emergency 911 (276) 669-2641 Emergency 911 (276) 645-7400 Emergency 911 (276) 645-7303	 Project Construction Engineer Project Construction Engineer Project Construction Engineer
Residential neighborhoods			Public Works Director Jacob Chandler (276)642-2316
COUNTY/CITY OFFICIALS City of Bristol Administration	Phone	 (276) 645-7275	 Public Works Director Jacob Chandler (276)642-2316

4). Transportation Operations (TO) Plan

A). A contact list of local emergency response agencies must be kept and maintained throughout the project lifecycle.

B). Traffic Backup Notification

Emergency contact for this project shall be 911.

City of Bristol Engineering Department (276-821-6293) and the Traffic Operations Center (540-375-0170) shall be notified of lane closures and traffic impacts by the project staff. The TOC will utilize available systems (cameras, sensors, etc) to monitor the work area and all adjacent areas. The TOC will make all entries into systems that feed this information into 511. The TOC will utilize assets such as permanent and mobile variable message signs with CDMA modems to alert motorists of lane closures and other incidents that may impact travel.

The TOC shall be responsible for intra-agency notifications to entities such as but not limited to VSP, Local 911, and other affected agencies.

A review of all major incidents, as determined by the City Engineer, shall be accomplished within 48 hours of clearance of the incident.

CITY OF BRISTOL, VIRGINIA
300 LEE STREET
BRISTOL, VA 24201
(276) 645-7360

REVISIONS
DATE

COMMONWEALTH OF VIRGINIA
REBEKAH A. STROUPE
Lic. No. 042856
03/29/23
PROFESSIONAL ENGINEER

WIDENING OF
LEE HIGHWAY PHASE - 1B
AND
I-81 EXIT 5 RAMPS
PROJECT 0011-102-728 UPC 105309

TRANSPORTATION MANAGEMENT PLAN

DATE:
JUNE 2020

SHEET NUMBER
8.1 OF 10

TEMPORARY TRAFFIC CONTROL PLAN - SOC

TEMPORARY TRAFFIC CONTROL PLAN NOTES:

1. UNLESS OTHERWISE APPROVED OR DIRECTED BY THE ENGINEER, THE CONTRACTOR SHALL PLAN AND PROSECUTE THE WORK IN ACCORDANCE WITH THE FOLLOWING NOTES AND TEMPORARY TRAFFIC CONTROL PLANS.

2. IF THE CONTRACTOR WISHES TO DEVIATE FROM THE APPROVED TRAFFIC CONTROL PLANS, HE / SHE SHALL SUBMIT A DETAILED TRAFFIC CONTROL PLAN TO THE CONSTRUCTION ENGINEER FOR APPROVAL PRIOR TO BEGINNING CONSTRUCTION. ANY MAINTENANCE OF TRAFFIC PLANS SUBMITTED BY THE CONTRACTOR THAT DIFFER FROM THE APPROVED MAINTENANCE OF TRAFFIC PLANS MUST BE SUBMITTED WITH THE SAME LEVEL OF DETAIL AS THE APPROVED MAINTENANCE OF TRAFFIC PLANS.

3. THIS PROJECT WILL BE CONSTRUCTED IN ACCORDANCE WITH: THE PLANS; THE VIRGINIA DEPARTMENT OF TRANSPORTATION ROAD AND BRIDGE SPECIFICATIONS, DATED 2020 AND ALL REVISIONS; THE VIRGINIA DEPARTMENT OF TRANSPORTATION ROAD AND BRIDGE STANDARDS, DATED 2016 AND ALL REVISIONS; AND THE VIRGINIA WORK AREA PROTECTION MANUAL, DATED 2011 AND ALL REVISIONS.

4. TRAFFIC CONTROL DEVICES SHALL COMPLY WITH:
   A. 2011 VIRGINIA WORK AREA PROTECTION MANUAL (VA WAPM) WITH REVISION 2.1.
   B. 2009 MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) WITH REVISIONS 1, 2, AND 3.
   C. 2011 VIRGINIA SUPPLEMENT TO THE MUTCD WITH REVISION 1.
   D. 2016 VDOT ROAD AND BRIDGE STANDARDS (LATEST REVISION).

5. IT IS NOT THE INTENT OF THESE PLANS TO ENUMERATE EVERY DETAIL WHICH MUST BE CONSIDERED IN THE CONSTRUCTION OF EACH STAGE, BUT ONLY TO SHOW THE GENERAL HANDLING OF TRAFFIC.

6. THE TRAFFIC CONTROL FEATURES SHOWN HERE DEPICT THE MAJOR TRAFFIC CONTROL ITEMS (FOR EXAMPLE, LOCATION OF SHADOW VEHICLES NOT SHOWN). DAILY CONTROL OF TRAFFIC INCLUDING THE PLACEMENT, MAINTENANCE, AND REMOVAL OF TRAFFIC CONTROL DEVICES SHALL BE THE CONTRACTOR'S RESPONSIBILITY.

7. ALL SIGNS, CHANNELIZING DEVICES, AND ANY OTHER DEVICES USED IN THE CONSTRUCTION ZONE SHALL BE FURNISHED BY THE CONTRACTOR AND SHALL BE KEPT CLEAN AND PROPERLY ALIGNED AT ALL TIMES.

8. THE CLEAR ZONE SHALL BE MAINTAINED FREE OF PARKED EQUIPMENT AND STORED MATERIALS OR OTHERWISE PROTECTED IN ACCORDANCE WITH THE VA WAPM.

9. THE CONTRACTOR SHALL MAINTAIN ADEQUATE SIGHT DISTANCE WITH THE PLACEMENT OF ALL TRAFFIC CONTROL DEVICES AND CONSTRUCTION EQUIPMENT / MATERIAL.

10. EXCAVATED AREAS WITHIN OR ADJACENT TO THE ROADWAY SHALL BE BACKFILLED AND TOPPED WITH STONE AT ROADWAY GRADE OR OTHERWISE REPAIRED TO GRADE BY THE END OF EACH WORK PERIOD.

11. WHEN A DROPOFF CONDITION EXISTS, THE CONTRACTOR SHALL ADHERE TO VA WAPM APPENDIX A.

12. ALL CONFLICTING HIGHWAY SIGNS SHALL BE COVERED. ADDITIONALLY, ALL WORK ZONE SIGNS NOT IN USE SHALL BE COVERED OR REMOVED. IF COVERED, SIGNS SHALL BE DELINEATED PER THE VA WAPM.

13. CONTRACTOR SHALL NOTE THE POSSIBLE PRESENCE OF EXISTING UTILITIES ADJACENT TO EXISTING ROADWAYS. CONTRACTOR SHALL CONFIRM POST MOUNTING OF CONSTRUCTION SIGNS DO NOT CONFLICT WITH EXISTING UTILITIES.

14. ACCESS TO BUSINESS/COMMERCIAL ENTRANCES SHALL BE MAINTAINED AT ALL TIMES DURING THE NORMAL OPERATING HOURS OF EACH BUSINESS. NOTIFICATION SHALL BE PROVIDED AT LEAST 72 HOURS PRIOR TO CLOSING A BUSINESS ENTRANCE DURING NON-BUSINESS HOURS.

15. WHERE WORK IS OCCURRING IN FRONT OF BUSINESS/COMMERCIAL ENTRANCES, SUFFICIENT TRAFFIC CONTROL DEVICES SHALL BE PROVIDED IN ORDER TO DIRECT MOTORISTS AROUND THE WORK AREA.

16. TRAFFIC BARRIER SERVICE SHALL BE INSTALLED AND REMOVED SO AS NOT TO PRESENT ANY BLUNT END OR HAZARD TO THE MOTORING PUBLIC. THE PLACEMENT AND REMOVAL OF THE TRAFFIC BARRIER SERVICE AND BARRICADES ARE TO BE COORDINATED BY THE PROJECT SAFETY OFFICER.

17. CHANNELIZING DEVICE SPACING:

    POSTED SPEED LIMIT: 0-35 MPH
    TRANSITION / CURVE / TURN LANE SPACING: 20-FT
    TRAVELWAY SPACING: 40-FT

    POSTED SPEED LIMIT: > 35 MPH
    TRANSITION / CURVE / TURN LANE SPACING: 40-FT
    TRAVELWAY SPACING: 80-FT

18. UNLESS OTHERWISE NOTED, SIGN SIZES SHALL MEET THE REQUIREMENTS OF VA WAPM TABLE 6F-1.

19. TEMPORARY MARKINGS SHALL BE INSTALLED FOR WORK LASTING MORE THAN 3 DAYS IN ACCORDANCE WITH VA WAPM TTC-60.0.

20. TEMPORARY PAVEMENT MARKERS SHALL BE INSTALLED IN LANE SHIFT AREAS IN PLACE FOR MORE THAN 3 DAYS. SEE SECTION 6F.87 AND TTC-60.0 OF THE VA WAPM FOR FURTHER INFORMATION.

21. ALL CONFLICTING MARKINGS SHALL BE COMPLETELY ERADICATED. USE OF TYPE E MARKINGS (6" BLACK TEMPORARY TAPE) IS PERMITTED IF APPROVED BY THE ENGINEER. SEE VA WAPM TTC-55.1 FOR MORE INFORMATION.

22. PRIOR TO ANY MILLING OR PAVING OPERATIONS, THE CONTRACTOR SHALL FIELD VERIFY THE PAVEMENT DEPTH OF ROUTE 11 (LEE HIGHWAY) AND NOTIFY THE CITY OF THE RESULTS.

23. THE CONTRACTOR SHALL IDENTIFY ALL UTILITY CONFLICTS WITHIN THE PROJECT LIMITS AND COORDINATE REQUIRED UTILITY RELOCATIONS WITH THE CITY.

TEMPORARY TRAFFIC CONTROL SEQUENCE OF CONSTRUCTION:

PHASE 1A:

1. SETUP WORK ZONE ON I-81 NB AND I-81 NB OFF RAMP AS SHOWN ON DRAWING 8.6. (RAMP MODELED AFTER VA WAPM TTC-6.2/TTC-7.1)
2. INSTALL E&S DEVICES PRIOR TO WORK.
3. CONSTRUCT WIDENING ALONG I-81 NB OFF RAMP (PHASE 1A).

PHASE 1B:

1. INSTALL NEW TRAFFIC SIGNALS AND CG-6 SPILL AT INTERSECTION OF RTE. 11 AND I-81 NB OFF RAMP USING TEMPORARY LANE CLOSURES AS NECESSARY. CLOSE LANES IN ACCORDANCE WITH VA WAPM TTC-16.2, 17.2 AND 21.1 MODIFIED AS NECESSARY. EXISTING SIGNALS WILL REMAIN OPERATIONAL UNTIL NEW SIGNALS ARE MADE OPERATIONAL.
2. REMOVE EXISTING SIGNAL EQUIPMENT AT INTERSECTION WITH NB OFF RAMP USING TEMPORARY LANE CLOSURES AS NECESSARY.
3. CONSTRUCT MEDIAN ISLAND IN CENTER LANE ON RTE. 11 (STA. 84+50 TO STA. 85+35) BY TEMPORARILY CLOSING INSIDE LANES IN ACCORDANCE WITH VA WAPM TTC-17.2 AND 21.1 MODIFIED AS NECESSARY.
4. CONSTRUCT MILL AND OVERLAY ALONG RTE. 11 USING TEMPORARY LANE CLOSURES.
5. PERFORM FINAL STRIPING USING TEMPORARY LANE CLOSURES.

NOTE: PHASES 1A AND 1B MAY BE DONE CONCURRENTLY WITH PHASES 2 THROUGH 5. CHANGES TO ADVANCE SIGNING MAY BE REQUIRED.

PHASE 2A:

1. INSTALL E&S DEVICES PRIOR TO WORK.
2. INSTALL STORM DRAINAGE IN RTE. 11 USING TEMPORARY LANE CLOSURES AS NECESSARY. CLOSE LANES IN ACCORDANCE WITH VA WAPM TTC-16.2, 17.2, 18.2, 21.1, AND 42.2 MODIFIED AS NECESSARY. DRAINAGE STRUCTURES THAT ARE LOCATED WITHIN EXISTING TRAVEL LANES MUST BE ADJUSTED TO MATCH EXISTING GRADE WITH MANHOLE COVERS.
3. INSTALL NEW TRAFFIC SIGNALS ON THE NORTH SIDE OF RTE 11 AT THE I-81 SB ON RAMP USING TEMPORARY LANE CLOSURES AS NECESSARY. CLOSE LANES IN ACCORDANCE WITH VA WAPM TTC-16.2, 17.2, 18.1, 21.1 AND 42.2 MODIFIED AS NECESSARY. EXISTING SIGNALS WILL REMAIN OPERATIONAL UNTIL NEW SIGNALS ARE MADE OPERATIONAL.

PHASE 2B:

1. INSTALL E&S DEVICES PRIOR TO WORK.
2. INSTALL NEW TRAFFIC SIGNAL AT SOUTHEAST QUADRANT OF RTE. 11 AND THE I-81 OFF RAMP USING TEMPORARY LANE CLOSURES AS NECESSARY. CLOSE LANES IN ACCORDANCE WITH VA WAPM TTC-16.2, 17.2, 18.2, 21.1, AND 42.2 MODIFIED AS NECESSARY. INSTALL AND ALIGN TEMPORARY SIGNAL HEADS FOR THE NORTHBOUND RTE. 11 TRAFFIC. REWIRE THE NORTHBOUND RTE. 11 EXISTING TRAFFIC SIGNALS TO THESE NEW SIGNALS AND SWITCH OPERATIONS.
3. REMOVE EXISTING TRAFFIC SIGNAL ARM, POLE AND FOUNDATION UTILIZING TEMPORARY LANE CLOSURES AS NECESSARY.

PHASE 3A:

1. SETUP WORK ZONE ON I-81 SB OFF RAMP AS SHOWN ON DRAWING 8.7A. (MODELED AFTER VA WAPM TTC-7.1)
2. INSTALL E&S DEVICES PRIOR TO WORK.
3. CONSTRUCT WIDENING ALONG I-81 SB OFF RAMP.
4. INSTALL STEEL PLATE OVER TRAFFIC SIGNAL JUNCTION BOX.
5. CONSTRUCT WIDENING ALONG RTE. 11 NB USING LANE CLOSURE AS SHOWN ON DRAWINGS 8.7 AND 8.7A AND IN ACCORDANCE WITH VA WAPM TTC-16.2.
6. PEDESTRIANS MUST BE PROVIDED A SAFE AND CLEAR PATH AROUND THE WORK AT ALL TIMES. SEE VA WAPM TTC-35.1 AND TTC-36.2 FOR REFERENCE.

PHASE 3B:

1. CLOSE OUTSIDE LANE OF RTE. 11 NB AT I-81 SB OFF-RAMP. CLOSE INSIDE OF I-81 SB OFF-RAMP IN ACCORDANCE WITH VA WAPM. CONSTRUCT INSIDE OF I-81 SB OFF-RAMP.
2. MAINTAIN OUTSIDE LANE CLOSURE OF RTE. 11 NB. SET UP WORK ZONE AS SHOWN ON SHEET 8.8. PCMS SHALL BE INSTALLED AS DIRECTED BY THE ENGINEER IN A MANNER TO BE CLEAR TO EXIT RAMP MOTORISTS BUT NOT CONFUSING TO MAINLINE MOTORISTS.
3. CONSTRUCT ISLAND AND NEW TRAFFIC SIGNAL.
4. IF NECESSARY, SET UP NIGHT-TIME FLAGGING OPERATION AT INTERSECTION WITH RTE. 11 AND I-81 SB OFF-RAMP IN ACCORDANCE WITH VA WAPM TTC-30.2 AND CONSTRUCT THE REMAINDER OF CONCRETE ISLAND.

PHASE 4A:

1. INSTALL E&S DEVICES PRIOR TO WORK.
2. CONSTRUCT ISLAND ROAD WIDENING AS SHOWN ON DRAWING 8.9A. TWO-WAY TRAFFIC SHALL BE MAINTAINED ON ISLAND ROAD AT ALL TIMES.
3. CONSTRUCT WIDENING AND MILL/OVERLAY ALONG RTE. 11 SB BY CLOSING RIGHT LANES AS SHOWN ON DRAWING 8.8A.
4. WHEN WORK IS BEING PERFORMED IN FRONT OF THE I-81 SB ON-RAMP SLIP RAMP FROM RTE. 11 SB, SUFFICIENT SPACE SHALL BE PROVIDED FOR VEHICLES TO ACCESS THE ON-RAMP AT THE TRAFFIC SIGNAL. PCMS SHALL BE USED AS SHOWN FOR THE DETOUR.
5. THE SLIP RAMP SHALL BE RE-OPENED PRIOR TO PERFORMING CONSTRUCTION ON THE RAMP AT THE INTERSECTION.
6. THE ON-RAMP AT THE INTERSECTION SHALL BE CLOSED NIGHTLY AS NECESSARY TO COMPLETE THE WORK AND TRAFFIC DETOURED IN ACCORDANCE WITH VA WAPM TTC-34.2.

PHASE 5:

1. SHIFT TRAFFIC TO OUTSIDES OF RTE. 11 AS SHOWN ON DRAWING 8.11
2. CONSTRUCT INSIDE LANES AND MEDIAN.

PHASE 6:

1. REMOVE REMAINING EXISTING SIGNAL EQUIPMENT USING TEMPORARY LANE CLOSURES AS NECESSARY.
2. CONSTRUCT MILL AND OVERLAY OF RTE. 11 AND ISLAND ROAD USING TEMPORARY LANE CLOSURES.
3. PERFORM FINAL STRIPING USING TEMPORARY LANE CLOSURES.
4. REMOVE E&S DEVICES AS PER VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK.
5. REMOVE ALL TEMPORARY TRAFFIC CONTROL DEVICES AND WORK ZONE SIGNAGE.

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REVISIONS	DATE
PHASE 4 NOTES UPDATED.	10/15/2021

COMMONWEALTH OF VIRGINIA
REBEKAH A. STROUPE
Lic. No. 042856
03/29/23
PROFESSIONAL ENGINEER

WIDENING OF
LEE HIGHWAY PHASE - 1B
AND
I-81 EXIT 5 RAMPS
PROJECT 0011-102-728 UPC 105309

TEMPORARY TRAFFIC CONTROL PLAN - SOC

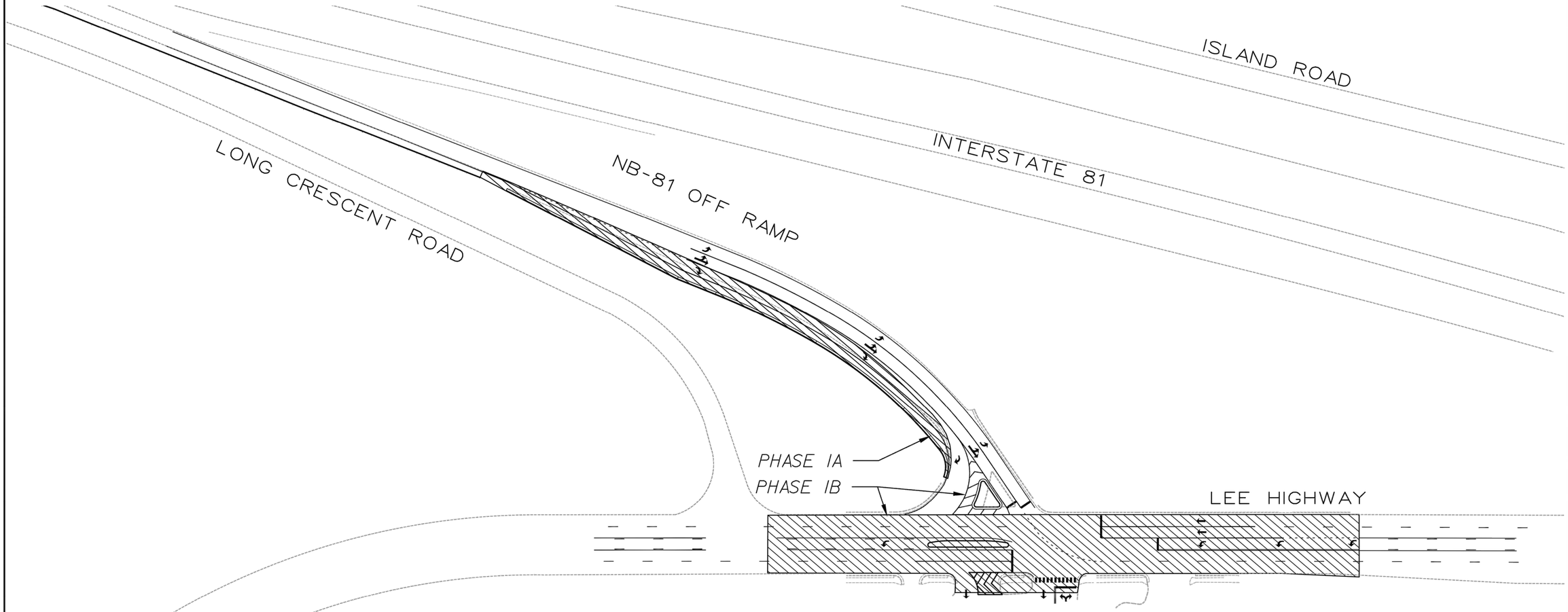
DATE:
JUNE 2020

SHEET NUMBER
8.2 OF 10

LIMITED ACCESS HIGHWAY

BY RESOLUTION OF HIGHWAY COMMISSION
DATED Oct. 4, 1956

TEMPORARY TRAFFIC CONTROL PLAN - SOC



LEGEND:

AREA UNDER CONSTRUCTION

0 25 50 75

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DATE	REVISIONS
10/15/2021	PHASE 1A UPDATED AT NB-81 OFF RAMP

COMMONWEALTH OF VIRGINIA
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WIDENING OF
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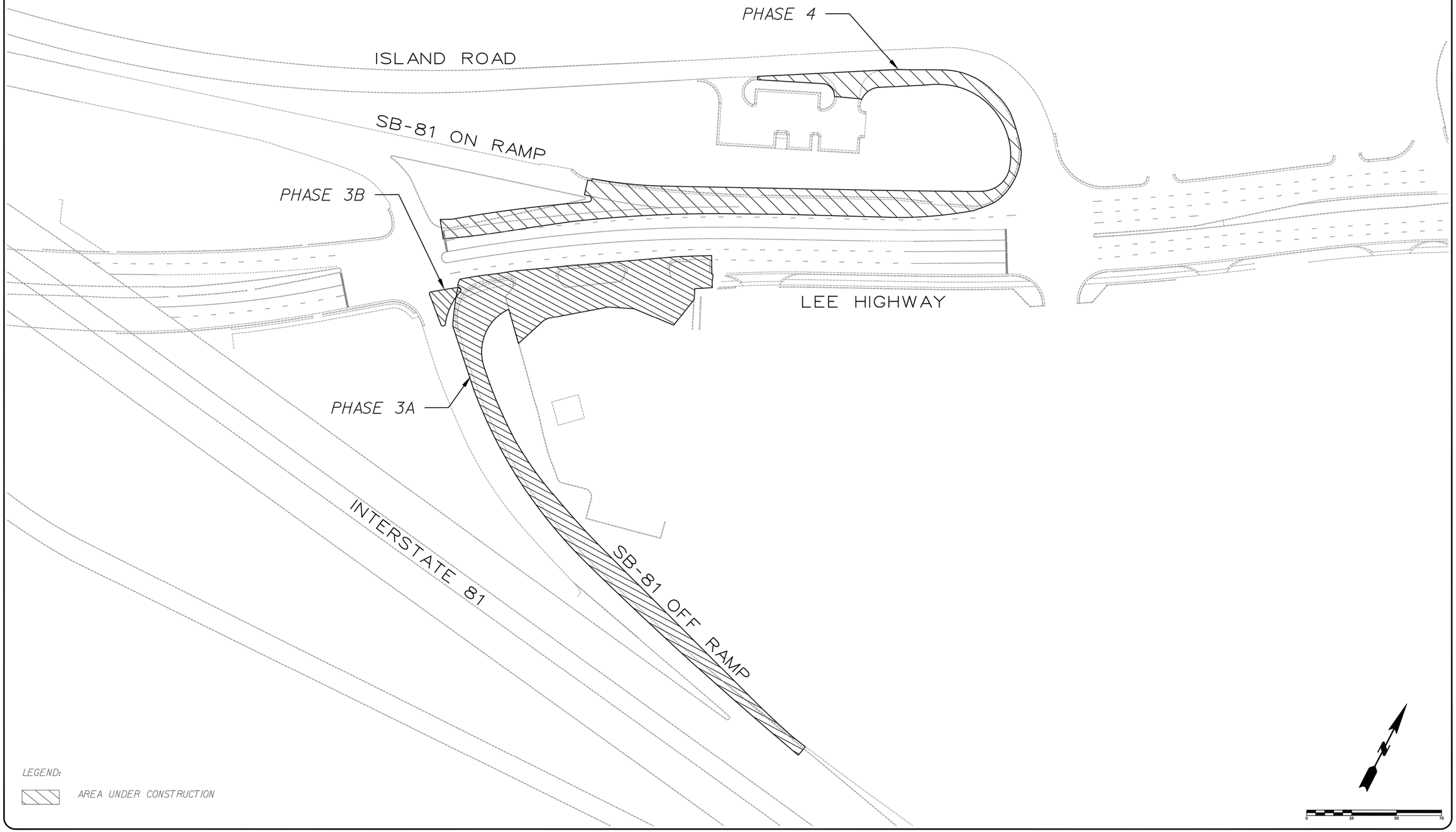
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8.3 OF 10

LIMITED ACCESS HIGHWAY

BY RESOLUTION OF HIGHWAY COMMISSION
DATED Oct. 4, 1956

TEMPORARY TRAFFIC CONTROL PLAN - SOC



LEGEND:

AREA UNDER CONSTRUCTION

CITY OF
BRISTOL, VIRGINIA
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BRISTOL, VA 24201
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DATE	REVISIONS
10/15/2021	PHASE 4 UPDATED AT ISLAND ROAD

COMMONWEALTH OF VIRGINIA
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03/29/23

WIDENING OF
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TEMPORARY TRAFFIC CONTROL PLAN - SOC

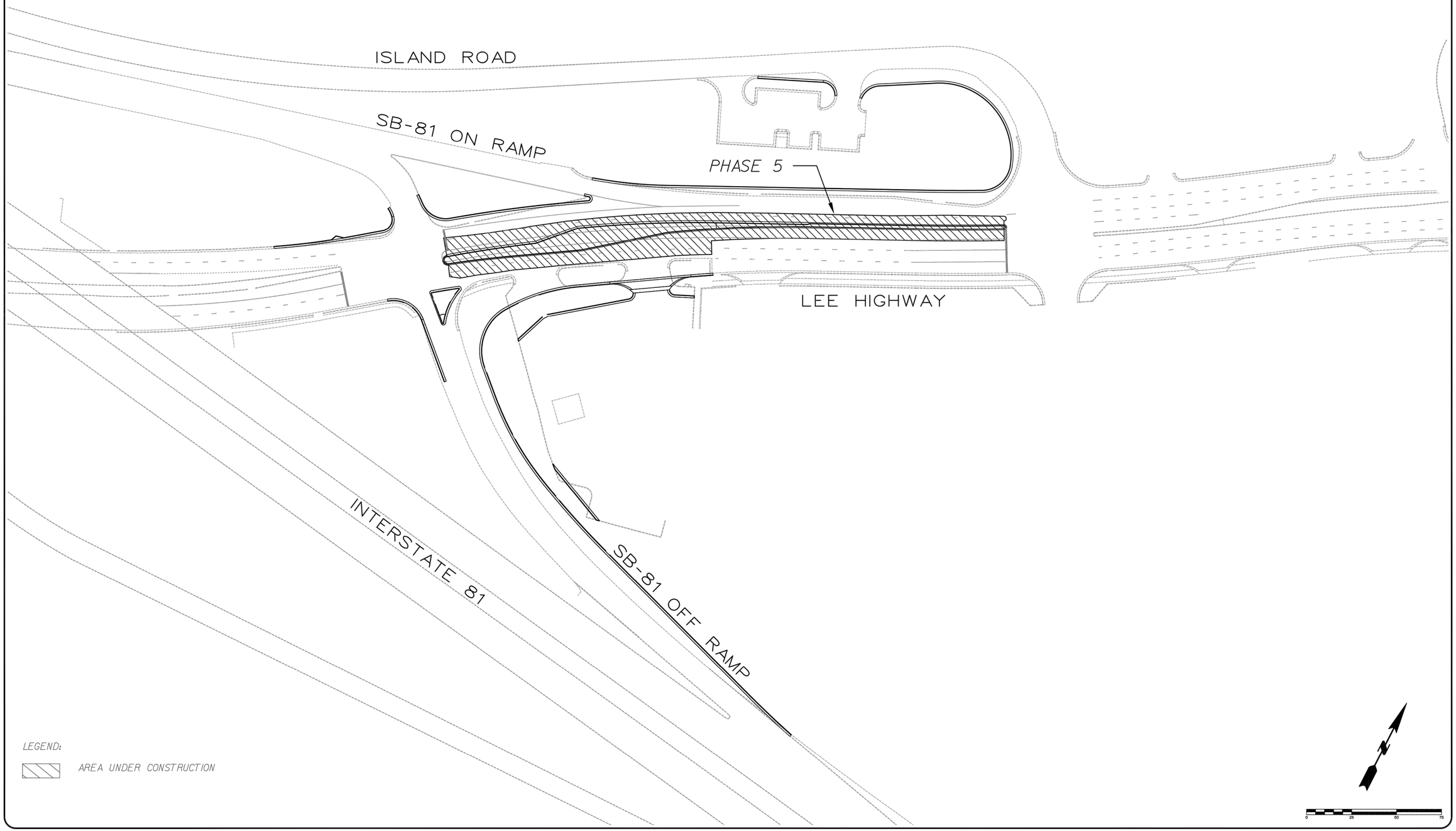
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SHEET NUMBER
8.4 OF 10

LIMITED ACCESS HIGHWAY

BY RESOLUTION OF HIGHWAY COMMISSION
DATED Oct. 4, 1956

TEMPORARY TRAFFIC CONTROL PLAN - SOC



CITY OF
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REVISIONS

DATE

COMMONWEALTH OF VIRGINIA
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WIDENING OF
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TEMPORARY TRAFFIC
CONTROL PLAN - SOC

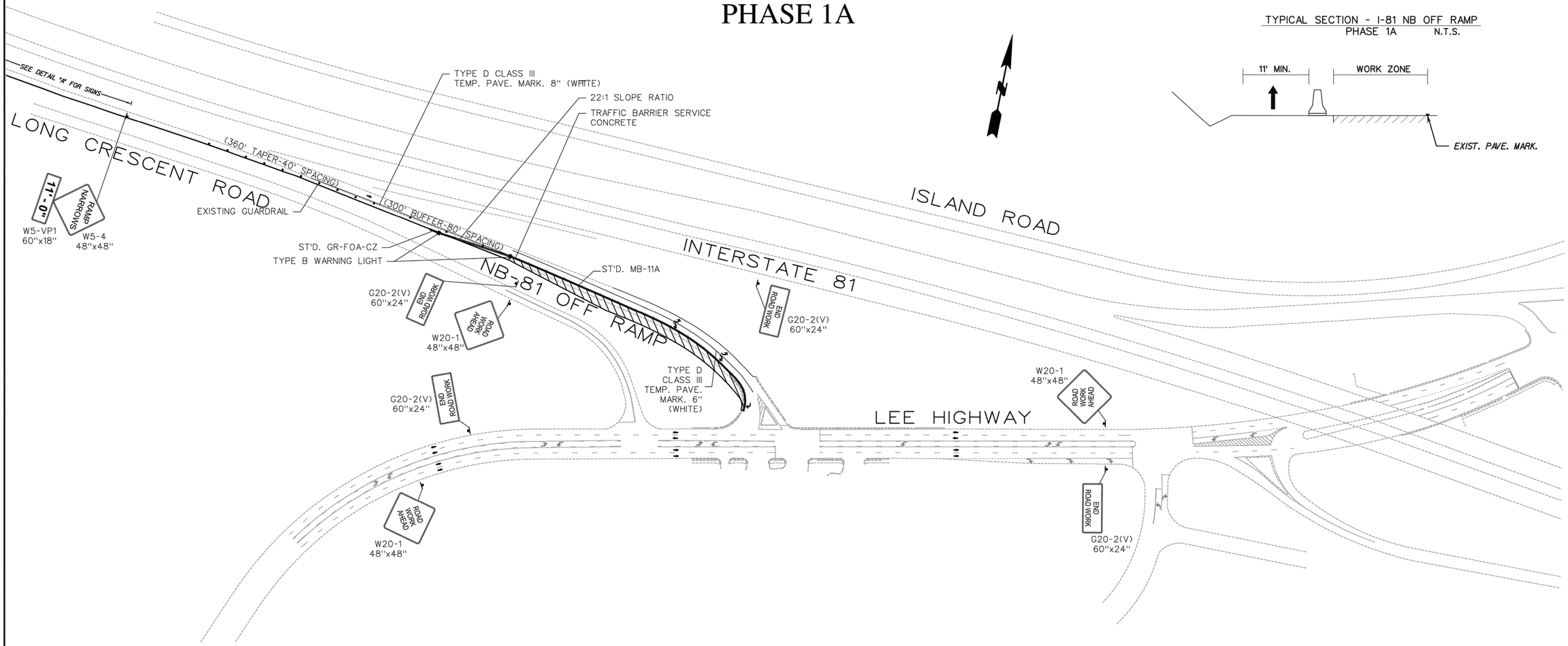
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8.5 OF 10

LIMITED ACCESS HIGHWAY

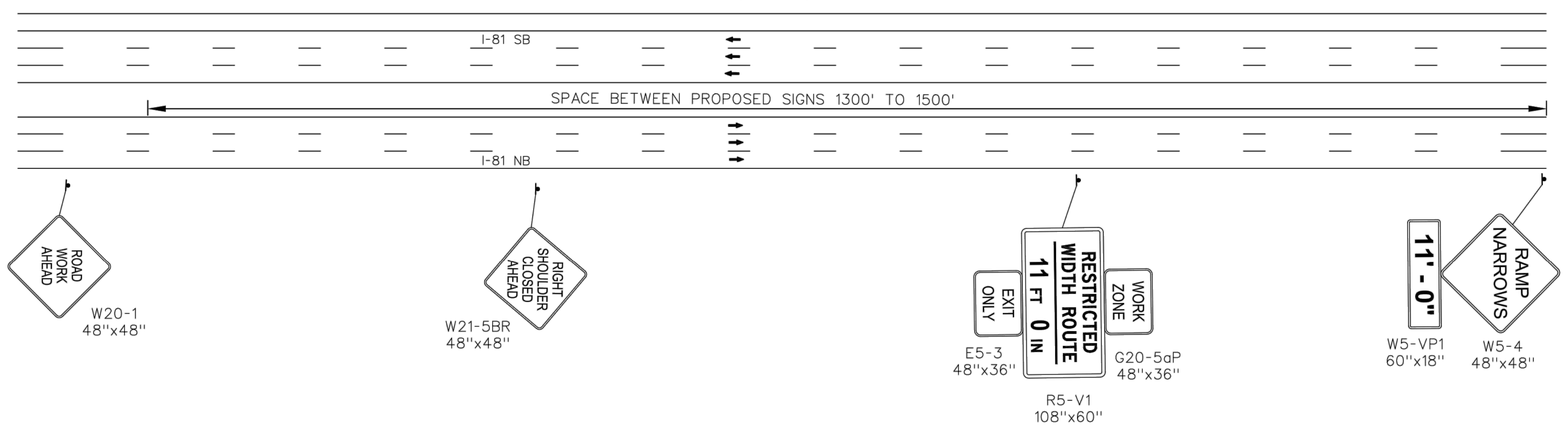
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DATED Oct. 4, 1956

TEMPORARY TRAFFIC CONTROL PLAN
PHASE 1A



TYPICAL SECTION - I-81 NB OFF RAMP
PHASE 1A N.T.S.

DETAIL "A"
(N.T.S)



LEGEND:

AREA UNDER CONSTRUCTION

0 100 200 300

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DATE	REVISIONS
10/15/2021	PHASE 1A UPDATED AT NB-81 OFF RAMP

COMMONWEALTH OF VIRGINIA
REBEKAH A STROUPE
Lic. No. 042856
03/19/21
PROFESSIONAL ENGINEER

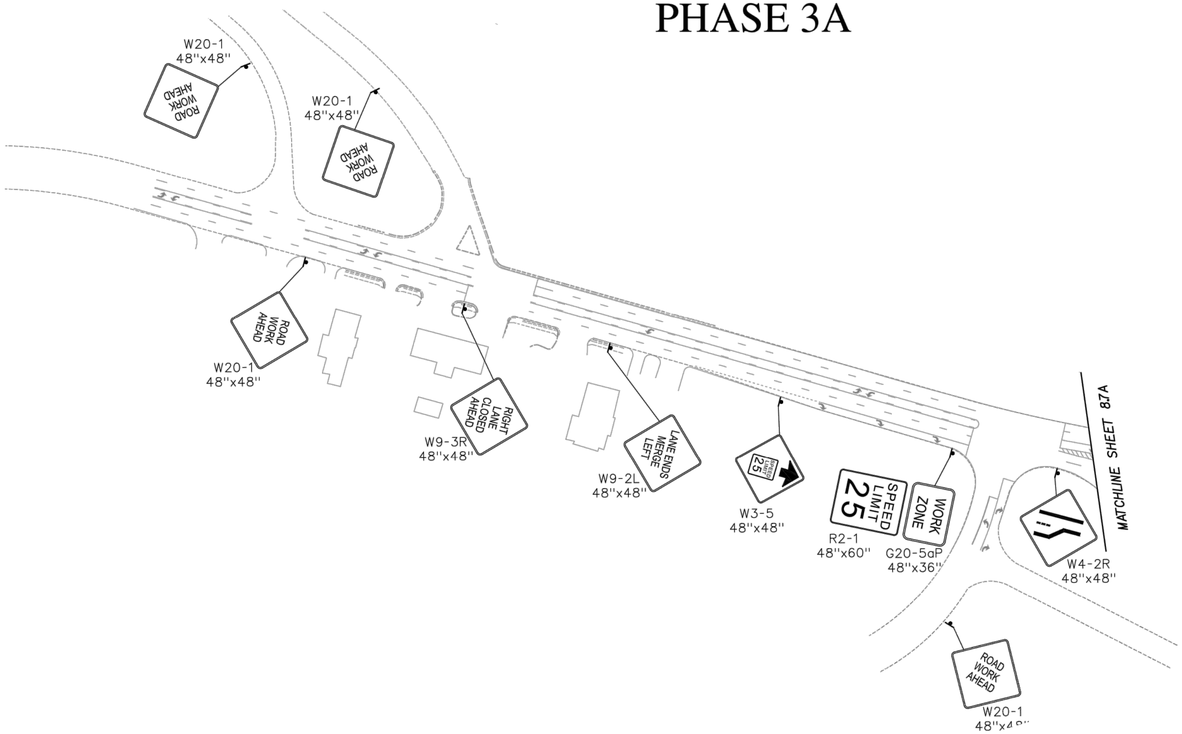
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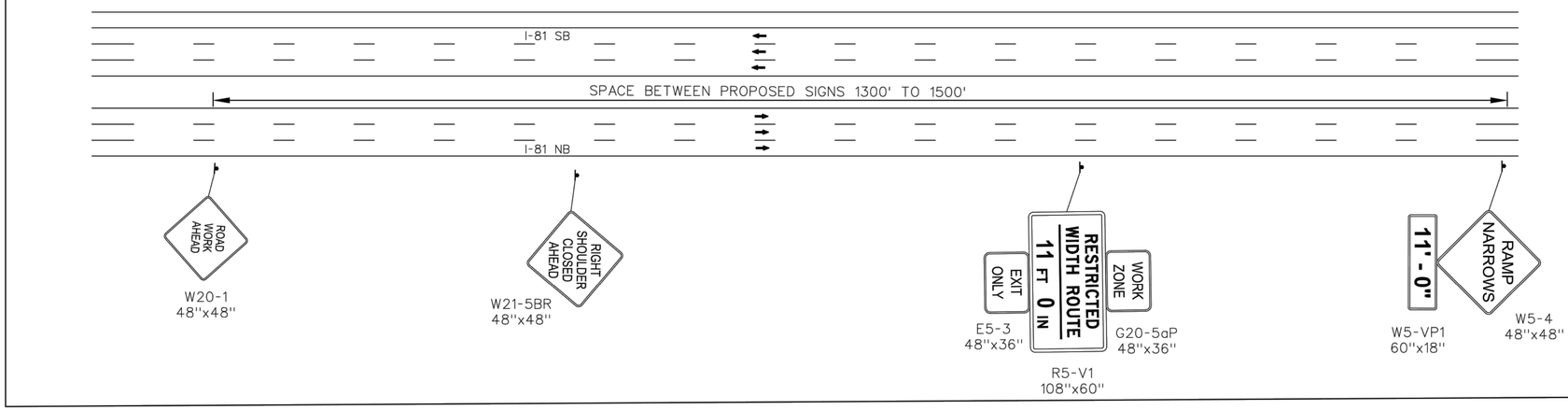
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8.6 OF 10

TEMPORARY TRAFFIC CONTROL PLAN
PHASE 3A



DETAIL "B"
(N.T.S)



LEGEND:

AREA UNDER CONSTRUCTION

0 100 200 300

CITY OF BRISTOL
VIRGINIA

CITY OF
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COMMONWEALTH OF VIRGINIA
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WIDENING OF
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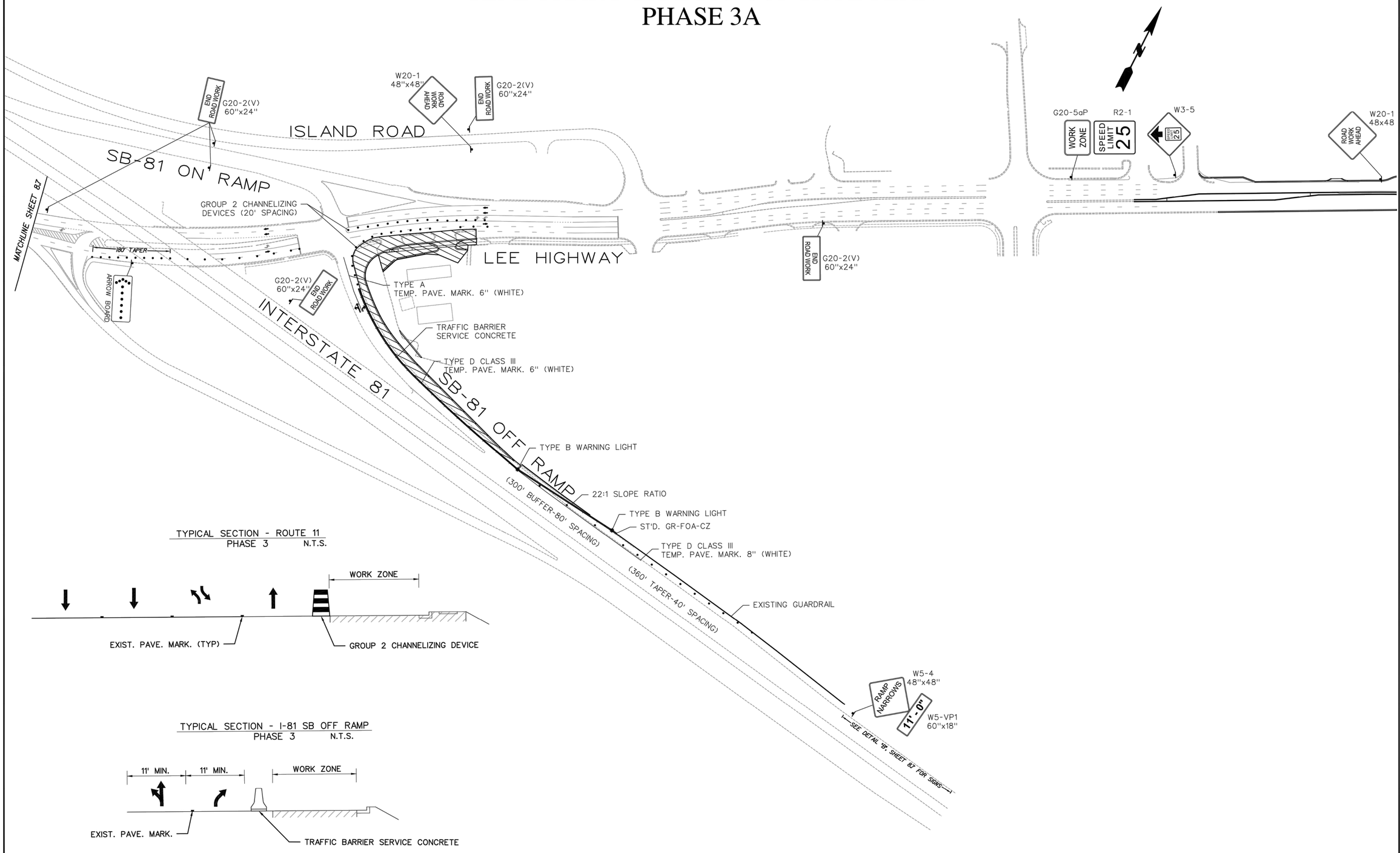
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8.7 OF 10

LIMITED ACCESS HIGHWAY

BY RESOLUTION OF HIGHWAY COMMISSION
DATED Oct. 4, 1956

TEMPORARY TRAFFIC CONTROL PLAN
PHASE 3A



TYPICAL SECTION - ROUTE 11
PHASE 3 N.T.S.

TYPICAL SECTION - I-81 SB OFF RAMP
PHASE 3 N.T.S.

LEGEND:

AREA UNDER CONSTRUCTION

CITY OF
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REVISIONS

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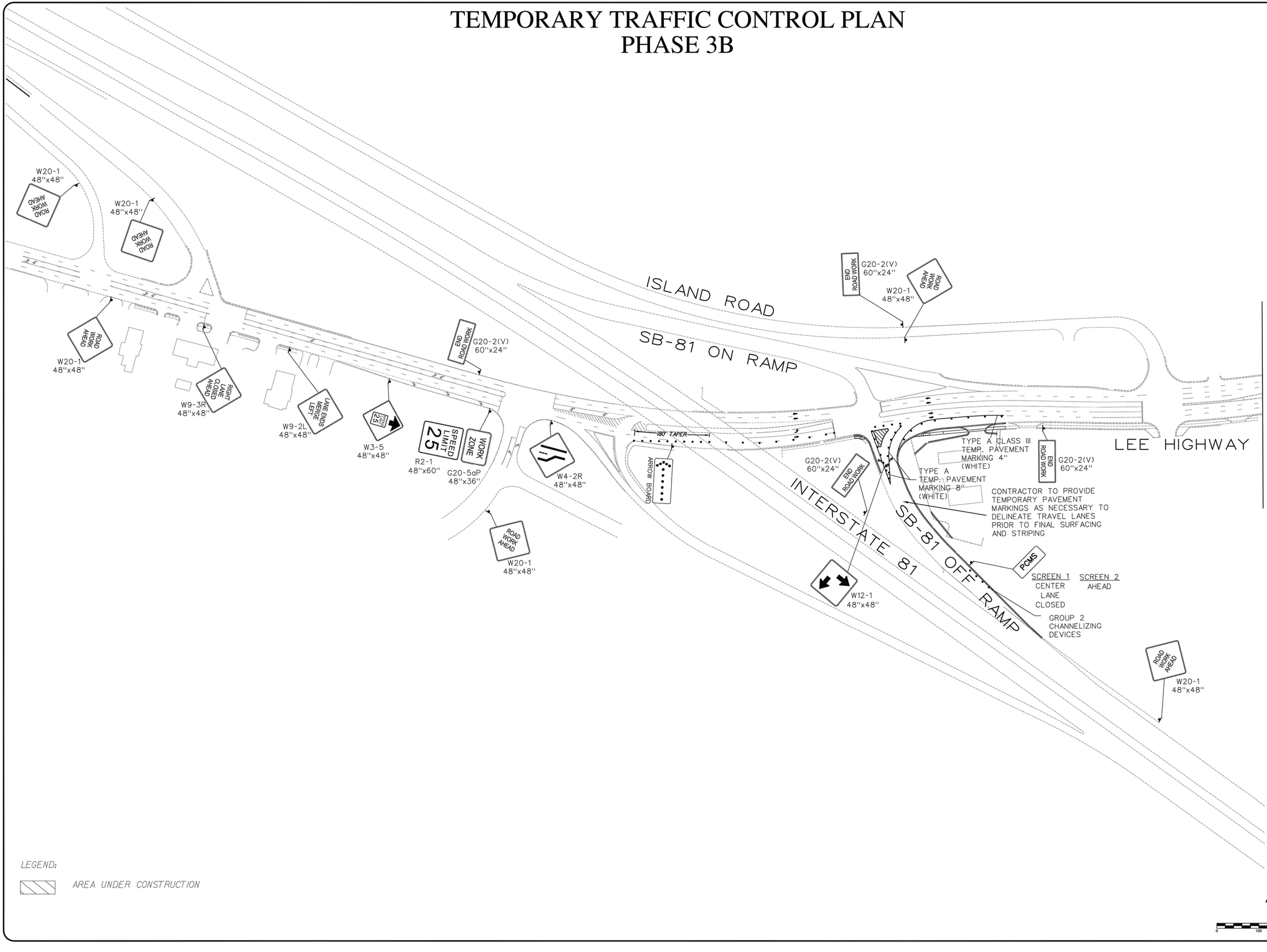
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TEMPORARY TRAFFIC CONTROL PLAN - SOC

DATE:
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SHEET NUMBER
8.7A OF 10

TEMPORARY TRAFFIC CONTROL PLAN
PHASE 3B



FOR PHASE 3B ADVANCE SIGNING ALONG RTE. 11 SB, USE THE SAME AS PHASE 3 (SHEET 8.7A)

LEGEND:

AREA UNDER CONSTRUCTION

CITY OF
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05/29/13
PROFESSIONAL ENGINEER

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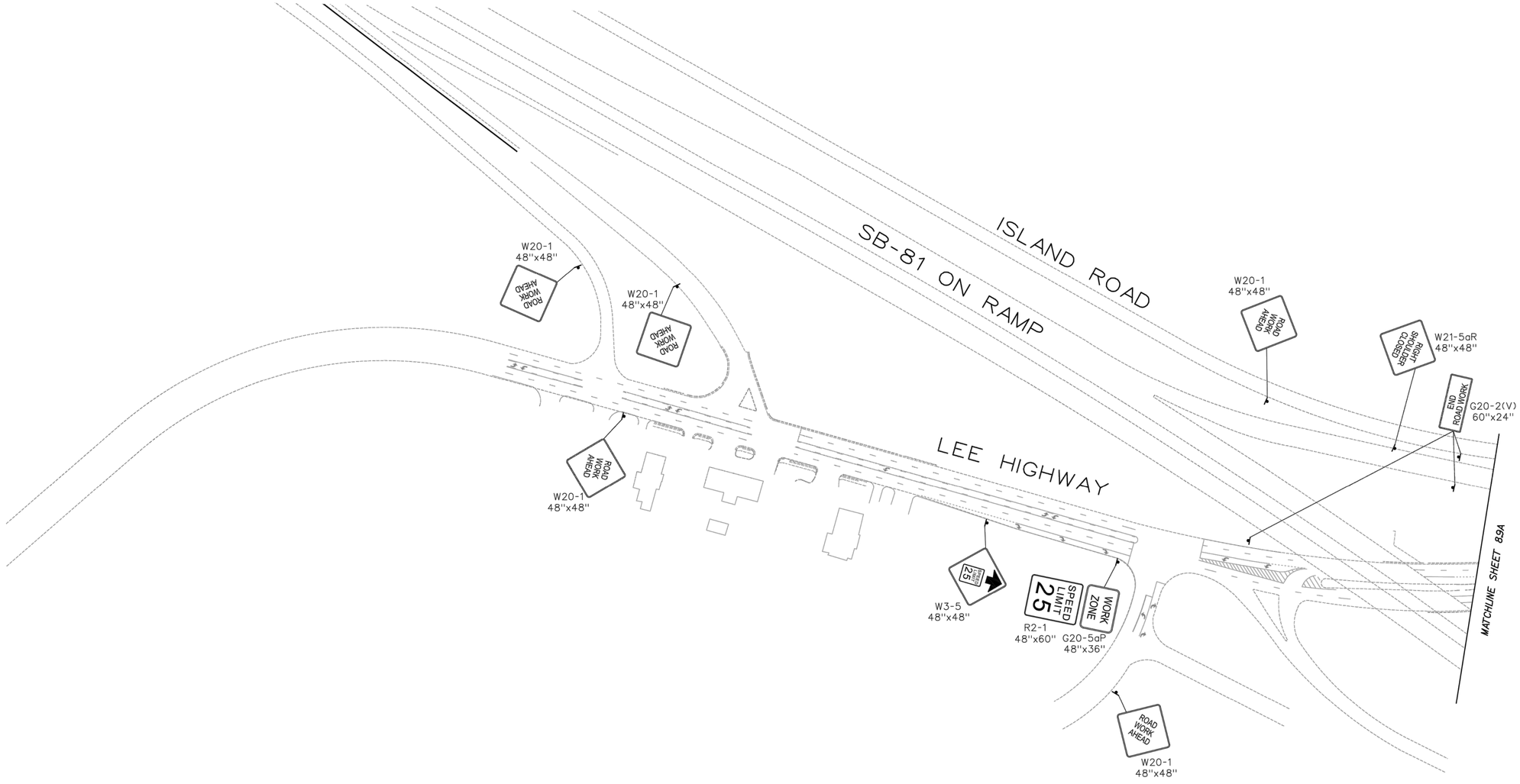
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8.8 OF 10

LIMITED ACCESS HIGHWAY

BY RESOLUTION OF HIGHWAY COMMISSION
DATED Oct. 4, 1956

TEMPORARY TRAFFIC CONTROL PLAN
PHASE 4A



LEGEND:

AREA UNDER CONSTRUCTION

0 100 200 300

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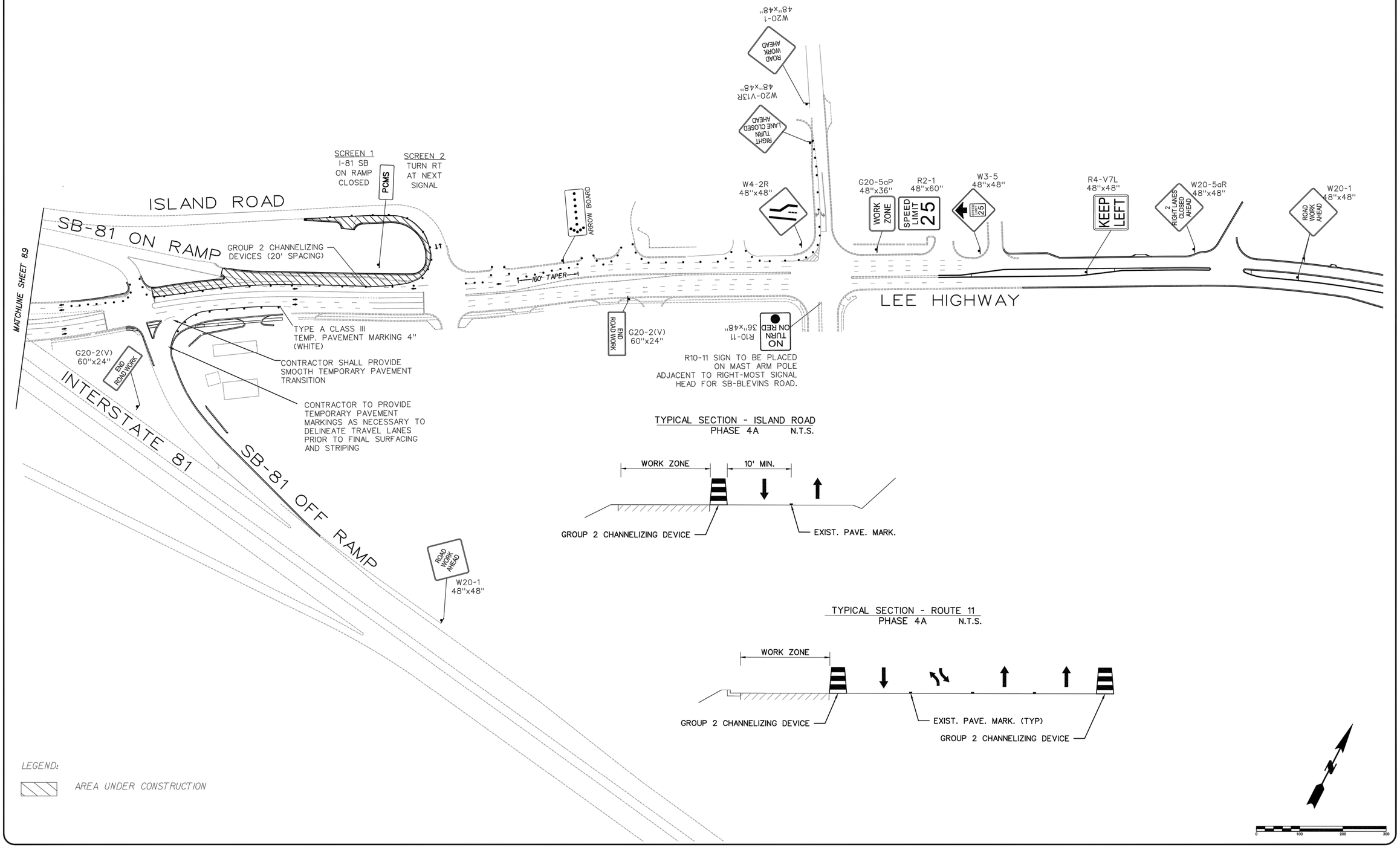
TEMPORARY TRAFFIC
CONTROL PLAN - SOC

DATE:
JUNE 2020

SHEET NUMBER
8.9 OF 10

BY RESOLUTION OF HIGHWAY COMMISSION
DATED Oct. 4, 1956

TEMPORARY TRAFFIC CONTROL PLAN
PHASE 4A



TYPICAL SECTION - ISLAND ROAD
PHASE 4A N.T.S.

TYPICAL SECTION - ROUTE 11
PHASE 4A N.T.S.

LEGEND:

AREA UNDER CONSTRUCTION

CITY OF BRISTOL, VIRGINIA
300 LEE STREET
BRISTOL, VA 24201
(276) 645-7360

REVISIONS

DATE

COMMONWEALTH OF VIRGINIA
REBEKAH A. STHOUPE
Lic. No 042856
03/19/23
PROFESSIONAL ENGINEER

WIDENING OF
LEE HIGHWAY PHASE - 1B
AND
I-81 EXIT 5 RAMPS
PROJECT 0011-102-728 UPC 105309

TEMPORARY TRAFFIC CONTROL PLAN - SOC

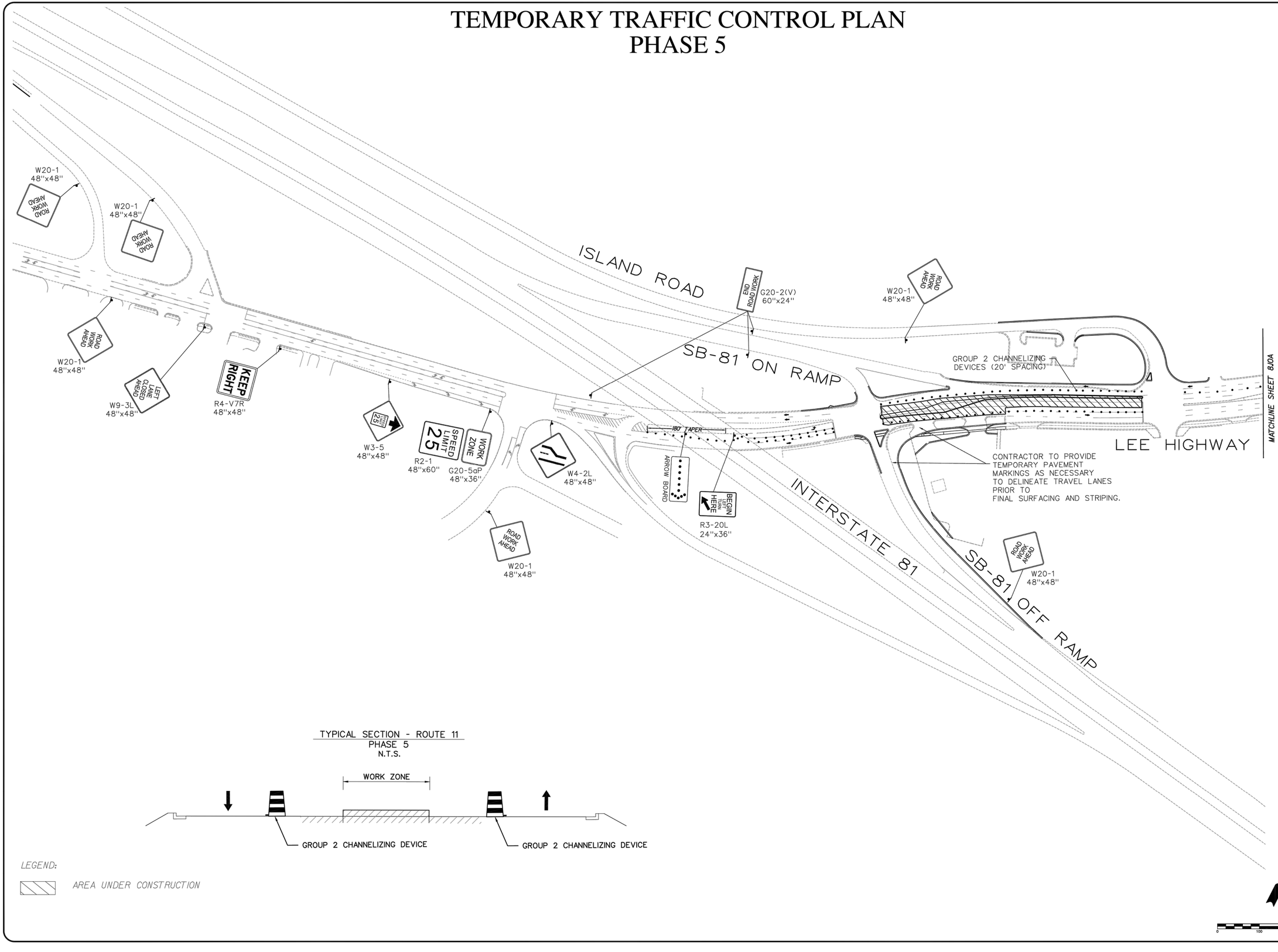
DATE:
JUNE 2020

SHEET NUMBER
8.9A OF 10

LIMITED ACCESS HIGHWAY

BY RESOLUTION OF HIGHWAY COMMISSION
DATED Oct. 4, 1956

TEMPORARY TRAFFIC CONTROL PLAN
PHASE 5



TYPICAL SECTION - ROUTE 11
PHASE 5
N.T.S.

LEGEND:

AREA UNDER CONSTRUCTION

CITY OF
BRISTOL, VIRGINIA
300 LEE STREET
BRISTOL, VA 24201
(276) 645-7360

REVISIONS

DATE

COMMONWEALTH OF VIRGINIA
REBEKAH A. STROUPE
Lic. No. 042856
03/29/13
PROFESSIONAL ENGINEER

WIDENING OF
LEE HIGHWAY PHASE - 1B
AND
I-81 EXIT 5 RAMPS
PROJECT 0011-102-728 UPC 105309

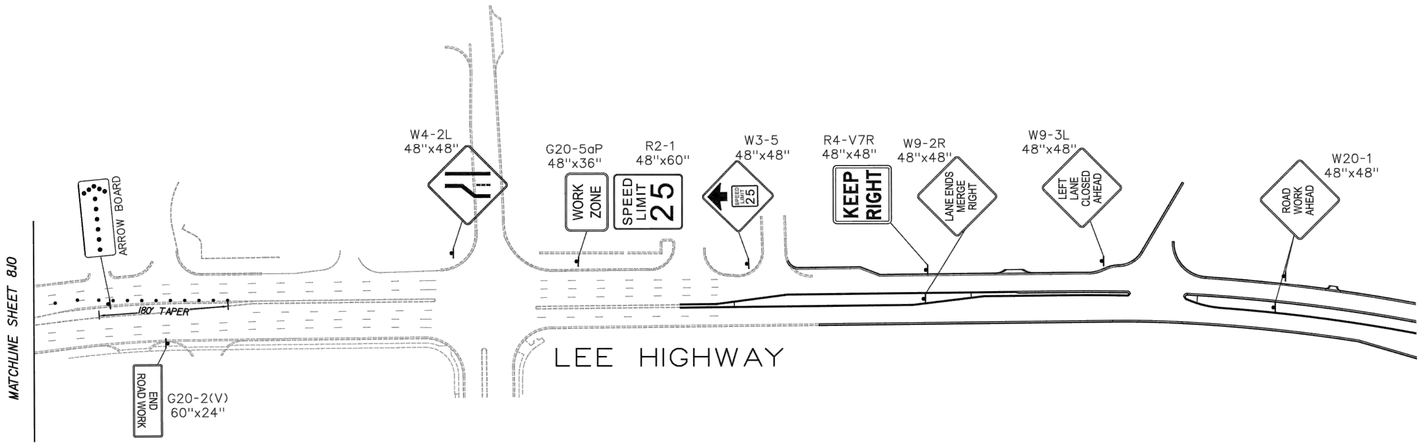
TEMPORARY TRAFFIC CONTROL PLAN - SOC

DATE:
JUNE 2020

SHEET NUMBER
8.10 OF 10

BY RESOLUTION OF HIGHWAY COMMISSION
DATED Oct. 4, 1956

TEMPORARY TRAFFIC CONTROL PLAN
PHASE 5



LEGEND:

AREA UNDER CONSTRUCTION

0 100 200 300

CITY OF
BRISTOL, VIRGINIA
300 LEE STREET
BRISTOL, VA 24201
(276) 645-7360

REVISIONS

DATE

COMMONWEALTH OF VIRGINIA
REBEKAH A. STROUPE
Lic. No. 042856
03/29/13
PROFESSIONAL ENGINEER

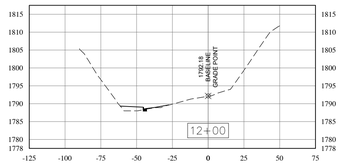
WIDENING OF
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AND
I-81 EXIT 5 RAMPS
PROJECT 0011-102-728 UPC 105309

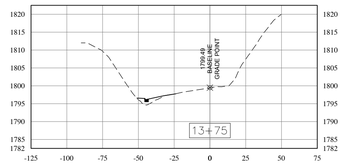
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CONTROL PLAN - SOC

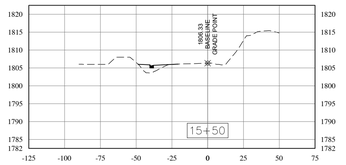
DATE:
JUNE 2020

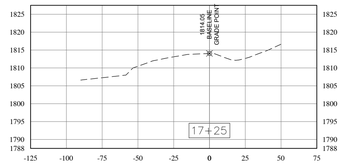
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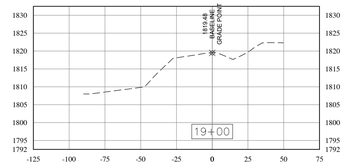
BY RESOLUTION OF HIGHWAY COMMISSION
DATED Oct. 4, 1956

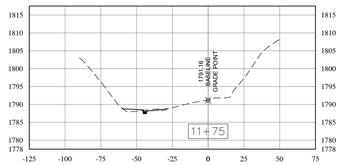


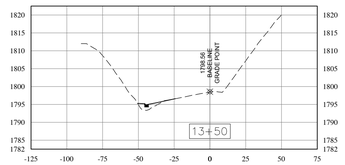


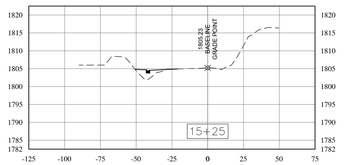


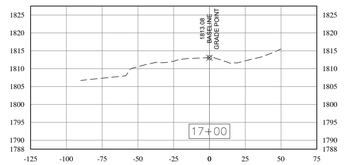


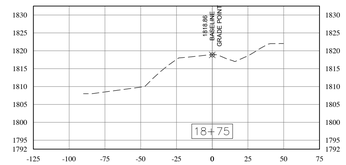


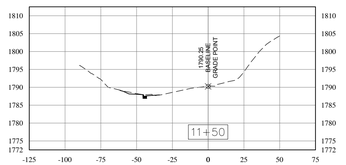


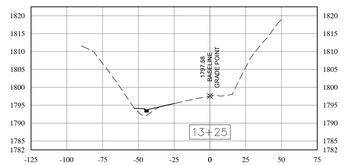


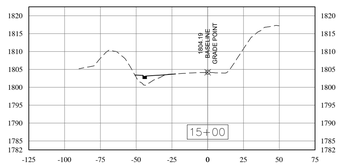


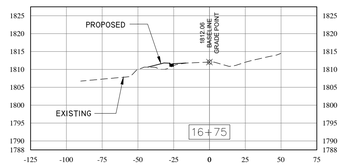


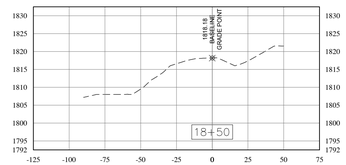


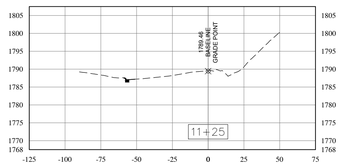


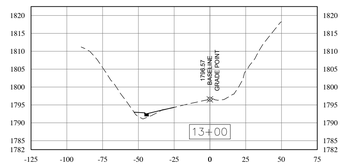


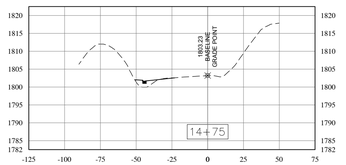


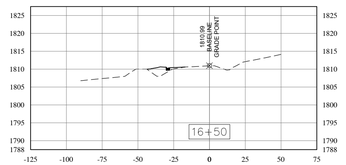


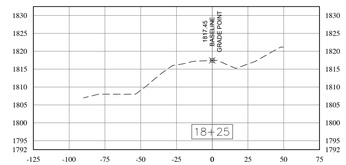


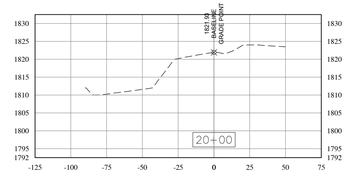


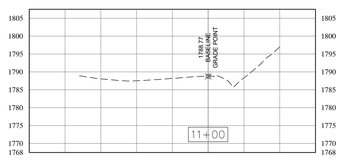


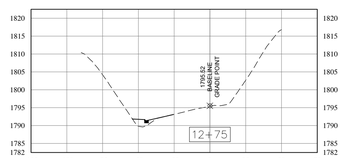


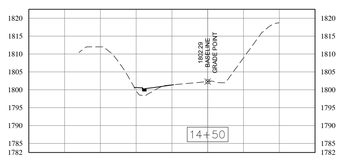


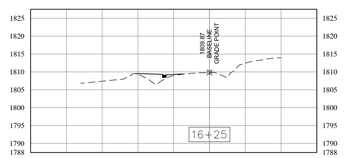


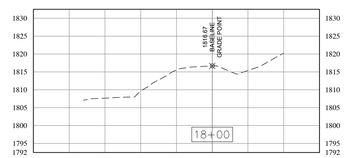


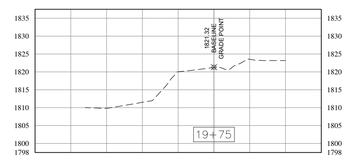




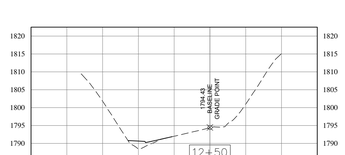


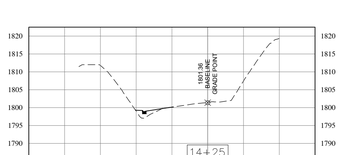


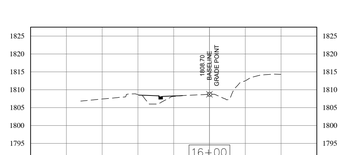


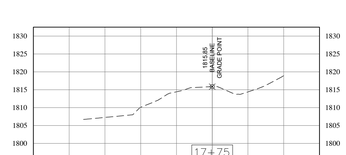


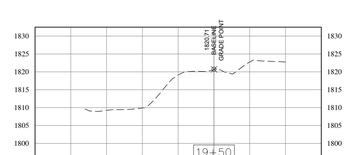


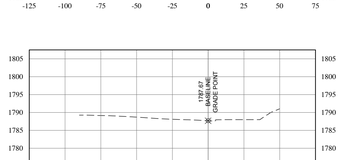


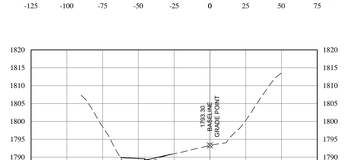


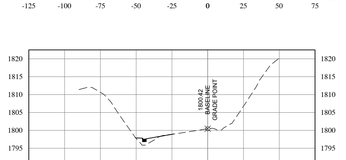


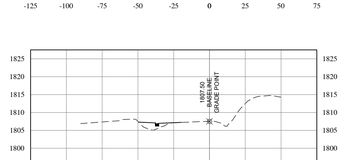


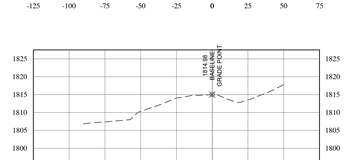


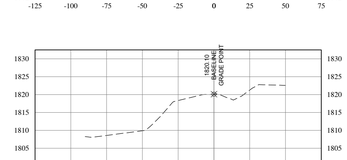












PROPOSED GRADES
EXISTING GRADES

2

NORTHBOUND EXIT RAMP

1

CITY OF BRISTOL
VA TENN
BRISTOL
GOOD PLACE TO LIVE
VIRGINIA

CITY OF
BRISTOL, VIRGINIA
300 LEE STREET
BRISTOL, VA 24201
(276) 645-7360

REVISIONS

DATE	
11-15-21	1 REVISED LAYOUT OF NORTHBOUND EXIT RAMP AND LEE HIGHWAY / ISLAND ROAD INTERSECTION ALSO REMOVED BIORETENTION POND AND RELATED STORM DRAINAGE PIPES

2

COMMONWEALTH OF VIRGINIA
JACOB S. CHANDLER
Lic. No. 0402066571
PROFESSIONAL ENGINEER

COMMONWEALTH OF VIRGINIA
CHARLES C. BREWSTER
Lic. No. 002407
LAND SURVEYOR

WIDENING OF
LEE HIGHWAY PHASE - 1B
AND
I-81 EXIT 5 RAMPS
PROJECT 0011-102-728 UPC 105309

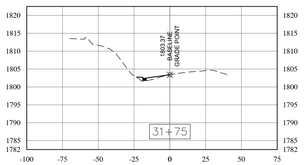
NORTHBOUND EXIT RAMP
ROADWAY SECTIONS

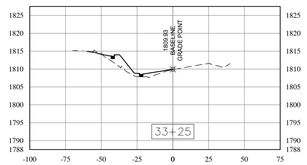
DATE:
JANUARY 2022

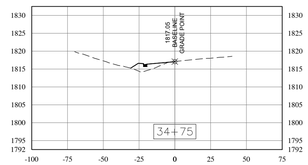
DRAWING NO.
T30-229

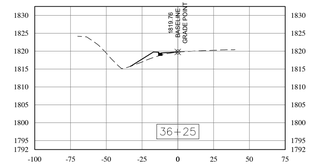
FILE NAME: LEE HIGHWAY
EXIT 5 PHASE 1B RAMPS

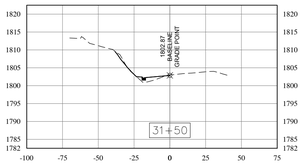
BY RESOLUTION OF HIGHWAY COMMISSION
DATED Oct. 4, 1956

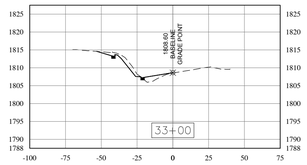


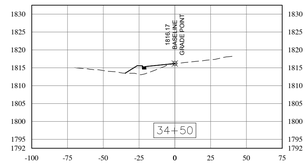


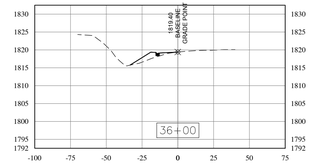


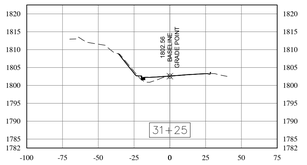


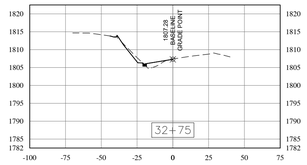


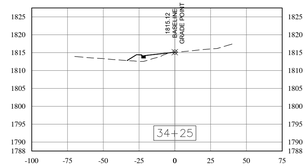


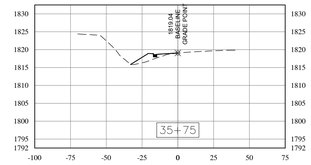


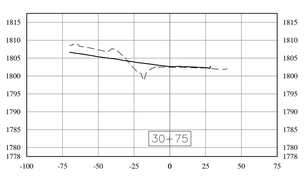


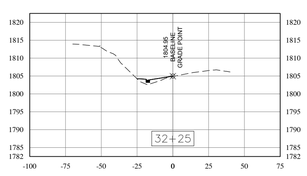


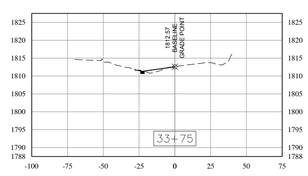


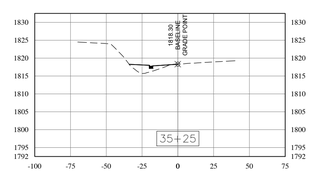


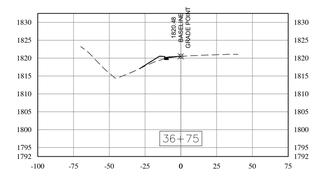


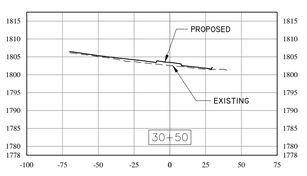


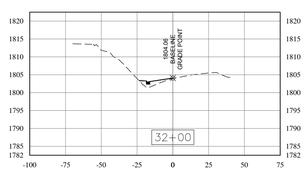


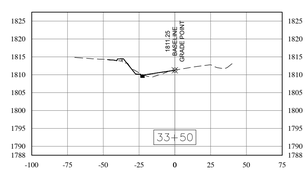


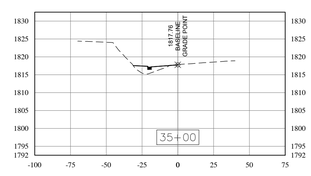


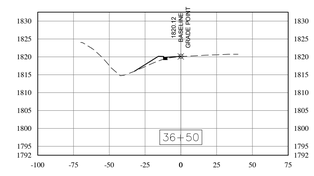












PROPOSED GRADES
EXISTING GRADES

2

SOUTHBOUND EXIT RAMP

CITY OF BRISTOL
VIRGINIA

CITY OF
BRISTOL, VIRGINIA
300 LEE STREET
BRISTOL, VA 24201
(276) 645-7360

REVISIONS
DATE

2

COMMONWEALTH OF VIRGINIA
JACOB S. CHANDLER
Lic. No. 0402066571
PROFESSIONAL ENGINEER

COMMONWEALTH OF VIRGINIA
CHARLES C. BREWSTER
Lic. No. 002407
LAND SURVEYOR

WIDENING OF
LEE HIGHWAY PHASE - 1B
AND
I-81 EXIT 5 RAMPS
PROJECT 0011-102-728 UPC 105309

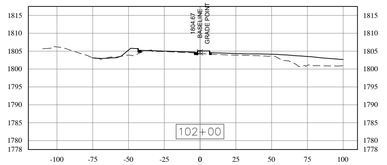
SOUTHBOUND EXIT RAMP
ROADWAY SECTIONS

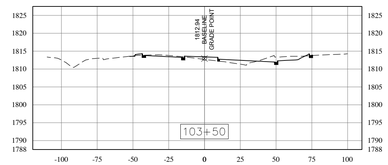
DATE:
JANUARY 2022

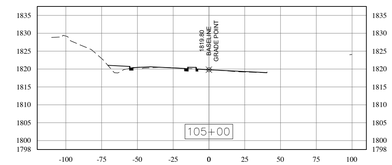
DRAWING NO.
T30-229

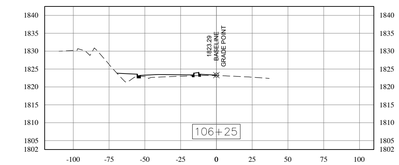
FILE NAME: LEE HIGHWAY
EXIT 5 PHASE 1B RAMPS

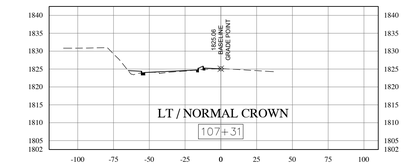
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9.2 OF 10

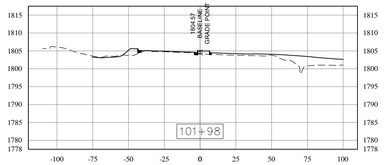


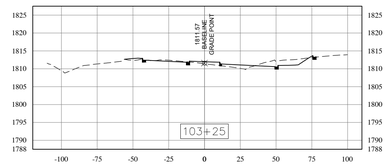


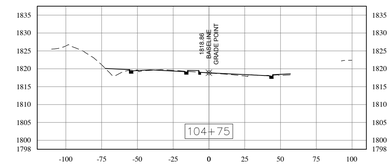


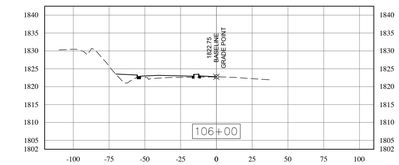


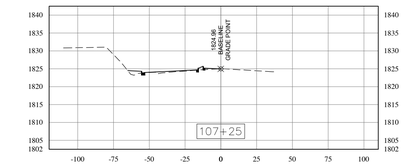


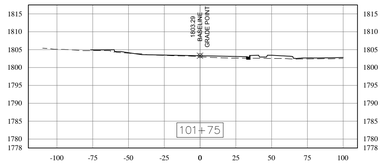


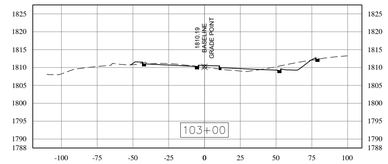


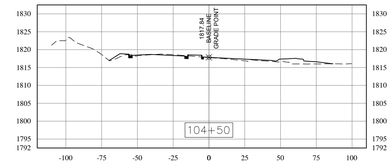


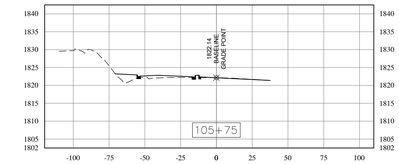


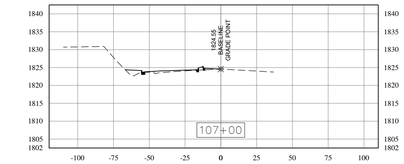


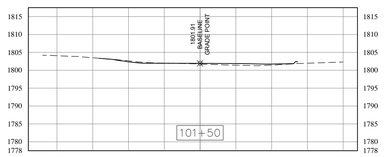


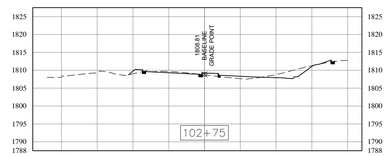


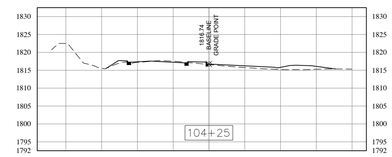


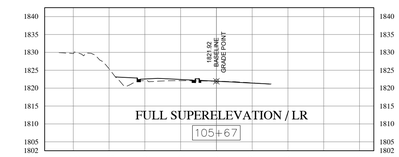


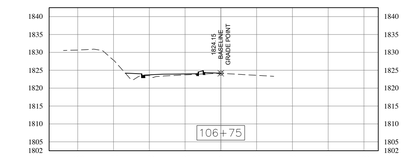


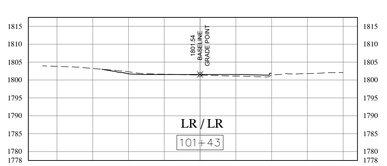


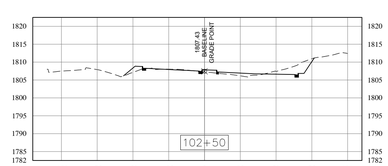


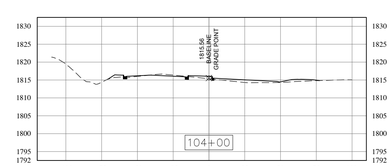


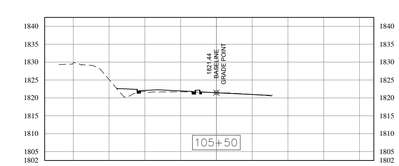


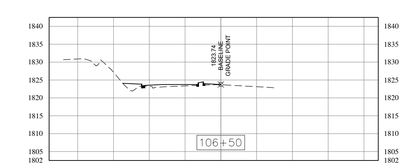


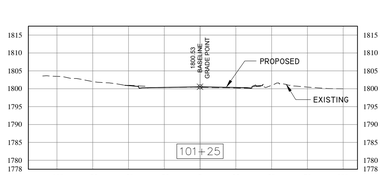


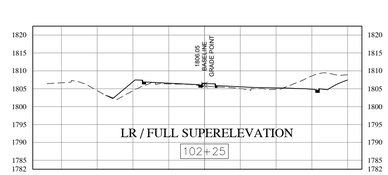


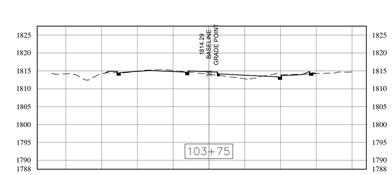


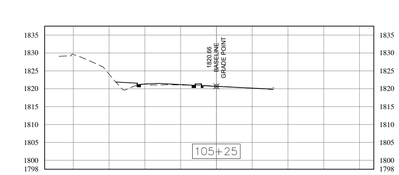


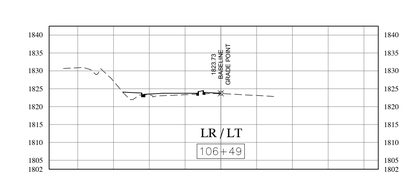












PROPOSED GRADES
EXISTING GRADES

2

LEE HIGHWAY 1

CITY OF BRISTOL VIRGINIA
BRISTOL VA / TENN
GOOD PLACE TO LIVE

CITY OF
BRISTOL, VIRGINIA
300 LEE STREET
BRISTOL, VA 24201
(276) 645-7360

DATE	REVISIONS
11-15-21	2 REVISED LAYOUT OF NORTHBOUND EXIT RAMP AND LEE HIGHWAY / ISLAND ROAD INTERSECTION ALSO REMOVED BIORETENTION POND AND RELATED STORM DRAINAGE PIPES

COMMONWEALTH OF VIRGINIA
JACOB S. CHANDLER
Lic. No. 0402066571
PROFESSIONAL ENGINEER

COMMONWEALTH OF VIRGINIA
CHARLES C. BREWSTER
Lic. No. 002407
LAND SURVEYOR

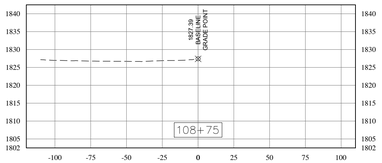
WIDENING OF
LEE HIGHWAY PHASE - 1B
AND
I-81 EXIT 5 RAMPS
PROJECT 0011-102-728 UPC 105309

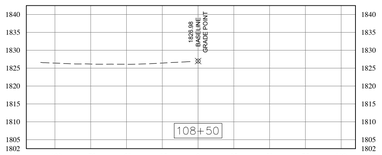
LEE HIGHWAY
ROADWAY SECTIONS

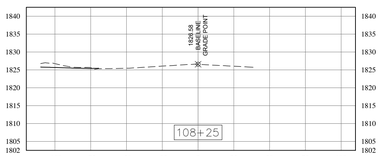
DATE:
JANUARY 2022

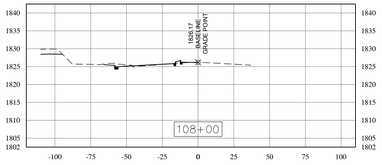
DRAWING NO.
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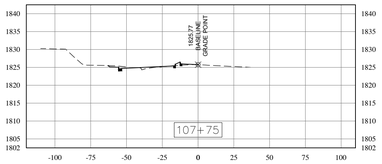
FILE NAME: LEE HIGHWAY EXIT 5 PHASE 1B RAMPS

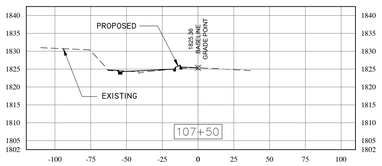




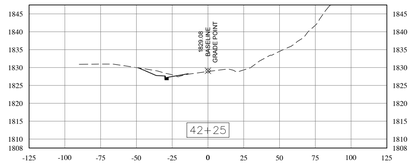


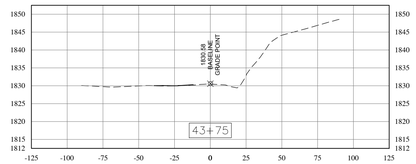


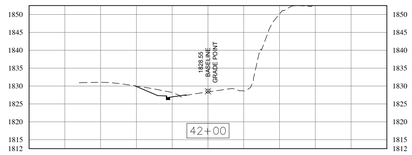


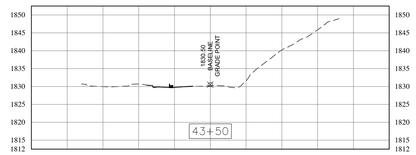


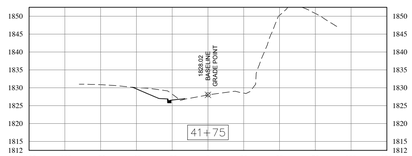
LEE HIGHWAY (CONT.) 1

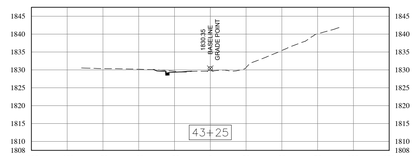


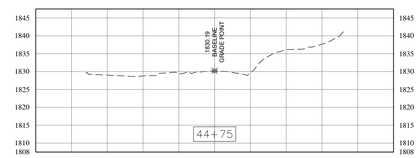


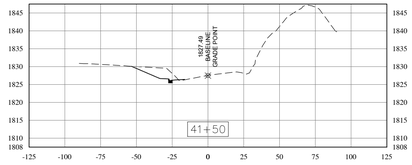


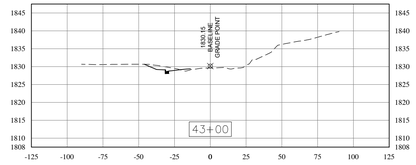


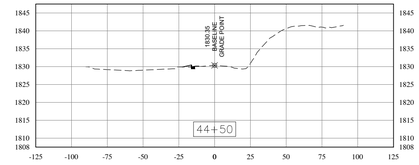


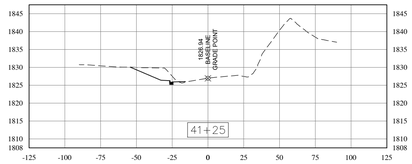


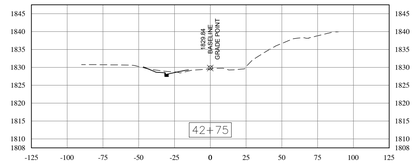


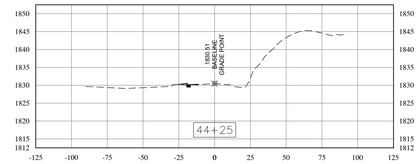


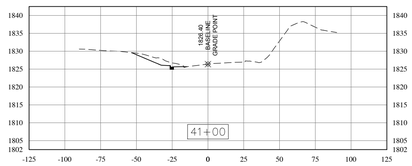


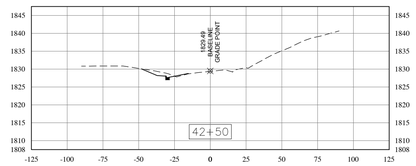


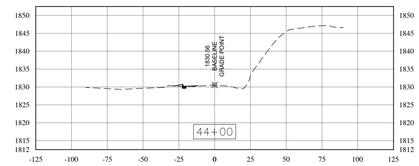












PROPOSED GRADES
EXISTING GRADES

ISLAND ROAD 1

CITY OF BRISTOL VIRGINIA

CITY OF
BRISTOL, VIRGINIA
300 LEE STREET
BRISTOL, VA 24201
(276) 645-7360

REVISIONS

DATE	
11-15-21	2 REVISED LAYOUT OF NORTHBOUND EXIT RAMP AND LEE HIGHWAY / ISLAND ROAD INTERSECTION ALSO REMOVED BIORETENTION POND AND RELATED STORM DRAINAGE PIPES

COMMONWEALTH OF VIRGINIA
JACOB S. CHANDLER
Lic. No. 0402066571
PROFESSIONAL ENGINEER

COMMONWEALTH OF VIRGINIA
CHARLES C. BREWSTER
Lic. No. 002407
LAND SURVEYOR

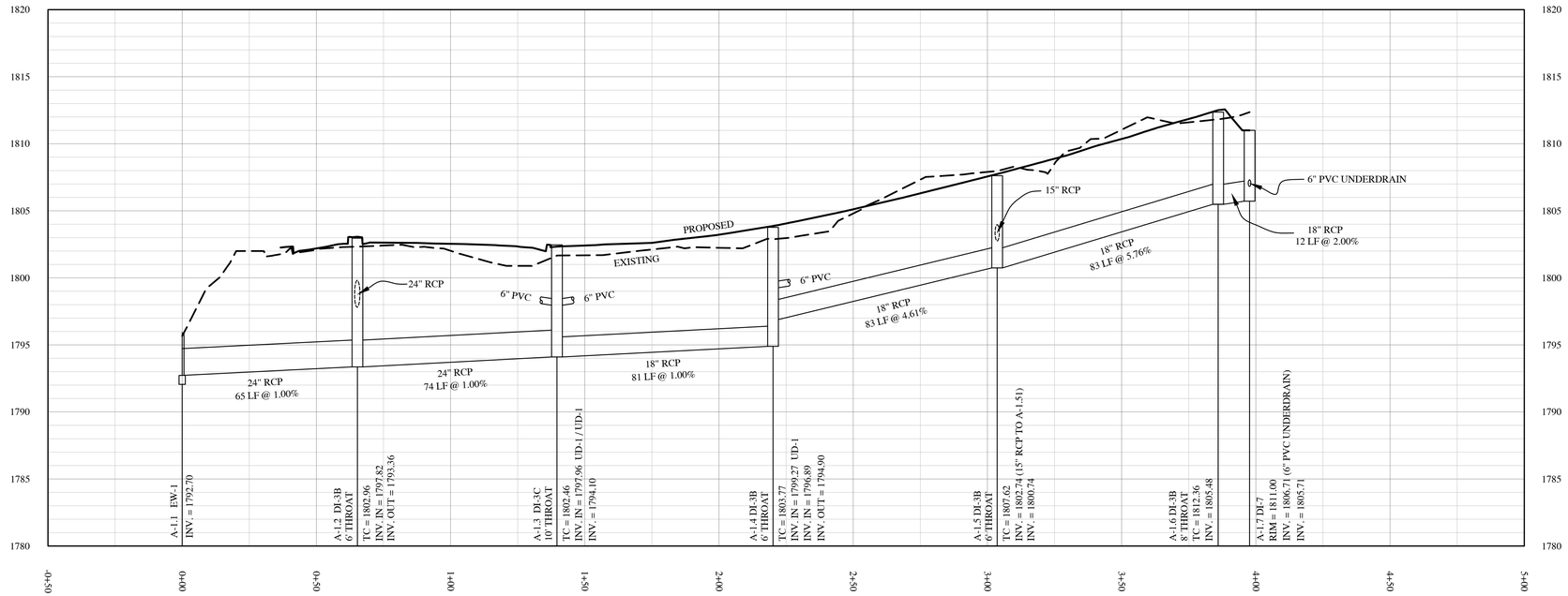
WIDENING OF
LEE HIGHWAY PHASE - 1B
AND
I-81 EXIT 5 RAMPS
PROJECT 0011-102-728 UPC 105309

LEE HIGHWAY
AND ISLAND ROAD
ROADWAY SECTIONS

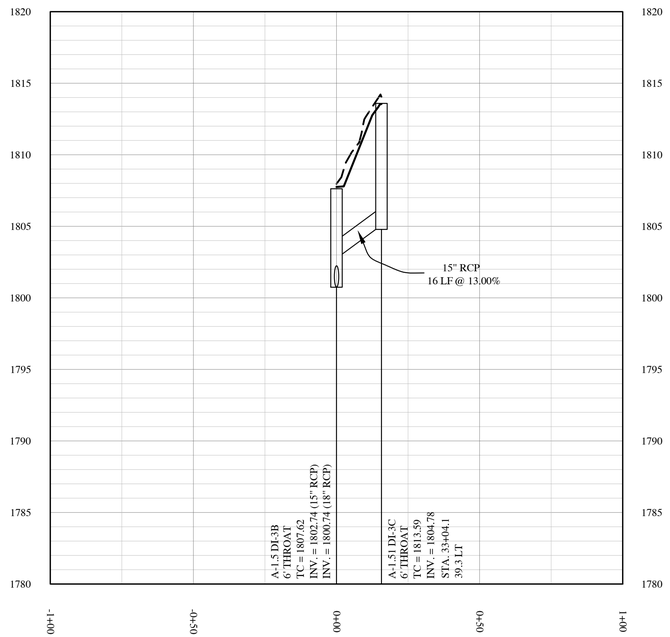
DATE:
JANUARY 2022

DRAWING NO.
T30-229

FILE NAME: LEE HIGHWAY
EXIT 5 PHASE 1B RAMPS



STORM A-1.1 TO A-1.7 ⚠



STORM A-1.5 TO A-1.51

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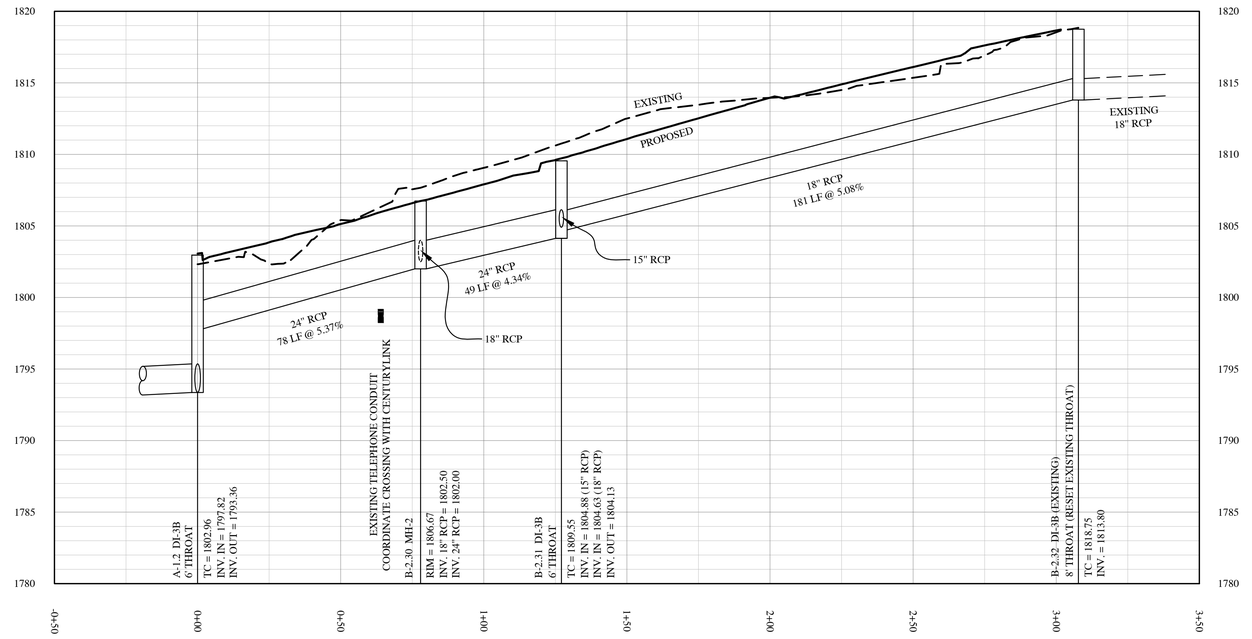
WIDENING OF
LEE HIGHWAY PHASE - 1B
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STORM LINE PROFILES

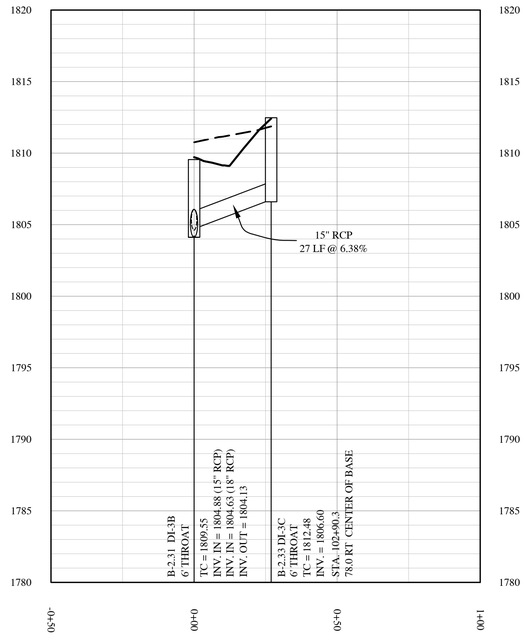
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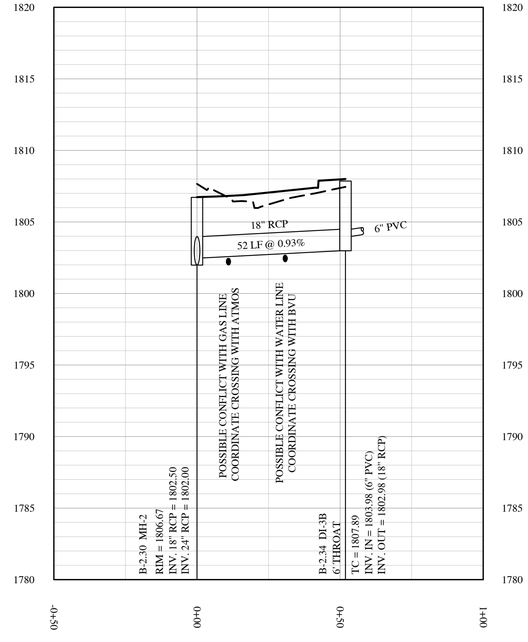
FILE NAME: LEE HIGHWAY
EXIT 5 PHASE 1B RAMPS



STORM PIPE LINE B REVISED 1



STORM B-2.31 TO B-2.33



STORM PIPE B-2.30 TO B-2.34 1

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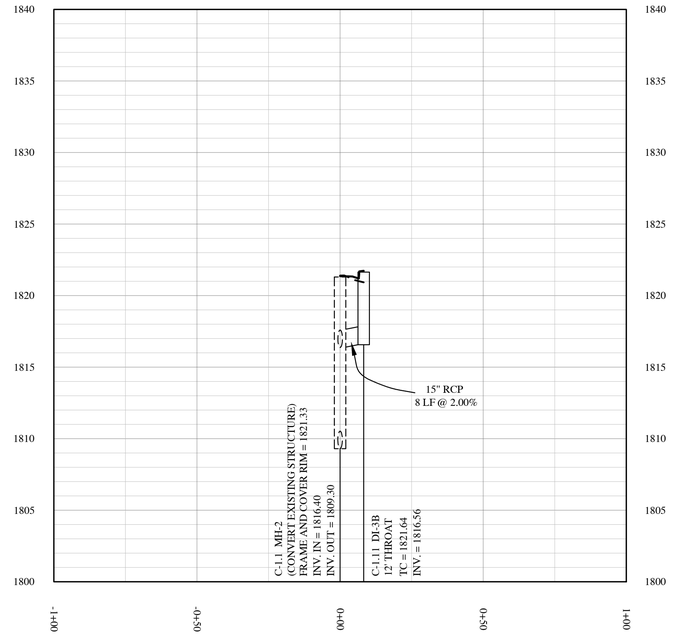
STORM LINE PROFILES

DATE:
JANUARY 2022

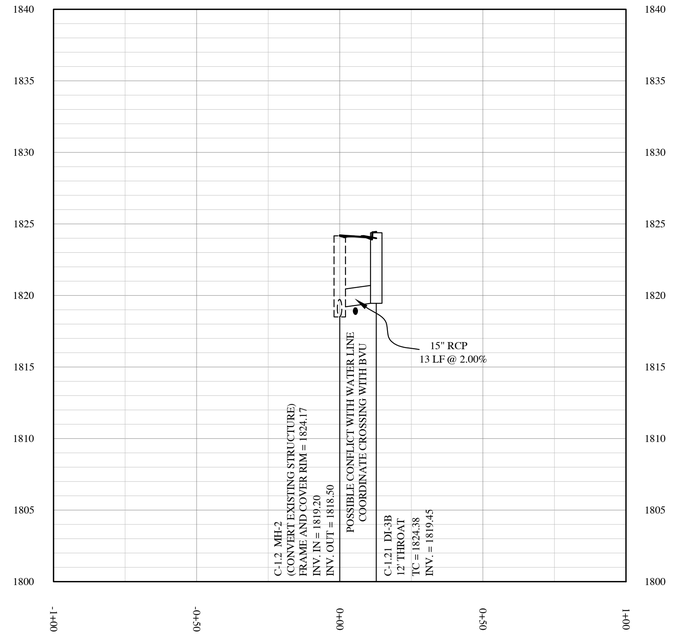
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EXIT 5 PHASE 1B RAMPS

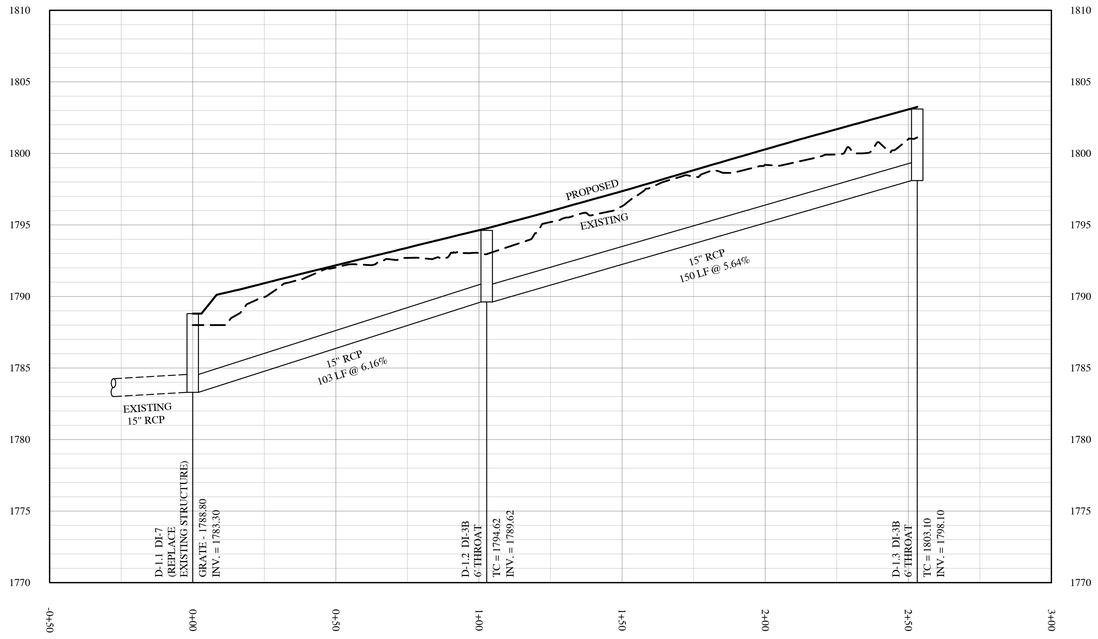
BY RESOLUTION OF HIGHWAY COMMISSION
DATED Oct. 4, 1956



STORM C-1.1 TO C-1.11 ⚠1



STORM C-1.2 TO C-1.21 ⚠1



STORM D-1.1 TO D-1.3 ⚠1

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