UPC 117997

SHEET INDEX

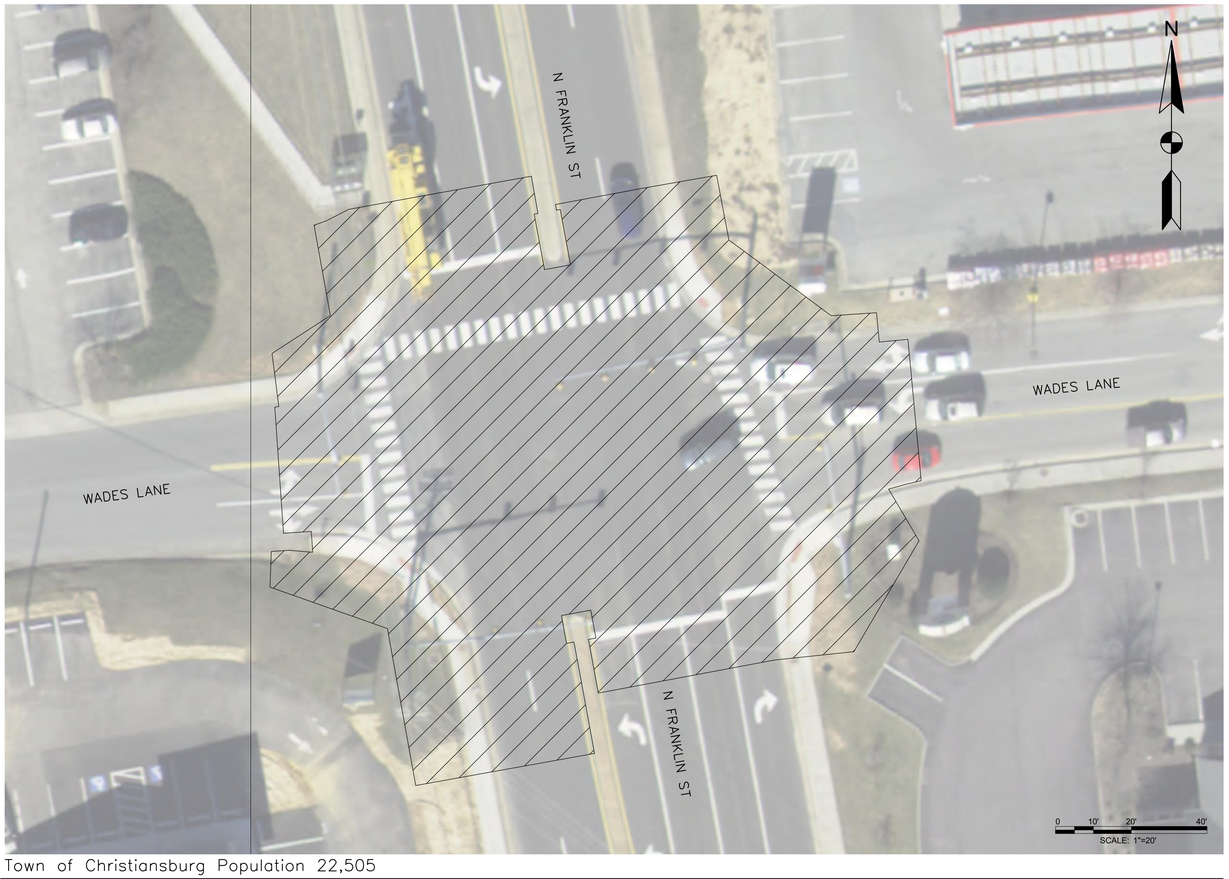
TIER 1 PROJECT

LOCALLY ADMINISTERED PROJECTS	
TOWN OF CHRISTIANSBURG	
NAME OF LOCALITY	
(SIGNATURE)	
JUSTIN ST. CLAIR	
RECOMMENDED FOR APPROVAL FOR CONSTRUCTION	
	TOWN MANAGER
DATE	TITLE OF POSITION

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION

TOWN OF CHRISTIANSBURG
N. FRANKLIN STREET AND WADES LANE
PEDESTRIAN IMPROVEMENTS

STATE PROJECT #EN20-154-251
UPC #117997
60% PRELIMINARY PLANS



Town of Christiansburg Population 22,505

STATE PROJECT NO.	SECTION	FEDERAL AID PROJECT NO.	TYPE CODE	UPC NO.	EQUALITIES	LENGTH INCLUDING BRIDGE(S)		LENGTH EXCLUDING BRIDGE(S)		BRIDGE PROJECT	TYPE PROJECT	DESCRIPTION
					FEET	FEET	MILES	FEET	MILES			
#EN20-154-251	P-101			117997		200	0.0379	200	0.0379		PRE-ENGR	FROM: 100' SOUTH OF WADES LANE TO: 100' NORTH OF WADES LANE
	R-201			117997		200	0.0379	200	0.0379		R/W	FROM: 100' SOUTH OF WADES LANE TO: 100' NORTH OF WADES LANE
	C-501			117997		200	0.0379	200	0.0379		CONSTRUCTION	FROM: 100' SOUTH OF WADES LANE TO: 100' NORTH OF WADES LANE

FUNCTIONAL CLASSIFICATION AND TRAFFIC DATA		
	N. FRANKLIN STREET	WADES LANE
Functional Classification	Minor Arterial	Minor Collector
ADTT (2020)	22,000	–
ADT (TBD)	TBD	–
DHV	2,002	–
D (%) (design hour)	TBD	–
T (%) (design hour)	TBD	–
V (MPH)	35	25

811

MISS UTILITY

CALL "MISS UTILITY" AT 811 or 1-800-552-7001, 48 HOURS PRIOR TO THE START OF WORK. THE EXCAVATOR MUST NOTIFY ALL PUBLIC UTILITY COMPANIES WITH UNDER GROUND FACILITIES IN THE AREA OF PROPOSED EXCAVATION AND HAVE THOSE FACILITIES LOCATED BY THE UTILITY COMPANIES PRIOR TO COMMENCING EXCAVATION. THE EXCAVATOR IS RESPONSIBLE FOR COMPLIANCE WITH REQUIREMENTS OF THE TOWN OF CHRISTIANSBURG.

THE COMPLETE ELECTRONIC PDF VERSION OF THE PLAN ASSEMBLY AS AWARDED, INCLUDING ALL SUBSEQUENT REVISIONS, WILL BE THE OFFICIAL CONSTRUCTION PLANS.

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE TOWN.

THIS PROJECT IS TO BE CONSTRUCTED IN ACCORDANCE WITH VDOT'S 2020 ROAD AND BRIDGE SPECIFICATIONS, 2016 ROAD AND BRIDGE STANDARDS, 2011 WORK AREA PROTECTION MANUAL–REVISION 2.1, 2009 MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, THE 2011 VIRGINIA SUPPLEMENT TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, AND AS AMENDED BY CONTRACT PROVISIONS AND THE COMPLETE ELECTRONIC PDF ASSEMBLY.

TOWN OF CHRISTIANSBURG PROJECT INFORMATION

PROJECT MANAGER: JUSTIN ST. CLAIR (540-382-6120)
DISTURBED ACREAGE: 0.13 AC (5,663 SF)
IMPERVIOUS AREA (PREDEVELOPMENT): TBD SF
IMPERVIOUS AREA (POST DEVELOPMENT): TBD SF
HUC UNIT: 050500011802
RECEIVING WATERBODY: CRAB CREEK
LATITUDE: 37.136113°
LONGITUDE: -80.413819°

A. MORTON THOMAS AND ASSOCIATES, INC.
CONSULTING ENGINEERS
105 ARBOR DRIVE, SUITE 200
CHRISTIANSBURG, VA 24073
PHONE (540) 251-5134
EMAIL: AMT1@AMTENGINEERING.COM

CONSULTANTS

NOT FOR CONSTRUCTION

N. FRANKLIN STREET AND WADES LANE PEDESTRIAN IMPROVEMENTS
STATE PROJECT NO. EN20-154-251
UPC 117997

TOWN OF CHRISTIANSBURG
100 E. MAIN STREET
CHRISTIANSBURG, VA 24073
PHONE: 540-382-6128
FAX: 540-382-7338

MARK	DATE	DESCRIPTION
		60% PLANS (07-10-23)

PROJECT NO:	21-0598.001
SCALE:	AS SHOWN
DESIGNED BY:	CER
DRAWN BY:	WEM
CHECKED BY:	DEC

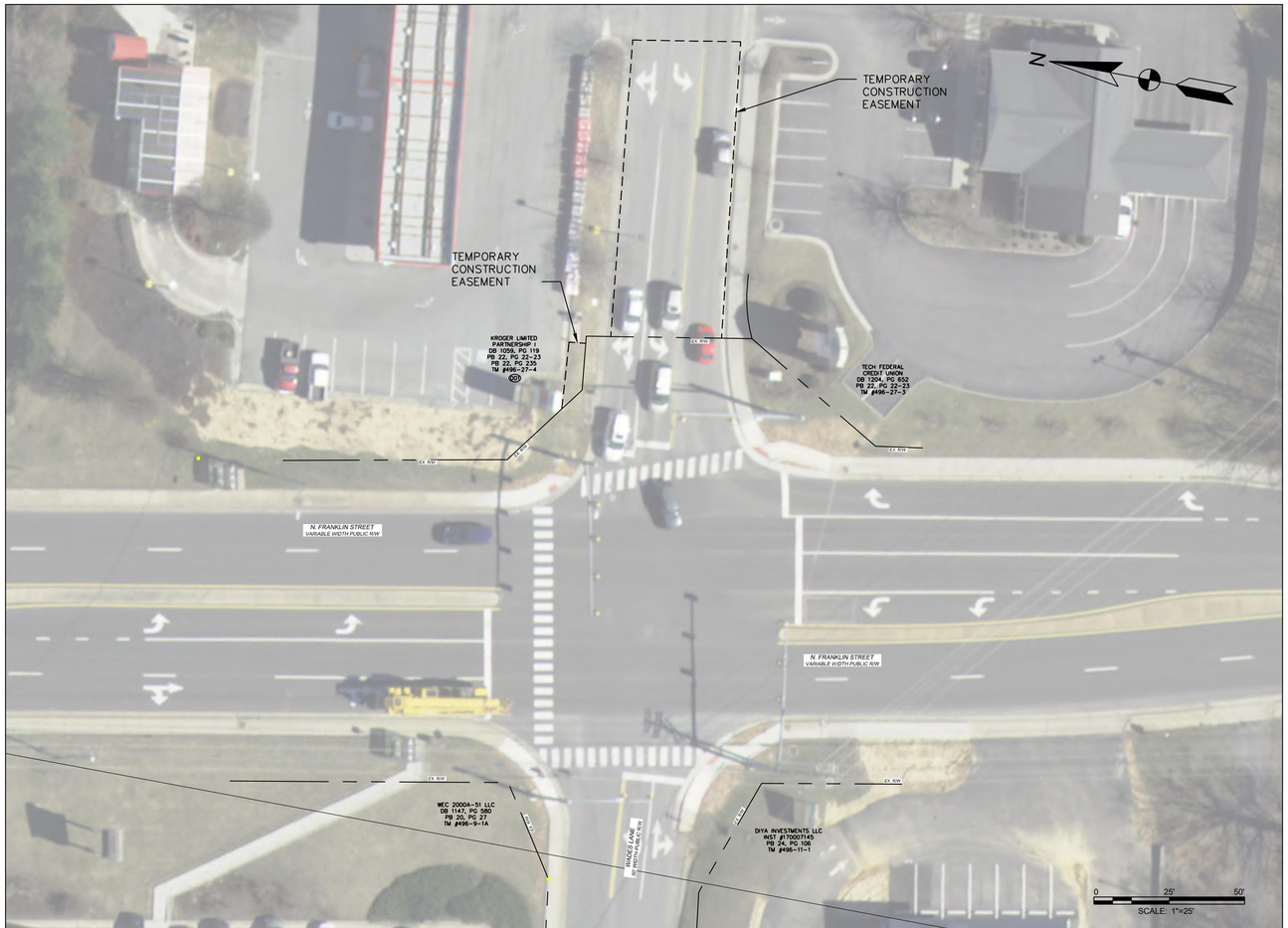
SHEET TITLE

TITLE SHEET

C1.0

RIGHT OF WAY DATA TABLE

PARCEL INFORMATION				AREAS														PROFFERS
				TOTAL PARCEL SIZE	FEE TAKING	PRESCRIPTIVE R/W	FEE REMAINDER	EASEMENTS										
								DRAINAGE	GREENWAY	RETAINING WALL	WATER	SEWER	GAS	TELEPHONE	POWER	TEMPORARY INGRESS/EGRESS	TEMPORARY	
PARCEL NO.	LANDOWNER	TAX MAP NO.	SHEET NO.	ACRES	SF	ACRES	ACRES	SF	SF	SF	SF	SF	SF	SF	SF	SF	SF	YES / NO
001	Kroger Limited Partnership I	496-27-4	C1.1, C4.0, C9.2, C9.3	11.074			11.074										3,684	
TOTAL =																	3,684	



INSET A
TEMPORARY CONSTRUCTION EASEMENT

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SHEET TITLE

RIGHT OF WAY ACQUISITION SHEET

C1.1

GENERAL NOTES:

1. ALL WORK SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE VIRGINIA DEPARTMENT OF TRANSPORTATION 2020 ROAD AND BRIDGE SPECIFICATIONS.
2. THE EXISTING CONDITIONS AND DEMOLITION PLAN IS A GENERAL DEPICTION OF THE EXISTING FEATURES TO BE REMOVED. THE CONTRACTOR SHALL VISIT THE SITE AND ACCOUNT FOR EXISTING FEATURES TO BE REMOVED TO CONSTRUCT THE PLANNED IMPROVEMENTS AS SHOWN ON THESE PLANS.
3. CARE SHALL BE TAKEN TO PROTECT FROM DAMAGES, ALL EXISTING SURFACES, STRUCTURES, AND IMPROVEMENTS ADJACENT TO THE WORK. ANY DAMAGE TO SUCH ITEMS, AS A RESULT OF THE WORK, SHALL BE RESTORED TO THEIR ORIGINAL CONDITION AT NO ADDITIONAL COST TO THE TOWN.
4. THE WORK SHALL BE PERFORMED IN A MANNER THAT WILL ENSURE THE LEAST PRACTICABLE OBSTRUCTION TO TRAFFIC AND IS CONSISTENT WITH ESTABLISHED SAFETY PROCEDURES. THERE SHALL BE MAINTENANCE OF TRAFFIC THROUGHOUT THE CONSTRUCTION DURATION.
5. CONTRACTOR SHALL MAINTAIN ACCESS TO ALL PRIVATE DRIVEWAYS DURING CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WORK SCHEDULE WITH PROPERTY OWNERS FOR WORK IN CLOSE PROXIMITY TO PARKING FACILITIES.
6. THE TOWN SHALL BE NOTIFIED IMMEDIATELY UPON ENCOUNTERING ANY HAZARDOUS OR REGULATED MATERIALS DURING THE COURSE OF WORK.
7. THE CONTRACTOR SHALL IMMEDIATELY REMOVE, TRANSPORT OFF-SITE, AND LEGALLY DISPOSE OF ANY AND ALL EXCAVATED/DELETERIOUS MATERIALS.
8. A GENERAL VPDES PERMIT FOR DISCHARGES OF STORMWATER FROM CONSTRUCTION ACTIVITIES SHALL BE OBTAINED BY THE TOWN PRIOR TO LAND DISTURBING ACTIVITIES, IF REQUIRED.
9. THE LOCATION OF SUBSURFACE UTILITIES SHOWN ON THE PLANS ARE APPROXIMATE AND FOR INFORMATION AND GUIDANCE ONLY. PORTIONS OF THESE UTILITIES ARE BASED UPON MISS UTILITY MARKINGS OR RECORD DRAWINGS AND THEREFORE THERE IS NO GUARANTEE TO THE ACCURACY OF LOCATIONS, AS SHOWN ON THE PLANS. THE CONTRACTOR SHALL FIELD LOCATE ALL UTILITIES PRIOR TO ANY CONSTRUCTION.
10. THE CONTRACTOR SHALL PROTECT ANY AND ALL EXISTING UTILITIES FROM DAMAGE. THE CONTRACTOR SHALL REPAIR AND RE-ESTABLISH ANY AND ALL UTILITIES DISRUPTED DURING CONSTRUCTION.
11. AN ADVANCE NOTIFICATION OF UTILITY SERVICE INTERRUPTION SHALL BE PROVIDED 14 DAYS IN ADVANCE TO THE TOWN, THE AFFECTED UTILITY OWNER, AND THOSE AFFECTED BY THE INTERRUPTION IN SERVICE.
12. STORM PIPES AND DROP INLETS WITHIN THE PROJECT LIMITS SHALL BE CLEANED OF DEBRIS AND ERODED MATERIALS, AS NECESSARY PRIOR TO FINAL ACCEPTANCE.
13. THE CONTRACTOR SHALL CONSTRUCT AND MAINTAIN, THROUGHOUT THE PROJECT, ALL EROSION AND SEDIMENT CONTROL MEASURES, AS SHOWN ON THE CONTRACT DRAWINGS. ALL CONTROL METHODS AND DETAILS SHOWN COMPLY WITH THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK, LATEST EDITION AND VDOT ROAD AND BRIDGE STANDARDS, LATEST EDITION.
14. TEMPORARY TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MUTCD, THE VIRGINIA WORK AREA PROTECTION MANUAL, AND THE VIRGINIA SUPPLEMENT TO MUTCD.
15. ALL EXCAVATION FOR UNDERGROUND PIPE INSTALLATION SHALL COMPLY WITH OSHA STANDARDS FOR THE CONSTRUCTION INDUSTRY (29 CFR PART 1926).
16. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ON-SITE SAFETY.
17. CONTRACTOR SHALL COMPLY WITH S59.1-406, ET SEW. OF THE CODE OF VIRGINIA (OVERHEAD HIGH VOLTAGE LINES SAFETY ACT).
18. THE CONTRACTOR SHALL COORDINATE WITH THE UTILITY PROVIDERS ON PROVIDING THE REQUIRED MEASURES FOR PROTECTION OF THE EXISTING UTILITY SERVICES DURING CONSTRUCTION, IF NECESSARY.

CONSTRUCTION NOTES:

DRAINAGE

D-1 THE HORIZONTAL LOCATION OF ALL EXISTING DRAINAGE STRUCTURES SHOWN ON THESE PLANS ARE APPROXIMATE ONLY.

D-2 WHEN STANDARD CG-6 OR CG-7 IS SPECIFIED ON A RADIUS (SUCH AS AT A STREET INTERSECTION), THE ENGINEER MAY APPROVE A DECREASE IN THE CROSS SLOPE OF THE GUTTER TO FACILITATE PROPER DRAINAGE.

PAVEMENT

P-1 THE PAVEMENT MATERIALS ON THIS PROJECT WILL BE PAID FOR ON A TONNAGE BASIS. THE WEIGHT WILL VARY IN ACCORDANCE WITH THE SPECIFIC GRAVITY OF THE AGGREGATES AND THE ASPHALTIC CONTENT OF THE MIX ACTUALLY USED TO SECURE THE DESIGN DEPTH. THE WEIGHT OF THE ASPHALT CONCRETE IS BASED ON 95% OF THEORETICAL MAXIMUM DENSITY (SEE IIM-LD-158).

P-2 FINAL PAVEMENT SUBGRADES SHALL BE PROOFROLLED UNDER THE OBSERVATION OF THE GEOTECHNICAL ENGINEER IMMEDIATELY PRIOR TO PLACING SUBBASE OR BASE COURSE AGGREGATE TO EVALUATE THEIR STABILITY TO SUPPORT THE PAVEMENT. AREAS THAT EXHIBIT EXCESSIVE PUMPING, WEAVING, OR RUTTING SHALL BE SCARIFIED, DRIED AND RECOMPACTED, OR UNDERCUT AND REPLACED WITH COMPACTED STRUCTURAL FILL AS RECOMMENDED BY THE GEOTECHNICAL ENGINEER.

P-3 DENSE-GRADED AGGREGATE PLACED AS PAVEMENT BASE COURSE SHALL BE COMPACTED TO AT LEAST 100 PERCENT OF MAXIMUM DRY DENSITY ACCORDING TO VTM-1, STANDARD PROCTOR. DENSE-GRADE AGGREGATE SHALL BE PLACED IN MAXIMUM 8-INCH THICK LOOSE LIFTS.

P-4 THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ADEQUATE CONTROL OF SURFACE DRAINAGE DURING CONSTRUCTION.

P-5 UTILITY EXCAVATIONS WITHIN PAVEMENT AREAS SHALL BE BACKFILLED WITH COMPACTED STRUCTURAL FILL.

GRADING

G-1 STRATUM "A" SOILS ARE DEFINED AS EXISTING FILL SOILS WITH A DEPTH RANGE OF 4 TO 5-FEET AND GENERALLY CONSISTING OF FAT CLAY (CH), LEAN CLAY (CL), AND SILT (ML) WITH VARYING AMOUNTS OF SAND AND GRAVEL.

G-2 STRATUM "B" SOILS ARE DEFINED AS RESIDUAL SOILS WITH A DEPTH RANGE OF 10.5 TO 15-FEET AND GENERALLY CONSISTING OF ELASTIC SILT (MH), FAT CLAY (CH), AND LEAN CLAY (CL) WITH VARYING AMOUNTS OF SAND AND GRAVEL.

G-3 SUBGRADES OF RETAINING WALLS AND PAVEMENT TO RECEIVE COMPACTED STRUCTURAL FILL SUPPORT SHALL BE STRIPPED OF VEGETATION, TOPSOIL, AND ORGANIC MATTER.

G-4 COMPACTED STRUCTURAL FILL SUBGRADES SHALL CONSIST OF SUITABLE SOILS OF STRATA "A" AND "B".

G-5 THE GEOTECHNICAL ENGINEER SHALL EVALUATE THE SUITABILITY OF THE FILL SUBGRADE.

G-6 THE ON-SITE SOILS ARE MOISTURE SENSITIVE, THEREFORE THE CONTRACTOR SHALL AVOID SITE PREPARATION AND GRADING ACTIVITIES DURING WET WEATHER.

G-7 THE CONTRACTOR SHALL PROVIDE SITE DRAINAGE TO MAINTAIN SUBGRADES FREE OF WATER AND TO AVOID SATURATION AND DISTURBANCE OF THE SUBGRADE SOILS BEFORE PLACING COMPACTED STRUCTURAL FILL, PAVEMENT BASE COURSE OR MOISTURE BARRIER MATERIAL.

G-8 THE CONTRACTOR SHALL BE RESPONSIBLE FOR REWORKING OF SUBGRADES AND COMPACTED STRUCTURAL FILL THAT WERE INITIALLY CONSIDERED SUITABLE BUT WERE LATER DISTURBED BY EQUIPMENT AND/OR WEATHER AT NO ADDITIONAL COST TO THE TOWN.

G-9 THE GRADE LINE DENOTES TOP OF FINISHED PAVEMENT UNLESS SHOWN OTHERWISE ON TYPICAL SECTIONS OR PLANS.

G-10 EARTHWORK QUANTITIES ON THIS PROJECT ARE BASED ON ANTICIPATED SETTLEMENT AND MAY REQUIRE ADJUSTING DURING CONSTRUCTION. THE QUANTITIES ARE NOT GUARANTEED AND THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE AMOUNT OF MATERIAL TO BE REMOVED AND PLACED FOR THE PROJECT.

G-11 COMPACTED STRUCTURAL FILL AND BACKFILL IN PAVEMENT AND RETAINING WALL AREAS SHOULD CONSIST OF NON-ORGANIC ON-SITE SOILS. IF OFF-SITE BORROW MATERIALS ARE NEEDED, THESE SOILS SHALL BE CLASSIFIED AS CL, ML, SC, SM, SP, SW, GC, GM, GP, OR GW ACCORDING TO ASTM D2487. FILL MATERIAL SHALL NOT CONTAIN PARTICLES LARGER THAN 3-INCHES.

G-12 COMPACTED STRUCTURAL FILL SHALL BE PLACED IN MAXIMUM 8-INCH THICK HORIZONTAL, LOOSE LIFTS. FILL SHALL BE COMPACTED TO AT LEAST 95 PERCENT OF THE MAXIMUM DRY DENSITY PER VTM-1, STANDARD PROCTOR, EXCEPT THAT THE TOP 12-INCHES OF PAVEMENT AREAS SHALL BE COMPACTED TO AT LEAST 100 PERCENT OF THE SAME STANDARD. SOIL MOISTURE CONTENTS AT THE TIME OF COMPACTION SHALL BE WITHIN 3 PERCENT OF THE SOILS' OPTIMUM MOISTURE CONTENT.

G-13 BACKFILL PLACED IN EXCAVATIONS, TRENCHES, AND OTHER AREAS THAT LARGE COMPACTION EQUIPMENT CANNOT ACCESS SHALL BE PLACED IN MAXIMUM 6-INCH THICK LIFTS. BACKFILL SHALL MEET THE MATERIAL, PLACEMENT, AND COMPACTION REQUIREMENTS OUTLINED ABOVE.

G-14 COMPACTED STRUCTURAL FILL SUBGRADES SHALL NOT BE STEEPER THAN ABOUT 4H:1V. IF STEEPER SLOPES ARE PRESENT, SUBGRADES SHOULD BE BENCHED TO PERMIT PLACEMENT OF HORIZONTAL LIFTS OR FILL.

WATERLINE

W-1 ALL WATERLINE SHALL BE CONSTRUCTED, INSPECTED, AND TESTED IN ACCORDANCE WITH AWWA STANDARD C-600, LATEST EDITION, AND THE REGULATIONS, STANDARDS, AND SPECIFICATIONS SET FORTH BY THE COMMONWEALTH OF VIRGINIA AND THE TOWN OF CHRISTIANSBURG.

W-2 INSTALLATION OF WATER METERS. THE TOWN WILL INSTALL THE WATER TAP, THE LINE TO THE WATER METER, THE WATER METER BOX, THE WATER METER, AND WATERLINE STUB OUT OF THE WATER METER BOX. THE CONTRACTOR WILL BE RESPONSIBLE FOR OPENING THE TRENCH, BACKFILLING/COMPACTING THE TRENCH, AND ASSOCIATED FINISH GRADING.

W-3 SERVICE LINES SHALL BE SEAMLESS, TYPE 'K' COPPER, FROM THE WATER MAIN TO THE WATER METER.

W-4 ALL INFRASTRUCTURES SHALL BE CONSTRUCTED BY A CONTRACTOR THAT IS APPROPRIATELY LICENSED TO WORK IN THE TOWN OF CHRISTIANSBURG AND THE COMMONWEALTH OF VIRGINIA.

W-5 A MINIMUM HORIZONTAL SEPARATION OF 10 FEET SHALL BE MAINTAINED BETWEEN SANITARY SEWER LINES AND WATERLINES, UNLESS OTHERWISE APPROVED IN WRITING BY THE TOWN ENGINEER.

W-6 A MINIMUM VERTICAL SEPARATION OF 18 INCHES SHALL BE MAINTAINED BETWEEN WATER AND SANITARY SEWER LINES, WITH SANITARY SEWER LINES AT A LOWER ELEVATION THAN WATERLINES, UNLESS OTHERWISE APPROVED IN WRITING BY THE TOWN ENGINEER.

W-7 A MINIMUM HORIZONTAL SEPARATION OF 10 FEET SHALL BE MAINTAINED BETWEEN UNDERGROUND ELECTRICAL LINES AND WATERLINES, UNLESS OTHERWISE APPROVED IN WRITING BY THE TOWN ENGINEER AND THE ELECTRICAL UTILITY COMPANY.

W-8 THE MINIMUM DEPTH OF COVER ON ALL UTILITIES SHALL BE 3 FEET.

W-9 THE TOWN ENGINEER SHALL BE NOTIFIED 48 HOURS PRIOR TO BEGINNING CONSTRUCTION.

W-10 ALL BELOW GRADE INFRASTRUCTURES TO BE MAINTAINED BY THE TOWN SHALL BE INSPECTED BY THE TOWN INSPECTOR PRIOR TO COVERING, EXCEPT WHERE SPECIFICALLY ALLOWED BY THE TOWN INSPECTOR.

W-11 THE TOWN INSPECTOR SHALL WITNESS ALL TESTING AND SHALL BE PROVIDED WITH ALL TEST RESULTS.

W-12 THE CONTRACTOR SHALL SUBMIT SUBMITTALS FOR THE WATERLINE MATERIALS TO THE ENGINEER FOR REVIEW AND APPROVAL PRIOR TO PURCHASE.

SANITARY SEWER

SS-1 ALL SANITARY SEWER LINES SHALL BE CONSTRUCTED, INSPECTED, AND TESTED IN ACCORDANCE WITH THE COMMONWEALTH OF VIRGINIAS SEWAGE COLLECTION AND TREATMENT REGULATIONS, LATEST EDITION, THE REGULATIONS, STANDARDS, AND SPECIFICATIONS SET FORTH BY THE COMMONWEALTH OF VIRGINIA AND THE TOWN OF CHRISTIANSBURG.

SS-2 CONNECTIONS TO EXISTING TOWN SANITARY SEWERS SHALL BE PERFORMED BY THE CONTRACTOR UNDER THE DIRECT SUPERVISION OF TOWN PERSONNEL. THE CONTRACTOR SHALL CONSTRUCT ALL SANITARY SEWER SERVICE LINES BETWEEN THE SANITARY SEWER MAIN AND THE CLEANOUT LOCATED AT THE PROPERTY OF EASEMENT LINE.

SS-3 ALL INFRASTRUCTURES SHALL BE CONSTRUCTED BY A CONTRACTOR THAT IS APPROPRIATELY LICENSED TO WORK IN THE TOWN OF CHRISTIANSBURG AND THE COMMONWEALTH OF VIRGINIA.

SS-4 A MINIMUM HORIZONTAL SEPARATION OF 10 FEET SHALL BE MAINTAINED BETWEEN SANITARY SEWER LINES AND WATERLINES, UNLESS OTHERWISE APPROVED IN WRITING BY THE TOWN ENGINEER.

SS-5 A MINIMUM VERTICAL SEPARATION OF 18 INCHES SHALL BE MAINTAINED BETWEEN WATER AND SANITARY SEWER LINES, WITH SANITARY SEWER LINES AT A LOWER ELEVATION THAN WATERLINES, UNLESS OTHERWISE APPROVED IN WRITING BY THE TOWN ENGINEER.

SS-6 THE MINIMUM DEPTH OF COVER ON ALL UTILITIES SHALL BE 3 FEET.

SS-7 THE TOWN ENGINEER SHALL BE NOTIFIED 48 HOURS PRIOR TO BEGINNING CONSTRUCTION.

SS-8 ALL BELOW GRADE INFRASTRUCTURES TO BE MAINTAINED BY THE TOWN SHALL BE INSPECTED BY THE TOWN INSPECTOR PRIOR TO COVERING, EXCEPT WHERE SPECIFICALLY ALLOWED BY THE TOWN INSPECTOR.

SS-9 THE TOWN INSPECTOR SHALL WITNESS ALL TESTING AND SHALL BE PROVIDED WITH ALL TEST RESULTS.

SS-10 ALL SANITARY SEWER GRAVITY SERVICE LINES TO BE ACCEPTED, OWNED, OPERATED, AND/OR MAINTAINED BY THE TOWN SHALL BE A MINIMUM 6 INCH DIAMETER SDR 35 PVC, FROM THE MAIN LINE TO THE PROPERTY LINE, TERMINATED BY A CLEANOUT AT THE CONNECTION TO PRIVATELY MAINTAINED SEWER PIPE. ALTERNATE MATERIALS MAY BE REQUIRED AT THE DISCRETION OF THE TOWN ENGINEER.

SS-11 A TRAFFIC BEARING CLEANOUT COVER SHALL BE INSTALLED OVER ALL CLEANOUTS THAT WILL BE ACCEPTED, OWNED, OPERATED, AND/OR MAINTAINED BY THE TOWN.

SS-12 ABANDONED SEWER LINES SHALL BE PLUGGED AFTER NEW LINES HAVE BEEN INSTALLED, INSPECTED, TESTED, ACCEPTED, AND ARE IN USE.

SS-13 THE CONTRACTOR SHALL PLUG THE CONNECTION TO EXISTING SEWER LINES WITH AN ANGLE WING NUT TEST PLUG PRIOR TO EXTENDING THE SANITARY SEWER. THE PLUG SHALL BE MAINTAINED BY THE CONTRACTOR UNTIL THE PROPOSED SANITARY SEWER HAS BEEN INSTALLED, INSPECTED, TESTED, AND ACCEPTED BY THE TOWN. FAILURE TO INSTALL AND MAINTAIN PLUG SHALL CAUSE THE CONTRACTOR TO BE HELD LIABLE FOR ANY RESULTING BLOCKAGES OR REPAIRS TO EXISTING SEWER LINES.

SS-14 THE CONTRACTOR SHALL SUBMIT SUBMITTALS FOR THE SANITARY SEWER MATERIALS TO THE ENGINEER FOR REVIEW AND APPROVAL PRIOR TO PURCHASE.

INCIDENTAL

I-1 WHERE STANDARD SLOPE ROUNDOFFS WOULD DAMAGE TREES, BUSHES OR OTHER DESIRABLE VEGETATION, THEY SHALL BE OMITTED WHEN SO ORDERED BY THE ENGINEER.

I-2 ALL PAVEMENT MARKINGS AND TRAFFIC FLOW ARROWS SHOWN ON THE PLANS ARE SCHEMATIC ONLY. THE ACTUAL LOCATION AND APPLICATION OF PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH SECTION 704 OF THE APPLICABLE VDOT ROAD AND BRIDGE SPECIFICATIONS, MUTCD, SEQUENCE OF CONSTRUCTION/TRAFFIC CONTROL PLANS, PAVEMENT MARKING PLAN SHEETS C8.0 THRU C8.1, AND AS DIRECTED BY THE ENGINEER.

WORK TIME RESTRICTIONS

TRAFFIC SIGNAL NOTES

1. ALL WORK SHALL BE IN ACCORDANCE WITH THE CURRENT EDITION OF THE 2009 MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) REVISION 2, THE 2011 VIRGINIA SUPPLEMENT REVISION 1 TO THE MUTCD, THE CURRENT EDITION OF THE VDOT ROAD AND BRIDGE SPECIFICATIONS AND SPECIAL PROVISIONS IN EFFECT AT THE TIME THE SIGNAL PLAN IS APPROVED.
2. PRIOR TO COMMENCING SIGNAL WORK, THE CONTRACTOR SHALL NOTIFY VDOT AND THE TOWN PERMITS SECTION IN WRITING, WITH THE NAME, DAYTIME PHONE NUMBERS AND EMERGENCY PHONE NUMBERS FOR THE CONTRACTOR GIVING THE LOCATION OF THE WORK SITE INCLUDING STREET NAMES, ROUTE NUMBERS, PERMIT NUMBER, TYPE AND DETAILS OF CONSTRUCTION AND WORK SCHEDULE. ALL NOTIFICATIONS FOR LANE CLOSURES SHALL BE PURSUANT TO SPECIAL PROVISION PROVIDED BY VDOT.
3. UTILITIES SHOWN ON THE PLANS ARE NOT GUARANTEED TO BE COMPLETE OR ACCURATE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT ALL UTILITIES WITHIN THE PROJECT LIMITS ARE IDENTIFIED AND LOCATED BEFORE BEGINNING WORK. THE CONTRACTOR SHALL CONTACT VDOT MISS UTILITY AT 1-800-FOR-ROAD 48 HOURS PRIOR TO ANY CONSTRUCTION ACTIVITIES. CONTRACTOR SHALL COORDINATE WITH UTILITY COMPANIES AS TO THE LOCATION OF EXISTING AND APPROVED PLANS OF FUTURE UTILITY LINES. ANY DISRUPTION OF ANY UTILITY SERVICE IS THE RESPONSIBILITY OF THE CONTRACTOR.
4. LANE CLOSURE HOURS: 9 A.M - 3 P.M.

A. CONTROLLERS & FOUNDATIONS

1. NOTE?
2. NOTE?

B. TRAFFIC SIGNAL HEADS

1. NOTE?
2. NOTE?

D. PEDESTRIAN SIGNALS

1. PEDESTRIAN SIGNAL HEADS SHALL BE MOUNTED IN ACCORDANCE WITH ST'D. SMB-3.
2. PEDESTAL POLE AND FOUNDATION IN SHALL BE IN ACCORDANCE WITH ST'D. PF-2 AND PA-4.
3. PEDESTRIAN PUSH BUTTONS AND PUSH BUTTON SIGNS SHALL BE INSTALLED IN ACCORDANCE WITH ST'D. PA-2.
4. PEDESTRIAN CROSSING SIGN SHALL BE MUTCD DESIGNATION R10-3E.

E. CONDUIT, CONDUCTORS & ELECTRICAL

1. FOR INSTALLATION OF CONDUIT, NO OPEN CUT WILL BE ALLOWED IN ROADWAY SURFACE.
2. THE CONTRACTOR/SUBCONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AND MAINTAINING ELECTRICAL SERVICE TO THE CONTROLLER AT ALL TIMES.

F. SIGNS & PAVEMENT MARKINGS

1. PAVEMENT MARKINGS SHALL BE MODIFIED TO REFLECT THE MARKINGS SHOWN ON THE PLANS WHEN THE PEDESTRIAN SIGNALS ARE INSTALLED.
2. ANY EXISTING PAVEMENT MARKINGS WHICH CONFLICT WITH PROPOSED PAVEMENT MARKINGS SHALL BE COMPLETELY ERADICATED.
3. LIMITS SHOWN ON PROPOSED MARKINGS ARE APPROXIMATE AND SHALL BE MODIFIED IN THE FIELD TO ENSURE THAT PROPOSED PAVEMENT MARKINGS CONTINUE UNTIL EXISTING PAVEMENT MARKINGS CAN BE MATCHED.

G. POLE INSTALLATION

1. NOTE?

LEGEND:

PLAN ITEM	PLAN SYMBOL PROPOSED	PLAN SYMBOL EXISTING
Benchmark		
Primary Control (CP)		
Iron Rod Found		IRF
Grate Inlet		
Sanitary Sewer Manhole		S
Cleanout		SCO
Electric Meter		EM
Light Pole		
Utility Pole		
Guy Wire		
Water Valve		WV
Fire Hydrant		
Water Meter		WM
Traffic Sign		
Trash Can		
Light Pole		LP
Electrical Box		E
Sanitary Manhole		S
Storm Drain Manhole		D
Telephone Manhole		T
Traffic Signal Mast Arm		
Traffic Light on Arm		
Traffic Handhole		TRHH
Traffic Cabinet		TR
Handrail		
Overhead Utility Lines		OHU
Painted Underground Electrical Line		PUE
Painted Underground Telephone		PUT
Painted Underground Water Line		PUW
Painted Sanitary Sewer Line		PUS
Painted Underground Gas Line		PUG
Underground Storm Pipe		
Fence Line		
Edge of Roadway		
Curb		
Shrub Line		
Elevation Contour	2418	2418
Spot Elevation Bottom of Curb	BC: 2406.39	
Spot Elevation Top of Curb	TC: 2406.39	
Spot Elevation - Proposed	P: 2406.39	
Spot Elevation - Existing		322.96 ×
Wood Signal Pole and Span Wire		
Metal Signal Pole & Foundation and Mast Arm		
Pedestal Pole and Foundation (St'd. PF-2)		
Pedestal Pole and Foundation (St'd. PA-3)		
Traffic Signal Head w/ Backplate		
Traffic Signal Head w/o Backplate		
Pedestrian Signal Head		
Pedestrian Pushbutton & Sign	P.B.	P.B.
Traffic Signal Sign Mast Arm or Span Wire Mt'd.		
Traffic Signal Sign Pole Mounted		E
Concrete Curb		C.C.
Concrete Curb and Gutter		CC&G
Concrete		CONC.
Handicap Ramp		H.C.
Existing		EX.
Right of Way		R/W
Landscape Area		LSA
Invert		INV.
Corrugated Metal Pipe		CMP
Reinforced Concrete Pipe		RCP
Approximate Direction		A.D.
Double Yellow Line (Stripe)		DYL
Single Yellow Line (Stripe)		SYL
Single White Line (Stripe)		SWL
Dashed White Line (Stripe)		DWL

A. MORTON THOMAS AND ASSOCIATES, INC.
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CONSULTANTS

NOT FOR CONSTRUCTION

TOWN OF CHRISTIANSBURG VA.

N. FRANKLIN STREET AND WADES LANE PEDESTRIAN IMPROVEMENTS
STATE PROJECT NO. EN20-154-251
UPC 117997
TOWN OF CHRISTIANSBURG
100 E. MAIN STREET
CHRISTIANSBURG, VA 24073
PHONE: 540-382-6128
FAX: 540-382-7338

MARK	DATE	DESCRIPTION

60% PLANS (07-10-23)

PROJECT NO:	21-0598.001
SCALE:	N.T.S.
DESIGNED BY:	CER
DRAWN BY:	WEM
CHECKED BY:	DEC

SHEET TITLE

GENERAL NOTES

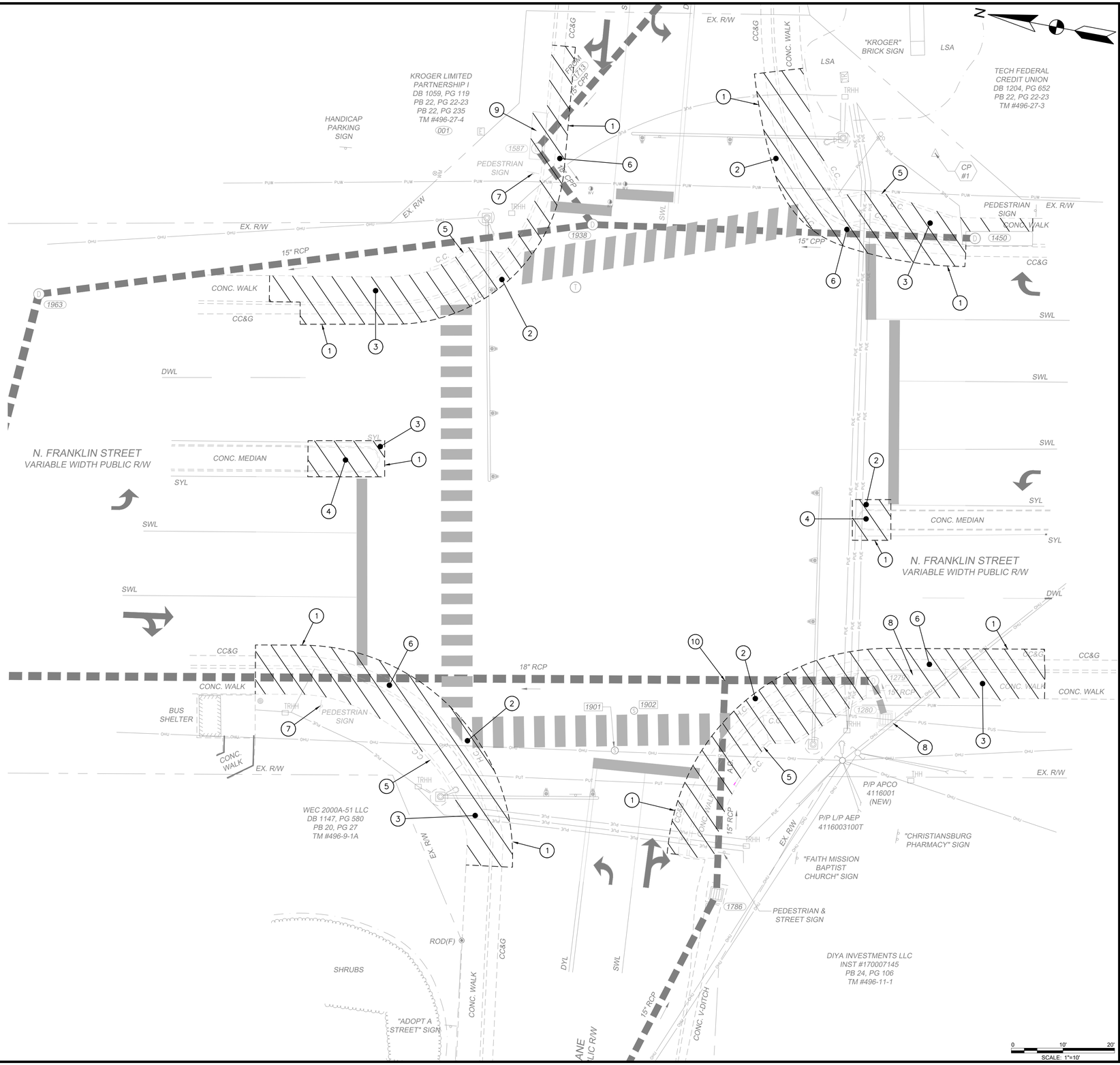
C2.0

SHEET 3 OF 18

X:\LEBANON\21-0598.001 - TOC PED. IMP. N. FRANKLIN ST. AND WADES\05-CADIC2.0-G100-210598001.DWG, 7/11/2023 3:10 PM, WMCCARTT

DEMOLITION LEGEND

1. SURFACE SAW CUT
2. REMOVE ASPHALT
3. REMOVE SIDEWALK
4. REMOVE CONCRETE MEDIAN
5. REMOVE CONCRETE CURB
6. REMOVE CURB & GUTTER
7. REMOVE SIGN PANEL, POST, & FDN.
8. REMOVE STORM STRUCTURE/PIPE
9. MODIFY DRAINAGE STRUCTURE
10. APPROX. BLIND JUNCTION OR BURIED MANHOLE



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MARK	DATE	DESCRIPTION

60% PLANS (07-10-23)

PROJECT NO:	21-0598.001
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DESIGNED BY:	CER
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CHECKED BY:	DEC

SHEET TITLE

EXISTING CONDITIONS & DEMOLITION PLAN

C3.0

SHEET 4 OF 18

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PLAN KEY

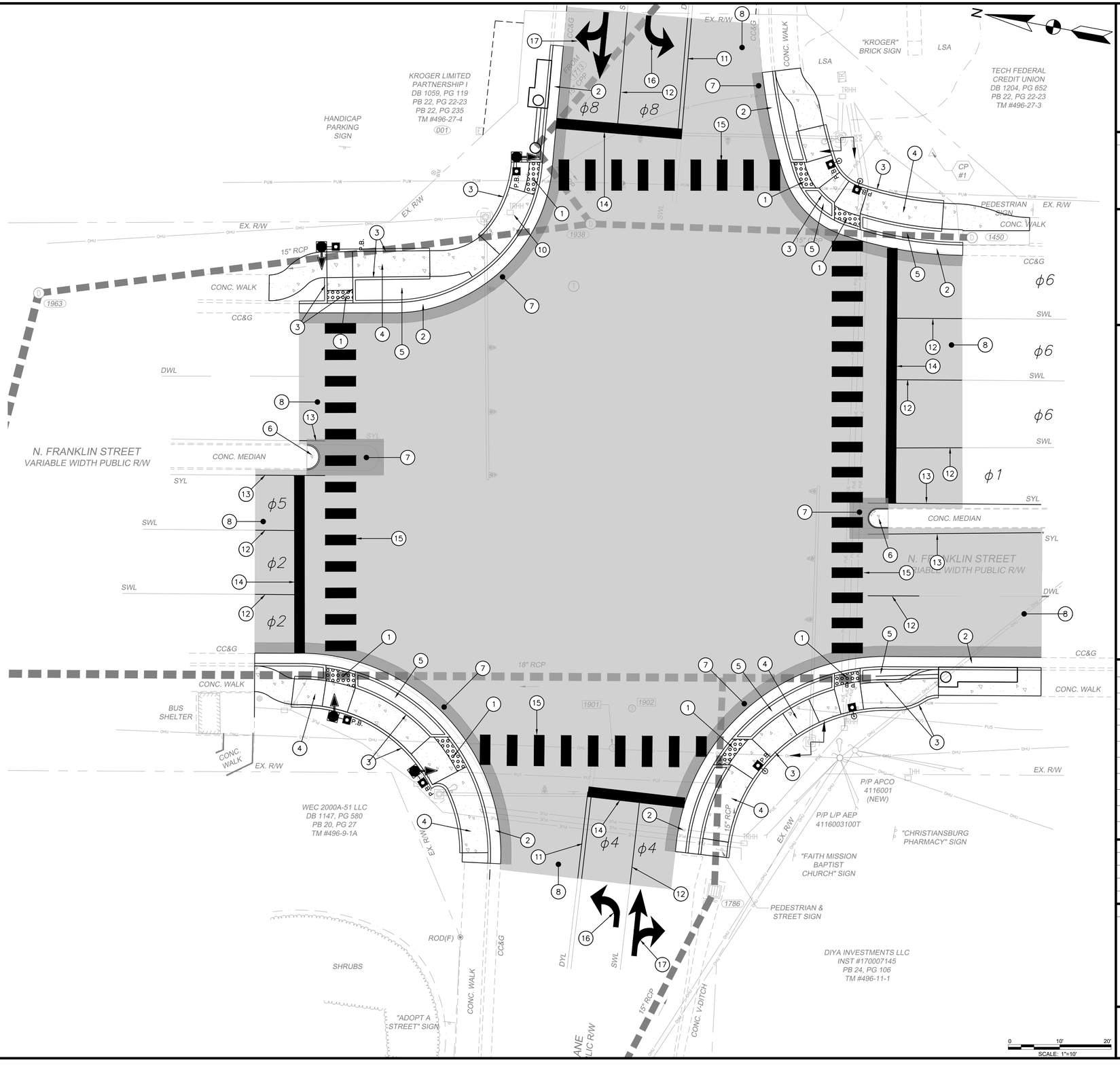
1. CG-12 DETECTABLE WARNING SURFACE (TYPE B)
2. COMBINATION 6" CURB AND GUTTER (CG-6)
3. STD. 6" CURB (CG-2)
4. 5' WIDE CONCRETE SIDEWALK
5. GRASS SIDEWALK BUFFER
6. CONCRETE MEDIAN
7. FULL DEPTH PAVEMENT:
   8" 21B STONE
   4" BM-25.0A
   2" SM-9.5D
8. 1.5" ASPHALT MILL AND OVERLAY (SM-9.5D)
9. TIE TO EXISTING SIDEWALK
10. RELOCATE TRAFFIC JUNCTION BOX
11. 4" DOUBLE YELLOW LINE TYPE B, CLASS I
12. 4" SINGLE WHITE LINE TYPE B, CLASS I
13. 4" SINGLE YELLOW LINE TYPE B, CLASS I
14. 24" SOLID WHITE LINE TYPE B, CLASS II
15. 6' WIDE CROSSWALK 24" SOLID WHITE LINE TYPE B, CLASS II
16. SINGLE TURN ARROW TYPE B, CLASS II
17. DOUBLE TURN ARROW THRU/RT TYPE B, CLASS II

ASPHALT MILL & OVERLAY

FULL DEPTH ASPHALT

PROPOSED CONCRETE SIDEWALK

TEMPORARY CONSTRUCTION EASEMENT



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CHRISTIANSBURG VA.

N. FRANKLIN STREET AND WADES LANE PEDESTRIAN IMPROVEMENTS STATE PROJECT NO. EN20-154-251 UPC 117997

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SHEET TITLE

INTERSECTION PLAN

C4.0

SHEET 5 OF 18

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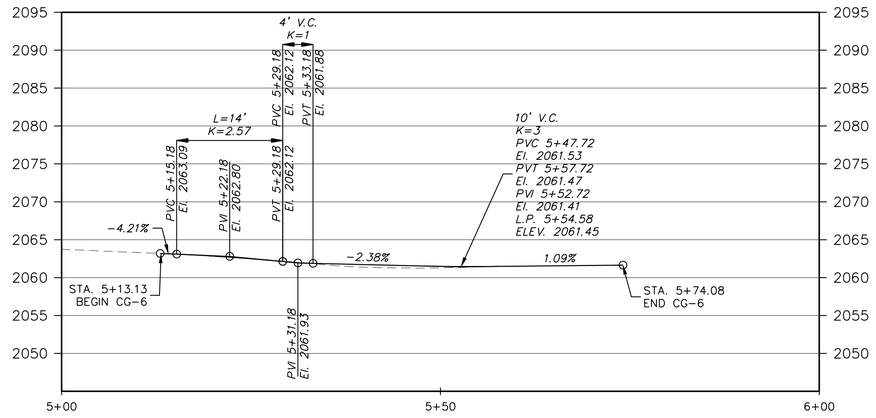
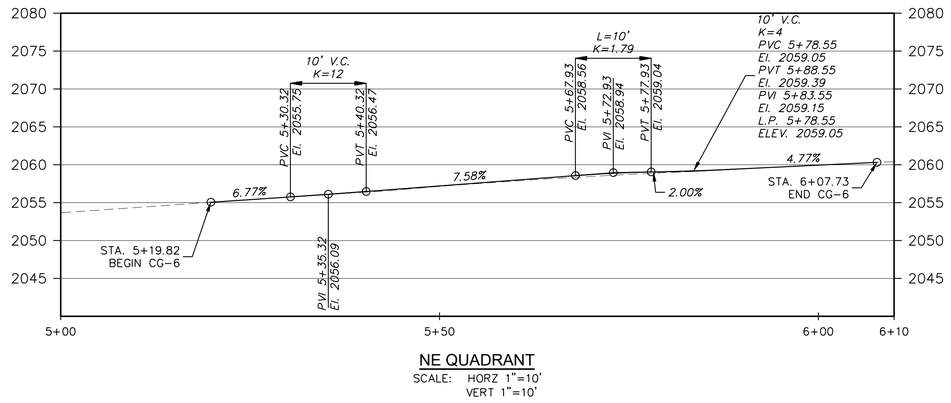


SE QUADRANT
SCALE: HORZ 1"=10'
VERT 1"=10'



NE QUADRANT
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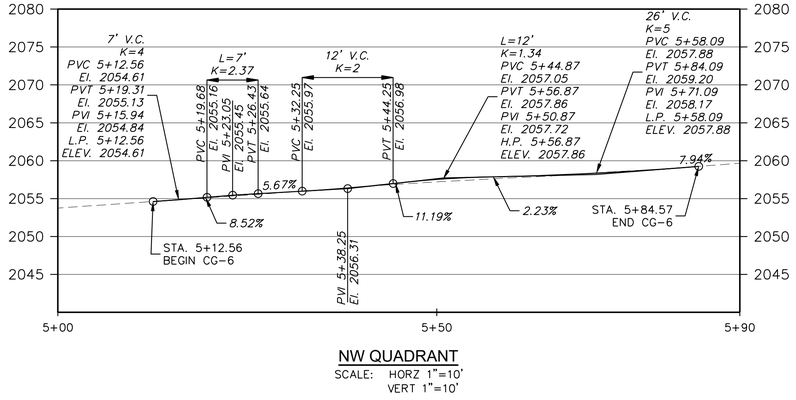
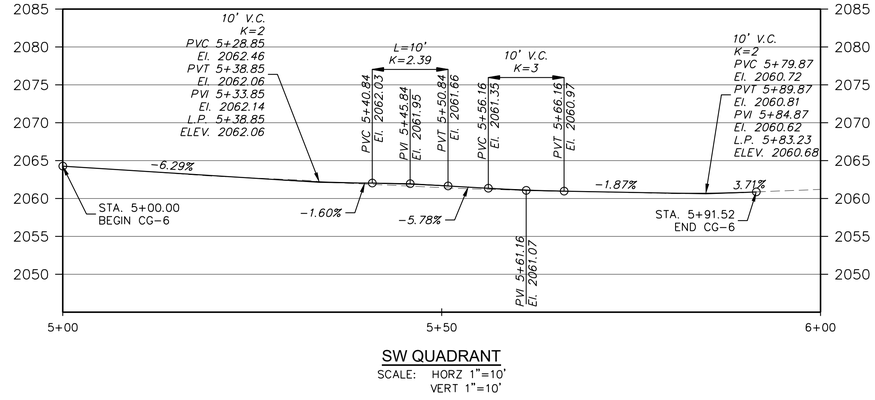


NW QUADRANT
SCALE: HORZ 1"=10'
VERT 1"=10'



SW QUADRANT
SCALE: HORZ 1"=10'
VERT 1"=10'

0 10' 20'
SCALE: 1"=10'

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MARK	DATE	DESCRIPTION

60% PLANS (07-10-23)

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SHEET TITLE

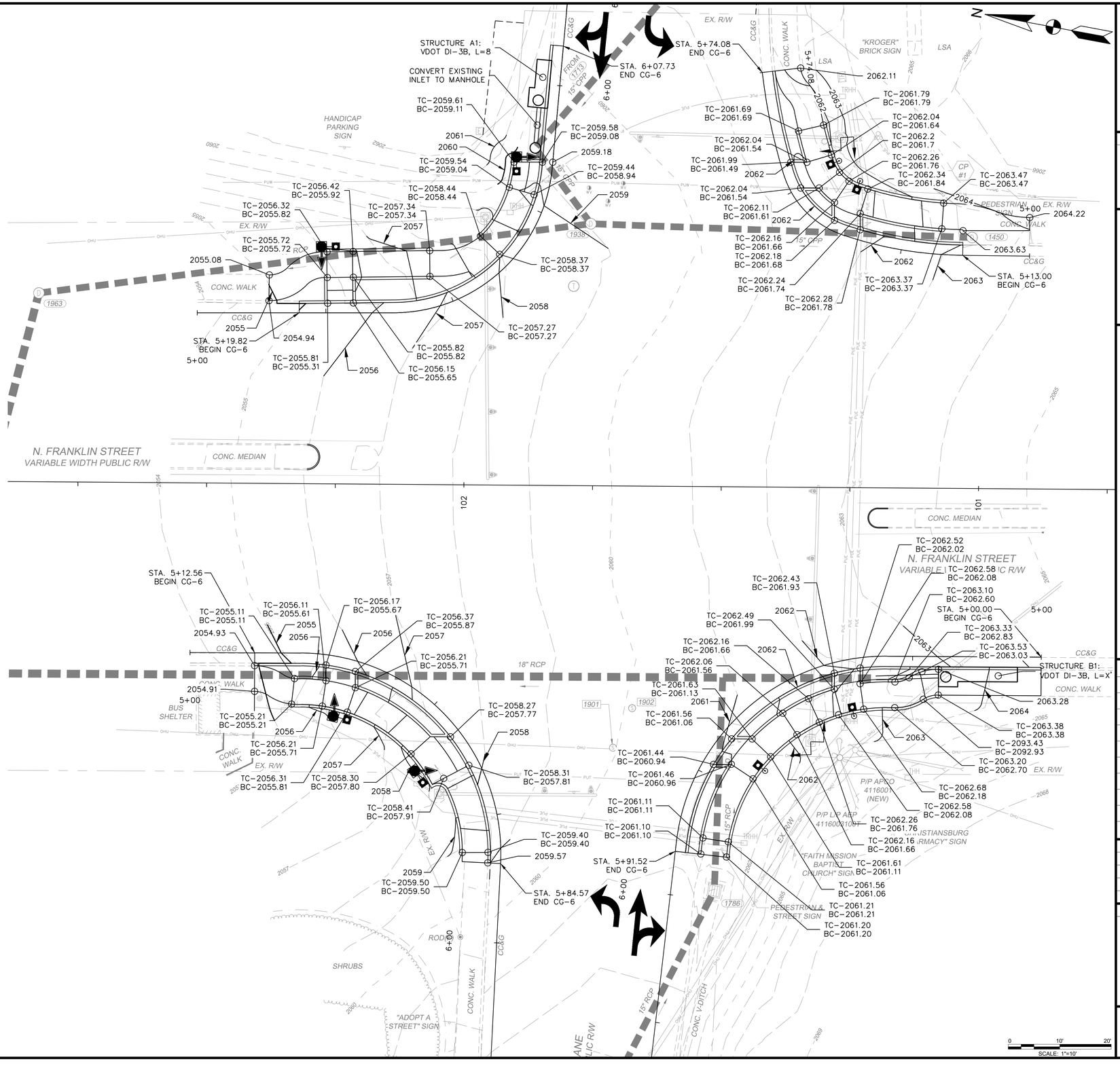
CURB LINE PROFILES

C5.0

SHEET 6 OF 18

GRADING LEGEND

- TC: 2055.82 FIN. GRADE TOP CURB EL.
  BC: 2056.32 FIN. GRADE BOTTOM CURB EL.
- 2055.82 FIN. GRADE SPOT EL.
- 2060 EXIST. GRADE CONTOUR
- 2060 FIN. GRADE CONTOUR
- TEMPORARY CONSTRUCTION EASEMENT



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MARK	DATE	DESCRIPTION
		60% PLANS (07-10-23)

PROJECT NO:	21-0598.001
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CHECKED BY:	DEC

SHEET TITLE

GRADING & DRAINAGE PLAN

C6.0

SHEET 7 OF 18

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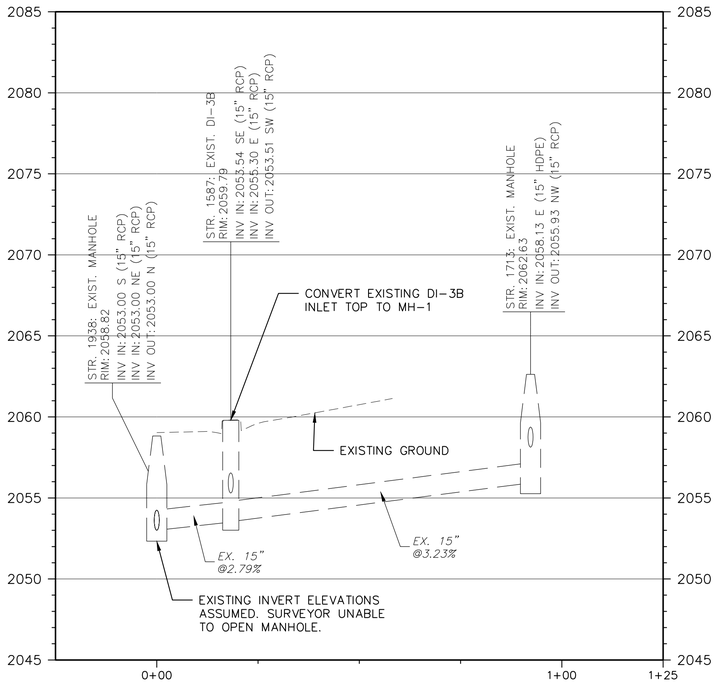
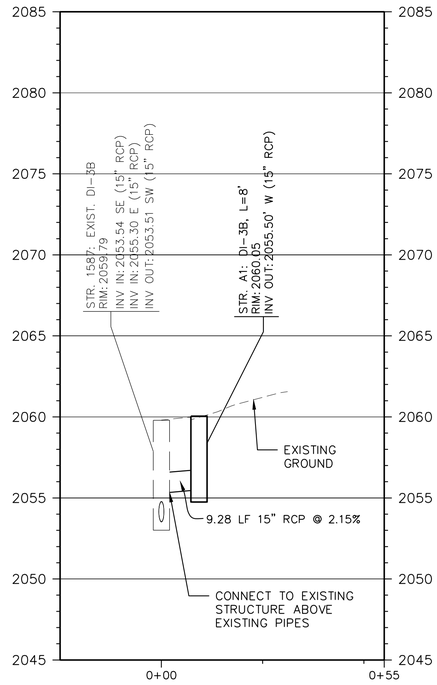


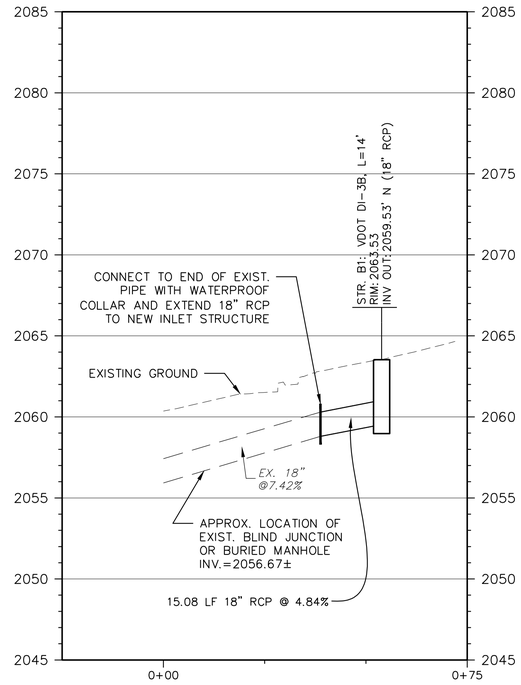
EXISTING STORM SEWER: STR. 1938 TO STR. 1713

SCALE: HORZ 1"=20'
VERT 1"=5'



PROPOSED STORM SEWER: STR. 1587 TO STR. A1

SCALE: HORZ 1"=20'
VERT 1"=5'



PROPOSED STORM SEWER: STR. 1279 TO STR. B1

SCALE: HORZ 1"=20'
VERT 1"=5'

0 10' 20' 40'
SCALE: 1"=20'

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MARK	DATE	DESCRIPTION

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PROJECT NO:	21-0598.001
SCALE:	AS SHOWN
DESIGNED BY:	CER
DRAWN BY:	WEM
CHECKED BY:	DEC

SHEET TITLE

STORM SYSTEM PROFILES

C6.1

SHEET 8 OF 18

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EROSION CONTROL NARRATIVE

1. PROJECT DESCRIPTION:
   - THIS PROJECT INCLUDES IMPROVEMENTS TO THE INTERSECTION OF N. FRANKLIN STREET AND WADES LANE. IMPROVEMENTS INCLUDE ADA RAMP UPGRADES, IMPLEMENTATION OF PEDESTRIAN PUSH BUTTONS AND SIGNAL HEADS, AND RESURFACING OF THE INTERSECTION.
2. EXISTING SITE CONDITIONS:
   - THE EXISTING INTERSECTION IS CURRENTLY SIGNALIZED. THE NORTHWEST QUADRANT IS CVS, THE NORTHEAST QUADRANT IS A KROGER GAS STATION, THE SOUTHEAST QUADRANT IS FREEDOM FIRST CREDIT UNION, AND THE SOUTHWEST QUADRANT IS CHRISTIANSBURG PHARMACY. SITE ELEVATIONS OF THE INTERSECTION RANGE FROM 2065 ALONG THE CURB AND GUTTER AT THE SOUTHEAST QUADRANT OF THE INTERSECTION TO 2054 AT THE NORTHWEST QUADRANT OF THE INTERSECTION.
   - EXISTING CONDITIONS FOR THE AREA PLANNED FOR DIRECTIONAL ADA RAMPS CURRENTLY HAVE COMBINED RAMPS.
3. ADJACENT AREAS:
   - AREAS ADJACENT TO THE SITE INCLUDE THE RIGHT OF WAY OF N. FRANKLIN STREET AND WADES, AND COMMERCIAL ESTABLISHMENTS.
4. OFF-SITE AREAS:
   - NO OFF-SITE LAND DISTURBING ACTIVITIES ASSOCIATED WITH THIS PROJECT ARE KNOWN AT THIS TIME. ANY OFF-SITE LAND DISTURBANCE ACTIVITIES ASSOCIATED WITH THIS PROJECT WILL BE COVERED WITH A SEPARATE LAND DISTURBANCE PERMIT OBTAINED BY THE CONTRACTOR.
5. SOILS:
   - THE MAJORITY OF THE SOILS ON THE PROJECT ARE CLASSIFIED BY NRCS AS EITHER GROSECLOSE AND POPLIMENTO (43%) OR DUFFIELD-EARNEST COMPLEX (37%) SOILS. THESE SOILS HAVE A SLOW INFILTRATION RATE AND A MODERATE INFILTRATION RATE, RESPECTIVELY.
6. CRITICAL EROSION AREAS:
   - THERE ARE NO CRITICAL EROSION AREAS ON THIS PROJECT.
7. EROSION AND SEDIMENT CONTROL MEASURES:
   - THE FOLLOWING VESCH CONTROLS TO BE USED INCLUDE:
     - SILT FENCE PER STD. 3.05 AND VDOT EC-5
     - STORM DRAIN INLET PROTECTION PER STD. 3.07 AND VDOT EC-6
     - TOPSOILING PER STD. 3.30
     - PERMANENT SEEDING PER STD. 3.32
     - MULCHING PER STD. 3.35
     - BLANKETING AND MATTING (TREATMENT 1) PER STD. 3.36 AND VDOT EC-2
8. PERMANENT STABILIZATION:
   - ALL DISTURBED AREAS NOT OTHERWISE STABILIZED WITH NON-ERODIBLE MATERIALS WILL RECEIVE PERMANENT SEEDING. THESE AREAS WILL BE WATERED EVERY DAY BY THE CONTRACTOR FOR THE FIRST TWO WEEKS UNTIL GERMINATION, AND THEN AS NEEDED THEREAFTER. THE CONTRACTOR WILL BE REQUIRED TO ESTABLISH AND MAINTAIN A "GOOD" STAND OF GRASS/VEGETATION BEFORE APPROVAL BY THE TOWN. SEE THE ROADSIDE DEVELOPMENT SHEET FOR DETAILS ON PERMANENT VEGETATION ESTABLISHMENT.
9. STORMWATER MANAGEMENT CONSIDERATIONS:
   - VIRGINIA STORMWATER MANAGEMENT PROGRAM (VSMP) WATER QUALITY AND WATER QUANTITY (CHANNEL PROTECTION AND FLOOD PROTECTION) REQUIREMENTS ARE NOT APPLICABLE TO THIS PROJECT BECAUSE THE DISTURBED AREA IS LESS THAN 1 ACRE.

SEQUENCE OF CONSTRUCTION

1. THE CONTRACTOR WILL OBTAIN ALL NECESSARY PERMITS AND APPROVALS AND PERFORM ALL REQUIRED NOTIFICATIONS.
2. THE CONTRACTOR SHALL INSTALL SILT FENCE DOWN GRADIENT OF THE WORK AREA IN THE SOUTHEAST QUADRANT OF THE INTERSECTION.
3. THE CONTRACTOR SHALL STRIP TOPSOIL AND REMOVE EXISTING FEATURES TO ALLOW THE INSTALLATION OF NEW IMPROVEMENTS.
4. THE CONTRACTOR SHALL REMOVE EXISTING SIDEWALK, CURB AND GUTTER, AND ASPHALT PAVEMENT TO INSTALL NEW SIDEWALK, CURB RAMP, PEDESTRIAN SIGNAL, CURB AND GUTTER, RETAINING WALL, AND ASSOCIATED ITEMS.
5. THE CONTRACTOR SHALL STABILIZE DISTURBED AREAS UPON COMPLETION OF WORK IN THIS QUADRANT.
6. THE CONTRACTOR SHALL INSTALL SILT FENCE DOWN GRADIENT OF THE WORK AREA IN THE SOUTHWEST QUADRANT OF THE INTERSECTION
7. THE CONTRACTOR SHALL STRIP TOPSOIL AND REMOVE EXISTING FEATURES TO ALLOW THE INSTALLATION OF NEW IMPROVEMENTS.
8. THE CONTRACTOR SHALL REMOVE EXISTING SIDEWALK, CURB AND GUTTER, AND ASPHALT PAVEMENT TO INSTALL NEW SIDEWALK, CURB RAMP, PEDESTRIAN SIGNAL, CURB AND GUTTER AND ASSOCIATED ITEMS.
9. THE CONTRACTOR SHALL STABILIZE DISTURBED AREAS UPON COMPLETION OF WORK IN THIS QUADRANT
10. THE CONTRACTOR WILL MAINTAIN ESC MEASURES THROUGHOUT CONSTRUCTION.
11. ALL ESC MEASURES WILL BE CHECKED REGULARLY FOR SEDIMENT BUILD UP THAT WILL PREVENT PROPER DRAINAGE. SEDIMENT REMOVAL WILL BE DISPOSED IN ACCORDANCE WITH PERMIT CONDITIONS.
12. ADDITIONAL ESC MEASURES WILL BE INSTALLED AS REQUIRED BY THE TOWN.
13. UPON STABILIZATION THE CONTRACTOR WILL SCHEDULE A FINAL INSPECTION.
14. REMAINING ESC MEASURES WILL NOT BE REMOVED UNTIL THE LAST STAGE OF CONSTRUCTION.
15. NO OFF-SITE LAND DISTURBING ACTIVITIES ARE SCHEDULED AT THIS TIME. ANY OFF-SITE LAND DISTURBANCE ACTIVITIES WILL REQUIRE A SEPARATE LAND DISTURBING PERMIT BY THE CONTRACTOR OR AN AMENDMENT TO THIS PERMIT.

EROSION & SEDIMENT CONTROL MAINTENANCE NOTES

ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSPECTED BY QUALIFIED PERSONNEL AT LEAST ONCE EVERY FIVE (5) BUSINESS DAYS , OR AT LEAST ONCE EVERY TEN (10) BUSINESS DAYS AND NO LATER THAN 48 HOURS FOLLOWING A MEASURABLE STORM EVENT, AND SHALL BE CLEANED AND REPAIRED ACCORDING TO THE FOLLOWING SCHEDULE:

1. EROSION AND SEDIMENT CONTROL WILL BE CHECKED REGULARLY FOR UNDERMINING OR DETERIORATION AND BUILDUP OR CLOGGING WITH SEDIMENT. CORRECTIVE ACTION WILL BE TAKEN IMMEDIATELY.
2. FREQUENT INSPECTIONS AND CLEANING OF MUD AND DEBRIS FOUND OUTSIDE OF THE LIMITS OF DISTURBANCE IS REQUIRED, ALONG WITH ANY OTHER REMEDIES REQUIRED BY THE TOWN. ANY MUD, SEDIMENT, DEBRIS, ETC. OBSERVED OUTSIDE THE LIMITS OF DISTURBANCE SHALL IMMEDIATELY BE REMOVED AND DISPOSED OF IN AN APPROPRIATE MANNER.
3. ALL SEEDED AREAS SHALL BE CHECKED REGULARLY TO SEE THAT A GOOD STAND OF GRASS IS MAINTAINED. AREAS SHALL BE FERTILIZED AND RESEEDED AS NEEDED. TEMPORARY STABILIZATION SHALL BE USED AS REQUIRED BY THE TOWN.
4. ALL TEMPORARY EROSION AND SEDIMENT MEASURES SHALL BE DISPOSED OF WITHIN THIRTY (30) DAYS AFTER FINAL SITE STABILIZATION IS ACHIEVED AND VEGETATION IS ESTABLISHED.

MINIMUM STANDARDS

1. 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 SHALL BE APPLIED WITHIN SEVEN DAYS TO DENUDED AREAS THAT MAY NOT BE AT FINAL GRADE BUT WILL REMAIN DORMANT FOR LONGER THAN 14 DAYS. PERMANENT STABILIZATION SHALL BE APPLIED TO AREAS THAT ARE TO BE LEFT DORMANT FOR MORE THAN ONE YEAR.
2. DURING CONSTRUCTION OF THE PROJECT, SOIL STOCK PILES AND BORROW AREAS SHALL BE STABILIZED OR PROTECTED WITH SEDIMENT TRAPPING MEASURES. THE APPLICANT IS RESPONSIBLE FOR THE TEMPORARY PROTECTION AND PERMANENT STABILIZATION OF ALL SOIL STOCKPILES ON SITE AS WELL AS BORROW AREAS AND SOIL INTENTIONALLY TRANSPORTED FROM THE PROJECT SITE.
3. A PERMANENT VEGETATIVE COVER SHALL BE ESTABLISHED ON DENUDED AREAS NOT OTHERWISE PERMANENTLY STABILIZED. PERMANENT VEGETATION SHALL NOT BE CONSIDERED ESTABLISHED UNTIL A GROUND COVER IS ACHIEVED THAT IS UNIFORM, MATURE ENOUGH TO SURVIVE AND WILL INHIBIT EROSION.
4. SEDIMENT BASINS AND TRAPS, PERIMETER DIKES, SEDIMENT BARRIERS AND OTHER MEASURES INTENDED TO TRAP SEDIMENT SHALL BE CONSTRUCTED AS A FIRST STEP IN ANY LAND-DISTURBING ACTIVITY AND SHALL BE MADE FUNCTIONAL BEFORE UPSLOPE LAND DISTURBANCE TAKES PLACE.
5. STABILIZATION MEASURES SHALL BE APPLIED TO EARTHEN STRUCTURES SUCH AS DAMS, DIKES AND DIVERSIONS IMMEDIATELY AFTER INSTALLATION.
6. SEDIMENT TRAPS AND SEDIMENT BASINS SHALL BE DESIGNED AND CONSTRUCTED BASED UPON THE TOTAL DRAINAGE AREA TO BE SERVED BY THE TRAP OR BASIN.
   A. THE MINIMUM STORAGE CAPACITY OF A SEDIMENT TRAP SHALL BE 134 CUBIC YARDS PER ACRE OF DRAINAGE AREA AND THE TRAP SHALL ONLY CONTROL DRAINAGE AREAS LESS THAN THREE ACRES.
   B. SURFACE RUNOFF FROM DISTURBED AREAS THAT IS COMPRISED OF FLOW FROM DRAINAGE AREAS GREATER THAN OR EQUAL TO THREE ACRES SHALL BE CONTROLLED BY A SEDIMENT BASIN. THE MINIMUM STORAGE CAPACITY OF A SEDIMENT BASIN SHALL BE 134 CUBIC YARDS PER ACRE OF DRAINAGE AREA. THE OUTFALL SYSTEM SHALL, AT A MINIMUM, MAINTAIN THE STRUCTURAL INTEGRITY OF THE BASIN DURING A 25-YEAR STORM OF 24-HOUR DURATION. RUNOFF COEFFICIENTS USED IN RUNOFF CALCULATIONS SHALL CORRESPOND TO A BARE EARTH CONDITION OR THOSE CONDITIONS EXPECTED TO EXIST WHILE THE SEDIMENT BASIN IS UTILIZED.
7. 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.
8. CONCENTRATED RUNOFF SHALL NOT FLOW DOWN CUT OR FILL SLOPES UNLESS CONTAINED WITHIN AN ADEQUATE TEMPORARY OR PERMANENT CHANNEL, FLUME OR SLOPE DRAIN STRUCTURE.
9. WHENEVER WATER SEEPS FROM A SLOPE FACE, ADEQUATE DRAINAGE OR OTHER PROTECTION SHALL BE PROVIDED.
10. ALL STORM SEWER INLETS THAT ARE MADE OPERABLE DURING CONSTRUCTION SHALL BE PROTECTED SO THAT SEDIMENT-LADEN WATER CANNOT ENTER THE CONVEYANCE SYSTEM WITHOUT FIRST BEING FILTERED OR OTHERWISE TREATED TO REMOVE SEDIMENT.
11. BEFORE NEWLY CONSTRUCTED STORMWATER CONVEYANCE CHANNELS OR PIPES ARE MADE OPERATIONAL, ADEQUATE OUTLET PROTECTION AND ANY REQUIRED TEMPORARY OR PERMANENT CHANNEL LINING SHALL BE INSTALLED IN BOTH THE CONVEYANCE CHANNEL AND RECEIVING CHANNEL.
12. WHEN WORK IN A LIVE WATERCOURSE IS PERFORMED, PRECAUTIONS SHALL BE TAKEN TO MINIMIZE ENCROACHMENT, CONTROL SEDIMENT TRANSPORT AND STABILIZE THE WORK AREA TO THE GREATEST EXTENT POSSIBLE DURING CONSTRUCTION. NONERODIBLE MATERIAL SHALL BE USED FOR THE CONSTRUCTION OF CAUSEWAYS AND COFFERDAMS. EARTHEN FILL MAY BE USED FOR THESE STRUCTURES IF ARMORED BY NONERODIBLE COVER MATERIALS.
13. WHEN A LIVE WATERCOURSE MUST BE CROSSED BY CONSTRUCTION VEHICLES MORE THAN TWICE IN ANY SIX-MONTH PERIOD, A TEMPORARY VEHICULAR STREAM CROSSING CONSTRUCTED OF NONERODIBLE MATERIAL SHALL BE PROVIDED.
14. ALL APPLICABLE FEDERAL, STATE AND LOCAL CHAPTERS PERTAINING TO WORKING IN OR CROSSING LIVE WATERCOURSES SHALL BE MET.
15. THE BED AND BANKS OF A WATERCOURSE SHALL BE STABILIZED IMMEDIATELY AFTER WORK IN THE WATERCOURSE IS COMPLETED.
16. UNDERGROUND UTILITY LINES SHALL BE INSTALLED IN ACCORDANCE WITH THE FOLLOWING STANDARDS IN ADDITION TO OTHER APPLICABLE CRITERIA:
   A. NO MORE THAN 500 LINEAR FEET OF TRENCH MAY BE OPENED AT ONE TIME.
   B. EXCAVATED MATERIAL SHALL BE PLACED ON THE UPHILL SIDE OF TRENCHES.
   C. EFFLUENT FROM DEWATERING OPERATIONS SHALL BE FILTERED OR PASSED THROUGH AN APPROVED SEDIMENT TRAPPING DEVICE, OR BOTH, AND DISCHARGED IN A MANNER THAT DOES NOT ADVERSELY AFFECT FLOWING STREAMS OR OFF-SITE PROPERTY.
   D. MATERIAL USED FOR BACKFILLING TRENCHES SHALL BE PROPERLY COMPACTED IN ORDER TO MINIMIZE EROSION AND PROMOTE STABILIZATION.
   E. RESTABILIZATION SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THIS CHAPTER.
   F. APPLICABLE SAFETY CHAPTERS SHALL BE COMPLIED WITH.
17. WHERE CONSTRUCTION VEHICLE ACCESS ROUTES INTERSECT PAVED OR PUBLIC ROADS, PROVISIONS SHALL BE MADE TO MINIMIZE THE TRANSPORT OF SEDIMENT BY VEHICULAR TRACKING ONTO THE PAVED SURFACE. WHERE SEDIMENT IS TRANSPORTED ONTO A PAVED OR PUBLIC ROAD SURFACE, THE ROAD SURFACE SHALL BE CLEANED THOROUGHLY AT THE END OF EACH DAY. SEDIMENT SHALL BE REMOVED FROM THE ROADS BY SHOVELING OR SWEEPING AND TRANSPORTED TO A SEDIMENT CONTROL DISPOSAL AREA. STREET WASHING SHALL BE ALLOWED ONLY AFTER SEDIMENT IS REMOVED IN THIS MANNER. THIS PROVISION SHALL APPLY TO INDIVIDUAL DEVELOPMENT LOTS AS WELL AS TO LARGER LAND-DISTURBING ACTIVITIES.
18. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN 30 DAYS AFTER FINAL SITE STABILIZATION OR AFTER THE TEMPORARY MEASURES ARE NO LONGER NEEDED, UNLESS OTHERWISE AUTHORIZED BY THE VESCP AUTHORITY. TRAPPED SEDIMENT AND THE DISTURBED SOIL AREAS RESULTING FROM THE DISPOSITION OF TEMPORARY MEASURES SHALL BE PERMANENTLY STABILIZED TO PREVENT FURTHER EROSION AND SEDIMENTATION.
19. PROPERTIES AND WATERWAYS DOWNSTREAM FROM DEVELOPMENT SITES SHALL BE PROTECTED FROM SEDIMENT DEPOSITION, EROSION AND DAMAGE DUE TO INCREASES IN VOLUME, VELOCITY AND PEAK FLOW RATE OF STORMWATER RUNOFF FOR THE STATED FREQUENCY STORM OF 24-HOUR DURATION IN ACCORDANCE WITH THE FOLLOWING STANDARDS AND CRITERIA. STREAM RESTORATION AND RELOCATION PROJECTS THAT INCORPORATE NATURAL CHANNEL DESIGN CONCEPTS ARE NOT MAN-MADE CHANNELS AND SHALL BE EXEMPT FROM ANY FLOW RATE CAPACITY AND VELOCITY REQUIREMENTS FOR NATURAL OR MAN-MADE CHANNELS:
   A. CONCENTRATED STORMWATER RUNOFF LEAVING A DEVELOPMENT SITE SHALL BE DISCHARGED DIRECTLY INTO AN ADEQUATE NATURAL OR MAN-MADE RECEIVING CHANNEL, PIPE OR STORM SEWER SYSTEM. FOR THOSE SITES WHERE RUNOFF IS DISCHARGED INTO A PIPE OR PIPE SYSTEM, DOWNSTREAM STABILITY ANALYSES AT THE OUTFALL OF THE PIPE OR PIPE SYSTEM SHALL BE PERFORMED.
   B. ADEQUACY OF ALL CHANNELS AND PIPES SHALL BE VERIFIED IN THE FOLLOWING MANNER:
      (1) THE APPLICANT SHALL DEMONSTRATE THAT THE TOTAL DRAINAGE AREA TO THE POINT OF ANALYSIS WITHIN THE CHANNEL IS ONE HUNDRED TIMES GREATER THAN THE CONTRIBUTING DRAINAGE AREA OF THE PROJECT IN QUESTION; OR
      (2) (A) NATURAL CHANNELS SHALL BE ANALYZED BY THE USE OF A TWO-YEAR STORM TO VERIFY THAT STORMWATER WILL NOT OVERTOP CHANNEL BANKS NOR CAUSE EROSION OF CHANNEL BED OR BANKS.
      (B) ALL PREVIOUSLY CONSTRUCTED MAN-MADE CHANNELS SHALL BE ANALYZED BY THE USE OF A TEN-YEAR STORM TO VERIFY THAT STORMWATER WILL NOT OVERTOP ITS BANKS AND BY THE USE OF A TWO-YEAR STORM TO DEMONSTRATE THAT STORMWATER WILL NOT CAUSE EROSION OF CHANNEL BED OR BANKS; AND
      (C) PIPES AND STORM SEWER SYSTEMS SHALL BE ANALYZED BY THE USE OF A TEN-YEAR STORM TO VERIFY THAT STORMWATER WILL BE CONTAINED WITHIN THE PIPE OR SYSTEM.
   C. IF EXISTING NATURAL RECEIVING CHANNELS OR PREVIOUSLY CONSTRUCTED MAN-MADE CHANNELS OR PIPES ARE NOT ADEQUATE, THE APPLICANT SHALL:
      (1) IMPROVE THE CHANNELS TO A CONDITION WHERE A TEN-YEAR STORM WILL NOT OVERTOP THE BANKS AND A TWO-YEAR STORM WILL NOT CAUSE EROSION TO THE CHANNEL, THE BED, OR BANKS; OR
      (2) IMPROVE THE PIPE OR PIPE SYSTEM TO A CONDITION WHERE THE TEN-YEAR STORM IS CONTAINED WITHIN THE APPURTENANCES;
      (3) DEVELOP A SITE DESIGN THAT WILL NOT CAUSE THE PRE-DEVELOPMENT PEAK RUNOFF RATE FROM A TWO-YEAR STORM TO INCREASE WHEN RUNOFF OUTFALLS INTO A NATURAL CHANNEL OR WILL NOT CAUSE THE PRE-DEVELOPMENT PEAK RUNOFF RATE FROM A TEN-YEAR STORM TO INCREASE WHEN RUNOFF OUTFALLS INTO A MAN-MADE CHANNEL; OR
      (4) PROVIDE A COMBINATION OF CHANNEL IMPROVEMENT, STORMWATER DETENTION OR OTHER MEASURES WHICH IS SATISFACTORY TO THE VESCP AUTHORITY TO PREVENT DOWNSTREAM EROSION.
   D. THE APPLICANT SHALL PROVIDE EVIDENCE OF PERMISSION TO MAKE THE IMPROVEMENTS.
   E. ALL HYDROLOGIC ANALYSES SHALL BE BASED ON THE EXISTING WATERSHED CHARACTERISTICS AND THE ULTIMATE DEVELOPMENT CONDITION OF THE SUBJECT PROJECT.
   F. IF THE APPLICANT CHOOSES AN OPTION THAT INCLUDES STORMWATER DETENTION, HE SHALL OBTAIN APPROVAL FROM THE VESCP OF A PLAN FOR MAINTENANCE OF THE DETENTION FACILITIES. THE PLAN SHALL SET FORTH THE MAINTENANCE REQUIREMENTS OF THE FACILITY AND THE PERSON RESPONSIBLE FOR PERFORMING THE MAINTENANCE.
   G. OUTFALL FROM A DETENTION FACILITY SHALL BE DISCHARGED TO A RECEIVING CHANNEL, AND ENERGY DISSIPATERS SHALL BE PLACED AT THE OUTFALL OF ALL DETENTION FACILITIES AS NECESSARY TO PROVIDE A STABILIZED TRANSITION FROM THE FACILITY TO THE RECEIVING CHANNEL.
   H. ALL ON-SITE CHANNELS MUST BE VERIFIED TO BE ADEQUATE.
   I. INCREASED VOLUMES OF SHEET FLOWS THAT MAY CAUSE EROSION OR SEDIMENTATION ON ADJACENT PROPERTY SHALL BE DIVERTED TO A STABLE OUTLET, ADEQUATE CHANNEL, PIPE OR PIPE SYSTEM, OR TO A DETENTION FACILITY.
   J. IN APPLYING THESE STORMWATER MANAGEMENT CRITERIA, INDIVIDUAL LOTS OR PARCELS IN A RESIDENTIAL, COMMERCIAL OR INDUSTRIAL DEVELOPMENT SHALL NOT BE CONSIDERED TO BE SEPARATE DEVELOPMENT PROJECTS. INSTEAD, THE DEVELOPMENT, AS A WHOLE, SHALL BE CONSIDERED TO BE A SINGLE DEVELOPMENT PROJECT. HYDROLOGIC PARAMETERS THAT REFLECT THE ULTIMATE DEVELOPMENT CONDITION SHALL BE USED IN ALL ENGINEERING CALCULATIONS.
   K. ALL MEASURES USED TO PROTECT PROPERTIES AND WATERWAYS SHALL BE EMPLOYED IN A MANNER WHICH MINIMIZES IMPACTS ON THE PHYSICAL, CHEMICAL AND BIOLOGICAL INTEGRITY OF RIVERS, STREAMS AND OTHER WATERS OF THE STATE.
   L. ANY PLAN APPROVED PRIOR TO JULY 1, 2014, THAT PROVIDES FOR STORMWATER MANAGEMENT THAT ADDRESSES ANY FLOW RATE CAPACITY AND VELOCITY REQUIREMENTS FOR NATURAL OR MAN-MADE CHANNELS SHALL SATISFY THE FLOW RATE CAPACITY AND VELOCITY REQUIREMENTS FOR NATURAL OR MAN-MADE CHANNELS IF THE PRACTICES ARE DESIGNED TO (I) DETAIN THE WATER QUALITY VOLUME AND TO RELEASE IT OVER 48 HOURS; (II) DETAIN AND RELEASE OVER A 24-HOUR PERIOD THE EXPECTED RAINFALL RESULTING FROM THE ONE YEAR, 24-HOUR STORM; AND (III) REDUCE THE ALLOWABLE PEAK FLOW RATE RESULTING FROM THE 1.5, 2, AND 10-YEAR, 24-HOUR STORMS TO A LEVEL THAT IS LESS THAN OR EQUAL TO THE PEAK FLOW RATE FROM THE SITE ASSUMING IT WAS IN A GOOD FORESTED CONDITION, ACHIEVED THROUGH MULTIPLICATION OF THE FORESTED PEAK FLOW RATE BY A REDUCTION FACTOR THAT IS EQUAL TO THE RUNOFF VOLUME FROM THE SITE WHEN IT WAS IN A GOOD FORESTED CONDITION DIVIDED BY THE RUNOFF VOLUME FROM THE SITE IN ITS PROPOSED CONDITION, AND SHALL BE EXEMPT FROM ANY FLOW RATE CAPACITY AND VELOCITY REQUIREMENTS FOR NATURAL OR MAN-MADE CHANNELS AS DEFINED IN ANY REGULATIONS PROMULGATED PURSUANT TO § 62.1-44.15:54 OR 62.1-44.15:65 OF THE ACT.
   M. FOR PLANS APPROVED ON AND AFTER JULY 1, 2014, THE FLOW RATE CAPACITY AND VELOCITY REQUIREMENTS OF § 62.1-44.15:52 OF THE ACT AND THIS SUBSECTION SHALL BE SATISFIED BY COMPLIANCE WITH WATER QUANTITY REQUIREMENTS IN THE STORMWATER MANAGEMENT ACT (§ 62.1-44.15:24 ET SEQ. OF THE CODE OF VIRGINIA) AND ATTENDANT REGULATIONS, UNLESS SUCH LAND-DISTURBING ACTIVITIES ARE IN ACCORDANCE WITH 9VAC25-870-66 OF THE VIRGINIA STORMWATER MANAGEMENT PROGRAM (VSMP) PERMIT REGULATIONS.
   N. COMPLIANCE WITH THE WATER QUANTITY MINIMUM STANDARDS SET OUT IN 9VAC25-870-66 OF THE VIRGINIA STORMWATER MANAGEMENT PROGRAM (VSMP) PERMIT REGULATIONS SHALL BE DEEMED TO SATISFY THE REQUIREMENTS OF MINIMUM STANDARD 19.

GENERAL EROSION AND SEDIMENT CONTROL NOTES

FROM THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK, THIRD EDITION, 1992.

ES-1: UNLESS OTHERWISE INDICATED, ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE CONSTRUCTED AND MAINTAINED ACCORDING TO MINIMUM STANDARDS AND SPECIFICATIONS OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK AND VIRGINIA REGULATIONS 4VAC50-30 EROSION AND SEDIMENT CONTROL REGULATIONS.

ES-2: THE PLAN APPROVING AUTHORITY MUST BE NOTIFIED ONE WEEK PRIOR TO THE PRE-CONSTRUCTION CONFERENCE, ONE WEEK PRIOR TO THE COMMENCEMENT OF LAND DISTURBING ACTIVITY, AND ONE WEEK PRIOR TO THE FINAL INSPECTION.

ES-3: ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE PLACED PRIOR TO OR AS THE FIRST STEP IN CLEARING.

ES-4: A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN SHALL BE MAINTAINED ON THE SITE AT ALL TIMES.

ES-5: THE CONTRACTOR IS RESPONSIBLE FOR INSTALLATION OF ANY ADDITIONAL EROSION CONTROL MEASURES NECESSARY TO PREVENT EROSION AND SEDIMENTATION AS DETERMINED BY THE PLAN APPROVING AUTHORITY.

ES-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.

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

ES-8: THE CONTRACTOR SHALL INSPECT ALL EROSION CONTROL 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.

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CONSULTING ENGINEERS
105 ARBOR DRIVE, SUITE 200
CHRISTIANSBURG, VA 24073
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CONSULTANTS

NOT FOR CONSTRUCTION

N. FRANKLIN STREET AND WADES LANE PEDESTRIAN IMPROVEMENTS
STATE PROJECT NO. EN20-154-251
UPC 117997
TOWN OF CHRISTIANSBURG
100 E. MAIN STREET
CHRISTIANSBURG, VA 24073
PHONE: 540-382-6128
FAX: 540-382-7338

MARK	DATE	DESCRIPTION

60% PLANS (07-10-23)

PROJECT NO:	21-0598.001
SCALE:	N.T.S.
DESIGNED BY:	CER
DRAWN BY:	WEM
CHECKED BY:	DEC

SHEET TITLE

EROSION & SEDIMENT CONTROL NOTES

C7.0

SHEET 9 OF 18

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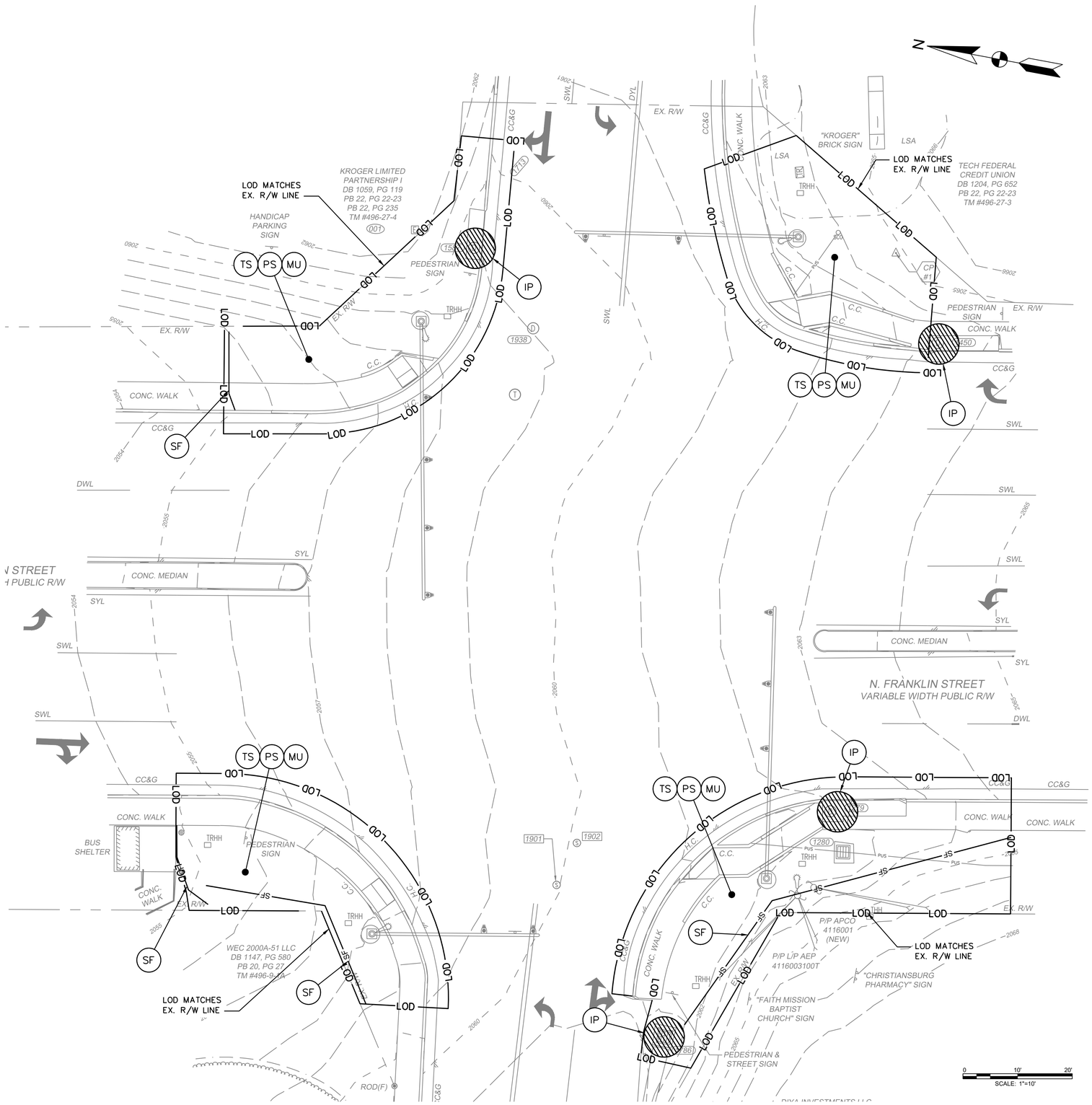
EROSION CONTROL LEGEND

TITLE	KEY	SYMBOL	STD. & SPEC. NUMBER	QUANTITY
LIMITS OF DISTURBANCE		—LOD—		0.13 ACRES
SILT FENCE	SF	— SF —	EC-5*	73 LF
INLET PROTECTION	IP			4 EA.
TOPSOILING	TO		3.30**	AS NEEDED
TEMPORARY SEEDING	TS		3.31**	AS NEEDED
PERMANENT SEEDING	PS		3.32**	AS NEEDED
MULCHING	MU		3.35**	AS NEEDED

*VIRGINIA DEPARTMENT OF TRANSPORTATION STANDARD
**VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK STD. & SPEC.



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NOT FOR CONSTRUCTION

N. FRANKLIN STREET AND WADES LANE PEDESTRIAN IMPROVEMENTS STATE PROJECT NO. EN20-154-251 UPC 117997

TOWN OF CHRISTIANSBURG
100 E. MAIN STREET
CHRISTIANSBURG, VA 24073
PHONE: 540-382-6128
FAX: 540-382-7338

MARK	DATE	DESCRIPTION
		60% PLANS (07-10-23)

PROJECT NO:	21-0598.001
SCALE:	1"=10'
DESIGNED BY:	CER
DRAWN BY:	WEM
CHECKED BY:	DEC

SHEET TITLE

EROSION & SEDIMENT CONTROL PLAN

C7.1

SHEET 10 OF 18

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Signal Pole & Controller Legend

(ALL DIMENSIONS ARE TO CENTER OF POLE)

- (A) USE EXISTING CABINET AND FOUNDATION
- (B) PEDESTAL POLE, PA-4, 5'
  63.51' RT OF STA. 101+27.57'
  EAST OF N. FRANKLIN ST. BASELINE
- (C) EXISTING SIGNAL MASTARM POLE
  SIGNAL PLACEMENT: P4, P6
  VDC PLACEMENT: 26'
- (D) PEDESTAL POLE, PA-4, 5'
  59.61' RT OF STA. 101+23.46'
  EAST OF N. FRANKLIN ST. BASELINE
- (E) PEDESTAL POLE, PA-4, 5'
  44.41' LT OF STA. 101+23.87'
  WEST OF N. FRANKLIN ST. BASELINE
- (F) EXISTING SIGNAL MASTARM POLE
  SIGNAL PLACEMENT: P2, P4
  VDC PLACEMENT: 32', 45'
- (G) PEDESTAL POLE, PA-4, 5'
  55.20' LT OF STA. 101+41.07'
  WEST OF N. FRANKLIN ST. BASELINE
- (H) PEDESTAL POLE, PF-2, 8'
  48.01' LT OF STA. 102+05.76'
  WEST OF N. FRANKLIN ST. BASELINE
- (J) PEDESTAL POLE, PF-2, 8'
  44.65' LT OF STA. 102+25.00'
  WEST OF N. FRANKLIN ST. BASELINE
- (K) EXISTING SIGNAL MASTARM POLE
  VDC PLACEMENT: 24'
- (L) PEDESTAL POLE, PF-2, 8'
  46.09' RT OF STA. 102+28.00'
  EAST OF N. FRANKLIN ST. BASELINE
- (M) EXISTING SIGNAL MASTARM POLE
  VDC PLACEMENT: 21', 46'
- (N) PEDESTAL POLE, PF-2, 8'
  63.80' RT OF STA. 101+90.24'
  EAST OF N. FRANKLIN ST. BASELINE

Existing Signs

S-1: R10-12 LEFT TURN YIELD ON GREEN (30" x 36")

S-2: R10-3eL (9" x 15")

QUANTITY – 4 EA.

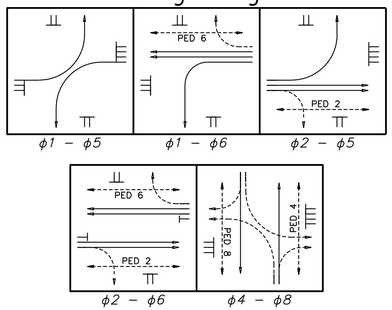
Proposed Signs

S-3: R10-3eR (9" x 15") QUANTITY – 4 EA.

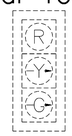
S-10: R10-15 TURNING VEHICLES TO (30" x 30") QUANTITY – 1 EA.

S-11: R10-15 (MOD) TURNING VEHICLES TO (30" x 30") QUANTITY – 1 EA.

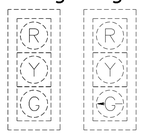
Phasing Diagram



Existing Signal To Be Removed



Existing Signals



Proposed Signals

SP-8

P2, P4, P6, & P8

1. All signal heads shall be LED.

APS Audible Indication Table

Pushbutton (Quad.)	Speech PB Information Message	Audible Walk Indication
P2 (SW) P2 (NW)	Wait To Cross Wades at Franklin	Percussive Tone
P4 (SW) P4 (SE)	Wait To Cross Franklin at Wades	Percussive Tone
P6 (SE) P6 (NE)	Wait To Cross Wades at Franklin	Percussive Tone
P8 (NE) P8 (NW)	Wait To Cross Franklin at Wades	Percussive Tone

Note: All other tones and beaconing associated with APS shall be in accordance with the Special Provisions in the Contract Documents.

Cable and Conduit Legend

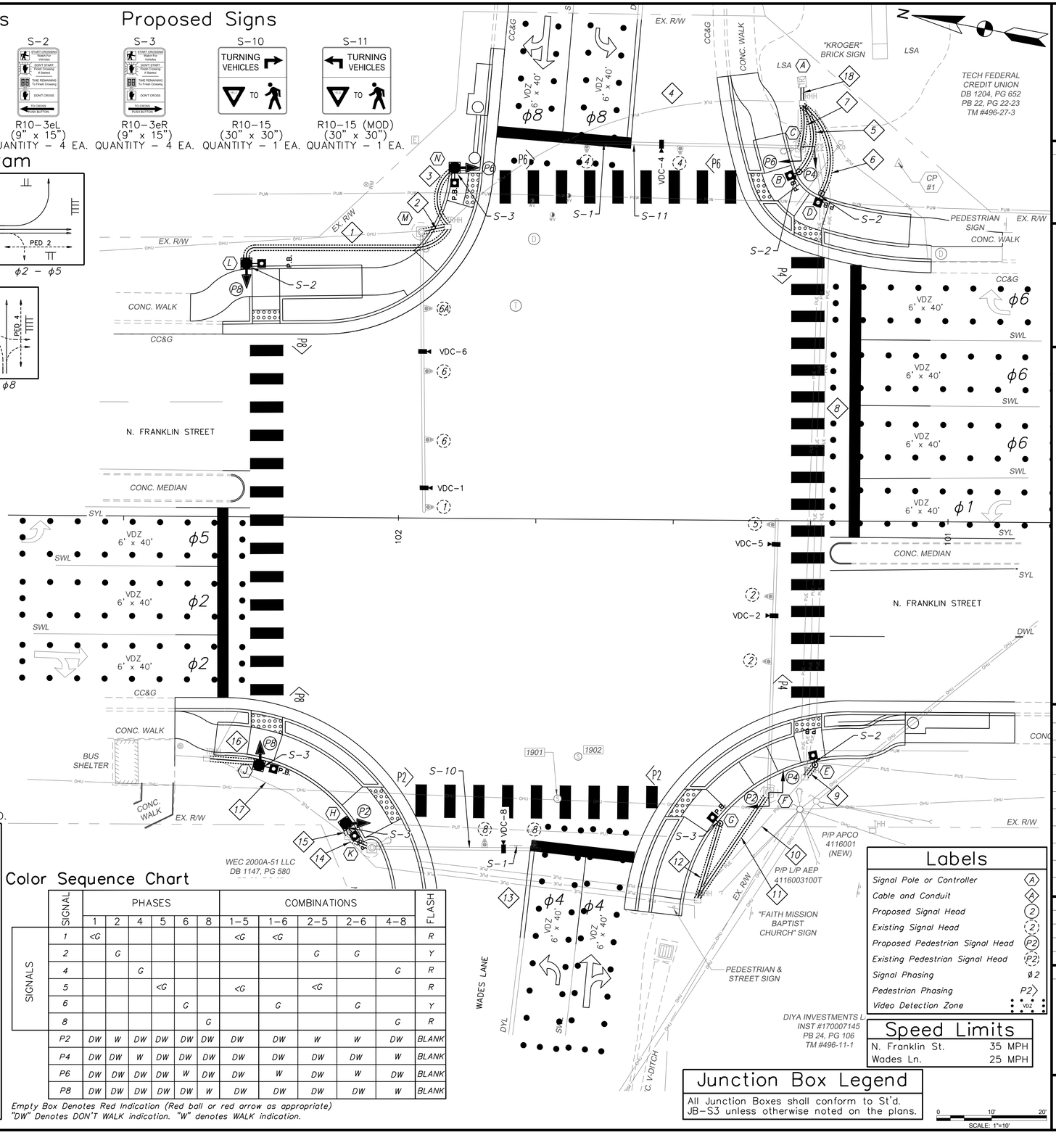
1. 1-3" Conduit
   1-14/7C (Head P8)
   1-14/2C (PB P8)
   1-#8 AWG (EGC)
2. 1-3" Conduit
   2-Coaxial (VDC 1,6)
   2-16/3C (VDC 1,6)
   1-#8 AWG (EGC)
3. 1-3" Conduit
   1-14/7C (Head P6)
   1-14/2C (PB P6)
   1-#8 AWG (EGC)
4. Use Existing Conduit
   2-14/7C (Heads P6, P8)
   2-14/2C (PB P6, P8)
   2-Coaxial (VDC 1,6)
   2-16/3C (VDC 1,6)
5. 1-3" Conduit
   1-14/2C (PB P6)
   1-#8 AWG (EGC)
6. 1-3" Conduit
   1-14/2C (PB P4)
   1-#8 AWG (EGC)
7. 1-3" Conduit
   2-14/7C (Heads P4, P6)
   1-Coaxial (VDC 4)
   1-16-3C (VDC 4)
   1-#8 AWG (EGC)
8. Use Existing Conduit
   4-14/7C (Heads P2, P4, P8)
   4-14/2C (PB P2, P4, P8)
   3-Coaxial (VDC 2, 5, 8)
   3-16/3C (VDC 2, 5, 8)
9. 1-3" Conduit
   1-14/2C (PB P4)
   1-#8 AWG (EGC)
10. Use Existing Conduit
    4-14/7C (Head P2, P4, P8)
    3-14/2C (PB P2, P8)
    3-Coaxial (VDC 2, 5, 8)
    3-16/3C (VDC 2, 5, 8)
11. 1-3" Conduit
    2-14/7C (Heads P2, P4)
    2-Coaxial (VDC 2, 5)
    2-16/3C (VDC 2, 5)
    1-#8 AWG EGC)
12. 1-3" Conduit
    1-14/2C (PB P2)
    1-#8 AWG (EGC)
13. Use Existing Conduit
    2-14/7C (Heads P2, P8)
    2-14/2C (PB P2, P8)
    1-Cooaxial (VDC 8)
    1-16/3C (VDC 8)
14. 1-3" Conduit
    1-Coaxial (VDC 8)
    1-16/3C (VDC 8)
    1-#8 AWG (EGC)
15. 1-3" Conduit
    1-14/7C (Head P2)
    1-14/2C (PB P2)
    1-#8 AWG (EGC)
16. 1-3" Conduit
    1-14/7C (Head P8)
    1-14/2C (PB P8)
    1-#8 AWG (EGC)
17. Use Existing Conduit
    1-14/7C (Head P8)
    1-14/2C (PB P8)
18. Use Existing Conduit
    8-14/7C (Heads P2, P4, P6, P8)
    8-14/2C (PB P2, P4, P6, P8)
    6-Coaxial (VDC 1, 2, 4, 5, 6, 8)
    6-16/3C (VDC 1, 2, 4, 5, 6, 8)

EGC Denotes "Equipment Grounding Conductor"

Color Sequence Chart

	SIGNAL	PHASES 1	2	4	5	6	8	COMBINATIONS 1-5	1-6	2-5	2-6	4-8	FLASH
SIGNALS	1	<G						<G	<G				R
	2		G							G	G		Y
	4			G								G	R
	5				<G			<G		<G			R
	6					G			G		G		Y
	8						G					G	R
	P2	DW	W	DW	DW	DW	DW	DW	DW	W	W	DW	BLANK
	P4	DW	DW	W	DW	DW	DW	DW	DW	DW	DW	W	BLANK
	P6	DW	DW	DW	DW	W	DW	DW	W	DW	W	DW	BLANK
	P8	DW	DW	DW	DW	DW	W	DW	DW	DW	DW	W	BLANK

Empty Box Denotes Red Indication (Red ball or red arrow as appropriate)
"DW" Denotes DON'T WALK indication. "W" denotes WALK indication.



Junction Box Legend

All Junction Boxes shall conform to St'd. JB-S3 unless otherwise noted on the plans.

Labels

Signal Pole or Controller	(A)
Cable and Conduit	(A)
Proposed Signal Head	(2)
Existing Signal Head	(2)
Proposed Pedestrian Signal Head	(P2)
Existing Pedestrian Signal Head	(P2)
Signal Phasing	ϕ2
Pedestrian Phasing	P2
Video Detection Zone	VDZ

Speed Limits

N. Franklin St.	35 MPH
Wades Ln.	25 MPH

SCALE: 1"=10'

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CONSULTANTS

NOT FOR CONSTRUCTION

N. FRANKLIN STREET AND WADES LANE PEDESTRIAN IMPROVEMENTS

STATE PROJECT NO. EN20-154-251

UPC 117997

TOWN OF CHRISTIANSBURG
100 E. MAIN STREET
CHRISTIANSBURG, VA 24073
PHONE: 540-382-6128
FAX: 540-382-7338

MARK	DATE	DESCRIPTION
		60% PLANS (07-10-23)

PROJECT NO:	21-0598.001
SCALE:	1"=10'
DESIGNED BY:	CER
DRAWN BY:	WEM
CHECKED BY:	DEC
SHEET TITLE	

PEDESTRIAN SIGNAL PLAN

C8.0

SHEET 11 OF 18

X:\LEBANON\21-0598.001 - TOC PED. IMP. N. FRANKLIN ST. AND WADES\05-CADD\C8.0-CT01-210598001.DWG, 7/11/2023 3:16 PM, WMCCARTT

GENERAL NOTES

1. THIS PROJECT IS CLASSIFIED AS A "TYPE A" AND CATEGORY II BASED UPON VDOT TED MEMO 351.3.
2. THE PROJECT IS LOCATED AT THE INTERSECTION OF N FRANKLIN STREET AND WADES LANE IN CHRISTIANSBURG, VIRGINIA. THE PURPOSE OF THIS PROJECT IS TO PROVIDE NEW ADA COMPLIANT RAMPS AS WELL AS NEW CROSS WALKS, PEDESTRIAN PUSHBUTTONS, PEDESTRIAN SIGNAL HEADS, RESURFACING OF THE INTERSECTION, AND ASSOCIATED IMPROVEMENTS WITHIN THE INTERSECTION.
3. THE GENERAL LOCATION OF THE WORK ZONE FOR N FRANKLIN STREET WILL BE 100 FEET ON EACH SIDE OF WADES LANE AND THE WORK ZONE FOR WADES LANE WILL BE 50 FEET ON EACH SIDE OF N FRANKLIN STREET.
4. THE EXISTING SPEED LIMIT FOR N FRANKLIN STREET IS 35 MPH AND THE EXISTING SPEED LIMIT FOR WADES LANE IS 25 MPH. THE EXISTING SPEED LIMIT SHALL BE MAINTAINED DURING ALL PHASES OF CONSTRUCTION.
5. ANY REQUIRED LANE AND/OR ROAD CLOSURES MUST BE APPROVED IN ADVANCE BY THE TOWN ENGINEER. ALL NOTIFICATIONS OF LANE CLOSURES SHALL BE PURSUANT TO SPECIAL PROVISION PROVIDED BY VDOT.
6. VDOT SOUTHWEST REGIONAL (SWRO) TRAFFIC OPERATIONS CENTER (TOC) SHOULD BE NOTIFIED WHEN LANE CLOSURES ARE PLANNED.
7. NORMAL WORKING HOURS ARE FROM 7:30 AM TO 5:30 PM, MONDAY THROUGH SATURDAY. LANE CLOSURES AND STOPPING OF TRAFFIC SHALL ONLY BE ALLOWED ON N FRANKLIN STREET AND WADES LANE BETWEEN THE HOURS OF 9:00 AM TO 3:30 PM. EXCEPTIONS TO THESE LANE CLOSURE REQUIREMENTS REQUIRE PRIOR APPROVAL FROM THE TOWN. THERE WILL BE NO WORK WITHOUT THE PERMISSION OF THE TOWN ON SUNDAYS AND HOLIDAYS, PER SECTION 108 OF THE ROAD AND BRIDGE SPECIFICATIONS.
8. NIGHTTIME CONSTRUCTION, DEFINED BY THE VA WAPM AS 30 MINUTES PRIOR TO SUNSET THROUGH 30 MINUTES AFTER SUNRISE ON THE NEXT DAY, SHALL BE UTILIZED FOR FLAGGER OPERATIONS (TTC 30.2) AS REQUIRED FOR THE DISCONNECTION, CONNECTION, REMOVAL, OR INSTALLATION OF TRAFFIC SIGNAL EQUIPMENT. TEMPORARY LIGHTING SHALL BE PROVIDED WHERE WORKERS ARE ACTIVE TO SUPPLY SUFFICIENT ILLUMINATION TO SAFELY PERFORM THE WORK TASKS AND DESIGNED TO ENSURE THAT GLARE DOES NOT INTERFERE WITH DRIVER VISIBILITY, OR IMPACT VISIBILITY FOR TRUCK DRIVERS, EQUIPMENT OPERATORS, FLAGGERS, OR OTHER WORKERS. IN ADVANCE OF PLANNING OR PERFORMING NIGHTTIME ACTIVITIES, THE CONTRACTOR SHALL COORDINATE WITH JUSTIN ST. CLAIR (JSTCLAIR@CHRISTIANSBURG.ORG) OF THE TOWN OF CHRISTIANSBURG.
9. ALL AREAS EXCAVATED DEEPER THAN 2 INCHES BELOW EXISTING PAVEMENT SURFACE AND WITHIN THE CLEAR ZONE, AT THE CONCLUSION OF EACH WORKDAY, SHALL BE BACKFILLED TO FORM AN APPROXIMATE 6:1 WEDGE DESIRED, 4:1 MINIMUM AGAINST THE PAVEMENT SURFACE FOR THE SAFETY AND PROTECTION OF VEHICULAR TRAFFIC. ALL COST FOR PLACING, MAINTAINING, AND REMOVING THE 6:1 WEDGE DESIRED, 4:1 MINIMUM SHALL BE INCLUDED IN THE PRICE BID FOR OTHER ITEMS IN THE CONTRACT AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
10. ANY CONTRACT ITEM(S) NOT SPECIFICALLY NOTED IN THE TRANSPORTATION MANAGEMENT PLAN MAY BE SCHEDULED FOR CONSTRUCTION AT THE CONTRACTOR'S OPTIONS, AS APPROVED BY THE TOWN.
11. THE FINAL SURFACE COURSE IS NOT TO BE PLACED UNTIL SUCH TIME THAT CONTINUOUS OPERATIONS ARE POSSIBLE FROM BEGINNING TO END OF THE PROJECT AND PERMANENT PAVEMENT MARKINGS CAN BE PLACED TO PROVIDE A CONTINUOUS FINAL COURSE AS APPLICABLE.
12. THIS PROJECT SHALL BE CONSTRUCTED IN ACCORDANCE WITH VDOT'S 2020 ROAD AND BRIDGE SPECIFICATIONS, 2016 ROAD AND BRIDGE STANDARDS, 2009 MUTCD (REVISION 2), 2011 VIRGINIA SUPPLEMENT TO THE MUTCD (REVISION 1), 2011 VIRGINIA WORK AREA PROTECTION MANUAL (REVISION 2.1), AND AS AMENDED BY CONTRACT PROVISIONS AND THE COMPLETE ELECTRONIC PDF VERSION OF THE PLAN ASSEMBLY.
13. THE CONTRACTOR SHALL PROVIDE ADDITIONAL TRAFFIC CONTROL AS DIRECTED BY THE TOWN, SHOULD FIELD CONDITIONS WARRANT.
14. THE CONTRACTOR IS RESPONSIBLE FOR PLACEMENT AND MAINTENANCE OF ALL TEMPORARY PAVEMENT MARKINGS THAT ARE REQUIRED OR IMPLIED IN THE CONSTRUCTION SEQUENCING. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL TRAFFIC CONTROL DEVICES, SIGNAGE, EQUIPMENT, PERSONNEL, INCLUDING CERTIFIED TRAFFIC-CONTROL PERSONNEL, ETC. TO CONTROL TRAFFIC DURING CONSTRUCTION. ALL TRAFFIC CONTROL SHALL BE IN STRICT ACCORDANCE WITH THE STANDARDS, GUIDELINES, POLICIES, AND OBJECTIVES OF THE LATEST EDITION OF THE VIRGINIA WORK AREA PROTECTION MANUAL, MANUAL FOR UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), AND ALL VDOT PERMITS. THE TEMPORARY ERADICATION OF EXISTING PAVEMENT MARKINGS SHALL BE COMPLETED ACCORDING TO THE 2020 VDOT ROAD AND BRIDGE SPECIFICATIONS.
15. AT NO TIME SHALL CONSTRUCTION TAKE PLACE ON BOTH THE RIGHT AND LEFT SIDES OF TRAFFIC UNLESS SPECIFIED BY THE TOWN.
16. CONTRACTOR SHALL MAINTAIN POSITIVE DRAINAGE THROUGHOUT CONSTRUCTION.
17. CONTRACTOR TO COORDINATE ENTRANCE WORK WITH OWNERS TO MAINTAIN ACCESS.
18. TYPE E TEMPORARY BLACK 6" PAVEMENT MARKINGS SHALL BE USED FOR TEMPORARY ERADICATION OF EXISTING PAVEMENT MARKINGS AND SHALL BE REPLACED EVERY 120 DAYS OR AS NEEDED DUE TO DAMAGE IN ACCORDANCE WITH THE SPECIFICATIONS. THIS ITEM WILL NOT BE MEASURED AND PAID FOR SEPARATELY BUT COSTS SHALL BE INCLUDED IN THE BID ITEM "NS MAINTENANCE OF TRAFFIC".

TRANSPORTATION OPERATION PLAN

1. THE CONTRACTOR SHALL GIVE THE TOWN A MINIMUM OF 48-HOUR NOTICE WHEN A LANE OR ROAD CLOSURE IS PLANNED.
2. ANY TRAFFIC INCIDENT THAT OCCURS DURING THE LIFE OF THIS PROJECT WILL BE DISCUSSED BY THE CONTRACTOR, AND THE TOWN PROJECT PERSONNEL TO DETERMINE WHETHER ANY CHANGES NEED TO BE MADE TO THE TRAFFIC CONTROL OF THE PROJECT.

TEMPORARY TRAFFIC CONTROL (TTC) PLAN

1. LANE CLOSURES ARE ANTICIPATED FOR THIS PROJECT AND WILL BE IN ACCORDANCE WITH THE VIRGINIA WORK AREA PROTECTION MANUAL, 2011 EDITION – REVISION 2.1. THE FOLLOWING TEMPORARY TRAFFIC MEASURES SHALL BE USED:
   - 1.1. TYPICAL TRAFFIC CONTROL, STATIONARY OPERATION ON A SHOULDER (FIGURE TTC-4.2)
   - 1.2. TYPICAL TRAFFIC CONTROL, SHOULDER OPERATION WITH MINOR ENCROACHMENT (FIGURE TTC-5.2)
   - 1.3. TYPICAL TRAFFIC CONTROL, OUTSIDE LANE CLOSURE OPERATION ON A FOUR-LANE ROADWAY (FIGURE TTC-16.2)
   - 1.4. TYPICAL TRAFFIC CONTROL, INSIDE LANE CLOSURE OPERATION ON A FOUR-LANE ROADWAY (FIGURE TTC-17.2)
   - 1.5. TYPICAL TRAFFIC CONTROL, LANE CLOSURE ON A TWO-LANE ROADWAY USING FLAGGERS (TTC-23.2)
   - 1.6. TYPICAL TRAFFIC CONTROL, LANE CLOSURE OPERATION – FAR SIDE OF AN INTERSECTION (TTC-27.2)
   - 1.7. TYPICAL TRAFFIC CONTROL, TURN LANE CLOSURE OPERATION (FIGURE TTC-29.2)
   - 1.8. TYPICAL TRAFFIC CONTROL, FLAGGING OPERATION AT SIGNALIZED INTERSECTION (FIGURE TTC 30.2)
   - 1.9. TYPICAL TRAFFIC CONTROL, SIDEWALK CLOSURE AND BYPASS SIDEWALK OPERATION (FIGURE TTC-35.1)
   - 1.10. TYPICAL TRAFFIC CONTROL, SIGNING FOR PROJECT LIMITS (FIGURE TTC-53.0)
   - 1.11. TYPICAL TRAFFIC CONTROL, ERADICATION OF PAVEMENT MARKINGS IN A WORK ZONE (FIGURE TTC-55.1)
2. NEGATIVE IMPACTS TO THE TRAVELING PUBLIC SHALL BE MINIMIZED.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ONE INTERMEDIATE LEVEL AND ONE BASIC LEVEL DESIGNATED WORK ZONE SAFETY COORDINATOR TO DEVELOP AND MONITOR ALL TRAFFIC CONTROL DEVICES AND ENSURE COMPLIANCE WITH THE CURRENT EDITION OF THE 2011 VIRGINIA WORK AREA PROTECTION MANUAL (VWAPM).
4. ALL WARNING SIGNS AND TEMPORARY TRAFFIC CONTROL DEVICES SHALL BE PROMPTLY REMOVED UPON THE COMPLETION OF WORK, AS DIRECTED BY THE TOWN ENGINEER.

PUBLIC COMMUNICATION PLAN

1. THE TOWN WILL HANDLE THE PUBLIC COMMUNICATION PLAN.
2. PORTABLE CHANGEABLE MESSAGE SIGNS (PCMS) WILL BE USED TO NOTIFY THE TRAVELING PUBLIC OF ANY SUCH MAJOR TRAFFIC CHANGES 72 HOURS IN ADVANCE OF THE CHANGE.

SEQUENCE OF CONSTRUCTION

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PHASING OF WORK ON THIS PROJECT. TRAFFIC SHALL BE MAINTAINED ACCORDING TO THE TTC FIGURES AS PRESCRIBED IN THIS PLAN THROUGH THE USE OF GROUP II CHANNELIZING DEVICES AND PROPER SIGNAGE. THE CONTRACTOR SHALL MINIMIZE LANE CLOSURES TO THE GREATEST EXTENT PRACTICAL.

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CONSULTANTS

NOT FOR CONSTRUCTION

N. FRANKLIN STREET AND WADES LANE PEDESTRIAN IMPROVEMENTS
STATE PROJECT NO. EN20-154-251
UPC 117997
TOWN OF CHRISTIANSBURG
100 E. MAIN STREET
CHRISTIANSBURG, VA 24073
PHONE: 540-382-6128
FAX: 540-382-7338

MARK	DATE	DESCRIPTION

60% PLANS (07-10-23)

PROJECT NO:	21-0598.001
SCALE:	N.T.S.
DESIGNED BY:	CER
DRAWN BY:	WEM
CHECKED BY:	DEC

SHEET TITLE

TRAFFIC MANAGEMENT PLAN NOTES

C9.0

SHEET 12 OF 18

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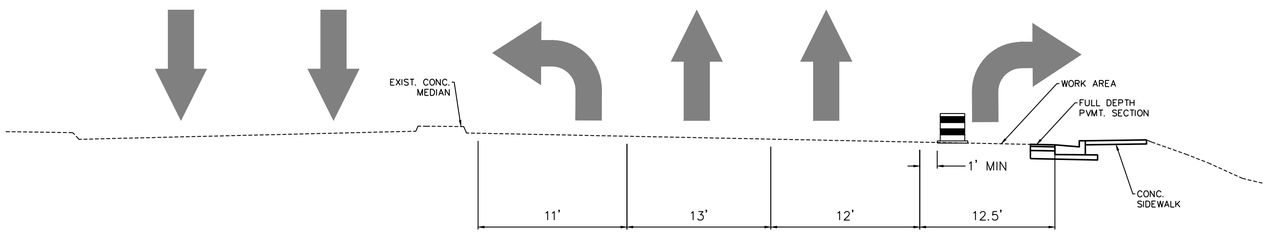

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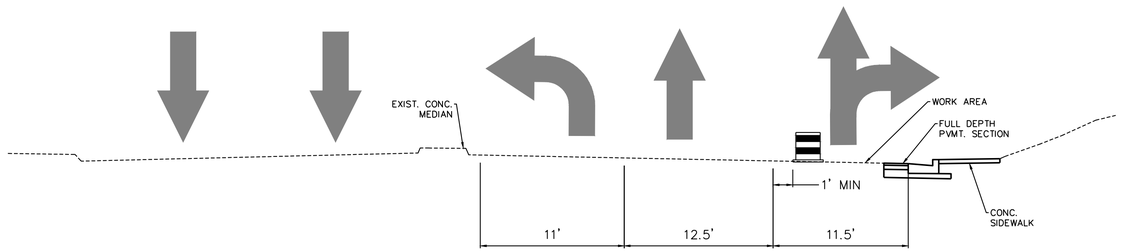

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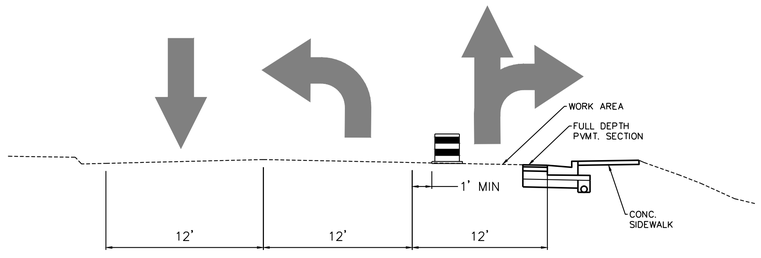

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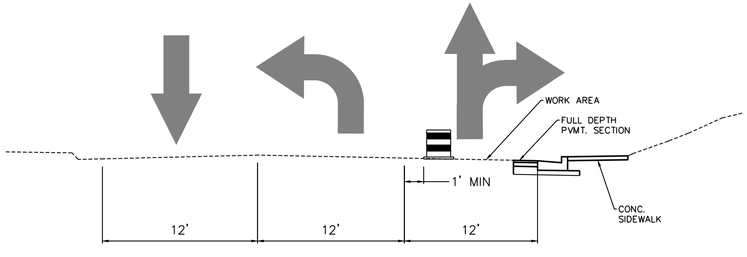

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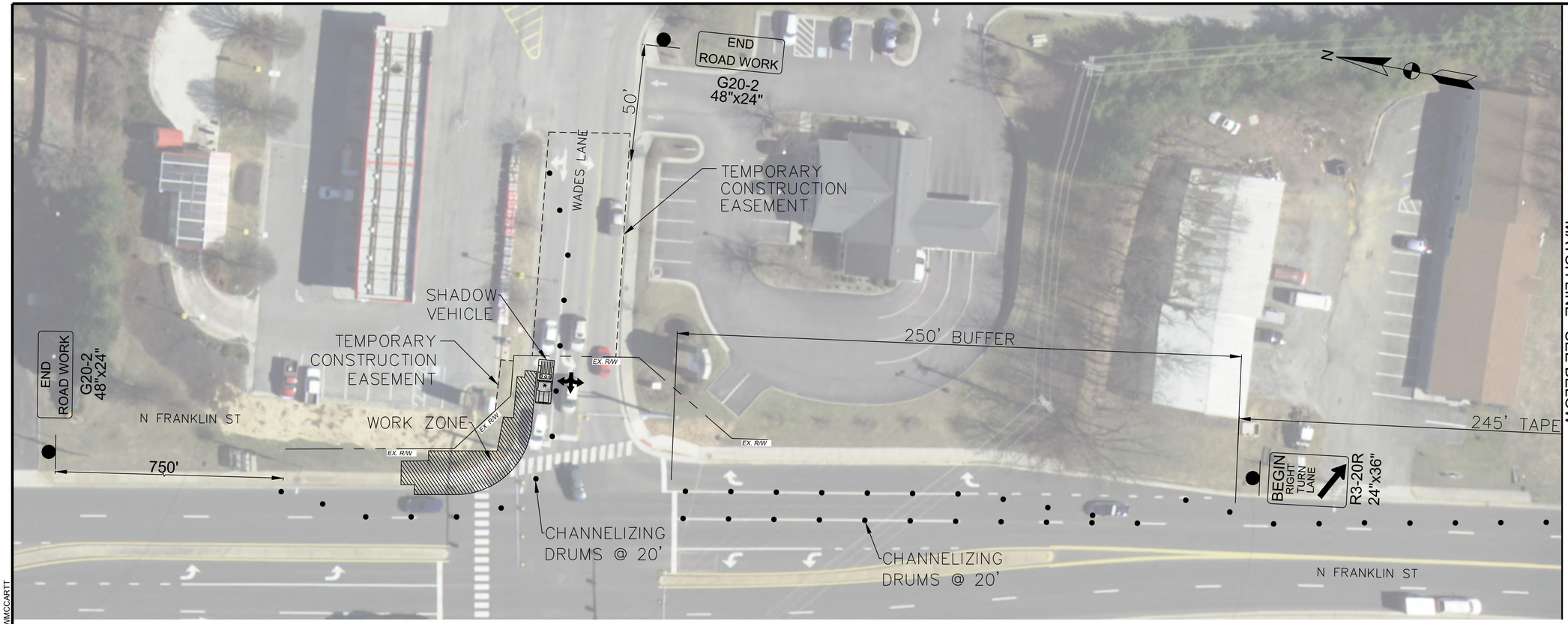
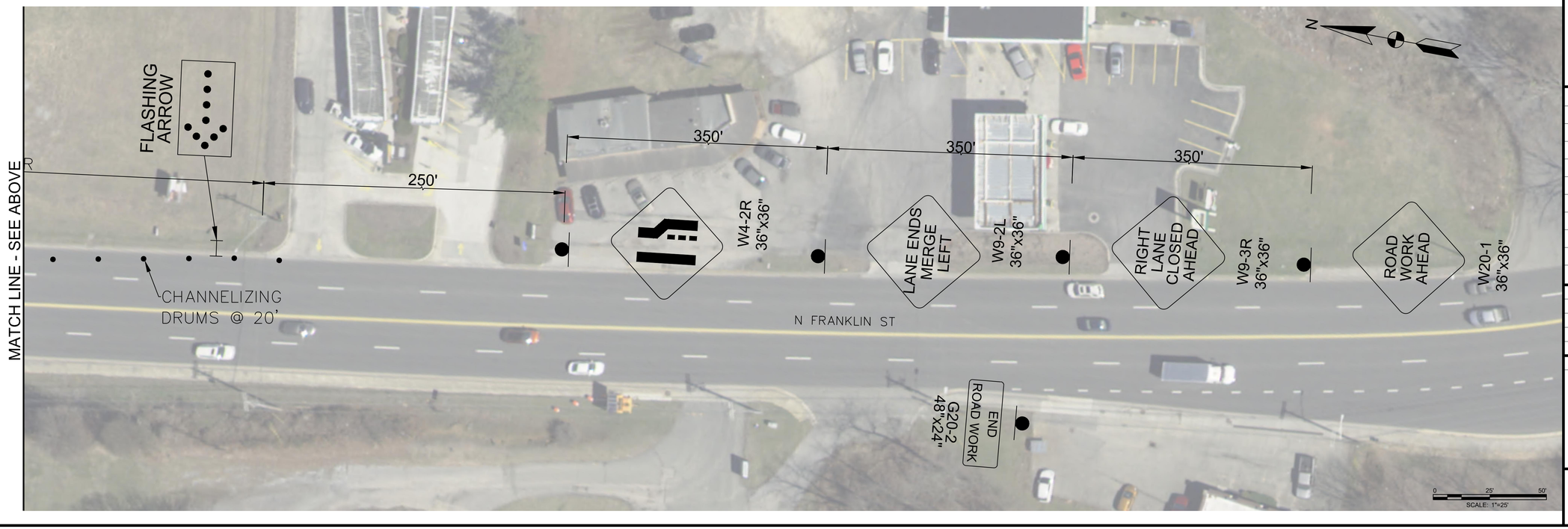
SHEET TITLE

TRAFFIC MANAGEMENT PLAN SECTIONS

C9.1

SHEET 13 OF 18





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PROJECT NO:	21-0598.001
SCALE:	1"=25'
DESIGNED BY:	CER
DRAWN BY:	WEM
CHECKED BY:	DEC

SHEET TITLE

TRAFFIC MANAGEMENT PLAN NE CORNER

C9.2

SHEET 14 OF 18

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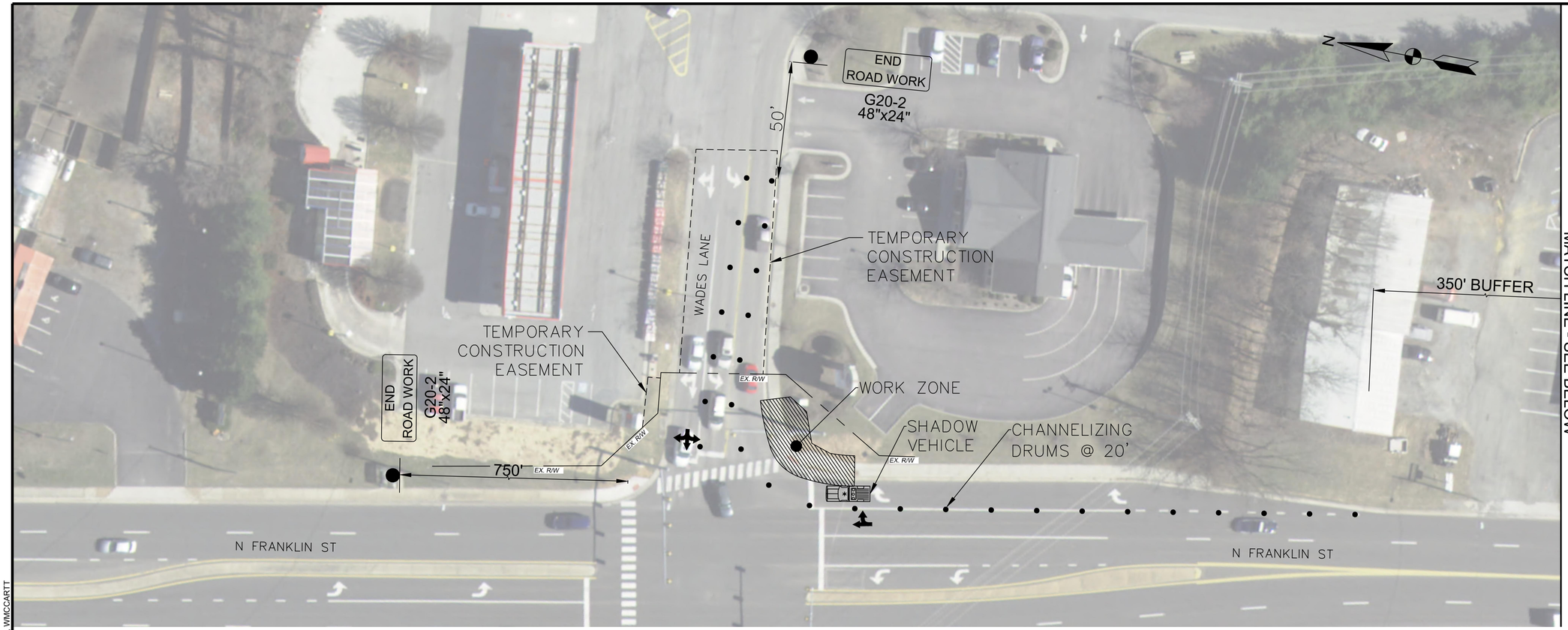

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SCALE:	1"=25'
DESIGNED BY:	CER
DRAWN BY:	WEM
CHECKED BY:	DEC

SHEET TITLE

TRAFFIC MANAGEMENT PLAN SE CORNER

C9.3

SHEET 15 OF 18

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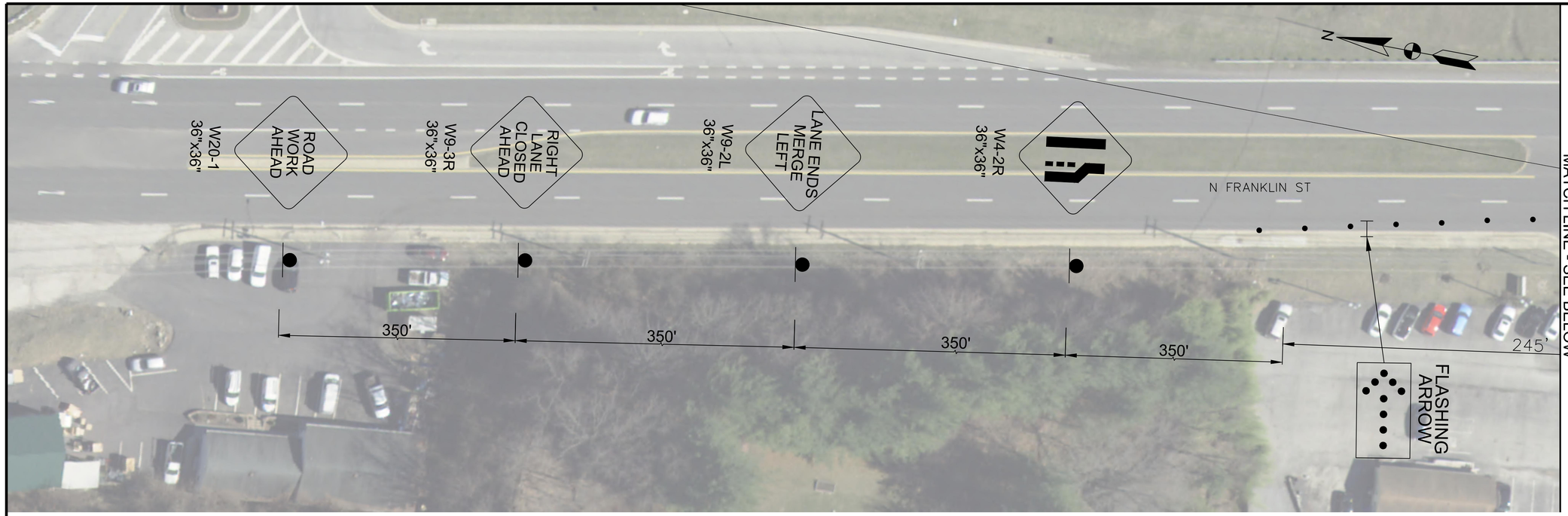

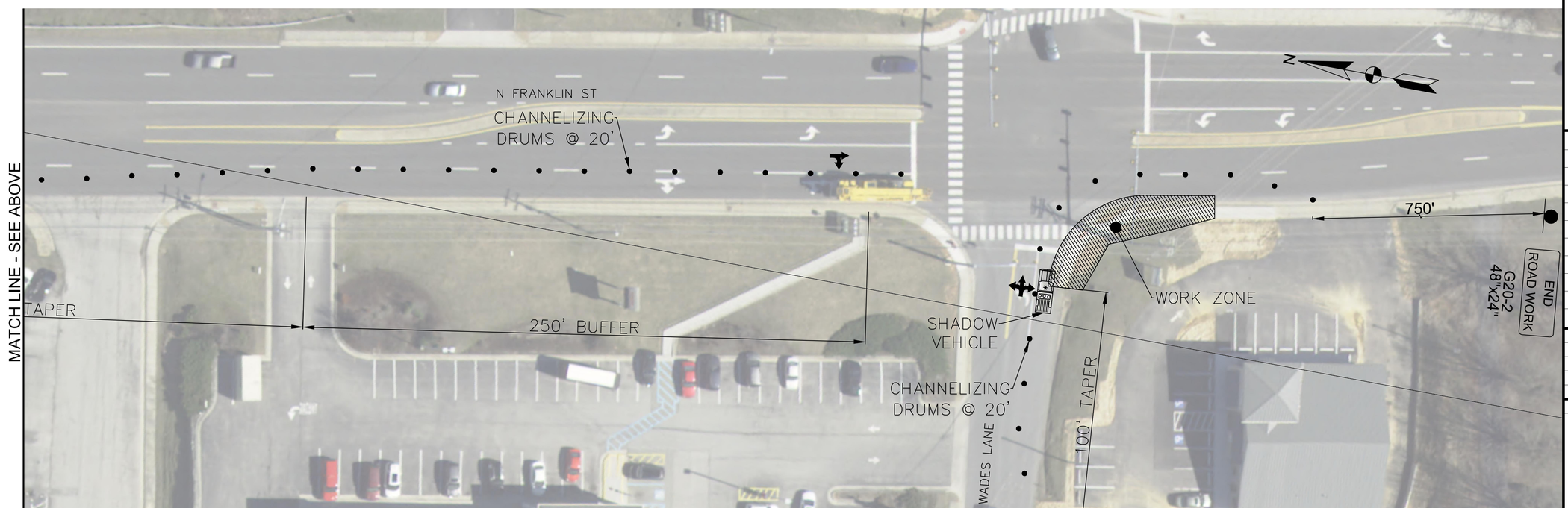

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SCALE: 1"=25'

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CHRISTIANSBURG VA.

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MARK	DATE	DESCRIPTION
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DESIGNED BY:	CER
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CHECKED BY:	DEC

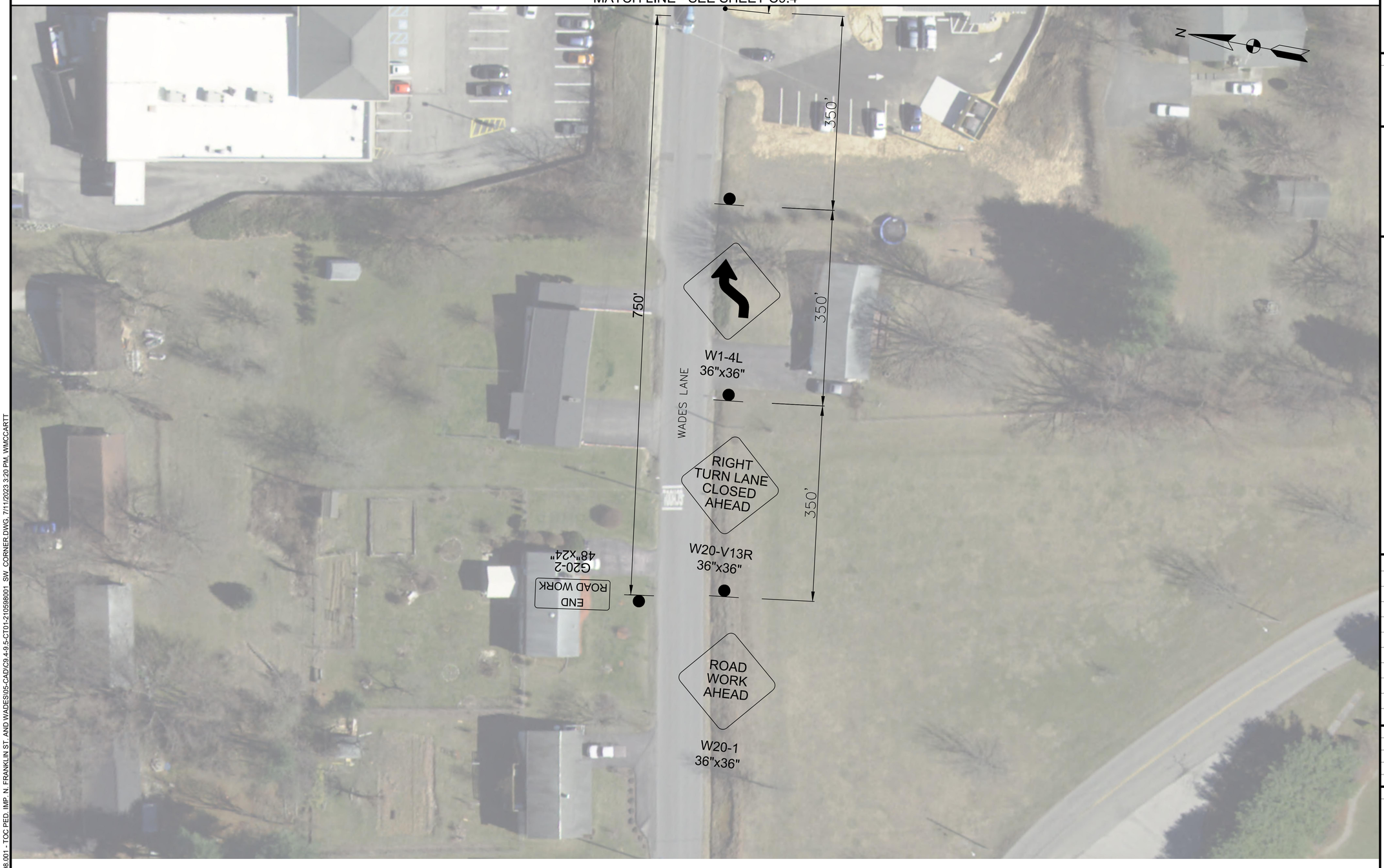
SHEET TITLE

TRAFFIC MANAGEMENT PLAN SW CORNER

C9.4

SHEET 16 OF 18

MATCH LINE - SEE SHEET C9.4



0 25' 50'
SCALE: 1"=25'

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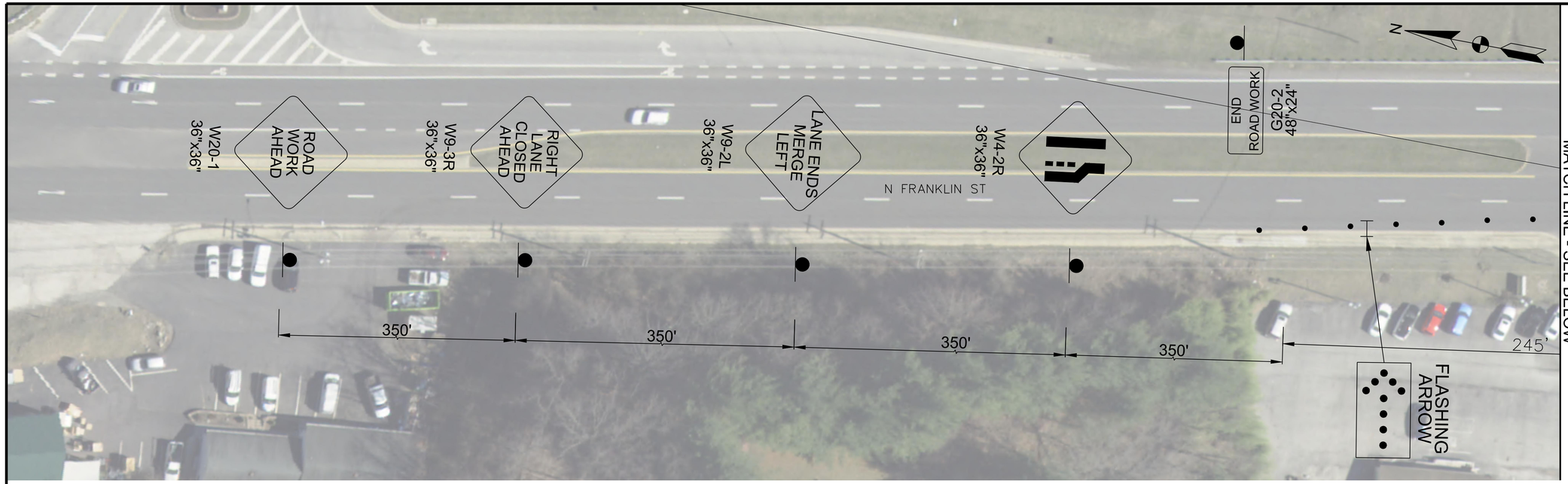
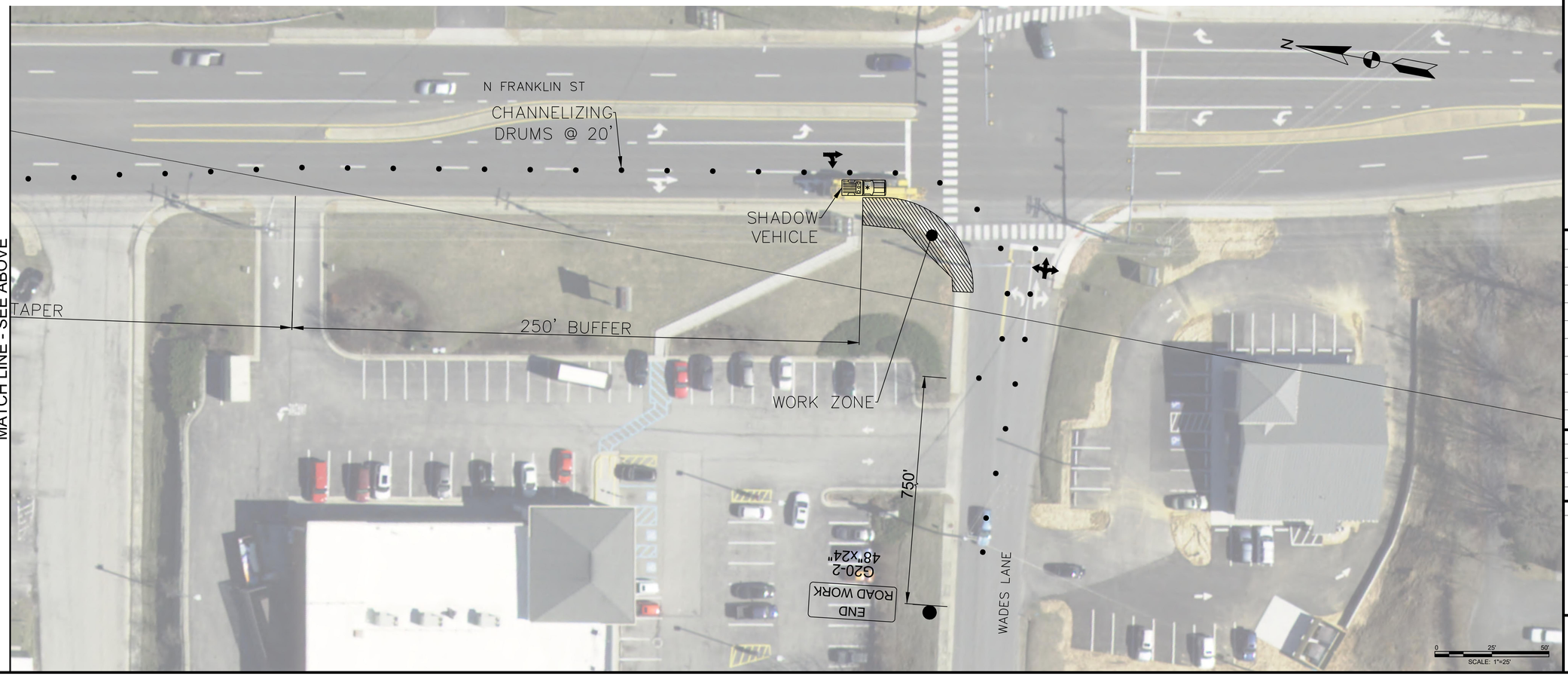
SHEET TITLE

TRAFFIC MANAGEMENT PLAN SW CORNER

C9.5

SHEET 17 OF 18





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SHEET TITLE

TRAFFIC MANAGEMENT PLAN NW CORNER

C9.6

SHEET 18 OF 18

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