FOR INDEX OF SHEETS SEE SHEET C0.0

STATE	FEDERAL AID PROJECT	STATE ROUTE	STATE PROJECT	SHEET NO.
VA.		UR-4913	SLEN-132-101 SEE TABULATIONS BELOW FOR SECTION NUMBERS	1

UPC-80485

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE OF PROPOSED STATE HIGHWAY

CITY OF STAUNTON
FROM: 0.0025 MI SOUTH OF VA-254P (FREDERICK ST.)
TO: 0.278 MI NORTH OF VA-254P (FREDERICK ST.)
N. CENTRAL AVE. (UR-4913)

FUNCTIONAL CLASSIFICATION AND TRAFFIC DATA	
URBAN PRINCIPAL ARTERIAL (GS-5)	
	Fr: 0.0025 MILES SOUTH OF VA-254P **To:** 0.278 MILES NORTH OF VA-254P
ADT(2014)	2500
DHV	
D (%)	
T (%)	
V (MPH)	NO SPEED POSTED

PROJECT MANAGER NICKIE D. MILLS, CITY ENGINEER, CITY OF STAUNTON (540-332-3858)
SURVEYED BY CHERYL A. STOCKTON, L.S., DRAPER ADEN ASSOCIATES (434-295-0700)
DESIGN SUPERVISED BY CAROLYN A. HOWARD, P.E., DRAPER ADEN ASSOCIATES (434-295-0700)
DESIGNED BY DRAPER ADEN ASSOCIATES (434-295-0700)

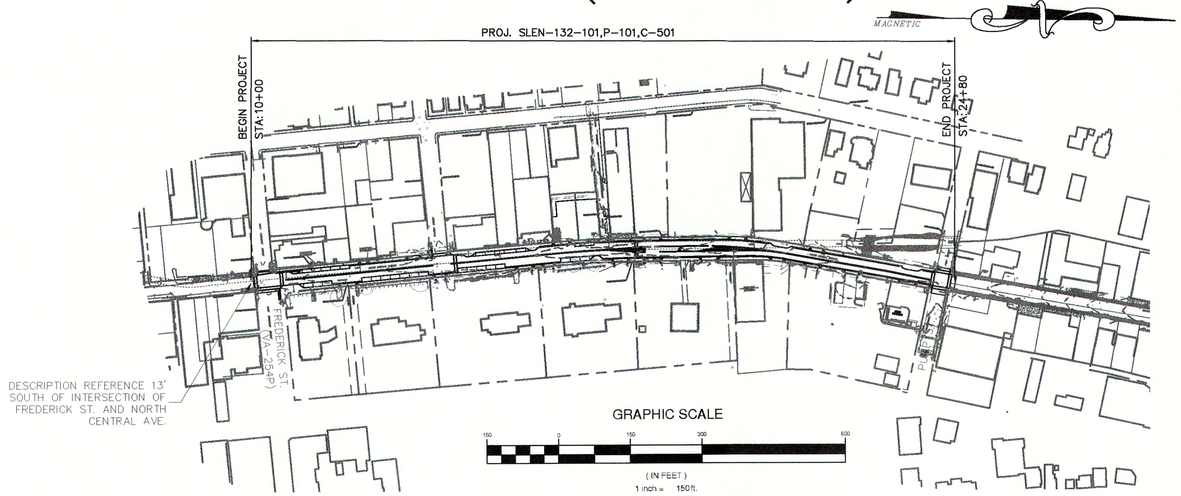
THE COMPLETE ELECTRONIC PDF VERSION OF THE PLAN ASSEMBLY AS AWARDED, HAS BEEN SEALED AND SIGNED USING DIGITAL SIGNATURE AND THE OFFICIAL PLAN ASSEMBLY IN ELECTRONIC FORMAT IS STORED IN THE VDOT CENTRAL OFFICE PLAN LIBRARY, INCLUDING ALL SUBSEQUENT REVISIONS, WILL BE THE OFFICIAL CONSTRUCTION PLANS. FOR INFORMATION RELATIVE TO ELECTRONIC FILES AND LAYERED PLANS, SEE THE GENERAL NOTES.

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

THIS PROJECT IS TO BE CONSTRUCTED IN ACCORDANCE WITH THE DEPARTMENT'S 2016 ROAD AND BRIDGE SPECIFICATIONS, 2016 ROAD AND BRIDGE STANDARDS, 2005 WORK AREA PROTECTION MANUAL, 2009 MUTCD, 2011 VIRGINIA SUPPLEMENT TO THE MUTCD, 2011 VIRGINIA WORK AREA PROTECTION MANUAL AND AS AMENDED BY CONTRACT PROVISIONS AND THE COMPLETE ELECTRONIC .PDF VERSION OF THE PLAN ASSEMBLY.

ALL CURVES ARE TO BE SUPERELEVATED, TRANSITIONED AND WIDENED IN ACCORDANCE WITH STANDARD TC-5.01U, EXCEPT WHERE OTHERWISE NOTED.

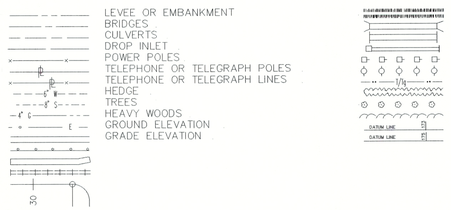
THE ORIGINAL APPROVED TITLE SHEET(S), INCLUDING ORIGINAL SIGNATURES, IS FILED IN THE VDOT CENTRAL OFFICE PLAN LIBRARY. ANY MISUSE OF ELECTRONIC FILES, INCLUDING SCANNED SIGNATURES, IS ILLEGAL AND ENFORCED TO THE FULL EXTENT OF THE LAW.



CONVENTIONAL SIGNS

STATE LINE
COUNTY LINE
CITY,TOWN OR VILLAGE
RIGHT OF WAY LINE
FENCE LINE
UNFENCED PROPERTY LINE
FENCED PROPERTY LINE
WATER LINE
SANITARY SEWER LINE
GAS LINE
ELECTRIC UNDERGROUND CABLE
TRAVELED WAY
GUARD RAIL
RETAINING WALL
RAILROADS
BASE OR SURVEY LINE

LEVEE OR EMBANKMENT
BRIDGES
CULVERTS
DROP INLET
POWER POLES
TELEPHONE OR TELEGRAPH POLES
TELEPHONE OR TELEGRAPH LINES
HEDGE
TREES
HEAVY WOODS
GROUND ELEVATION
GRADE ELEVATION



CITY OF STAUNTON, POPULATION 23,746 (2010 CENSUS)

STATE PROJECT NO.	SECTION	FEDERAL AID PROJECT NO.	TYPE CODE	UPC NO.	LENGTH INCLUDING BRIDGE(S) FEET	LENGTH INCLUDING BRIDGE(S) MILES	LENGTH EXCLUDING BRIDGE(S) FEET	LENGTH EXCLUDING BRIDGE(S) MILES	TYPE PROJECT	DESCRIPTION
SLEN-132-101	P-101			80485	1480	0.28	1480	0.28	PAVING	ENTIRE LENGTH OF PROJECT
	C-501			80485	1480	0.28	1480	0.28	CONSTRUCTION	ENTIRE LENGTH OF PROJECT
	R-201									ENTIRE LENGTH OF PROJECT

REVISED

NOTE: PROJECT LENGTH BASED ON CONSTRUCTION BASELINE

COMMONWEALTH OF VIRGINIA
S.E. CAMPBELL BOLTON
Lic. No. 051495
7/1/19
PROFESSIONAL ENGINEER

TIER 1 PROJECT

LOCALLY ADMINISTERED PROJECTS	
CITY OF STAUNTON	
NAME OF LOCALITY	
RECOMMENDED FOR APPROVAL FOR CONSTRUCTION	
	(SIGNATURE)
7-23-19 DATE	NICKIE D. MILLS, CITY ENGINEER
	(SIGNATURE)
7-24-19 DATE	STEVEN ROSENBERG, CITY MANAGER

Copyright 2015, Commonwealth of Virginia

PROJECT	SHEET NO.
SLEN-132-101	1

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Cell Revised 7/11/11

PROJECT MANAGER NICKIE D. MILLS, PE., CITY OF STAUNTON
SURVEYED BY, DATE DRAPER ADEN ASSOCIATES, 12/5/12
DESIGN BY DRAPER ADEN ASSOCIATES
SUBSURFACE UTILITY BY, DATE DRAPER ADEN ASSOCIATES, 12/5/12

PRELIMINARY
RIGHT OF WAY DATA SHEET

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

REVISED	STATE	FEDERAL AID PROJECT	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.		UR-4913	SLEN-132-101, P101 C501	*IC*

ROUTE: UR-4913N (CENTRAL AVE.) PROJECT: NORTH CENTRAL AVENUE IMPROVEMENTS
COUNTY/CITY: CITY OF STAUNTON UPC NO. : 80485
COMPILED BY: DRAPER ADEN ASSOCIATES DATE: OCTOBER 27, 2017
REVISED BY: DRAPER ADEN ASSOCIATES DATE: JANUARY 4, 2019
REVISED BY: DRAPER ADEN ASSOCIATES DATE: JUNE 28, 2019

PARCEL NO.	LANDOWNER	SHEET NO.	Areas greater than or equal to 1 acre will be shown in acres to 3 decimal places (x.xxx). Areas less than 1 acre will be shown to square feet (x,xxx).																PROFFERS
			TOTAL	FEE TAKING		PRESCRIPTIVE R/W		FEE REMAINDER		EASEMENTS									
										PERMANENT		UTILITY		TEMPORARY		TEMPORARY(ENTRANCES)			
			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	ACRES OR SQ. FEET	HECTARES/ OR SQ. METERS	YES / NO
# 1266	WALTER P. WITTMANN & CLAUDIA L. WITTMANN	C7.0	5,157 SF	NONE				5,157 SF				1082 SF							
# 1263	WALTER P. WITTMANN & CLAUDIA L. WITTMANN	C7.0	4,548 SF	NONE				4,548 SF				682 SF							
# 4729	FIVE FIRST COUSINS, LLC	C7.0	35,421 SF	NONE				35,421 SF				136 SF							

PLAN NO.	PROJECT	FILE NO.	SHEET NO.
	SLEN-132-101		*IC*

SITE SUMMARY

SITE LOCATION:	CENTRAL AVENUE (FREDERICK ST TO PUMP ST) STAUNTON, VA 24401
OWNER/DEVELOPER:	CITY OF STAUNTON
CONTACT:	NICKIE D. MILLS, P.E.
ADDRESS:	116 W BEVERLEY ST STAUNTON, VA 22401
ENGINEER:	DRAPER ADEN ASSOCIATES
CONTACT:	E. CAMPBELL BOLTON, P.E.
ADDRESS:	110 AVON STREET CHARLOTTESVILLE, VA 22902
TELEPHONE NO:	434-295-0700
ELECTRICAL ENGINEER:	2rw CONSULTANTS, INC.
CONTACT:	ADRIENNE HENDRICKSON, P.E.
ADDRESS:	100 10TH ST NE, SUITE 202 CHARLOTTESVILLE, VA VA 22902
TELEPHONE NO:	434-296-2116
SOURCE OF SURVEY:	DRAPER ADEN ASSOCIATES
CONTACT:	CHERYL A. STOCKTON, L.S.
ADDRESS:	110 AVON STREET CHARLOTTESVILLE, VA 22902
TELEPHONE NO:	434-295-0700
DATE OF MAPPING:	DECEMBER 5, 2012
PRESENT ZONING:	B-2 (GENERAL BUSINESS DISTRICT)
PERVIOUS AREA:	PRE - 3,658 SF OR 0.08 AC POST - 4,539 SF OR 0.10 AC
TOTAL PROJECT AREA:	82,550 SQUARE FEET (1.90 ACRES)
FLOOD MAP:	#51015C0339E (JANUARY 6, 2010) ZONE AE - 100 YEAR FLOOD PLAIN & FLOODWAY

GENERAL NOTES

1. DIMENSIONS AND RADII ARE TO FACE OF CURB AND TO OUTSIDE FACE OF BUILDINGS, WHERE APPLICABLE, UNLESS OTHERWISE INDICATED.
2. THE CONTRACTOR SHALL HAVE A SET OF APPROVED PLANS AVAILABLE AT THE SITE AT ALL TIMES WHEN WORK IS BEING PERFORMED. A DESIGNATED RESPONSIBLE EMPLOYEE SHALL BE AVAILABLE FOR CONTACT BY CITY OF STAUNTON INSPECTORS.
3. VERIFY THE PROPOSED LAYOUT WITH ITS RELATIONSHIP TO THE EXISTING SITE SURVEY. ALSO VERIFY ALL DIMENSIONS, SITE CONDITIONS, AND MATERIAL SPECIFICATIONS AND NOTIFY THE CITY OF STAUNTON AND THE ENGINEER OF ANY ERRORS, OMISSIONS, OR DISCREPANCIES BEFORE COMMENCING OR PROCEEDING WITH WORK.
4. DEVIATIONS FROM OR CHANGES TO THESE PLANS WILL NOT BE ALLOWED, UNLESS OTHERWISE APPROVED BY THE CITY OR ENGINEER.
5. WHEN WORKING FROM HARD COPIES, PERFORM ALL WORK USING DIMENSIONS SHOWN. DO NOT USE SCALES, RULERS, MAP WHEELS OR OTHER MEASURING DEVICES TO DETERMINE SPATIAL RELATIONSHIPS ON THESE DRAWINGS.
6. ALL GROUND COVER AND LANDSCAPING SHALL BE PROPERLY MAINTAINED IN A HEALTHY CONDITION AT ALL TIMES. DEAD PLANT MATERIALS SHALL BE REMOVED IN A REASONABLE TIME AND REPLACED DURING THE NORMAL PLANTING SEASON.
7. ALL TURF AREAS THAT ARE IMPACTED OR DISTURBED BY VEHICLES, EQUIPMENT, OR ACTIVITY SHALL BE REPAIRED, REGRADED, AND RESEEDED TO THE SATISFACTION OF THE OWNER.
8. FIRE LANE DESIGNATION AND MARKING TO BE DETERMINED BY THE CITY OF STAUNTON FIRE DEPARTMENT; IF REQUIRED.
9. PROPERLY SECURE THE CONSTRUCTION AREA AT ALL TIMES AGAINST UNAUTHORIZED ENTRY AND ADEQUATELY PROTECT EQUIPMENT, MATERIALS, AND COMPLETED WORK FROM THEFT AND VANDALISM. THE OWNER IS NOT RESPONSIBLE FOR THE LOSS OF ANY MATERIAL STORED AT THE SITE.
10. ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS; AND SHALL DEFEND, INDEMNIFY, AND HOLD THE OWNER AND THE ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL AND ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING FOR LIABILITY ARISING FROM "THE SOLE NEGLIGENCE OF THE OWNER OR THE ENGINEER."
11. RETAIN A COPY OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK, LATEST EDITION ON SITE AND ADHERE TO THE STANDARDS LISTED AT ALL TIMES.
12. PRIOR TO ANY LAND DISTURBING ACTIVITY, CONTRACTOR SHALL PROVIDE THE NAME, CERTIFICATION INFORMATION, AND CONTACT INFORMATION OF THE DESIGNATED RESPONSIBLE LAND DISTURBER (RLD) TO THE APPROPRIATE AUTHORITY.

PAVEMENT AND DRAINAGE STANDARD NOTES

1. ALL CONSTRUCTION AND MATERIALS SHALL CONFORM WITH THE STANDARDS AND SPECIFICATIONS OF THE VIRGINIA DEPARTMENT OF TRANSPORTATION'S, LATEST EDITION, EXCEPT WHERE THE CITY OF STAUNTON STANDARDS ARE APPLICABLE.
2. ALL STORM SEWER MAINS SHALL BE REINFORCED CONCRETE PIPE (RCP) AND ALL UNDERDRAINS AND PIPES 6" AND SMALLER SHALL BE SINGLE WALL CORRUGATED HDPE PIPE, EXCEPT AS NOTED.
3. ALL CONCRETE DRAINAGE STRUCTURES MAY BE EITHER PRECAST OR CAST-IN-PLACE.
4. ALL STORM SEWER SHALL HAVE A MINIMUM OF 4" AGGREGATE BEDDING MATERIAL.
5. THE CONTRACTOR IS REQUIRED TO MAINTAIN ALL DITCHES, PIPES, AND OTHER DRAINAGE STRUCTURES FREE FROM OBSTRUCTION UNTIL WORK IS ACCEPTED BY THE OWNER. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGES CAUSED BY FAILURE TO MAINTAIN DRAINAGE STRUCTURE IN OPERABLE CONDITION.
6. ALL CURB AND GUTTER SHALL BE VDOT STANDARD, EXCEPT AS NOTED.
7. THE PAVEMENT DESIGN IS SUBJECT TO CHANGE DUE TO SOIL CONDITIONS AT THE TIME OF CONSTRUCTION, AS DETERMINED BY THE INSPECTORS FOR THE CITY OF STAUNTON.
8. ALL UNSUITABLE MATERIAL SHALL BE REMOVED FROM THE CONSTRUCTION LIMITS OF PAVED AREAS.
9. ANY NECESSARY PAVEMENT WIDENING BETWEEN THE EXISTING PAVEMENT AND PROPOSED IMPROVEMENTS IS THE RESPONSIBILITY OF THE CONTRACTOR.
10. WHERE PAVEMENT IS BEING REMOVED, THE CONTRACTOR SHALL REMOVE AGGREGATE BASE MATERIAL TO SUB-GRADE.
11. EXISTING PAVEMENT AND OTHER SURFACES DISTURBED BY CONTRACTOR (WHICH ARE NOT TO BE REMOVED) SHALL BE REPAIRED TO LIKE-NEW CONDITION.
12. IN ACCORDANCE WITH HANDICAP ACCESSIBILITY REQUIREMENTS, ALL APPLICABLE CODES AND REQUIREMENTS FOR ACCESSIBILITY FOR DISABLED PERSONS SHALL BE STRICTLY COMPLIED WITH.

CONSTRUCTION DOCUMENTS

* * *

NORTH CENTRAL AVENUE STREETSCAPE IMPROVEMENTS

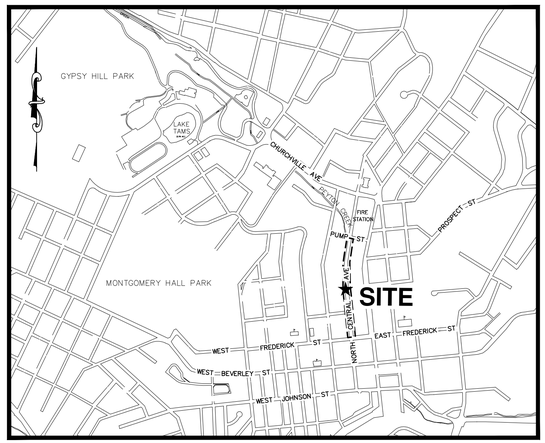
* * *

CITY OF STAUNTON, VIRGINIA

CITY OF STAUNTON GENERAL NOTES

1. This project is to be constructed in accordance with the Contract Documents, Special Conditions, City of Staunton Design & Construction Standards, VDOT Road & Bridge Standards, Health Department Water Works & Sewerage Regulations and any other applicable standards.
2. All materials used on this project shall be new and comply with the latest revision of the applicable American Society for Testing & Materials (ASTM), American Water Works Association (AWWA), American National Standards Institute (ANSI) & Virginia Department of Transportation (VDOT) Road & Bridge Standards & Specifications unless otherwise noted.
3. The location of existing utilities as shown on the plans are as they were known at the time the plans were prepared. However, nothing in the contract documents shall be construed as a guarantee that such utilities are in the location indicated or that they actually exist, or that other utilities are not in the area of operation. The contractor shall make all necessary investigations to determine the existence and location of such lines. The contractor shall pay for any damage to and for maintenance and protection of existing utilities and structures.
   CALL MISS UTILITY 48 HOURS IN ADVANCE OF DIGGING.
4. The contractor is to dig & locate existing utilities in advance of pipe laying to allow for horizontal and vertical alignment adjustments.
5. Utility services shall be uninterrupted unless prior approval is given by the City Engineer. The contractor is required to hang (City provided) notices on all customer doors 24 hours prior to utility shut-offs.
6. Maintain 18" vertical clearance at all sanitary sewer crossings, and 12" clearance at all storm sewer crossings. Maintain 10' horizontal distance between water lines and sanitary sewer lines and manholes.
7. Waterline appurtenances shall be located away from drainage patterns.
8. All topsoil, seeding & mulching operations are to follow immediately behind pipe laying operations.
9. All pavement repair is to be kept up with line installation as directed by the inspector.
10. All salvage items removed from the project shall be deposited at the city salvage yard.
11. All traffic control devices must be in accordance with the Manual of Uniform Traffic Control Devices (MUTCD) and the Virginia Work Area Protection Manual.
12. Existing lines are not to be abandoned until all services in the project area are connected to new lines.
13. Contacts for associated utility coordination are:

Columbia Gas	Terry Howard	290-0203
Virginia Power	Rich Paraska	245-4121
Comcast	Rob Crosier	887-3461
Verizon	Calvin Johnson	434-841-8570



VICINITY MAP
STAUNTON, VIRGINIA
1" = 1000'

PROJECT DESCRIPTION

THE PROJECT CONSISTS OF STREETSCAPE IMPROVEMENTS TO 1,400 LINEAR FEET OF ROADWAY ON NORTH CENTRAL AVENUE BETWEEN FREDERICK ST AND PUMP ST. EXISTING CONCRETE SIDEWALKS AND CURBS WILL BE REMOVED AND REPLACED WITH BRICK SIDEWALKS AND CONCRETE CURBS. EXISTING ASPHALT PAVEMENT WILL BE MILLED OR REMOVED, REGRADED, AND REPLACED OR OVERLAID. PARALLEL PARKING SPACES, GUTTERS AND ENTRANCES WILL BE CONSTRUCTED USING PERMEABLE PAVERS. UTILITY IMPROVEMENTS INCLUDE ELECTRICAL LINE RELOCATION, INSTALLATION OF LIGHT POLES, STORM STRUCTURE REPLACEMENTS, AND ADJUSTMENTS TO OTHER UTILITY STRUCTURE TOPS.

ORIGINAL DATE OF PLANS

JULY 1, 2019

* * * *

DAA PROJECT R08349-17CV



NOTE: CONTRACTOR TO CONTACT MISS UTILITY (811) IN ADVANCE OF PLANNED WORK. ADVANCE TIME PERIOD SHALL BE IN ACCORDANCE WITH CURRENT MISS UTILITY GUIDELINES (www.missutilityofvirginia.com).

These documents, including drawings and specifications, were prepared by Draper Aden Associates, Consulting Engineers, pursuant to a contract by and between Draper Aden Associates and The City of Staunton with respect to the project described in said contract. Any reuse or modification of said documents (whether hard copy or electronic) without written verification or adaptation by Draper Aden Associates for the specific purpose intended will be at the sole risk of the individual or entity utilizing said documents, drawings and specifications and such use is without the authorization of Draper Aden Associates. Draper Aden Associates, Consulting Engineers, shall have no legal liability resulting from any and all claims, damages, losses, and expenses, including attorney's fees arising out of the unauthorized use of these documents, drawings, specifications, reports, and studies prepared as a result of the aforesaid contract.

DRAWING SHEET LIST

Sheet Number	Sheet Title
C0	VDOT COVER SHEET
C1	VDOT RIGHT OF WAY DATA SHEET
C0.0	COVER SHEET
C0.1	EROSION & SEDIMENT CONTROL NOTES AND NARRATIVE
C1.0	OVERALL SITE MAP
C1.1	TOPOGRAPHIC SURVEY (1 of 4)
C1.2	TOPOGRAPHIC SURVEY (2 of 4)
C1.3	TOPOGRAPHIC SURVEY (3 of 4)
C1.4	TOPOGRAPHIC SURVEY (4 of 4)
C2.1	DEMOLITION AND EROSION & SEDIMENT CONTROL PLAN (1 of 3)
C2.2	DEMOLITION AND EROSION & SEDIMENT CONTROL PLAN (2 of 3)
C2.3	DEMOLITION AND EROSION & SEDIMENT CONTROL PLAN (3 of 3)
C3.1	SITE AND UTILITY PLAN (1 of 3)
C3.2	SITE AND UTILITY PLAN (2 of 3)
C3.3	SITE AND UTILITY PLAN (3 of 3)
C4.1	GRADING, LANDSCAPE AND STORMWATER PLAN (1 of 6)
C4.2	GRADING, LANDSCAPE AND STORMWATER PLAN (2 of 6)
C4.3	GRADING, LANDSCAPE AND STORMWATER PLAN (3 of 6)
C4.4	GRADING, LANDSCAPE AND STORMWATER PLAN (4 of 6)
C4.5	GRADING, LANDSCAPE AND STORMWATER PLAN (5 of 6)
C4.6	GRADING, LANDSCAPE AND STORMWATER PLAN (6 of 6)
C5.0	TYPICAL ROAD SECTIONS
C6.0	EROSION & SEDIMENT CONTROL DETAILS
C6.1	CURB AND PAVEMENT DETAILS
C6.2	PLANTING LIST AND DETAILS
C7.0	EASEMENT LINE INFORMATION
C8.0	MAINTENANCE OF TRAFFIC NOTES
C8.1	MAINTENANCE OF TRAFFIC PLAN
E0	ELECTRICAL SITE PLAN
E1	ELECTRICAL SITE PLAN
E2	ELECTRICAL SITE PLAN
E3	ELECTRICAL SITE PLAN
E4	ELECTRICAL SITE PLAN
E5	ELECTRICAL SITE PLAN
E6	ELECTRICAL SITE PLAN

RESPONSIBLE LAND DISTURBER (RLD)

THE RESPONSIBLE LAND DISTURBER SHALL BE THE ENGINEER OF RECORD FOR THE PURPOSES OF PLAN APPROVAL ONLY. THE CONTRACTOR SHALL DESIGNATE A QUALIFIED RESPONSIBLE LAND DISTURBER UPON AWARD OF CONTRACT.

THESE PLANS HAVE BEEN SUBJECTED TO TECHNICAL AND QUALITY REVIEWS BY:

E. CAMPBELL BOLTON, P.E. — E. Campbell Bolton — 7/1/19
NAME: PRINTED — SIGNATURE — DATE
PROJECT MANAGER

CAROLYN A. HOWARD, P.E. — Carolyn A. Howard — 7/1/19
NAME: PRINTED — SIGNATURE — DATE
QUALITY REVIEWER

COMMONWEALTH OF VIRGINIA
E. CAMPBELL BOLTON
Lic. No. 051495
7/1/19
PROFESSIONAL ENGINEER

Draper Aden Associates
Engineering • Surveying • Environmental Services
Charlottesville, VA 110 Avon Street Charlottesville, VA 22902 434-295-0700 Fax: 434-295-2105 www.daa.com
• Richmond, VA • Blacksburg, VA • Hampton Roads, VA
• Coats, NC • Fayetteville, NC • Northern Virginia

COVER SHEET
NORTH CENTRAL AVENUE IMPROVEMENTS
STAUNTON, VIRGINIA

REVISIONS

DESIGNED BY: DAA
DRAWN BY: ECB
CHECKED BY: CAH
SCALE: NO SCALE
DATE: JULY 1, 2019
PROJECT NUMBER: R08349-17CV

C0.0

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MINIMUM STANDARDS

A VIRGINIA EROSION AND SEDIMENT CONTROL PLAN MUST BE CONSISTENT WITH THE FOLLOWING CRITERIA, TECHNIQUES AND METHODS:

MS-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.

MS-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.

MS-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.

MS-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.

MS-5. STABILIZATION MEASURES SHALL BE APPLIED TO EARTHEN STRUCTURES SUCH AS DAMS, DIKES AND DIVERSIONS IMMEDIATELY AFTER INSTALLATION.

MS-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.

MS-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.

MS-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.

MS-9. WHENEVER WATER SEEPS FROM A SLOPE FACE, ADEQUATE DRAINAGE OR OTHER PROTECTION SHALL BE PROVIDED.

MS-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.

MS-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.

MS-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.

MS-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.

MS-14. ALL APPLICABLE FEDERAL, STATE AND LOCAL REQUIREMENTS PERTAINING TO WORKING IN OR CROSSING LIVE WATERCOURSES SHALL BE MET.

MS-15. THE BED AND BANKS OF A WATERCOURSE SHALL BE STABILIZED IMMEDIATELY AFTER WORK IN THE WATERCOURSE IS COMPLETED.

MS-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 REQUIREMENTS SHALL BE COMPLIED WITH.

MS-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.

MS-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.

MS-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 THE 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 DISSIPATORS 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 A 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 9VAC25-870-48 OF THE VIRGINIA STORMWATER MANAGEMENT PROGRAM (VSMP) REGULATIONS.

N. COMPLIANCE WITH THE WATER QUANTITY MINIMUM STANDARDS SET OUT IN 9VAC25-870-66 OF THE VIRGINIA STORMWATER MANAGEMENT PROGRAM (VSMP) REGULATIONS SHALL BE DEEMED TO SATISFY THE REQUIREMENTS OF SUBDIVISION 19 OF THIS SUBSECTION.

GENERAL EROSION AND SEDIMENT CONTROL NOTES

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 (VESCH) AND VIRGINIA REGULATIONS 4VAC50-30 EROSION AND SEDIMENT CONTROL REGULATIONS. A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN SHALL BE MAINTAINED ON THE SITE AT ALL TIMES.

ES-2 VDOT 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, GRADING OR LAND-DISTURBING AND SEQUENCE OF CONSTRUCTION APPROVED.

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

ES-5 PRIOR TO LAND DISTURBING ACTIVITIES IN AREAS OTHER THAN INDICATED ON THESE PLANS OR OFF-SITE FILL ACTIVITIES, THE CONTRACTOR SHALL SUBMIT A SUPPLEMENTARY EROSION CONTROL PLAN TO THE OWNER FOR REVIEW AND FOR APPROVAL BY VDOT.

ES-6 THE CONTRACTOR IS RESPONSIBLE FOR INSTALLATION OF ANY ADDITIONAL EROSION CONTROL MEASURES NECESSARY TO PREVENT EROSION AND SEDIMENTATION AS DETERMINED BY VDOT.

ES-7 SITE GRADING IS TO DRAIN TO THE PERIMETER CONTROLS AT ALL TIMES DURING LAND DISTURBING ACTIVITIES AND DURING CONSTRUCTION, UNTIL FINAL STABILIZATION IS ACHIEVED.

ES-8 DURING DEWATERING OPERATIONS, WATER WILL BE PUMPED INTO AN APPROVED FILTERING DEVICE.

ES-9 THE CONTRACTOR SHALL INSPECT ALL EROSION CONTROL MEASURES PERIODICALLY (AT LEAST DAILY) 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.

EROSION AND SEDIMENT CONTROL NARRATIVE

A. PROJECT DESCRIPTION

THE CITY OF STAUNTON PROPOSES STREETSCAPE IMPROVEMENTS TO APPROXIMATELY 1,400 LINEAR FEET OF ROADWAY ALONG NORTH CENTRAL AVENUE IN DOWNTOWN STAUNTON, VIRGINIA BETWEEN FREDERICK STREET AND PUMP STREET. EXISTING CONCRETE SIDEWALKS AND CURBS WILL BE REMOVED AND REPLACED WITH BRICK SIDEWALKS AND CONCRETE CURBS. EXISTING ASPHALT PAVEMENT WILL BE MILLED (OR REMOVED), REGRADED, AND OVERLAID (OR REPLACED). PARALLEL PARKING SPACES, GUTTERS AND ENTRANCES WILL BE CONSTRUCTED USING PERMEABLE PAVERS. UTILITY IMPROVEMENTS INCLUDE ELECTRICAL LINE RELOCATION, INSTALLATION OF LIGHT POLES, STORM STRUCTURE REPLACEMENTS, AND ADJUSTMENTS TO OTHER UTILITY STRUCTURE TOPS.

THE TOTAL PROJECT AREA IS APPROXIMATELY 1.90 ACRES, WHICH INCLUDES AREAS ASSUMED TO ONLY REQUIRE MILLING (ROADWAY AREAS ONE FOOT OUTSIDE OF CURBS, CROSSWALKS, UTILITY CROSSINGS, PAVERS, ETC.). WITHIN THE PROJECT LIMITS, THE EXISTING CONDITION CONSISTS OF APPROXIMATELY 0.08 ACRES OF PERVIOUS AREA. THE POST-DEVELOPED CONDITION WILL INCREASE THE PERVIOUS AREA TO 0.10 ACRES. ALL RUNOFF FROM THE PROJECT FLOWS INTO THE EXISTING STORM SEWER SYSTEM IN THE ROADWAY AND IS DISCHARGED DIRECTLY INTO THE UNDERGROUND TUNNEL RUNNING UNDER THE ROADWAY CONTAINING PEYTON CREEK.

CONSTRUCTION OF THIS PROJECT IS ANTICIPATED TO BEGIN IN THE FALL OF 2019 WITH A DURATION OF APPROXIMATELY 18 MONTHS.

B. EXISTING SITE CONDITIONS

NORTH CENTRAL AVENUE RUNS NORTH/SOUTH THROUGH DOWNTOWN STAUNTON, VIRGINIA WITH BUSINESSES ALONG BOTH THE EAST AND WEST SIDES OF THE STREET. THE MAJORITY OF THE LIMITS OF DISTURBANCE IS PAVEMENT OR HARDSCAPE WITH RELATIVELY FLAT SLOPES BETWEEN 0% AND 2%. IN GENERAL, THE ROADWAY SLOPES TO THE SOUTH AND IS AT A LOW POINT WITH PROPERTIES SLOPING TOWARD THE ROADWAY FROM THE EAST AND WEST. PEYTON CREEK FLOWS NORTH TO SOUTH IN A TUNNEL UNDER THE ROADWAY.

C. ADJACENT AREAS

NORTH CENTRAL AVENUE RUNS FROM WEST JOHNSON STREET AT THE SOUTH TO CHURCHVILLE AVENUE (ROUTE 250) AT THE NORTH. IT IS LOCATED BETWEEN NORTH LEWIS STREET TO THE WEST AND NORTH AUGUSTA STREET (ROUTE 250/11) TO THE EAST. THE LIMITS OF THIS PROJECT ARE FREDERICK STREET TO THE SOUTH AND PUMP STREET TO THE NORTH. THERE ARE 20 PROPERTIES BORDERING THIS STRETCH OF ROADWAY. THE MAJORITY ARE WITHIN THE ENTRANCE CORRIDOR OVERLAY DISTRICT AND ALL ARE ZONED B2. SOME DISTURBANCE WILL BE REQUIRED ON ALL ADJACENT PROPERTIES TO COMPLETE CONSTRUCTION.

D. OFF-SITE AREAS

ALL EXCESS OR UNSUITABLE MATERIAL SHALL BE TRANSPORTED TO A PERMITTED OFF-SITE DISPOSAL AREA. ALL IMPORTED MATERIAL REQUIRED FOR BACKFILL, TOPSOIL, PIPE BEDDING, ETC., SHALL BE OBTAINED FROM A PERMITTED OFF-SITE AREA OR A COMMERCIAL FACILITY. SHOULD ADDITIONAL OFF-SITE AREAS BE REQUIRED, THEY SHALL HAVE SEPARATE EROSION AND SEDIMENT CONTROL PLAN APPROVED BY THE AUTHORITY HAVING JURISDICTION. THE NAMES OF ANY OFFSITE AREAS MUST BE PROVIDED TO THE CITY OF STAUNTON BEFORE ANY SOIL IS TRANSPORTED OFFSITE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTING THE APPROVED EROSION AND SEDIMENT CONTROL PLAN ALONG WITH FINAL STABILIZATION AND MAINTENANCE OF ALL OFF-SITE AREAS.

E. SOILS

THE SITE BOUNDARY WAS ENTERED INTO THE NATURAL RESOURCE CONSERVATION SERVICE (NRCS) WEB SOIL SURVEY APPLICATION AND NO SOIL TYPES WERE ABLE TO BE DETERMINED. THE VAST MAJORITY OF THE SITE IS PAVED WITH A SIGNIFICANT AMOUNT OF UTILITIES UNDERNEATH. IT IS ANTICIPATED THE MAJORITY OF THE MATERIAL ENCOUNTERED UNDER THE ROADWAY AND SIDEWALKS WILL BE STONE BACKFILL.

F. CRITICAL EROSION AREAS

THE SITE IS LOCATED WITHIN THE FLOODWAY AND FLOODPLAIN ACCORDING TO FEMA MAPS (#51015C0339E) DUE TO PEYTON CREEK FLOWING THROUGH THE TUNNEL UNDER THE ROADWAY. ALL STORM STRUCTURES LOCATED ALONG THE ROADWAY DISCHARGE DIRECTLY INTO THE TUNNEL. WHILE VERY LITTLE SOIL EROSION IS ANTICIPATED WITH THIS CONSTRUCTION, IT WILL BE IMPORTANT TO KEEP INLET PROTECTION MEASURES IN PLACE AND OPERATIONAL ON ALL INLETS THROUGHOUT CONSTRUCTION TO LIMIT ANY SOIL MATERIALS OR DEBRIS FROM ENTERING THE STORM SYSTEM.

G. EROSION AND SEDIMENT CONTROL MEASURES

ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH THE MINIMUM STANDARDS AND SPECIFICATIONS OF THE "VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK" (VESCH), LATEST EDITION AND IN CONFORMANCE WITH THE CONDITIONS OF APPLICABLE ENVIRONMENTAL PERMITS.

H. STRUCTURAL PRACTICES

1. SAFETY FENCE – 3.01
TO BE INSTALL AROUND THE SITE AS NEEDED TO PROTECT THE PUBLIC FROM THE CONSTRUCTION SITE AND TO SECURE ITEMS KEPT ON SITE. EXACT LIMITS MAY NEED TO BE ADJUSTED BY THE CONTRACTOR AND OWNER IN THE FIELD BASED ON PHASING.

2. SILT FENCING – 3.05
TO BE INSTALLED DOWN SLOPE OF DISTURBED VEGETATED AREAS TO FILTER SEDIMENT LADEN RUNOFF.

3. INLET PROTECTION – 3.07
TO BE INSTALLED ON ALL EXISTING INLETS WITHIN THE LIMITS OF CONSTRUCTION AND DOWNSTREAM AS WELL AS PROPOSED INLETS AS THEY ARE INSTALLED TO FILTER SEDIMENT LADEN RUNOFF BEFORE ENTERING STORM DRAIN INLETS AND PIPING SYSTEMS.

4. TREE PROTECTION – 3.38
A TEMPORARY FENCE TO BE INSTALLED AROUND TREES OR VEGETATION TO REMAIN TO PREVENT DAMAGE DURING CONSTRUCTION. THE FENCING SHALL BE INSTALLED ALONG THE DRIP LINE OF THE TREE WHERE POSSIBLE.

5. DUST CONTROL – 3.39
DUST CONTROL MEASURES SHALL BE USED OVER THE ENTIRE SITE TO REDUCE SURFACE AND AIR MOVEMENT OF DUST DURING LAND DISTURBANCE, DEMOLITION, AND CONSTRUCTION ACTIVITIES.

I. VEGETATIVE PRACTICES

GENERAL: A PERMANENT VEGETATIVE COVER SHALL BE ESTABLISHED ON DENUDED AREAS NOT OTHERWISE PERMANENTLY STABILIZED BY CONCRETE, PAVEMENT OR LANDSCAPED MULCHED BEDS. PERMANENT VEGETATION SHALL NOT BE CONSIDERED ESTABLISHED UNTIL A GROUND COVER IS ACHIEVED THAT IS UNIFORM, MATURE ENOUGH TO SURVIVE AND WILL INHIBIT EROSION. NEW VEGETATION SHALL BE MAINTAINED FOR ONE FULL YEAR AFTER PLANTING. NEW SEEDING SHALL BE SUPPLIED WITH ADEQUATE MOISTURE, ESPECIALLY LATE IN THE SEASON, AND IN ABNORMALLY HOT OR DRY WEATHER. STABILIZATION PRACTICES SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THE APPROPRIATE VESCH STD. & SPEC. AND AS PER THE EROSION AND SEDIMENT CONTROL PLAN. SELECTION OF THE APPROPRIATE SEED MIXTURE FOR TEMPORARY SEEDING WILL DEPEND UPON THE TIME OF YEAR IT IS APPLIED.

1. TOPSOILING – 3.30
A 2"-TO-4" LAYER OF TOPSOIL SHALL BE APPLIED TO ALL LANDSCAPED AND GRASSED AREAS. THE TOPSOIL SHALL BE FREE OF ROCKS AND DEBRIS. TOPSOIL ALLOWS A STRONGER AND HEALTHIER STAND OF GRASS TO ESTABLISH QUICKLY TO STABILIZE UNPAVED AREAS OF THE SITE.

2. TEMPORARY SEEDING – 3.31
TEMPORARY SEEDING SHALL BE APPLIED OVER ALL DISTURBED AREAS THAT WILL NOT BE BROUGHT TO FINAL GRADE WITHIN 14 DAYS. AREAS SHALL BE RESEEDED AS REQUIRED TO MAINTAIN A HEALTHY STAND OF VEGETATION WHICH IS CAPABLE OF PREVENTING EROSION. TEMPORARY SEEDING MIXES AND MAINTENANCE PROCEDURES SHALL BE AS DESCRIBED IN VESCH STD. & SPEC. 3.31.

3. PERMANENT SEEDING – 3.32
PERMANENT SEEDING SHALL BE APPLIED TO ALL AREAS WITHIN SEVEN (7) DAYS OF ACHIEVING FINAL GRADE WHICH WILL NOT RECEIVE HARDSCAPE OR OTHER LANDSCAPE. PERMANENT SEEDING SHALL ALSO BE USED ON ALL AREAS NOT AT FINAL GRADE BUT WILL BE LEFT DORMANT FOR A PERIOD OF MORE THAN ONE (1) YEAR. IF CONFLICTS EXIST BETWEEN THE PROJECT SPECIFICATIONS AND THE VESCH STD. & SPEC. 3.32, THE MORE STRINGENT REQUIREMENT SHALL APPLY. PERMANENT SEEDING MIXES AND RATES, SOIL TESTING REQUIREMENTS AND MAINTENANCE PROCEDURES ARE FOUND IN VESCH STD. & SPEC. 3.32.

4. MULCHING – 3.35
APPLICATION OF PLANT RESIDUES OR OTHER SUITABLE MATERIALS TO THE SOIL SURFACE TO PREVENT EROSION BY PROTECTING THE SOIL SURFACE FROM RAINDROP IMPACT AND REDUCING THE VELOCITY OF OVERLAND FLOW. IT IS ALSO USED TO FOSTER THE GROWTH OF VEGETATION BY INCREASING AVAILABLE MOISTURE AND PROVIDING INSULATION AGAINST EXTREME HEAT AND COLD. MULCHING WILL BE APPLIED THROUGHOUT CONSTRUCTION ON DENUDED AREAS. APPLICATION RATES AND MULCHING TYPES ARE FOUND IN VESCH STD. & SPEC. 3.35.

J. PERMANENT STABILIZATION

ALL AREAS WITHIN THE LIMITS OF DISTURBANCE SHALL BE STABILIZED WITH PERMANENT SEEDING, LANDSCAPING OR PAVEMENT FOLLOWING THE FINAL GRADING.

K. SEQUENCE OF CONSTRUCTION

1) A PRE-CONSTRUCTION CONFERENCE WILL BE REQUIRED. CONTACT THE CITY OF STAUNTON TO SET UP THE MEETING AND PROVIDE THE NAME, CERTIFICATION INFORMATION, AND CONTACT INFORMATION OF THE DESIGNATED RESPONSIBLE LAND DISTURBER (RLD) PRIOR TO STARTING CONSTRUCTION.

2) THE CONTRACTOR IS RESPONSIBLE FOR ENSURING ALL APPLICABLE PERMITS FOR LAND DISTURBANCE HAVE BEEN OBTAINED.

3) ALL ITEMS OF WORK NECESSARY TO COMPLETE THIS PROJECT SHALL BE IN COMPLIANCE WITH ALL LOCAL, STATE, AND FEDERAL CODES.

4) INITIAL E&S MEASURES AND DEMOLITION:

a) INSTALL PERIMETER SAFETY FENCE, SILT FENCE, INLET PROTECTION, TREE PROTECTION AND OTHER MEASURES AS SHOWN ON THE PLANS AND DEEMED NECESSARY THROUGH INSPECTION. NOTE: LIMITS OF SAFETY FENCE TO BE DETERMINED BY CONTRACTOR IN THE FIELD.

b) CONTACT THE CITY OF STANTON'S EROSION AND SEDIMENT CONTROL INSPECTOR FOR AN INSPECTION OF THE PERIMETER MEASURES.

c) BEGIN CLEARING AND DEMOLITION OF ITEMS AS SHOWN ON THE PLANS. CLEARING AND DEMOLITION ACTIVITIES SHOULD BE PERFORMED AS NEEDED FOR THE NEXT CONSTRUCTION ACTIVITY AND NOT ACROSS THE ENTIRE SITE AT ONCE.

d) THROUGHOUT CONSTRUCTION ACTIVITIES, APPLY DUST CONTROL MEASURES ACCORDING TO VESCH STD. & SPEC. 3.39. ANY AND ALL MATERIAL OR DEBRIS TRACKED ONTO A PUBLIC OR PRIVATE ROAD SURFACE WILL BE CLEANED THOROUGHLY AT THE END OF EACH DAY. SEDIMENT SHALL BE REMOVED FROM ROADS BY SHOVELING OR SWEEPING AND BE TRANSPORTED TO A SEDIMENT CONTROLLED DISPOSAL AREA.

e) APPLY TEMPORARY SEEDING AND MULCHING AS NECESSARY.

5) CONSTRUCTION PHASE:

a) MAINTAIN ALL PERIMETER EROSION AND SEDIMENT CONTROL MEASURES FROM DEMOLITION PHASE. EROSION AND SEDIMENTATION CONTROLS SHALL BE MAINTAINED UNTIL SUCH A TIME AS A VEGETATIVE COVER IS ESTABLISHED OR HARDSCAPE IS INSTALLED ON ALL AREAS UPHIL



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OVERALL SITE MAP

NORTH CENTRAL AVENUE IMPROVEMENTS

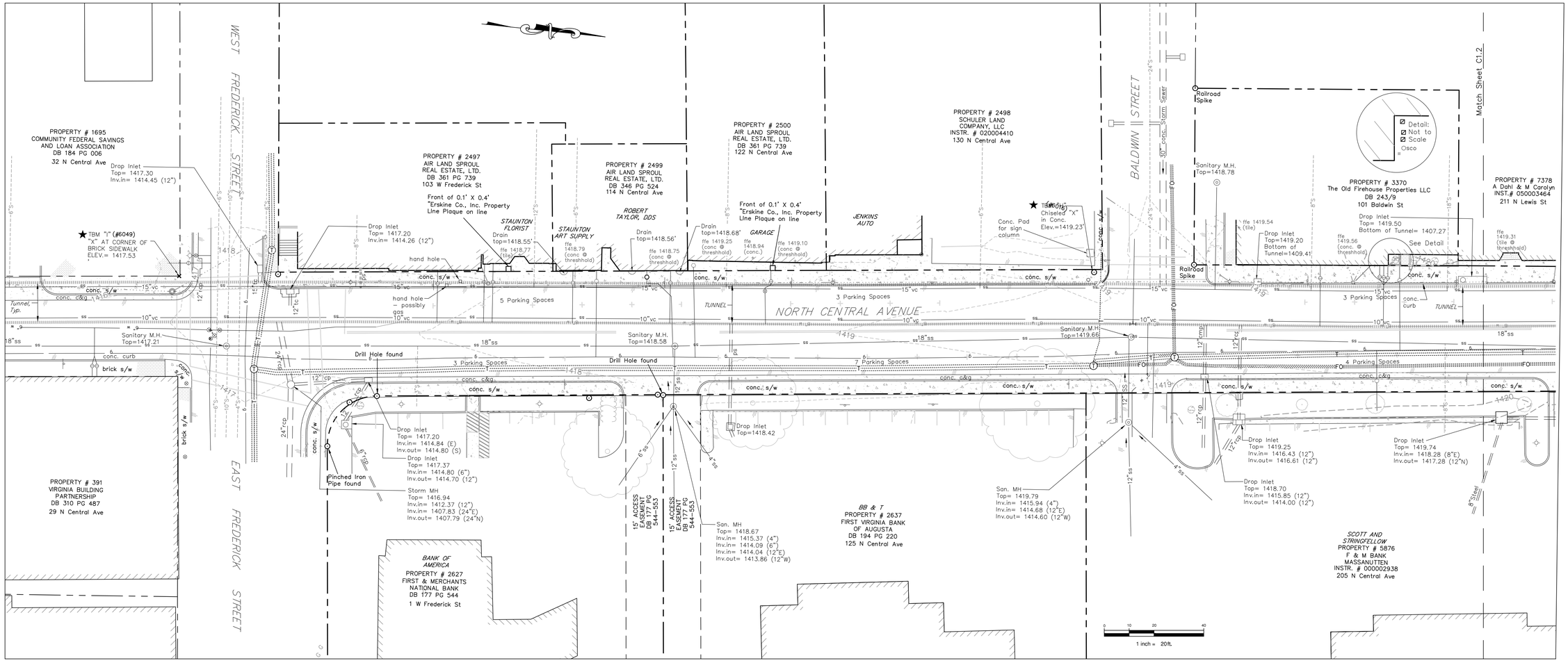
STAUNTON, VIRGINIA

REVISIONS

DESIGNED BY:	DAA
DRAWN BY:	ECB
CHECKED BY:	CAH
SCALE:	1" = 50'
DATE:	JULY 1, 2019
PROJECT NUMBER:	R08349-17CV

C1.0

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NOTES:

1.) Source of Meridian: Virginia Coordinate System NAD 83, North Zone based upon City of Staunton Disks 2007–21 & 2008–32.
2.) Vertical datum: City of Staunton Control, Disk 2007–21. Elevation=1371.93'.
3.) This survey was prepared without the benefit of a title commitment or title report and all easements and encumbrances that might be disclosed in a title search may not be shown.
4.) Underground utilities from Frederick Street to Pump Street are based upon a survey performed on 11/06/08 in conjunction with proposed utilities shown a Site Plan entitled "Central Avenue Tunnel Relief" dated 10/15/09. Underground utilities from Pump Street to Churchville Avenue are lacoted per SUE Quality Level B, ASCE 38–02 – field designation of underground utilities performed by Draper Aden Associates and visible evidence in conjunction with compiled records. Storm and sanitary sewer lines and inverts were taken from the previous survey. Lines from Pump Street to Churchville Avenue are shown per GIS.
5.) This Topographic Survey was completed under the direct and responsible charge of Cheryl A. Stockton, L.S. from an actual Ground survey made under my supervision; that the imagery and/or original data was obtained on December 5, 2012 and June 25, 2019; and that this plat and/or map meets minimum accuracy standards unless otherwise noted.
6.) Contour interval: 1'.
7.) This survey was prepared for the City of Staunton. Draper Aden Associates assumes no liability for reuse or modification of this document.
8.) Property lines shown hereon are compiled from record information and are for reference only. A boundary survey was not performed with this topographic survey.
9.) Draper Aden Associates provides benchmarks for the construction of the improvements shown on these plans. All other existing elevations are for reference to existing conditions only. Do not use spot elevations, finish floor elevations, elevations on manholes, elevations on survey nails, survey hubs, control points (horizontal points provided) or any other points for construction other than the provided benchmarks. Failure to utilize and verify the provided benchmarks could result in damages and additional cost that are the contractor's responsibility.
10.) The site shown hereon appears to be situated within a Floodway, Floodplain Zone X (Unshaded), and Zone AE per FEMA Community Panel 5105C0339E with an original date of September 28, 2007 and revised January 6, 2010.

LEGEND

Property Line		Rod Found		Electric Box	
Contour	1000	Monument Found		Guy Pole	
Gas Line	g	Telephone Pedestal	E	Electric Marker	
Overhead Power	ohp	Telephone Manhole	E	Electrical Manhole	
Sanitary Sewer and Manhole	ss	Telephone Box		Utility Pole	
Storm Line and Manhole		Fire Hydrant		Electric Transformer	
Storm Line and Inlet		Water Valve		Ground Light	
Underground Cable TV	catv	Water Meter		Light Pole	
Underground Electric	uge	Well		Fiber Optic Pedestal	
Underground Telephone	ugt	Benchmark		Fiber Optic Handhole	
Underground Fiber Optic	fo	Bollard		Gas Vent	
Unknown Utility	unk	Sign (1–post)		Gas Valve	
Waterline	w	Sign (2–post)		Gas Meter	
Asphalt		Spot Elevation	1561.3	Sewer Clean Out	
Building		Deciduous Tree		Wood Post	
Fence (as noted)	X X	Evergreen Tree		Metal Post	
Stream		Shrub		Traffic Pole	
Treeline		Concrete		Gravel	
Guy Wire		Roof Drain		Gas Test Station	

COMMONWEALTH OF VIRGINIA
CHERYL A. STOCKTON
Lic. No. 2425
7-1-2019
LAND SURVEYOR

Draper Aden Associates
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Charlottesville, VA 434-295-0700
Richmond, VA • Coats, NC • Fayetteville, NC • Blacksburg, VA • Hampton Roads, VA • Northern Virginia
Fax: 434-295-2105
www.daa.com

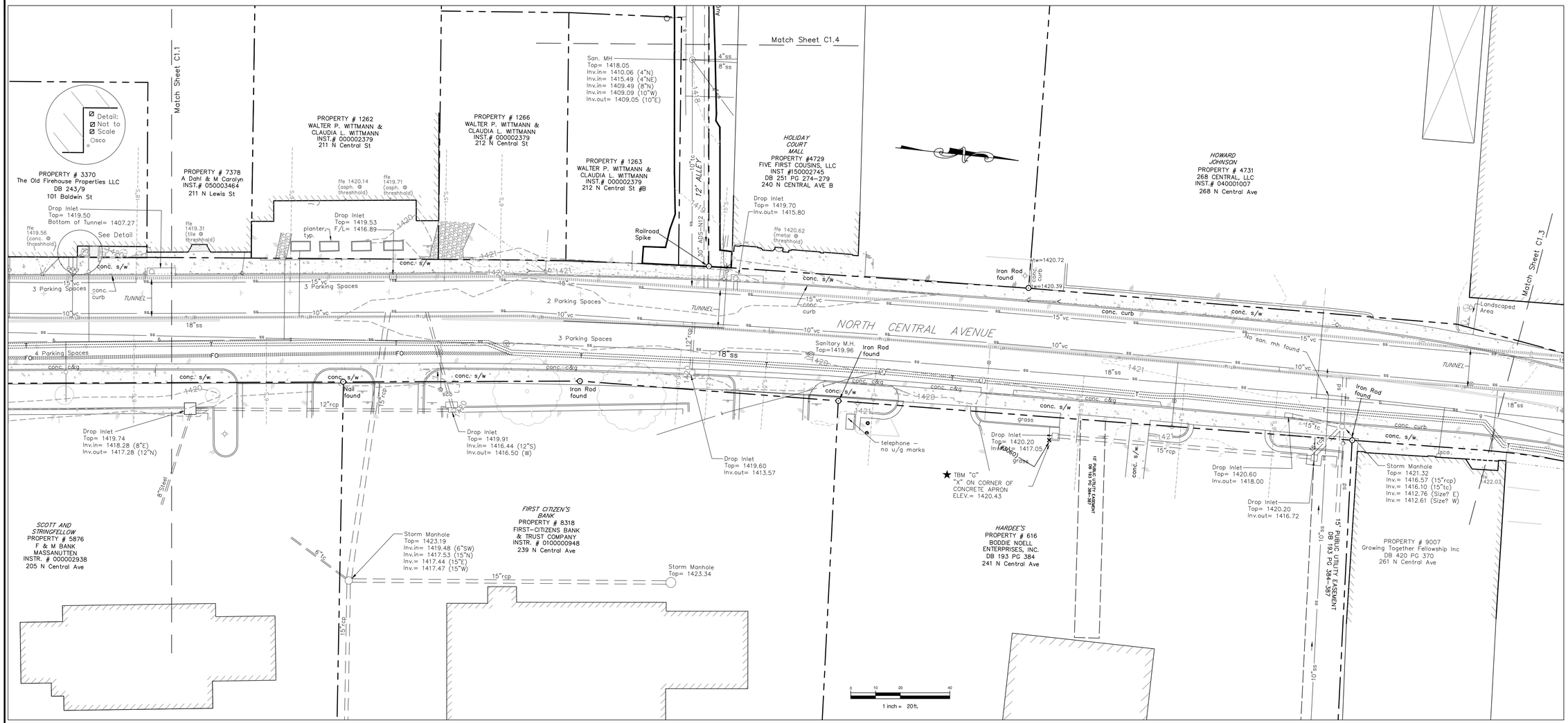
TOPOGRAPHIC SURVEY (1 OF 4)
NORTH CENTRAL AVENUE IMPROVEMENTS
STAUNTON, VIRGINIA

REVISIONS

DESIGNED BY:	---
DRAWN BY:	CAS
CHECKED BY:	DAJ
SCALE:	1" = 20'
DATE:	JULY 1, 2019
PROJECT NUMBER:	R08349-17CV

C1.1

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LEGEND

Property Line		Rod Found		Electric Box	
Contour	1000	Monument Found		Guy Pole	
Gas Line	g	Telephone Pedestal		Electric Marker	
Overhead Power	ohp	Telephone Manhole		Electrical Manhole	
Sanitary Sewer and Manhole	ss	Telephone Box		Utility Pole	
Storm Line and Manhole		Fire Hydrant		Electric Transformer	
Storm Line and Inlet		Water Valve		Ground Light	
Underground Cable TV	catv	Water Meter		Light Pole	
Underground Electric	uge	Well		Fiber Optic Pedestal	
Underground Telephone	ugt	Benchmark		Fiber Optic Handhole	
Underground Fiber Optic	fo	Bollard		Gas Vent	
Unknown Utility	unk	Sign (1–post)		Gas Valve	
Waterline	w	Sign (2–post)		Gas Meter	
Asphalt		Spot Elevation	1561.3	Sewer Clean Out	
Building		Deciduous Tree		Wood Post	
Fence (as noted)	X	Evergreen Tree		Metal Post	
Stream		Shrub		Traffic Pole	
Treeline		Concrete		Gravel	
Guy Wire		Roof Drain		Gas Test Station	

COMMONWEALTH OF VIRGINIA
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Charlottesville, VA 22902 Fax: 434-295-2105
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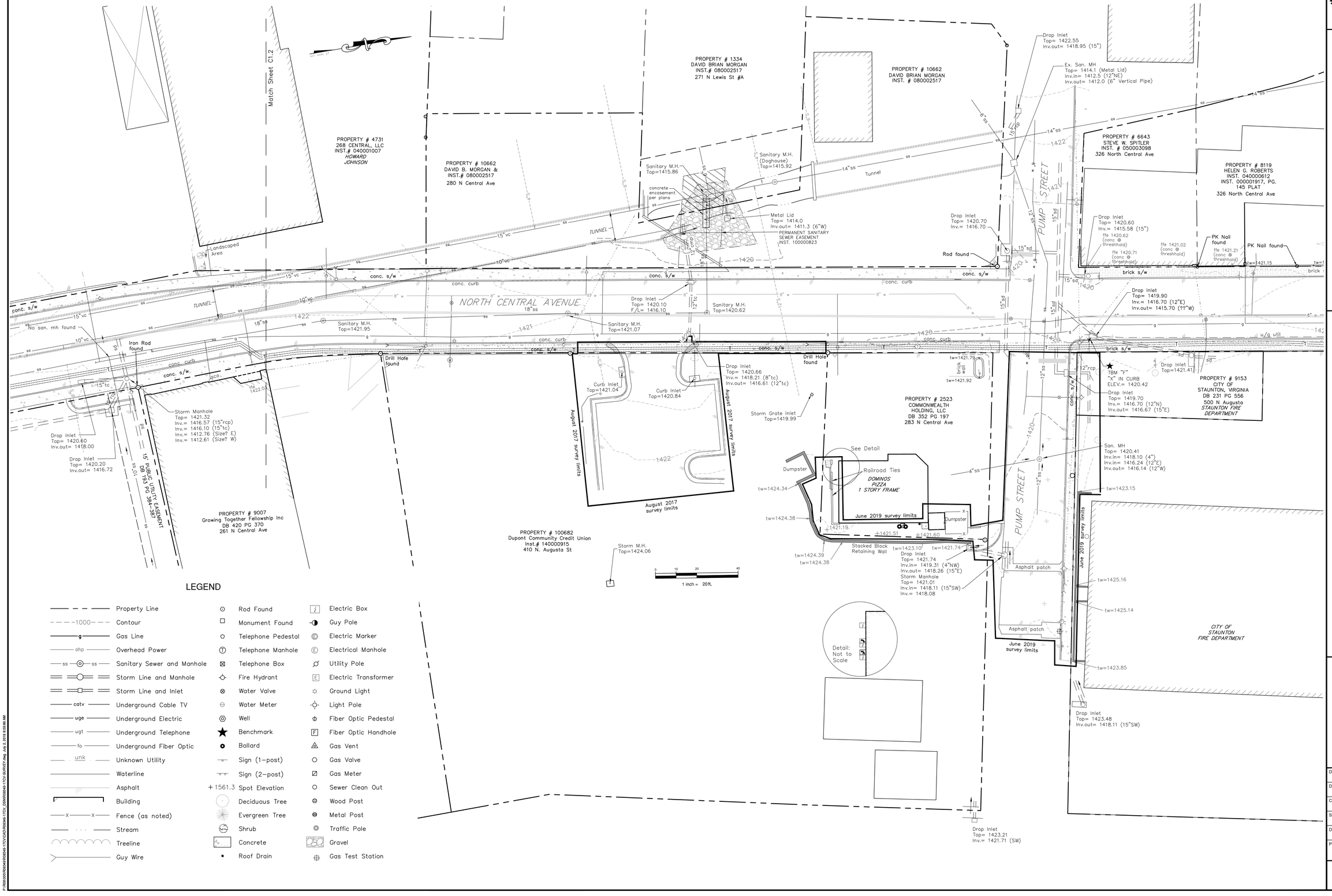
TOPOGRAPHIC SURVEY (2 OF 4)
NORTH CENTRAL AVENUE IMPROVEMENTS
STAUNTON, VIRGINIA

REVISIONS

DESIGNED BY:	---
DRAWN BY:	CAS
CHECKED BY:	DAJ
SCALE:	1" = 20'
DATE:	JULY 1, 2019
PROJECT NUMBER:	R08349-17CV

C1.2

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LEGEND

Property Line	Rod Found	Electric Box
Contour	Monument Found	Guy Pole
Gas Line	Telephone Pedestal	Electric Marker
Overhead Power	Telephone Manhole	Electrical Manhole
Sanitary Sewer and Manhole	Telephone Box	Utility Pole
Storm Line and Manhole	Fire Hydrant	Electric Transformer
Storm Line and Inlet	Water Valve	Ground Light
Underground Cable TV	Water Meter	Light Pole
Underground Electric	Well	Fiber Optic Pedestal
Underground Telephone	Benchmark	Fiber Optic Handhole
Underground Fiber Optic	Bollard	Gas Vent
Unknown Utility	Sign (1-post)	Gas Valve
Waterline	Sign (2-post)	Gas Meter
Asphalt	Spot Elevation	Sewer Clean Out
Building	Deciduous Tree	Wood Post
Fence (as noted)	Evergreen Tree	Metal Post
Stream	Shrub	Traffic Pole
Treeline	Concrete	Gravel
Guy Wire	Roof Drain	Gas Test Station

COMMONWEALTH OF VIRGINIA
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7-1-2019
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• Hampton Roads, VA • Northern Virginia

TOPOGRAPHIC SURVEY (3 OF 4)
NORTH CENTRAL AVENUE IMPROVEMENTS
STAUNTON, VIRGINIA

REVISIONS

DESIGNED BY:	---
DRAWN BY:	CAS
CHECKED BY:	DAJ
SCALE:	1" = 20'
DATE:	JULY 1, 2019
PROJECT NUMBER:	R08349-17CV

C1.3

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LEGEND

Property Line	Rod Found	Electric Box
Contour	Monument Found	Guy Pole
Gas Line	Telephone Pedestal	Electric Marker
Overhead Power	Telephone Manhole	Electrical Manhole
Sanitary Sewer and Manhole	Telephone Box	Utility Pole
Storm Line and Manhole	Fire Hydrant	Electric Transformer
Storm Line and Inlet	Water Valve	Ground Light
Underground Cable TV	Water Meter	Light Pole
Underground Electric	Well	Fiber Optic Pedestal
Underground Telephone	Benchmark	Fiber Optic Handhole
Underground Fiber Optic	Bollard	Gas Vent
Unknown Utility	Sign (1-post)	Gas Valve
Waterline	Sign (2-post)	Gas Meter
Asphalt	Spot Elevation	Sewer Clean Out
Building	Deciduous Tree	Wood Post
Fence (as noted)	Evergreen Tree	Metal Post
Stream	Shrub	Traffic Pole
Treeline	Concrete	Gravel
Guy Wire	Roof Drain	Gas Test Station

PROPERTY # 4830
IRENE TURPEN
DB 339/904
208 N Lewis St

PROPERTY # 7470
RICHARD OWEN
INST. # 040001839
210 N Lewis St

PROPERTY # 1239
PAULE-CARRES LARISSA, ETAL
INST. # 060000246
214 N Lewis St

PROPERTY # 1758
JEFFREY G. KING
INST. # 080002914
220 N Lewis St

PROPERTY # 2287
SAMUEL C.S. WATTS &
LINDA KELLY
INST. # 010000840
224 N Lewis St

PROPERTY # 8775
Linda G Baker
INST. # 070000524
230 N Lewis St

★TBM
City of Staunton Survey
Monument #2008-32
(Capped Rod)
N 6739173.279
E 11317502.455
Elev.= 1416.98'

Drop Inlet
Top= 1417.30
Inv.out= 1415.56

Drop Inlet
Top= 1416.40
F/L= 1415.25

Drop Inlet
Top= 1416.00
Inv.= 1414.70 (10")
Inv.out= 1414.60 (12")

Drop Inlet
Top= 1415.70
Inv.= 1414.43 (10"S)
Inv.out= 1414.30 (E)

LEWIS STREET

LEWIS STREET

San. MH
Top= 1416.26
Inv.in= 1410.65 (W)
Inv.out= 1410.63 (E)

Drop Inlet
Top= 1417.88
Unable to measure invert

Drop Inlet
Top= 1416.18
Unable to measure invert

San. MH
Top= 1416.31
Inv.in= 1412.47 (6"S)
Inv.in= 1413.50 (4"N)
Inv.in= 1410.17 (18"W)
Inv.out= 1409.99 (18"E)

San. MH
Top= 1416.47
Inv.in= 1410.01 (W)
Inv.out= 1409.92 (S)

Drop Inlet
Top= 1416.33
F/L= 1412.82

Manhole
Top= 1416.33
F/L= 1412.82

Drop Inlet
Top= 1415.80
Inv.out= 1413.02

Drop Inlet
Top= 1416.50
Inv.out= 1414.57

Drop Inlet
Top= 1416.65
Inv.in= 1414.40 (12"W)
Inv.out= 1414.00 (15"S)

FIREPLACES & THINGS

McCARY'S REPAIR SHOP

HUNTING HILLS EARLY LEARNING CENTER

MINI MALL

PROPERTY # 9117
CITY OF STAUNTON
DB 010/481
203 N Lewis St

PROPERTY # 1264
EARL R. MCCARY
DB 316/422
213 N Lewis St

PROPERTY # 1265
EARL R. MCCARY
DB 316/422
217 N Lewis St

PROPERTY # 4783
JOYCE M. EAVERS
FAMILY, LLC
DB 414 PG 442
221 N Lewis St

To Tunnel

underground fiber optic line location per City

August 2017 survey limits

August 2017 survey limits

Match Sheet C1.2

San. MH
Top= 1418.05
Inv.in= 1410.06 (4"N)
Inv.in= 1415.49 (4"NE)
Inv.in= 1409.49 (8"N)
Inv.in= 1409.09 (10"W)
Inv.out= 1409.05 (10"E)

PROPERTY # 1262
WALTER P. WITTMANN &
CLAUDIA L. WITTMANN
INST.# 000002379
211 N Central St

PROPERTY # 1266
WALTER P. WITTMANN &
CLAUDIA L. WITTMANN
INST.# 000002379
212 N Central St

PROPERTY # 1263
WALTER P. WITTMANN &
CLAUDIA L. WITTMANN
INST.# 000002379
212 N Central St #B

HOLIDAY COURT MALL
PROPERTY #4729
FIVE FIRST COUSINS, LLC
INST #150002745
DB 251 PG 274-279
240 N CENTRAL AVE B

HOWARD JOHNSON
PROPERTY # 4731
268 CENTRAL, LLC
INST.# 040001007
268 N Central Ave

PROPERTY # 3370
The Old Firehouse Properties LLC
DB 243/9
101 Baldwin St

PROPERTY # 7378
A Dahl & M Carolyn
INST.# 050003464
211 N Lewis St

Detail:
Not to Scale
Osco

See Detail

Drop Inlet
Top= 1419.50
Bottom of Tunnel= 1407.27

Drop Inlet
Top= 1419.53
F/L= 1416.89

Drop Inlet
Top= 1419.70
Inv.out= 1415.80

ffe 1419.56 (conc. @ threshhold)

ffe 1419.31 (tile @ threshhold)

ffe 1420.14 (asph. @ threshhold)

ffe 1419.71 (asph. @ threshhold)

ffe 1420.62 (metal @ threshhold)

planter typ.

Railroad Spike

Iron Rod found

Corner curb

Landscaped Area

conc. s/w

conc. curb

TUNNEL

3 Parking Spaces

2 Parking Spaces

NORTH CENTRAL AVENUE

12" ALLEY

Draper Aden Associates
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• Northern Virginia

COMMONWEALTH OF VIRGINIA
CHERYL A. STOCKTON
Lic. No. 2425
7-1-2019
LAND SURVEYOR

TOPOGRAPHIC SURVEY (4 OF 4)
NORTH CENTRAL AVENUE IMPROVEMENTS
STAUNTON, VIRGINIA

REVISIONS

DESIGNED BY: ---
DRAWN BY: CAS
CHECKED BY: DAJ
SCALE: 1" = 20'
DATE: JULY 1, 2019
PROJECT NUMBER: R08349-17CV

C1.4

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EROSION AND SEDIMENT CONTROL NOTES:

1. REFER TO SHEET C0.1 FOR EROSION AND SEDIMENT CONTROL NARRATIVE AND NOTES AND SHEET C6.0 FOR EROSION AND SEDIMENT CONTROL DETAILS.
2. EROSION MEASURES SHALL BE INSTALLED AS THE FIRST STEP IN LAND DISTURBANCE. THEY SHALL REMAIN IN PLACE UNTIL ALL UPSTREAM AREAS HAVE BEEN PERMANENTLY STABILIZED.
3. EROSION AND SEDIMENT CONTROL MINIMUM STANDARDS (MS-19) SHALL BE FOLLOWED AT ALL TIMES.
4. CONSTRUCTION SAFETY FENCE AND SIGNAGE SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. LOCATIONS TO BE DETERMINED IN THE FIELD.

DEMOLITION NOTES:

1. INSTALL INITIAL EROSION AND SEDIMENT CONTROL MEASURES PRIOR TO BEGINNING DEMOLITION ACTIVITIES.
2. ALL DEMOLITION ITEMS SHALL BE REMOVED FROM THE SITE AND PROPERLY DISPOSED.
3. COORDINATE ALL UTILITY OUTAGES WITH THE CITY OF STAUNTON PRIOR TO DISCONNECTION.
4. ALL UTILITY STRUCTURE TOPS WITHIN THE LIMITS OF CONSTRUCTION SHALL BE RAISED OR LOWERED AS REQUIRED TO MATCH PROPOSED GRADE.
5. COORDINATE ALL ELECTRICAL AND LIGHTING ITEMS TO BE REMOVED/RELOCATED/ADJUSTED WITH 2rw ELECTRICAL PLANS. ITEMS SHOWN ON CIVIL PLANS FOR REFERENCE ONLY; ALL ITEMS MAY NOT BE SHOWN.

DEMOLITION LEGEND

- 1 — REMOVE/MILL ASPHALT PAVEMENT (REFER TO DETAIL 1, C6.1)
- 1A — ASPHALT SAWCUT LINE (EDGE OF PAVEMENT REMOVAL)
- 2 — REMOVE WHEEL BLOCK
- 3 — REMOVE CONCRETE SIDEWALK/ENTRANCE
- 3A — CONCRETE SAWCUT LINE (EDGE OF CONCRETE REMOVAL)
- 4 — REMOVE CONCRETE CURB OR CURB AND GUTTER
- 5 — ADJUST STORM STRUCTURE; REFER TO C400 SERIES SHEETS
- 6 — REMOVE STORM PIPE
- 7 — ELECTRICAL/LIGHTING/POWER POLE; COORDINATE REMOVAL OR RELOCATION WITH 2rw ELECTRICAL DRAWINGS.
- 8 — REMOVE AND SALVAGE PARKING SIGN; REFER TO C300 SERIES SHEETS
- 8A — REMOVE AND SALVAGE ROAD SIGN AND POST; RE-INSTALL
- 8B — REMOVE AND SALVAGE SIGN FROM POWER/ LIGHT POLE; REINSTALL WITH NEW SIGN POST

PROPERTY # 1696
COMMUNITY FEDERAL SAVINGS
DB 146/496
23 N Lewis St

PROPERTY # 913
COMMUNITY BANK
INST. # 020003506
123 W Frederick St

PROPERTY # 5516
Clearway L.L.C.
DB 436/99
117 N Lewis St

PROPERTY # 5517
H Jose & Y Griffith
DB 354/659
116 W Baldwin St
AUTO SEATS

PROPERTY # 1695
COMMUNITY FEDERAL SAVINGS AND LOAN ASSOCIATION
DB 184 PG 006
32 N Central Ave

PROPERTY # 2497
AIR LAND SPROUL REAL ESTATE, LTD.
DB 361 PG 739
103 W Frederick St

PROPERTY # 2499
AIR LAND SPROUL REAL ESTATE, LTD.
DB 346 PG 524
114 N. Central Ave
ROBERT TAYLOR, DDS

PROPERTY # 2500
AIR LAND SPROUL REAL ESTATE, LTD.
DB 361 PG 739
122 N Central Ave

PROPERTY # 2498
SCHULER LAND COMPANY, LLC
INSTR. # 020004410
130 N Central Ave

PROPERTY # 3370
The Old Firehouse Properties LLC
DB 243/9
101 Baldwin St

PROPERTY # 7378
P & Carolyn M Dahl
INST.# 050003464
211 N Lewis St

PROPERTY # 391
VIRGINIA BUILDING PARTNERSHIP
DB 310 PG 487
29 N Central Ave

PROPERTY # 7382
Keystone Virginia Inc
18 W Frederick St

PROPERTY # 2627
FIRST & MERCHANTS NATIONAL BANK
DB 177 PG 544
1 W Frederick St
BANK OF AMERICA

PROPERTY # 2637
FIRST VIRGINIA BANK OF AUGUSTA
DB 194 PG 220
125 N Central Ave
BB & T

PROPERTY # 5876
F & M BANK
MASSANUTTEN
INSTR. # 000002938
205 N Central Ave
SCOTT AND STRINGFELLOW

West side of North Central Ave
East side of North Central Ave
South side of East Frederick St
North side of East Frederick St
South side of Baldwin St
North side of East Frederick St
WEST FREDERICK STREET
EAST FREDERICK STREET
NORTH CENTRAL AVENUE
BALDWIN STREET
ROW LINE (TYP.)
Nail found
Railroad Spike
MATCH SHEET C2.1
MATCH SHEET C2.2

SIDEWALK BEYOND END OF BUILDING TO REMAIN
INLET TO REMAIN UNCHANGED
CONCRETE STOOP TO REMAIN
"STONE STOOP AND CONCRETE TO REMAIN
GRATES AND WINDOW WELLS TO REMAIN IN PLACE AND UNDISTURBED; TYP. THREE LOCATIONS
CONCRETE STOOP TO REMAIN
PAD AND SIGN TO REMAIN
CURB BEHIND SIDEWALK AND BRICK WALK TO REMAIN
TILE STOOP TO REMAIN
5 Parking Spaces
3 Parking Spaces
7 Parking Spaces
Parking Spaces
PARKING LOT LIGHTS TO REMAIN
SAW CUT ASPHALT PAVEMENT AND CONCRETE CURB BEYOND ENTRANCE AS SHOWN (TYP.)
DEMO/MILL ALL HARDSCAPES IN HATCHED AREA (TYP.)
TRASH CAN TO BE RELOCATED TO NEW PAD
ON NEXT INLET DOWNSTREAM (NOT SHOWN)

TBM "I" "X" AT CORNER OF BRICK SIDEWALK ELEV.= 1417.53'
TBM "H" Chiseled "X" in Conc. Elev.=1417.23'

Drop Inlet Top= 1417.30 Inv.in= 1414.45 (12")
Drop Inlet Top= 1417.20 Inv.in= 1414.26 (12")
Drop Inlet Top= 1417.20 Inv.in= 1414.84 Inv.out= 1414.80 (S)
Drop Inlet Top= 1417.37 Inv.in= 1414.80 (6") Inv.out= 1414.70 (12")
Storm MH Top= 1416.94 Inv.in= 1412.37 (12") Inv.in= 1407.83 (24"E) Inv.out= 1407.79 (24"N)
Drop Inlet Top=1418.42
San. MH Top= 1418.67 Inv.in= 1415.37 (4") Inv.in= 1414.08 (6") Inv.in= 1414.04 (12"E) Inv.out= 1413.86 (12"W)
San. MH Top= 1419.79 Inv.in= 1415.94 (4") Inv.in= 1414.68 (12"E) Inv.out= 1414.60 (12"W)
Drop Inlet Top= 1419.25 Inv.in= 1416.43 (12") Inv.out= 1416.61 (12")
Drop Inlet Top= 1418.70 Inv.in= 1415.85 (12") Inv.out= 1414.00 (12")
Drop Inlet Top= 1419.74 Inv.in= 1418.28 (8"E) Inv.out= 1417.28 (12"N)
Sanitary M.H. Top=1418.78
Drop Inlet Top= 1419.50 Bottom of Tunnel= 1407.27
Drop Inlet (Tunnel Access) Top=1419.20 Bottom of Tunnel=1409.41

Front of 0.1' X 0.4' "Erskine Co., Inc. Property
STAUNTON FLORIST
STAUNTON ART SUPPLY
GARAGE
JENKINS AUTO
Conc. Pad for sign
Drill Hole Found
Pinched Iron Pipe found
12" RCP 15" ABOVE 18" RCP DB 177 PG 544 (SOUTH)
12" SS
8" STEEL
24" Storm Sewer
30" conc. Storm Sewer
hand hole
conc. s/w
conc. c&g
brick s/w
TUNNEL
TP
IP
TS
MU
DC

EROSION & SEDIMENT CONTROL LEGEND

No.	TITLE	KEY	SYMBOL
3.05	SILT FENCE	SF	X X
3.07	INLET PROTECTION	IP	
3.31	TEMPORARY SEEDING	TS	TS
3.35	MULCHING	MU	MU
3.38	TREE PRESERVATION AND PROTECTION	TP	XX XX XX
3.39	DUST CONTROL	DC	DC

GRAPHIC SCALE
20 0 10 20 40 80
(IN FEET)
1 inch = 20 ft.

COMMONWEALTH OF VIRGINIA
C. Campbell Holton
C.E. CAMPBELL HOLTON
Lic. No. 051495
7/1/19
PROFESSIONAL ENGINEER

Draper Aden Associates
Engineering • Surveying • Environmental Services
Charlottesville, VA 434-295-0700 Fax: 434-295-2105 www.daa.com
• Richmond, VA • Blacksburg, VA • Hampton Roads, VA
• Coats, NC • Fayetteville, NC • Northern Virginia

DEMOLITION AND EROSION & SEDIMENT CONTROL PLAN (1 OF 3)

NORTH CENTRAL AVENUE IMPROVEMENTS

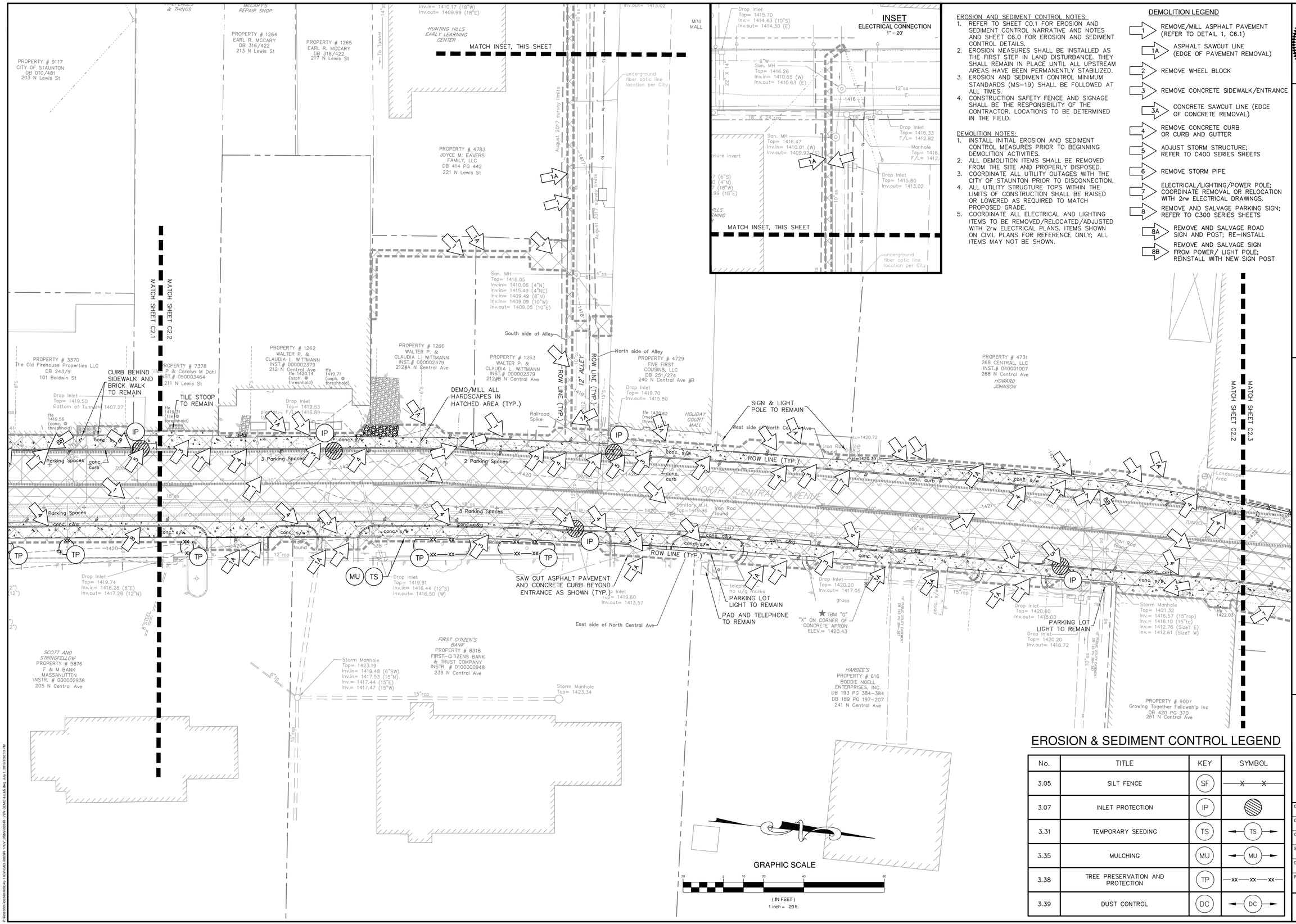
STAUNTON, VIRGINIA

REVISIONS

DESIGNED BY: DAA
DRAWN BY: ECB
CHECKED BY: CAH
SCALE: 1" = 20'
DATE: JULY 1, 2019
PROJECT NUMBER: R08349-17CV

C2.1

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EROSION AND SEDIMENT CONTROL NOTES:

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DEMOLITION NOTES:

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DEMOLITION LEGEND

1	REMOVE/MILL ASPHALT PAVEMENT (REFER TO DETAIL 1, C6.1)
1A	ASPHALT SAWCUT LINE (EDGE OF PAVEMENT REMOVAL)
2	REMOVE WHEEL BLOCK
3	REMOVE CONCRETE SIDEWALK/ENTRANCE
3A	CONCRETE SAWCUT LINE (EDGE OF CONCRETE REMOVAL)
4	REMOVE CONCRETE CURB OR CURB AND GUTTER
5	ADJUST STORM STRUCTURE; REFER TO C400 SERIES SHEETS
6	REMOVE STORM PIPE
7	ELECTRICAL/LIGHTING/POWER POLE; COORDINATE REMOVAL OR RELOCATION WITH 2rw ELECTRICAL DRAWINGS.
8	REMOVE AND SALVAGE PARKING SIGN; REFER TO C300 SERIES SHEETS
8A	REMOVE AND SALVAGE ROAD SIGN AND POST; RE-INSTALL
8B	REMOVE AND SALVAGE SIGN FROM POWER/ LIGHT POLE; REINSTALL WITH NEW SIGN POST

EROSION & SEDIMENT CONTROL LEGEND

No.	TITLE	KEY	SYMBOL
3.05	SILT FENCE	SF	X X
3.07	INLET PROTECTION	IP	
3.31	TEMPORARY SEEDING	TS	TS
3.35	MULCHING	MU	MU
3.38	TREE PRESERVATION AND PROTECTION	TP	xx xx xx
3.39	DUST CONTROL	DC	DC

COMMONWEALTH OF VIRGINIA
E. CAMPBELL HOLTON
Lic. No. 051495
7/1/19
PROFESSIONAL ENGINEER

Draper Aden Associates
Engineering • Surveying • Environmental Services
Charlottesville, VA 434-295-0700
• Richmond, VA • Blacksburg, VA • Coats, NC • Fayetteville, NC • Hampton Roads, VA • Northern Virginia
Fax: 434-295-2105
www.daa.com

DEMOLITION AND EROSION & SEDIMENT CONTROL PLAN (2 OF 3)

NORTH CENTRAL AVENUE IMPROVEMENTS

STAUNTON, VIRGINIA

REVISIONS

DESIGNED BY:	DAA
DRAWN BY:	ECB
CHECKED BY:	CAH
SCALE:	1" = 20'
DATE:	JULY 1, 2019
PROJECT NUMBER:	R08349-17CV

C2.2

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DEMOLITION LEGEND

1 — REMOVE/MILL ASPHALT PAVEMENT (REFER TO DETAIL 1, C6.1)

1A — ASPHALT SAWCUT LINE (EDGE OF PAVEMENT REMOVAL)

2 — REMOVE WHEEL BLOCK

3 — REMOVE CONCRETE SIDEWALK/ENTRANCE

3A — CONCRETE SAWCUT LINE (EDGE OF CONCRETE REMOVAL)

4 — REMOVE CONCRETE CURB OR CURB AND GUTTER

5 — ADJUST STORM STRUCTURE; REFER TO C400 SERIES SHEETS

6 — REMOVE STORM PIPE

7 — ELECTRICAL/LIGHTING/POWER POLE; COORDINATE REMOVAL OR RELOCATION WITH 2rw ELECTRICAL DRAWINGS.

8 — REMOVE AND SALVAGE PARKING SIGN; REFER TO C300 SERIES SHEETS

8A — REMOVE AND SALVAGE ROAD SIGN AND POST; RE-INSTALL

8B — REMOVE AND SALVAGE SIGN FROM POWER/ LIGHT POLE; REINSTALL WITH NEW SIGN POST

PROPERTY # 4135
PUMP STREET, LLC
INST. # 010003797
102 Pump St

PROPERTY # 1340
DAVID BRIAN MORGAN
INST. # 080002517
271 N Lewis St

CONDITIONS IN THIS AREA MAY VARY FROM WHAT IS SHOWN.

NOTE: CONDITIONS HAVE CHANGED SINCE THE SURVEY WAS PREFORMED. PAVEMENT REMOVED TO DAYLIGHT STREAM (TUNNEL REMOVED BACK TO PUMP STREET). CONDITIONS SHOWN HERE BASED ON AERIAL PHOTOGRAPHY. COORDINATE CONSTRUCTION WITH CURRENT CONDITIONS IN THE FIELD.

PROPERTY # 1334
DAVID B. MORGAN
INST.# 080002517
271 N Lewis St #A

PROPERTY # 10662
DAVID B. MORGAN
INST. # 080002517
280 N Central Ave

South side of Pump St

PROPERTY # 4731
268 CENTRAL, LLC
INST.# 040001007
268 N Central Ave
HOWARD JOHNSON

MATCH SHEET C2.3
MATCH SHEET C2.2

PROPERTY # 10662
DAVID B. MORGAN
INST.# 080002517
280 N Central Ave

CONDITIONS IN THIS AREA MAY VARY FROM WHAT IS SHOWN.

Concrete/Block Tunnel Headwalls (approx. location)

Sanitary M.H. Top=1415.86 — concrete encasement per plans

Sanitary M.H. (Doghouse) Top=1415.92

MU TS SF IP

DEMO/MILL ALL HARDSCAPES IN HATCHED AREA (TYP.)

ROW LINE (TYP.)

Metal Lid Top= 1414.0 Inv.out= 1411.3 (6"W) PERMANENT SANITARY SEWER EASEMENT

Drop Inlet Top= 1420.70 Inv.= 1416.70

Drop Inlet Top= 1422.55 Inv.out= 1418.95 (15")

Ex. San. MH Top= 1441 (Metal Lid) Inv.in= 1412.5 (12"NE) Inv.out= 1412.0 (6" Vertical Pipe)

PROPERTY # 6643
STEVE W. SPITLER
INST. # 050003098
326 North Central Ave

PROPERTY # 8119
HELEN G. ROBERTS
INST. 040000612
INST. 000001917, PG. 145 PLAT
326 North Central Ave

North side of Pump St

PUMP STREET

TUNNEL

NORTH CENTRAL AVENUE

Drop Inlet Top= 1420.60 Inv.= 1415.58 (15")

ffe 1420.62 (conc @ threshhold)

ffe 1420.71 (conc @ threshhold)

ffe 1421.02 (conc @ threshhold)

ffe 1421.21 (conc @ threshhold)

PK Nail found

brick s/w

Drop Inlet Top= 1419.90 Inv.= 1416.70 (12"E) Inv.out= 1415.70 (??"W)

u/g util

Drop Inlet Top=1421.41

ITEM "F" "X" IN CURB ELEV.= 1420.42

Drop Inlet Top= 1419.70 Inv.= 1416.70 (12"N) Inv.out= 1416.67 (15"E)

PROPERTY # 9153
CITY OF STAUNTON, VIRGINIA
DB 231 PG 556
500 N Augusta
STAUNTON FIRE DEPARTMENT

San. MH Top= 1420.41 Inv.in= 1418.10 (4") Inv.in= 1416.24 (12"E) Inv.out= 1416.14 (12"W)

tw=1423.15

tw=1425.16

tw=1425.14

tw=1423.85

CITY OF STAUNTON FIRE DEPARTMENT

Asphalt patch

Asphalt patch

June 2019 survey limits

June 2019 survey limits

NOTE: NO SUBSURFACE UTILITY LOCATION WAS PREFORMED IN THIS SURVEY LIMITS; LINES SHOWN BASED ON STAUNTON MAPS AND OLD PLANS. FIELD VERIFY.

Drop Inlet Top= 1423.48 Inv.out= 1418.11 (15"SW)

South side of Pump St

Drop Inlet Top= 1421.74 Inv.in= 1419.31 (4"NW) Inv.out= 1418.26 (15"E) Storm Manhole Top= 1421.01 Inv.in= 1418.11 (15"SW) Inv.= 1418.08

Stacked Block Retaining Wall

tw=1423.10 tw=1421.74

tw=1424.34

tw=1424.38

tw=1424.39 tw=1424.38

Railroad Ties

DOMINOS PIZZA 1 STORY FRAME

PROPERTY # 2523
COMMONWEALTH HOLDING, LLC
DB 352 PG 197
283 N Central Ave

ROW LINE (TYP.)

Storm Grate Inlet Top=1419.99

Storm M.H. Top=1424.06

PARKING LOT LIGHT TO REMAIN

WALL AND SIGN TO REMAIN

PARKING LOT LIGHT TO REMAIN

ENTRANCE SHOWN IN APPROX. LOCATION.

Curb Inlet (approx.)

Curb Inlet Top=1421.04

Curb Inlet Top=1420.84

Drop Inlet Top= 1420.66 Inv.= 1418.21 (8"tc) Inv.out= 1416.61 (12"tc)

August 2017 survey limits

August 2017 survey limits

CONDITIONS IN THIS AREA MAY VARY FROM WHAT IS SHOWN.

PROPERTY # 10682
Dupont Community Credit Union
Book/Page: 140000915
410 N Augusta St

NOTE: A BUILDING HAS BEEN DEMOLISHED AND NEW CONSTRUCTION HAS BEEN COMPLETED SINCE THE TOPOGRAPHIC SURVEY WAS PERFORMED. COORDINATE CONSTRUCTION WITH CURRENT CONDITIONS IN THE FIELD.

Storm Manhole Top= 1421.32 Inv.= 1416.57 (15"rcp) Inv.= 1416.10 (15"tc) Inv.= 1412.76 (Size? E) Inv.= 1412.61 (Size? W)

Drop Inlet Top= 1420.47 Inv.out=

Drop Inlet Top= 1420.20 Inv.out= 1416.72

PROPERTY # 9007
Growing Together Fellowship Inc
DB 420 PG 370
261 N Central Ave

Landscaped Area

Iron Rod found

San. MH found

conc. s/w

conc. curb

brick s/w

ffe 1422.03

ffe 1421.92

ffe 1421.98

ffe 1421.95

ffe 1421.97

ffe 1421.99

ffe 1422.00

ffe 1422.01

ffe 1422.02

ffe 1422.04

ffe 1422.05

ffe 1422.06

ffe 1422.07

ffe 1422.08

ffe 1422.09

ffe 1422.10

ffe 1422.11

ffe 1422.12

ffe 1422.13

ffe 1422.14

ffe 1422.15

ffe 1422.16

ffe 1422.17

ffe 1422.18

ffe 1422.19

ffe 1422.20

ffe 1422.21

ffe 1422.22

ffe 1422.23

ffe

CENTERLINE ALIGNMENT DATA

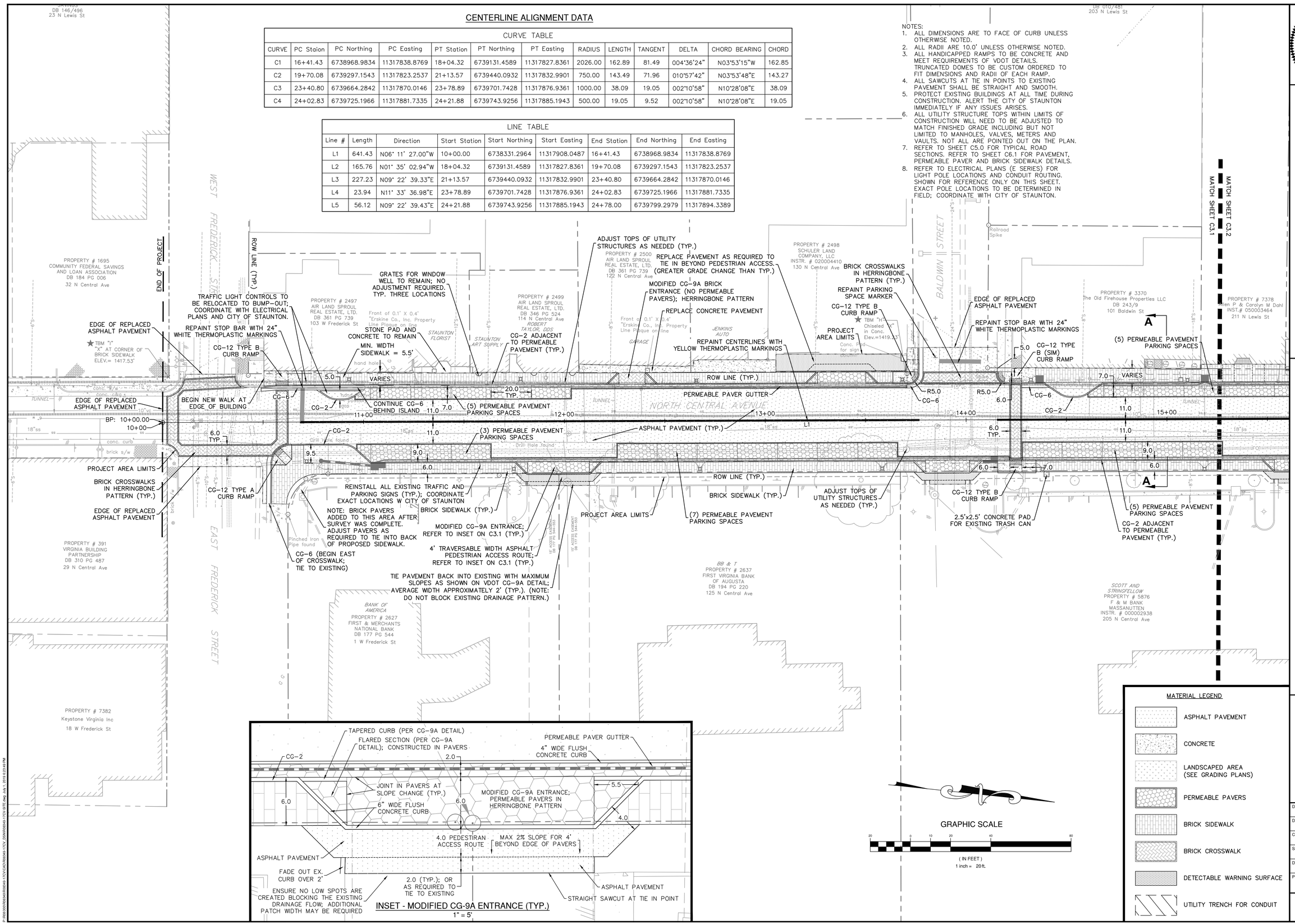
CURVE TABLE

CURVE	PC Staion	PC Northing	PC Easting	PT Station	PT Northing	PT Easting	RADIUS	LENGTH	TANGENT	DELTA	CHORD BEARING	CHORD
C1	16+41.43	6738968.9834	11317838.8769	18+04.32	6739131.4589	11317827.8361	2026.00	162.89	81.49	004°36'24"	N03°53'15"W	162.85
C2	19+70.08	6739297.1543	11317823.2537	21+13.57	6739440.0932	11317832.9901	750.00	143.49	71.96	010°57'42"	N03°53'48"E	143.27
C3	23+40.80	6739664.2842	11317870.0146	23+78.89	6739701.7428	11317876.9361	1000.00	38.09	19.05	002°10'58"	N10°28'08"E	38.09
C4	24+02.83	6739725.1966	11317881.7335	24+21.88	6739743.9256	11317885.1943	500.00	19.05	9.52	002°10'58"	N10°28'08"E	19.05

LINE TABLE

Line #	Length	Direction	Start Station	Start Northing	Start Easting	End Station	End Northing	End Easting
L1	641.43	N06° 11' 27.00"W	10+00.00	6738331.2964	11317908.0487	16+41.43	6738968.9834	11317838.8769
L2	165.76	N01° 35' 02.94"W	18+04.32	6739131.4589	11317827.8361	19+70.08	6739297.1543	11317823.2537
L3	227.23	N09° 22' 39.33"E	21+13.57	6739440.0932	11317832.9901	23+40.80	6739664.2842	11317870.0146
L4	23.94	N11° 33' 36.98"E	23+78.89	6739701.7428	11317876.9361	24+02.83	6739725.1966	11317881.7335
L5	56.12	N09° 22' 39.43"E	24+21.88	6739743.9256	11317885.1943	24+78.00	6739799.2979	11317894.3389

NOTES:
1. ALL DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.
2. ALL RADII ARE 10.0' UNLESS OTHERWISE NOTED.
3. ALL HANDICAPPED RAMPS TO BE CONCRETE AND MEET REQUIREMENTS OF VDOT DETAILS. TRUNCATED DOMES TO BE CUSTOM ORDERED TO FIT DIMENSIONS AND RADII OF EACH RAMP.
4. ALL SAWCUTS AT TIE IN POINTS TO EXISTING PAVEMENT SHALL BE STRAIGHT AND SMOOTH.
5. PROTECT EXISTING BUILDINGS AT ALL TIME DURING CONSTRUCTION. ALERT THE CITY OF STAUNTON IMMEDIATELY IF ANY ISSUES ARISES.
6. ALL UTILITY STRUCTURE TOPS WITHIN LIMITS OF CONSTRUCTION WILL NEED TO BE ADJUSTED TO MATCH FINISHED GRADE INCLUDING BUT NOT LIMITED TO MANHOLES, VALVES, METERS AND VAULTS. NOT ALL ARE POINTED OUT ON THE PLAN.
7. REFER TO SHEET C5.0 FOR TYPICAL ROAD SECTIONS. REFER TO SHEET C6.1 FOR PAVEMENT, PERMEABLE PAVER AND BRICK SIDEWALK DETAILS.
8. REFER TO ELECTRICAL PLANS (E SERIES) FOR LIGHT POLE LOCATIONS AND CONDUIT ROUTING. SHOWN FOR REFERENCE ONLY ON THIS SHEET. EXACT POLE LOCATIONS TO BE DETERMINED IN FIELD; COORDINATE WITH CITY OF STAUNTON.



INSET - MODIFIED CG-9A ENTRANCE (TYP.)
1" = 5'

MATERIAL LEGEND

- ASPHALT PAVEMENT
- CONCRETE
- LANDSCAPED AREA (SEE GRADING PLANS)
- PERMEABLE PAVERS
- BRICK SIDEWALK
- BRICK CROSSWALK
- DETECTABLE WARNING SURFACE
- UTILITY TRENCH FOR CONDUIT

GRAPHIC SCALE
20 0 10 20 40 80
(IN FEET)
1 inch = 20 ft.

COMMONWEALTH OF VIRGINIA
E. CAMPBELL HOLTON
Lic. No. 051495
7/1/19
PROFESSIONAL ENGINEER

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• Richmond, VA • Blacksburg, VA • Coats, NC • Fayetteville, NC • Hampton Roads, VA • Northern Virginia
Charlottesville, VA 22902 Fax: 434-295-2105
www.daa.com

SITE AND UTILITY PLAN (1 OF 3)
NORTH CENTRAL AVENUE IMPROVEMENTS
STAUNTON, VIRGINIA

REVISIONS

DESIGNED BY:	DAA
DRAWN BY:	ECB
CHECKED BY:	CAH
SCALE:	1" = 20'
DATE:	JULY 1, 2019
PROJECT NUMBER:	R08349-17CV

C3.1

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NOTES:
1. ALL DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.
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3. ALL HANDICAPPED RAMPS TO BE CONCRETE AND MEET REQUIREMENTS OF VDOT DETAILS. TRUNCATED DOMES TO BE CUSTOM ORDERED TO FIT DIMENSIONS AND RADII OF EACH RAMP.
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8. REFER TO ELECTRICAL PLANS (E SERIES) FOR LIGHT POLE LOCATIONS AND CONDUIT ROUTING. SHOWN FOR REFERENCE ONLY ON THIS SHEET. EXACT POLE LOCATIONS TO BE DETERMINED IN FIELD; COORDINATE WITH CITY OF STAUNTON.

REPAIR PAVEMENT, CURB, SIDEWALK, AND ALL OTHER DISTURBED FEATURES AS NEEDED TO INSTALL CONDUIT (REFER TO SHEET C1.4 FOR EXISTING CONDITIONS AND SHEET E3 FOR PROPOSED ELECTRICAL WORK)

PROPERTY # 4783
JOYCE M. EAVERS FAMILY, LLC
DB 414 PG 442
221 N Lewis St

PROPOSED EASEMENT FOR ELECTRICAL LINES; REFER TO SHEET C7.0 FOR ADDITIONAL INFORMATION.

TRANSFORMERS; REFER TO ELECTRICAL PLANS

ELECTRICAL LINES AND DISTURBANCE TO REMAIN WITHIN ALLEY ROW EXCEPT AS NOTED.

REPAIR ASPHALT PAVEMENT AFTER INSTALLATION OF ELECTRICAL CONDUIT (TYP.)

TRANSFORMER; REFER TO ELECTRICAL PLANS

TWO BOLLARDS TO PROTECT TRANSFORMER

6" FLUSH CONCRETE CURB BETWEEN BRICK SIDEWALKS AND ALL ASPHALT PAVEMENT (TYP.)

(2) PERMEABLE PAVEMENT PARKING SPACES

REINSTALL ALL EXISTING TRAFFIC AND PARKING SIGNS (TYP.); COORDINATE EXACT LOCATIONS W CITY OF STAUNTON

REPAINT CENTERLINES WITH YELLOW THERMOPLASTIC MARKINGS

PROJECT AREA LIMITS

CG-2 ADJACENT TO PERMEABLE PAVEMENT (TYP.)

24" MINIMUM CONCRETE REPAIR TO TIE INTO EXISTING TO REMAIN

CG-12 TYPE B CURB RAMP

VARIABLE HEIGHT (MAX 6") CG-2 ALONG BACK OF SIDEWALK AT HOWARD JOHNSON PARKING LOT; 30" MINIMUM PAVEMENT REPAIR BEYOND CURB TO TIE TO EXISTING

STRIPING FOR CENTER LEFT TURN LANE INTO HARDEE'S

BRICK SIDEWALK (TYP.)

PROPERTY # 3370
The Old Firehouse Properties LLC
DB 243/9
101 Baldwin St

PROPERTY # 7378
Allen P & Carolyn M Dahl
INST.# 050003464
211 N Lewis St

PROPERTY # 1262
WALTER P. & CLAUDIA L. WITTMANN
INST.# 000002379
212 N Central Ave

PROPERTY # 1266
WALTER P. & CLAUDIA L. WITTMANN
INST.# 000002379
212#B N Central Ave

PROPERTY # 4729
FIVE FIRST COUSINS, LLC
DB 251/274
240 N Central Ave #B

PROPERTY # 4731
268 CENTRAL, LLC
INST.# 040001007
268 N Central Ave
HOWARD JOHNSON

MATCH SHEET C3.1

MATCH SHEET C3.2

MATCH SHEET C3.3

(5) PERMEABLE PAVEMENT PARKING SPACES

CG-2 ADJACENT TO PERMEABLE PAVEMENT (TYP.)

4' TRAVERSABLE WIDTH ASPHALT PEDESTRIAN ACCESS ROUTE; REFER TO INSET ON C3.1 (TYP.)

TIE PAVEMENT BACK INTO EXISTING WITH MAXIMUM SLOPES AS SHOWN ON VDOT CG-9A DETAIL; AVERAGE WIDTH APPROXIMATELY 2' (TYP.). (NOTE: DO NOT BLOCK EXISTING DRAINAGE PATTERN.)

MODIFIED CG-9A ENTRANCE; REFER TO INSET ON C3.1 (TYP.)

PROJECT AREA LIMITS

(3) PERMEABLE PAVEMENT PARKING SPACES

STRIPING FOR CENTER LEFT TURN LANE INTO HARDEE'S

CG-12 TYPE B CURB RAMP

ADJUST TOPS OF UTILITY STRUCTURES AS NEEDED (TYP.)

BRICK CROSSWALKS IN HERRINGBONE PATTERN (TYP.)

PERMEABLE PAVER GUTTER

ASPHALT PAVEMENT (TYP.)

THERMOPLASTIC LEFT TURN ARROW

MODIFIED CG-9A ENTRANCE; REFER TO INSET ON C3.1 (TYP.)

REPLACE CONCRETE SIDEWALK

PC: 16+41.43
PT: 18+04.32
PC: 19+70.08
STA. 17+39.19
STA. 18+22.24
STA. 19+35.64
STA. 19+86.15
R2044.0
R2006.0
R768.0
R950.0
R400.0
R406.0
C1
L2

ROW LINE (TYP.)

12' ALLEY

HOLIDAY COURT MALL

SCOTT AND STRINGFELLOW
PROPERTY # 5876
F. & M. BANK
MASSANUTTEN
INSTR. # 000002938
205 N Central Ave

FIRST CITIZEN'S BANK
PROPERTY # 8318
FIRST-CITIZENS BANK & TRUST COMPANY
INSTR. # 010000948
239 N Central Ave

HARDEE'S
PROPERTY # 616
BODDIE NOELL ENTERPRISES, INC.
DB 193 PG 384-384
DB 189 PG 197-207
241 N Central Ave

PROPERTY # 9007
Growing Together Fellowship Inc
DB 420 PG 370
261 N Central Ave

★ TBM "G"
"X" ON CORNER OF CONCRETE APRON
ELEV.= 1420.43

Drop Inlet
Top= 1420.60
Inv.out= 1418.00

Drop Inlet
Top= 1420.20
Inv.out= 1416.72

Storm Manhole
Top= 1421.32
Inv.= 1416.57 (15" CPE)
Inv.= 1416.10 (15" C)
Inv.= 1412.76 (Site? E)
Inv.= 1412.61 (Site? W)

MATERIAL LEGEND

- ASPHALT PAVEMENT
- CONCRETE
- LANDSCAPED AREA (SEE GRADING PLANS)
- PERMEABLE PAVERS
- BRICK SIDEWALK
- BRICK CROSSWALK
- DETECTABLE WARNING SURFACE
- UTILITY TRENCH FOR CONDUIT

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20ft.

COMMONWEALTH OF VIRGINIA
CAH E. CAMPBELL HOLTON
Lic. No. 051495
7/1/19
PROFESSIONAL ENGINEER

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• Richmond, VA • Blacksburg, VA • Hampton Roads, VA
• Coats, NC • Fayetteville, NC • Northern Virginia

SITE AND UTILITY PLAN (2 OF 3)
NORTH CENTRAL AVENUE IMPROVEMENTS
STAUNTON, VIRGINIA

REVISIONS

DESIGNED BY:	DAA
DRAWN BY:	ECB
CHECKED BY:	CAH
SCALE:	1" = 20'
DATE:	JULY 1, 2019
PROJECT NUMBER:	R08349-17CV

C3.2

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NOTES:
1. ALL DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.
2. ALL RADII ARE 10.0' UNLESS OTHERWISE NOTED.
3. ALL HANDICAPPED RAMPS TO BE CONCRETE AND MEET REQUIREMENTS OF VDOT DETAILS. TRUNCATED DOMES TO BE CUSTOM ORDERED TO FIT DIMENSIONS AND RADII OF EACH RAMP.
4. ALL SAWCUTS AT TIE IN POINTS TO EXISTING PAVEMENT SHALL BE STRAIGHT AND SMOOTH.
5. PROTECT EXISTING BUILDINGS AT ALL TIME DURING CONSTRUCTION. ALERT THE CITY OF STAUNTON IMMEDIATELY IF ANY ISSUES ARISES.
6. ALL UTILITY STRUCTURE TOPS WITHIN LIMITS OF CONSTRUCTION WILL NEED TO BE ADJUSTED TO MATCH FINISHED GRADE INCLUDING BUT NOT LIMITED TO MANHOLES, VALVES, METERS AND VAULTS. NOT ALL ARE POINTED OUT ON THE PLAN.
7. REFER TO SHEET C5.0 FOR TYPICAL ROAD SECTIONS. REFER TO SHEET C6.1 FOR PAVEMENT, PERMEABLE PAVER AND BRICK SIDEWALK DETAILS.
8. REFER TO ELECTRICAL PLANS (E SERIES) FOR LIGHT POLE LOCATIONS AND CONDUIT ROUTING. SHOWN FOR REFERENCE ONLY ON THIS SHEET. EXACT POLE LOCATIONS TO BE DETERMINED IN FIELD; COORDINATE WITH CITY OF STAUNTON.

MATCH SHEET C3.3
MATCH SHEET C3.2

PROPERTY # 1340
DAVID BRIAN MORGAN
INST. # 080002517
271 N Lewis St

PROPERTY # 4135
PUMP STREET, LLC
INST. # 010003797
102 Pump St

PROPERTY # 1334
DAVID B. MORGAN
INST.# 080002517
271 N Lewis St #A

PROPERTY # 10662
DAVID B. MORGAN
INST.# 080002517
280 N Central Ave

PROPERTY # 4731
268 CENTRAL, LLC
INST.# 040001007
268 N Central Ave
HOWARD JOHNSON

NOTE: CONDITIONS HAVE CHANGED SINCE THE SURVEY WAS PREFORMED. PAVEMENT REMOVED TO DAYLIGHT STREAM (TUNNEL REMOVED BACK TO PUMP STREET). CONDITIONS SHOWN HERE BASED ON AERIAL PHOTOGRAPHY. COORDINATE CONSTRUCTION WITH CURRENT CONDITIONS IN THE FIELD.

PROPERTY # 6643
STEVE W. SPITLER
INST. # 050003098
314 North Central Ave

PROPERTY # 8119
HELEN G. ROBERTS
INST. 040000612
INST. 000001917, PG. 145 PLAT
326 North Central Ave

VARIABLE HEIGHT (MAX 6") CG-2 ALONG BACK OF SIDEWALK AT HOWARD JOHNSON PARKING LOT; 30" MINIMUM PAVEMENT REPAIR BEYOND CURB TO TIE TO EXISTING

STRIPING FOR CENTER LEFT TURN LANE INTO HARDEE'S

4' TRAVERSABLE WIDTH BRICK PEDESTRIAN ACCESS ROUTE

PROJECT AREA LIMITS

CG-2 ADJACENT TO PERMEABLE PAVEMENT (TYP.)

ROW LINE (TYP.)

REPAINT CENTERLINES WITH YELLOW THERMOPLASTIC MARKINGS

REINSTALL ALL EXISTING TRAFFIC AND PARKING SIGNS (TYP.); COORDINATE EXACT LOCATIONS W CITY OF STAUNTON

CG-12 TYPE B CURB RAMP

BRICK SIDEWALK

END OF PROJECT

EDGE OF REPLACED ASPHALT PAVEMENT

PROJECT AREA LIMITS

CG-12 TYPE B (SIM.) CURB RAMP

BRICK CROSSWALKS IN HERRINGBONE PATTERN (TYP.)

EDGE OF REPLACED ASPHALT PAVEMENT

EP: 24+78.00

24+78

CG-2

CG-12 TYPE B (SIM.) CURB RAMP

REPAINT STOP BAR WITH 24" WHITE THERMOPLASTIC MARKINGS

PROPERTY # 9153
CITY OF STAUNTON, VIRGINIA
DB 231 PG 556
500 N Augusta
STAUNTON FIRE DEPARTMENT

PATCH CONCRETE SIDEWALK AFTER INSTALLATION OF ELECTRICAL CONDUIT & POLE

TERMINAL POLE AND TRANSFORMER FOR DOMINO'S; REFER TO ELECTRICAL PLANS. TO BE INSTALLED BY DOMINION, BUT CONTRACTOR SHALL COORDINATE SCHEDULE WITH DOMINION.

PATCH ASPHALT PAVEMENT

Asphalt patch

Asphalt patch

CITY OF STAUNTON FIRE DEPARTMENT

North side of Pump St

South side of Pump St

PUMP STREET

NORTH CENTRAL AVENUE

PC: 19+70 STA. 19+86.15

R768.0
R950.0
R400.0
R406.0

PT: 21+13.57

PERMEABLE PAVER GUTTER

MODIFIED CG-9A ENTRANCE; REFER TO INSET ON C3.1 (TYP.)

ASPHALT PAVEMENT (TYP.)

PC: 23+40.80
PT: 23+78.89
PC: 24+02.83
PT: 24+21.88

PERMEABLE PAVER GUTTER

ADJUST TOPS OF UTILITY STRUCTURES AS NEEDED (TYP.)

6" FLUSH CONCRETE CURB BETWEEN BRICK SIDEWALKS AND ALL ASPHALT PAVEMENT (TYP.)

PROJECT AREA LIMITS

CG-12 TYPE B (SIM.) CURB RAMP

EDGE OF REPLACED ASPHALT PAVEMENT

REPLACE CONCRETE SIDEWALK

MODIFIED CG-9A ENTRANCE; REFER TO INSET ON C3.1 (TYP.)

REPLACE PAVEMENT AS REQUIRED TO TIE IN BEYOND PEDESTRIAN ACCESS. (MINIMUM 5' AT THIS ENTRANCE)

NOTE: THIS EX. ENTRANCE IS SHOWN APPROX. BASED ON STAKE-OUT STAKES; CONTRACTOR TO VERIFY EXACT LOCATION OF ENTRANCE IN THE FIELD PRIOR TO CONSTRUCTION.

4' TRAVERSABLE WIDTH ASPHALT PEDESTRIAN ACCESS ROUTE; REFER TO INSET ON C3.1 (TYP.)

TIE PAVEMENT BACK INTO EXISTING WITH MAXIMUM SLOPES AS SHOWN ON VDOT CG-9A DETAIL; AVERAGE WIDTH APPROXIMATELY 2' (TYP.). (NOTE: DO NOT BLOCK EXISTING DRAINAGE PATTERN.)

PROPERTY # 10682
Dupont Community Credit Union
Book/Page: 140000915
410 N Augusta St

PROPERTY # 9007
Growing Together Fellowship Inc
DB 420 PG 370
261 N Central Ave

PROPERTY # 2523
COMMONWEALTH HOLDING, LLC
DB 352 PG 197
283 N Central Ave

Railroad Ties
DOMINOS PIZZA
1 STORY FRAME

Stacked Block Retaining Wall

Concrete/Block Tunnel Headwalls (approx. location)

TUNNEL

14" ss

Landscaped Area

Drop Inlet
Top= 1420.60
Inv.out= 1418.00

Drop Inlet
Top= 1420.20
Inv.out= 1416.72

Storm Manhole
Top= 1421.32
Inv.= 1416.57 (15" cop)
Inv.= 1416.10 (15" C)
Inv.= 1412.76 (Side E)
Inv.= 1412.61 (Side W)

Drain Hole found

PK Nail found

MATERIAL LEGEND

- ASPHALT PAVEMENT
- CONCRETE
- LANDSCAPED AREA (SEE GRADING PLANS)
- PERMEABLE PAVERS
- BRICK SIDEWALK
- BRICK CROSSWALK
- DETECTABLE WARNING SURFACE
- UTILITY TRENCH FOR CONDUIT

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20ft.

COMMONWEALTH OF VIRGINIA
E. CAMPBELL HOLTON
Lic. No. 051495
7/1/19
PROFESSIONAL ENGINEER

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Charlottesville, VA • Richmond, VA • Coats, NC
434-295-0700 Fax: 434-295-2105 • Blacksburg, VA • Fayetteville, NC
www.daa.com • Hampton Roads, VA • Northern Virginia

SITE AND UTILITY PLAN (3 OF 3)
NORTH CENTRAL AVENUE IMPROVEMENTS
STAUNTON, VIRGINIA

REVISIONS

DESIGNED BY:	DAA
DRAWN BY:	ECB
CHECKED BY:	CAH
SCALE:	1" = 20'
DATE:	JULY 1, 2019
PROJECT NUMBER:	R08349-17CV

C3.3

J:\R08349\R08349TS\R08349_TS\CVD\ADD\R08349_TS_DWR\R08349_TS_SITE.dwg, July 1, 2019 4:24:41 PM

EROSION & SEDIMENT CONTROL LEGEND

No.	TITLE	KEY	SYMBOL
3.07	INLET PROTECTION	IP	
3.30	TOPSOILING	TO	TO
3.32	PERMANENT SEEDING	PS	PS
3.35	MULCHING	MU	MU
3.39	DUST CONTROL	DC	DC

EROSION AND SEDIMENT CONTROL NOTES:

1. INITIAL EROSION AND SEDIMENT CONTROL MEASURES TO REMAIN IN PLACE THROUGHOUT CONSTRUCTION. MEASURES SHALL REMAIN OPERATIONAL UNTIL ALL UPSTREAM AREAS HAVE BEEN PERMANENTLY STABILIZED.
2. REFER TO SHEET C0.1 FOR EROSION AND SEDIMENT CONTROL NARRATIVE AND NOTES AND SHEET C6.0 FOR EROSION AND SEDIMENT CONTROL DETAILS.
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7. CONSTRUCTION SAFETY FENCE SHALL BE INSTALLED AROUND THE PERIMETER OF THE SITE. CONTRACTOR TO ESTABLISH EXACT LIMITS IN THE FIELD.

GRADING NOTES:

1. ALL CONSTRUCTION SHALL COMPLY WITH THE LATEST REGULATIONS OF THE AMERICANS WITH DISABILITIES ACT (ADA).
2. MAXIMUM CROSS-SLOPE ON ALL SIDEWALKS SHALL BE 2% MAINTAIN 2% SLOPE WHERE POSSIBLE, UNLESS OTHERWISE NOTED ON PLANS.
3. SLOPES SHOWN ON THE PLANS AND THE SLOPE CHANGE LOCATIONS ARE FOR LONGITUDINAL SLOPES ALONG THE TOP OF CURB/EDGE OF SIDEWALK. THE SLOPES ARE PROJECTED THROUGH THE BUMP OUTS ALONG THE EDGE OF SIDEWALK.
4. CROSS-SLOPES ON THE ROAD VARIES BETWEEN 1% AND 5% TO MATCH THE ELEVATIONS SHOWN ON EACH SIDE OF THE ROAD. HOWEVER, SLOPE SHALL BE CONTINUOUS FROM CENTERLINE TO CURB.
5. SMOOTH VERTICAL CURVES SHALL BE UTILIZED AT ALL CHANGE IN SLOPES.
6. CURB IS 6" TALL ALONG ENTIRE PROJECT, EXCEPT AT ENTRANCES AND HANDICAPPED RAMPS.
7. TC=TOP OF CURB; M.E.=MATCH EXISTING GRADE; CL=CENTER LINE

COMMONWEALTH OF VIRGINIA
CODE E. CAMPBELL HOLTON
Lic. No. 051495
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• Richmond, VA • Blacksburg, VA • Coats, NC • Fayetteville, NC • Hampton Roads, VA • Northern Virginia

GRADING, LANDSCAPE AND STORMWATER PLAN (1 OF 6)
NORTH CENTRAL AVENUE IMPROVEMENTS
STAUNTON, VIRGINIA

REVISIONS

DESIGNED BY:	DAA
DRAWN BY:	ECB
CHECKED BY:	CAH
SCALE:	1" = 10'
DATE:	JULY 1, 2019
PROJECT NUMBER:	R08349-17CV

C4.1

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EROSION & SEDIMENT CONTROL LEGEND

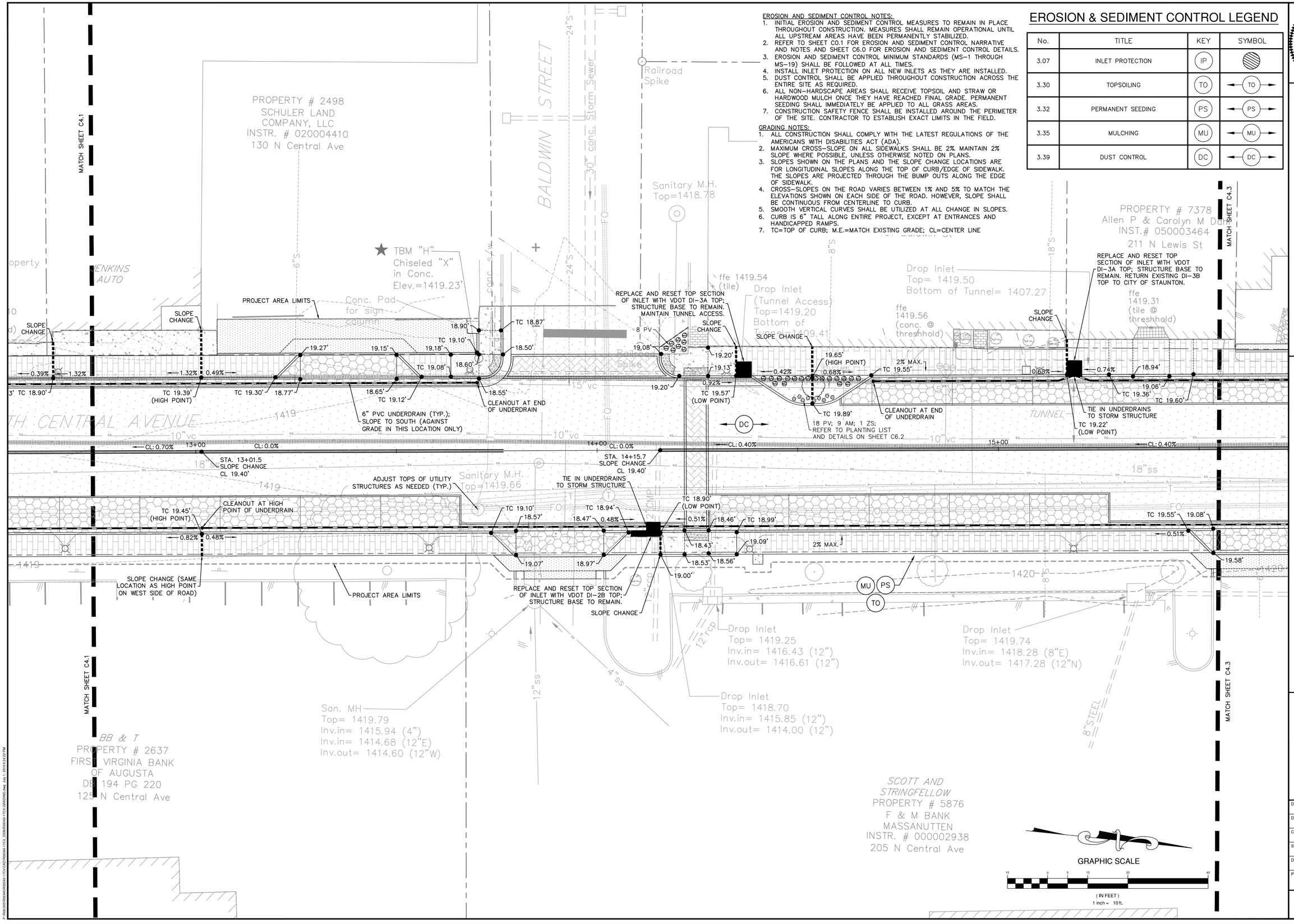
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GRAPHIC SCALE

10 0 5 10 20 40

(IN FEET)
1 inch = 10 ft.

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Charlottesville, VA 22902 Fax: 434-295-2105 www.daa.com

GRADING, LANDSCAPE AND STORMWATER PLAN (2 OF 6)
NORTH CENTRAL AVENUE IMPROVEMENTS
STAUNTON, VIRGINIA

REVISIONS

DESIGNED BY:	DAA
DRAWN BY:	ECB
CHECKED BY:	CAH
SCALE:	1" = 10'
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PROJECT NUMBER:	R08349-17CV

C4.2

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EROSION & SEDIMENT CONTROL LEGEND

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3.07	INLET PROTECTION	IP	
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3.32	PERMANENT SEEDING	PS	PS
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GRADING, LANDSCAPE AND STORMWATER PLAN (3 OF 6)
NORTH CENTRAL AVENUE IMPROVEMENTS
STAUNTON, VIRGINIA

REVISIONS

DESIGNED BY:	DAA
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DATE:	JULY 1, 2019
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C4.3

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(IN FEET)
1 inch = 10ft.

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EROSION AND SEDIMENT CONTROL NOTES:

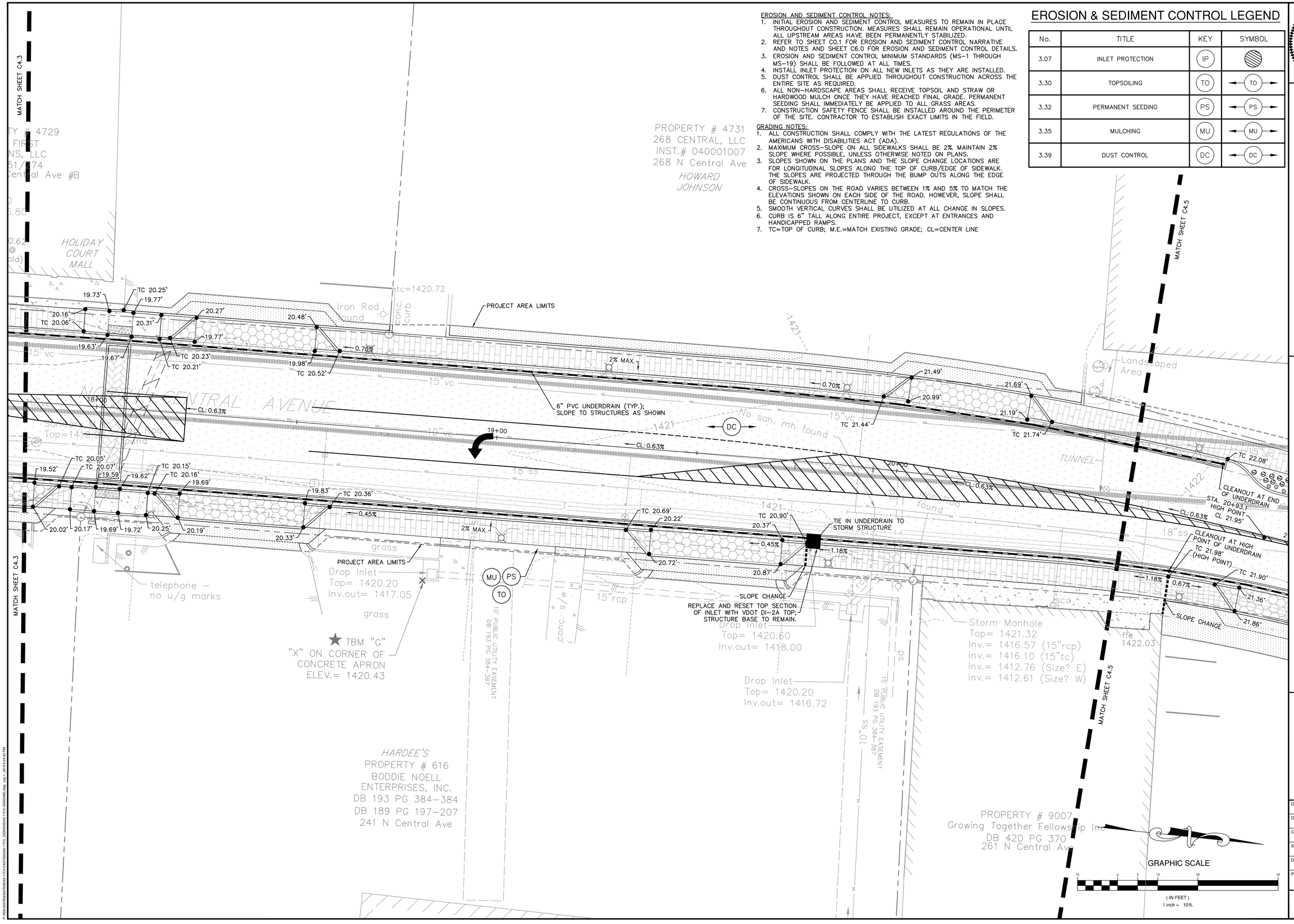
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COMMONWEALTH OF VIRGINIA
E. CAMPBELL HOLTON
Lic. No. 051495
7/1/19
PROFESSIONAL ENGINEER

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GRADING, LANDSCAPE AND STORMWATER PLAN (4 OF 6)

NORTH CENTRAL AVENUE IMPROVEMENTS

STAUNTON, VIRGINIA

REVISIONS

DESIGNED BY:	DAA
DRAWN BY:	ECB
CHECKED BY:	CAH
SCALE:	1" = 10'
DATE:	JULY 1, 2019
PROJECT NUMBER:	R08349-17CV

C4.4

J:\R08349\R08349\R08349-1\CV\CAD\R08349-1 CV_GRADING.dwg, JULY 1, 2019 4:24:41 PM

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EROSION & SEDIMENT CONTROL LEGEND

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PROPERTY # 4731
268 CENTRAL, LLC
INST.# 040001007
268 N Central Ave
HOWARD JOHNSON

PROPERTY # 10662
DAVID B. MORGAN
INST.# 080002517
280 N Central Ave

PROPERTY # 10682
Dupont Community Credit Union
Book/Page: 140000915
410 N Augusta St

PROPERTY # 9007
Living Together Fellowship Inc
DB 420 PG 370
261 N Central Ave

NORTH CENTRAL AVENUE

MATCH SHEET C4.4

MATCH SHEET C4.6

PROJECT AREA LIMITS

SLOPE CHANGE
TC 22.08'
0.70%
0.99%
TC 21.99'
2% MAX.
TC 21.66'
21.66'
21.60'
21.42'
21.36'
TC 21.30'
21.10'
20.86'
22.25'
TC 22.28' (HIGH POINT)
20 PV; 14 AM; 5 HA; 1 UA;
REFER TO PLANTING LIST AND
DETAILS ON SHEET C6.2
CLEANOUT AT END OF UNDERDRAIN
CLEANOUT AT END OF UNDERDRAIN
STA. 20+93.1
HIGH POINT
CL 21.95'
CL: 0.63%
21+00
CL: 0.78%
CL: 0.78%
22+00
CLEANOUT AT HIGH POINT OF UNDERDRAIN
TC 21.98'
(HIGH POINT)
TC 21.90'
21.20'
TC 21.66'
1.18%
0.67%
21.36'
21.86'
21.70'
SLOPE CHANGE
6" PVC UNDERDRAIN (TYP.);
SLOPE TO STRUCTURES AS SHOWN
DC
TC 21.43'
20.89'
20.70'
TC 21.16'
21.39'
21.20'
ADJUST TOPS OF UTILITY STRUCTURES AS NEEDED (TYP.)
SLOPE CHANGE
TC 20.50'
(LOW POINT)
REPLACE AND RESET TOP SECTION OF INLET WITH VDOT DI-2C TOP; STRUCTURE BASE TO REMAIN.
2% MAX.
0.99%
0.49%
TC 20.13'
20.16'
20.66'
20.78'
TC 20.88'
TC 20.80'
20.28'
CLEANOUT AT END OF UNDERDRAIN
TIE IN UNDERDRAIN TO STORM STRUCTURE
CL: 0.78%
23+00
CL: 0.43%
STA. 22+79.6
SLOPE CHANGE
CL 20.50'
TC 20.60'
TIE IN UNDERDRAIN TO STORM STRUCTURE
TC 20.87'
20.33'
20.14'
0.67%
0.47%
20.83'
20.64'
SLOPE CHANGE
PROJECT AREA LIMITS
REPLACE AND RESET TOP SECTION OF INLET TO FIT NEENAH R-4573 GRATE (OR APPROVED EQUAL), CENTERED IN THE GUTTER LINE; STRUCTURE BASE TO REMAIN.

Concrete/Block Tunnel Headwalls (approx. location)
encasement per plans
Sanitary M.H. (Doghouse) Top=1415.92
Metal Lid Top= 1414.0 Inv.out= 1411.3 (6"W)
PERMANENT SANITARY SEWER EASEMENT
INST. 100000000
Landscaped Area
TUNNEL
15" vc
14"ss
Drop Inlet Top= 1420.10 F/L= 1416.10
Sanitary M.H. Top=1421.62
Sanitary M.H. Top=1421.95
Sanitary M.H. Top=1421.07
Curb Inlet (approx.)
Curb Inlet Top=1421.04
Curb Inlet Top=1420.84
Drop Inlet Top= 1420.66 Inv.= 1418.21 (8"tc) Inv.out= 1416.61 (12"tc)
Storm Grate Inlet Top=1419.99
Drill Hole found
tw=1424.34
tw=1424.58
1421.19
1422.03
1420
1421
1422
GRAPHIC SCALE
10 0 5 10 20 40
(IN FEET)
1 inch = 10 ft.

COMMONWEALTH OF VIRGINIA
C. Campbell Holton
C. CAMPBELL HOLTON
Lic. No. 051495
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GRADING, LANDSCAPE AND STORMWATER PLAN (5 OF 6)

NORTH CENTRAL AVENUE IMPROVEMENTS

STAUNTON, VIRGINIA

REVISIONS

DESIGNED BY:	DAA
DRAWN BY:	ECB
CHECKED BY:	CAH
SCALE:	1" = 10'
DATE:	JULY 1, 2019
PROJECT NUMBER:	R08349-17CV

C4.5

J:\R08349\Design\Roadway\R08349-17CV-CAD\R08349-17CV_GRADING.dwg, July 1, 2019 2:24:52 PM

EROSION & SEDIMENT CONTROL LEGEND

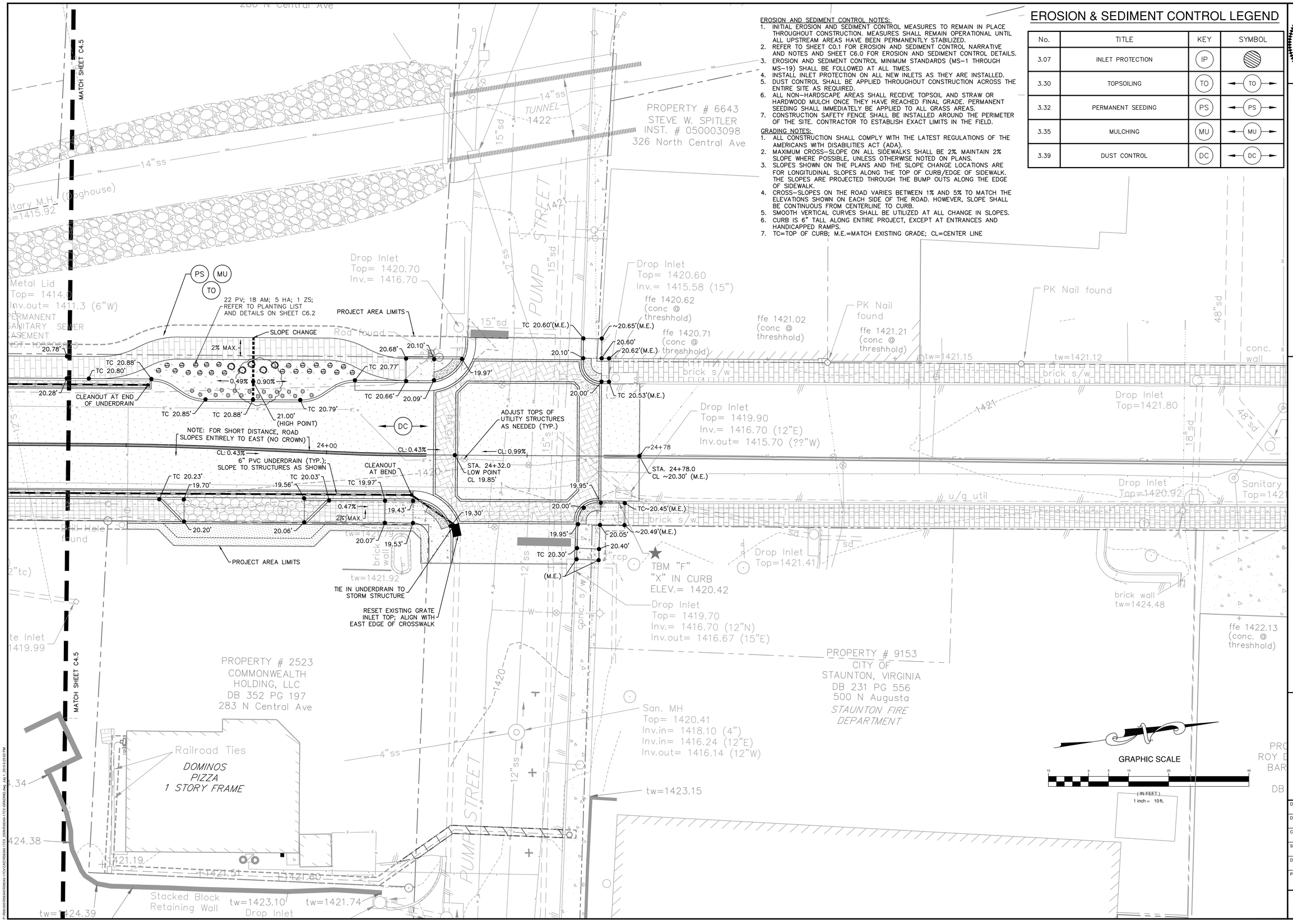
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5. DUST CONTROL SHALL BE APPLIED THROUGHOUT CONSTRUCTION ACROSS THE ENTIRE SITE AS REQUIRED.
6. ALL NON-HARDSCAPE AREAS SHALL RECEIVE TOPSOIL AND STRAW OR HARDWOOD MULCH ONCE THEY HAVE REACHED FINAL GRADE. PERMANENT SEEDING SHALL IMMEDIATELY BE APPLIED TO ALL GRASS AREAS.
7. CONSTRUCTION SAFETY FENCE SHALL BE INSTALLED AROUND THE PERIMETER OF THE SITE. CONTRACTOR TO ESTABLISH EXACT LIMITS IN THE FIELD.

GRADING NOTES:

1. ALL CONSTRUCTION SHALL COMPLY WITH THE LATEST REGULATIONS OF THE AMERICANS WITH DISABILITIES ACT (ADA).
2. MAXIMUM CROSS-SLOPE ON ALL SIDEWALKS SHALL BE 2%. MAINTAIN 2% SLOPE WHERE POSSIBLE, UNLESS OTHERWISE NOTED ON PLANS.
3. SLOPES SHOWN ON THE PLANS AND THE SLOPE CHANGE LOCATIONS ARE FOR LONGITUDINAL SLOPES ALONG THE TOP OF CURB/EDGE OF SIDEWALK. THE SLOPES ARE PROJECTED THROUGH THE BUMP OUTS ALONG THE EDGE OF SIDEWALK.
4. CROSS-SLOPES ON THE ROAD VARIES BETWEEN 1% AND 5% TO MATCH THE ELEVATIONS SHOWN ON EACH SIDE OF THE ROAD. HOWEVER, SLOPE SHALL BE CONTINUOUS FROM CENTERLINE TO CURB.
5. SMOOTH VERTICAL CURVES SHALL BE UTILIZED AT ALL CHANGE IN SLOPES.
6. CURB IS 6" TALL ALONG ENTIRE PROJECT, EXCEPT AT ENTRANCES AND HANDICAPPED RAMPS.
7. TC=TOP OF CURB; M.E.=MATCH EXISTING GRADE; CL=CENTER LINE



GRAPHIC SCALE

10 0 5 10 20 40

(IN FEET)
1 inch = 10 ft.

COMMONWEALTH OF VIRGINIA
C. Campbell Holton
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PROFESSIONAL ENGINEER
7/1/19

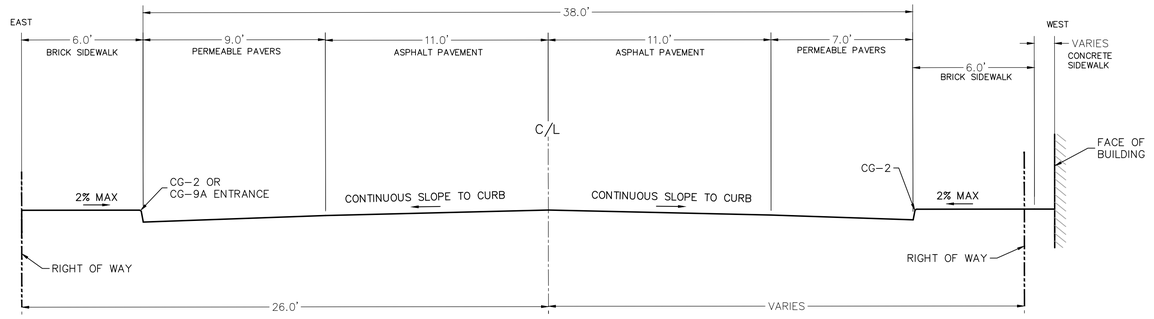
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GRADING, LANDSCAPE AND STORMWATER PLAN (6 OF 6)
NORTH CENTRAL AVENUE IMPROVEMENTS
STAUNTON, VIRGINIA

REVISIONS

DESIGNED BY:	DAA
DRAWN BY:	ECB
CHECKED BY:	CAH
SCALE:	1" = 10'
DATE:	JULY 1, 2019
PROJECT NUMBER:	R08349-17CV

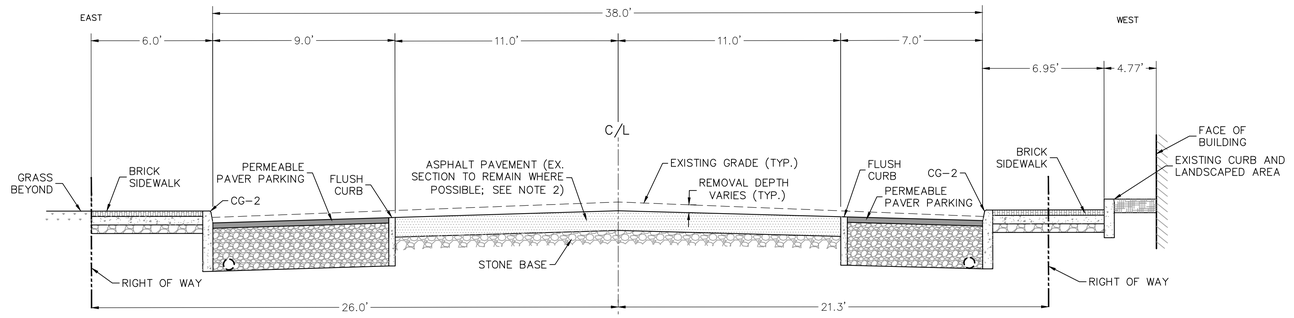
C4.6



NOTE: DIMENSIONS VARY ALONG PROJECT; REFER TO PLAN VIEW.

TYPICAL ROAD CROSS SECTION

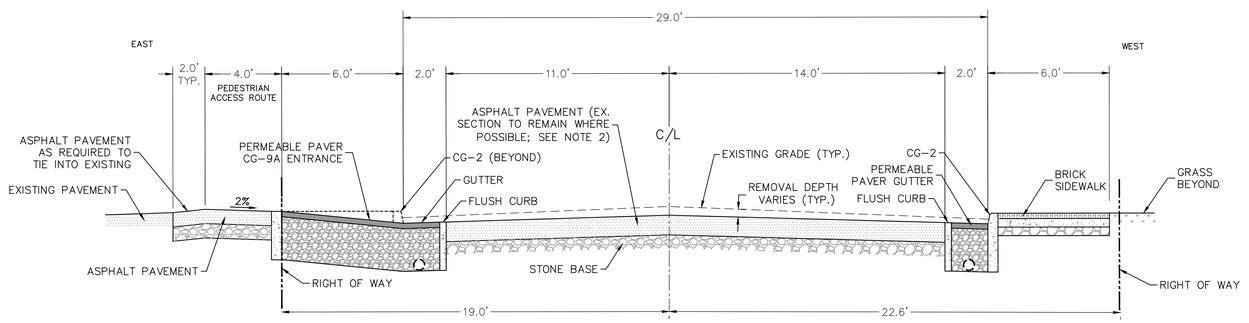
NO SCALE



NOTES:
1. DIMENSIONS VARY ALONG PROJECT.
2. REFER TO DETAIL 1, C6.1 FOR PAVEMENT SECTION AND REMOVAL NOTES.
3. REFER TO DETAIL 3, C6.1 FOR PERMEABLE PAVER SECTION.
4. REFER TO DETAIL 5, C6.1 FOR BRICK SIDEWALK SECTION.

SECTION A–A – STATION 15+00

NO SCALE



NOTES:
1. DIMENSIONS VARY ALONG PROJECT.
2. REFER TO DETAIL 1, C6.1 FOR PAVEMENT SECTION AND REMOVAL NOTES.
3. REFER TO DETAIL 3, C6.1 FOR PERMEABLE PAVER SECTION.
4. REFER TO DETAIL 5, C6.1 FOR BRICK SIDEWALK SECTION.

SECTION B–B – STATION 22+50

NO SCALE

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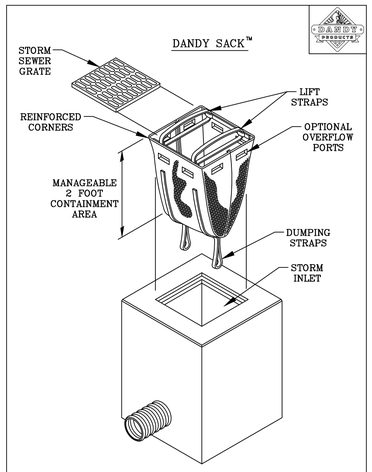
TYPICAL ROAD SECTIONS
NORTH CENTRAL AVENUE IMPROVEMENTS
STAUNTON, VIRGINIA

REVISIONS

DESIGNED BY:	DAA
DRAWN BY:	ECB
CHECKED BY:	CAH
SCALE:	NO SCALE
DATE:	JULY 1, 2019
PROJECT NUMBER:	R08349-17CV

C5.0

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DANDY SACK™ SPECIFICATIONS

NOTE: THE DANDY SACK™ WILL BE **MANUFACTURED IN THE U.S.A.** FROM A WOVEN MONOFILAMENT FABRIC THAT MEETS OR EXCEEDS THE FOLLOWING SPECIFICATIONS:

REGULAR FLOW DANDY SACK™ (BLACK)

Mechanical Properties	Test Method	Units	MARV
Grab Tensile Strength	ASTM D 4632	kN (lbs)	1.78 (400) x 1.40 (315)
Grab Tensile Elongation	ASTM D 4632	%	15 x 15
Puncture Strength	ASTM D 4833	kN (lbs)	0.67 (150)
Mullen Burst Strength	ASTM D 3786	kPa (psi)	5506 (800)
Trapezoid Tear Strength	ASTM D 4533	kN (lbs)	0.67 (150) x 0.73 (165)
UV Resistance	ASTM D 4355	%	90
Apparent Opening Size	ASTM D 4751	Mm (US Std Sieve)	0.425 (40)
Flow Rate	ASTM D 4491	1/min/m² (gal/min/ft²)	2852 (70)
Permittivity	ASTM D 4491	Sec⁻¹	0.90

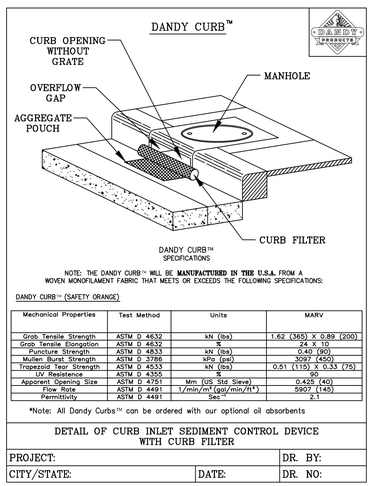
HI-FLOW DANDY SACK™ (SAFETY ORANGE)

Mechanical Properties	Test Method	Units	MARV
Grab Tensile Strength	ASTM D 4632	kN (lbs)	1.62 (365) X 0.89 (200)
Grab Tensile Elongation	ASTM D 4632	%	24 X 10
Puncture Strength	ASTM D 4833	kN (lbs)	0.40 (90)
Mullen Burst Strength	ASTM D 3786	kPa (psi)	3097 (450)
Trapezoid Tear Strength	ASTM D 4533	kN (lbs)	0.51 (115) X 0.33 (75)
UV Resistance	ASTM D 4355	%	90
Apparent Opening Size	ASTM D 4751	Mm (US Std Sieve)	0.425 (40)
Flow Rate	ASTM D 4491	1/min/m² (gal/min/ft²)	5907 (145)
Permittivity	ASTM D 4491	Sec⁻¹	2.1

*Note: All Dandy Sacks™ can be ordered with our optional oil absorbent pillows

DETAIL OF INLET SEDIMENT CONTROL DEVICE

PROJECT:		DR. BY:
CITY/STATE:	DATE:	DR. NO:



DANDY CURB™ SPECIFICATIONS

NOTE: THE DANDY CURB™ WILL BE **MANUFACTURED IN THE U.S.A.** FROM A WOVEN MONOFILAMENT FABRIC THAT MEETS OR EXCEEDS THE FOLLOWING SPECIFICATIONS:

DANDY CURB™ (SAFETY ORANGE)

Mechanical Properties	Test Method	Units	MARV
Grab Tensile Strength	ASTM D 4632	kN (lbs)	1.62 (365) X 0.89 (200)
Grab Tensile Elongation	ASTM D 4632	%	24 X 10
Puncture Strength	ASTM D 4833	kN (lbs)	0.40 (90)
Mullen Burst Strength	ASTM D 3786	kPa (psi)	3097 (450)
Trapezoid Tear Strength	ASTM D 4533	kN (lbs)	0.51 (115) X 0.33 (75)
UV Resistance	ASTM D 4355	%	90
Apparent Opening Size	ASTM D 4751	Mm (US Std Sieve)	0.425 (40)
Flow Rate	ASTM D 4491	1/min/m² (gal/min/ft²)	5907 (145)
Permittivity	ASTM D 4491	Sec⁻¹	2.1

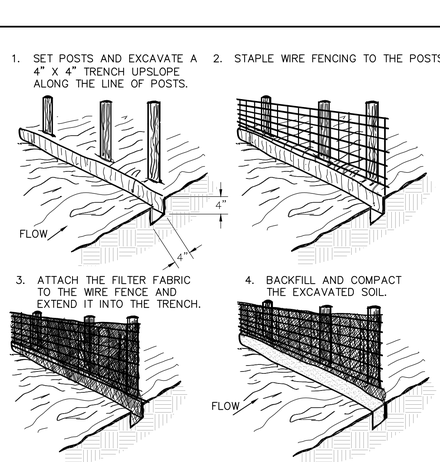
*Note: All Dandy Curbs™ can be ordered with our optional oil absorbents

DETAIL OF CURB INLET SEDIMENT CONTROL DEVICE WITH CURB FILTER

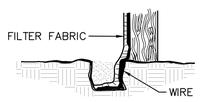
PROJECT:		DR. BY:
CITY/STATE:	DATE:	DR. NO:

3.07 C2.1 C6.0 MANUFACTURED INLET PROTECTION

NOTES:
1. DANDY PRODUCTS DETAIL SHOWN. OTHER MANUFACTURERS INCLUDING ACF ENVIRONMENTAL (GUTTER BUDDY), FILTREXX (INLETSOXX) AND ADVANCE DRAINAGE SYSTEMS (FLEXSTORM) MAY ALSO BE USED. OTHER PRODUCTS NOT LISTED MAY BE USED IF THEY MEET THE STANDARDS SHOWN ABOVE.
2. EACH END SHOULD OVERLAP CURB INLET APPROXIMATELY 12".
3. INSPECT DAILY AND IMMEDIATELY FOLLOWING RAIN FALL. CLEAN IF A VISUAL INSPECTION REVEALS SILT AND DEBRIS BUILD UP. PONDING IS LIKELY IF SEDIMENT AND DEBRIS ARE NOT REMOVED REGULARLY.



CONSTRUCTION OF A SILT FENCE
(WITH WIRE SUPPORT)



EXTENSION OF FABRIC AND WIRE INTO TRENCH

NOTES:
- WOODEN STAKES TO BE A MINIMUM OF 5' LONG AND HAVE A MINIMUM DIAMETER OF 2" WHEN OAK AND 4" WHEN PINE.
- SILT FENCE FABRIC SHALL MEET ALL REQUIREMENTS OF TABLE 3.05-B OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK.
- SILT FENCE SHALL BE A MINIMUM OF 24" ABOVE THE GROUND AND SHALL NOT EXCEED 34" ABOVE GROUND.

3.05 C2.3 C6.0 SILT FENCE INSTALLATION DETAILS WITH WIRE BACKING
NOT TO SCALE

TOPSOILING (TO)

FIELD EXPLORATION OF THE SITE SHALL BE MADE TO DETERMINE IF THERE IS SUFFICIENT SURFACE SOIL OF GOOD QUALITY TO JUSTIFY STRIPPING. TOPSOIL SHALL BE FRIABLE AND LOAMY (LOAM, SANDY LOAM, SILT LOAM, SANDY CLAY LOAM, CLAY LOAM). IT SHALL BE FREE OF DEBRIS, TRASH, STUMPS, ROCKS, ROOTS, AND NOXIOUS WEEDS, AND SHALL GIVE EVIDENCE OF BEING ABLE TO SUPPORT HEALTHY VEGETATION. IT SHALL CONTAIN NO SUBSTANCE THAT IS POTENTIALLY TOXIC TO PLANT GROWTH.

ALL TOPSOIL SHALL BE TESTED BY A RECOGNIZED LABORATORY FOR THE FOLLOWING CRITERIA:
- ORGANIC MATTER CONTENT SHALL BE NOT LESS THAN 1.5% BY WEIGHT.
- PH RANGE SHALL BE FROM 6.0-7.5. IF PH IS LESS THAN 6.0, LIME SHALL BE ADDED IN ACCORDANCE WITH SOIL TEST RESULTS OR IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE VEGETATIVE ESTABLISHMENT PRACTICE BEING USED.
- SOLUBLE SALTS SHALL NOT EXCEED 500 PPM.

IF ADDITIONAL OFF-SITE TOPSOIL IS NEEDED, IT MUST MEET THE STANDARDS STATED ABOVE.

STRIPPING: TOPSOIL OPERATIONS SHOULD NOT BE PERFORMED WHEN THE SOIL IS WET OR FROZEN. STRIPPING SHALL BE CONFINED TO THE IMMEDIATE CONSTRUCTION AREA. A 4-TO 6-INCH STRIPPING DEPTH IS COMMON, BUT DEPTH MAY VARY DEPENDING ON THE PARTICULAR SOIL. ALL PERIMETER DIKES, BASINS, AND OTHER SEDIMENT CONTROLS SHALL BE IN PLACE PRIOR TO STRIPPING.

STOCKPILING: TOPSOIL SHALL BE STOCKPILED IN SUCH A MANNER THAT NATURAL DRAINAGE IS NOT OBSTRUCTED AND NO OFF-SITE SEDIMENT DAMAGE SHALL RESULT. STABILIZE OR PROTECT STOCKPILES IN ACCORDANCE WITH MS #2. SIDE SLOPES OF THE STOCKPILE SHALL NOT EXCEED 2:1. PERIMETER CONTROLS MUST BE PLACED AROUND THE STOCKPILE IMMEDIATELY; SEEDING OF STOCKPILES SHALL BE COMPLETED WITHIN 7 DAYS OF THE FORMATION OF THE STOCKPILE, IN ACCORDANCE WITH STD. & SPEC. 3.31, TEMPORARY SEEDING IF IT IS TO REMAIN DORMANT FOR LONGER THAN 30 DAYS (REFER TO MS #1 AND MS #2).

LIMING: WHERE THE PH OF THE SUBSOIL IS 6.0 OR LESS, OR THE SOIL IS COMPOSED OF HEAVY CLAYS, AGRICULTURAL LIMESTONE SHALL BE SPREAD IN ACCORDANCE WITH THE SOIL TEST OR THE VEGETATIVE ESTABLISHMENT PRACTICE BEING USED.

BONDING: AFTER THE AREAS TO BE TOPSOILED HAVE BEEN BROUGHT TO GRADE, AND IMMEDIATELY PRIOR TO DUMPING AND SPREADING THE TOPSOIL, THE SUBGRADE SHALL BE LOOSENED BY DISCING OR SCARIFYING TO A DEPTH OF AT LEAST 2 INCHES TO ENSURE BONDING OF THE TOPSOIL AND SUBSOIL.

APPLYING TOPSOIL: TOPSOIL SHALL NOT BE PLACED WHILE IN A FROZEN OR MUDDY CONDITION, WHEN TOPSOIL OR SUBGRADE IS EXCESSIVELY WET, OR IN A CONDITION THAT MAY OTHERWISE BE DETRIMENTAL TO PROPER GRADING OR PROPOSED SODDING OR SEEDING. THE TOPSOIL SHALL BE UNIFORMLY DISTRIBUTED TO A MINIMUM COMPACTED DEPTH OF 2 INCHES ON 3:1 OR STEEPER SLOPES AND 4 INCHES ON FLATTER SLOPES. ANY IRREGULARITIES IN THE SURFACE, RESULTING FROM TOPSOILING OR OTHER OPERATIONS, SHALL BE CORRECTED IN ORDER TO PREVENT THE FORMATION OF DEPRESSIONS OR WATER POCKETS.

IT IS NECESSARY TO COMPACT THE TOPSOIL ENOUGH TO ENSURE GOOD CONTACT WITH THE UNDERLYING SOIL AND TO OBTAIN A LEVEL SEEDBED FOR THE ESTABLISHMENT OF HIGH MAINTENANCE TURF. HOWEVER, UNDUE COMPACTION IS TO BE AVOIDED AS IT INCREASES RUNOFF VELOCITY AND VOLUME, AND DETERS SEED GERMINATION. SPECIAL CONSIDERATION SHOULD BE GIVEN TO THE TYPES OF EQUIPMENT USED TO PLACE TOPSOIL IN AREAS TO RECEIVE FINE TURF. AVOID UNNECESSARY COMPACTION BY HEAVY MACHINERY WHENEVER POSSIBLE.

3.30 C2.1 C6.0 TOPSOILING
NOT TO SCALE

TEMPORARY SEEDING

TABLE 3.31-B ACCEPTABLE TEMPORARY SEEDING PLANT MATERIALS
"QUICK REFERENCE FOR ALL REGIONS"

PLANTING DATES	SPECIES	RATE (LBS./ACRE)
SEPT. 1-FEB. 15	50/50 MIX OF ANNUAL RYEGRASS (LOLIUM MULTI-FLORUM) & CEREAL (WINTER) RYE (SECALE CEREALE)	50-100
FEB. 16-APR. 30	ANNUAL RYEGRASS (LOLIUM MULTI-FLORUM)	60-100
MAY 1-AUG. 31	GERMAN MILLET (SETARIA ITALICA)	50-100

3.31 C2.1 C6.0 TEMPORARY SEEDING
NOT TO SCALE

PERMANENT SEEDING (PS)

TABLE 3.32-C SITE SPECIFIC SEEDING MIXTURES FOR APPALACHIAN/MOUNTAIN AREA

MINIMUM CARE LAWN	TOTAL LBS. PER ACRE
-COMMERCIAL OR RESIDENTIAL	200-250 LBS.
-KENTUCKY 31 OR TURF-TYPE TALL FESCUE	90-100%
-IMPROVED PERENNIAL RYEGRASS *	0-10%
-KENTUCKY BLUEGRASS	0-10%
HIGH-MAINTENANCE LAWN	
MINIMUM OF THREE (3) UP TO FIVE (5) VARIETIES OF BLUEGRASS FROM APPROVED LIST FOR USE IN VIRGINIA	125 LBS.
GENERAL SLOPE (3:1 OR LESS)	
-KENTUCKY 31 FESCUE	128 LBS.
-RED TOP GRASS	2 LBS.
-SEASONAL NURSE CROP **	20 LBS.
	150 LBS.
LOW-MAINTENANCE SLOPE (STEEPER THAN 3:1)	
-KENTUCKY 31 FESCUE	108 LBS.
-RED TOP GRASS	2 LBS.
-SEASONAL NURSE CROP	20 LBS.
-CROWNVETCH ***	20 LBS.
	150 LBS.

* PERENNIAL RYEGRASS WILL GERMINATE FASTER AND AT LOWER SOIL TEMPERATURES THAN FESCUE, THEREBY PROVIDING COVER AND EROSION RESISTANCE FOR SEEDBED.

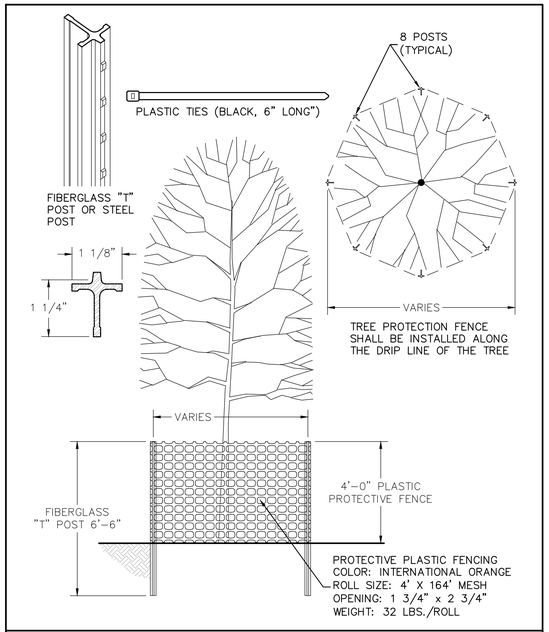
** USE SEASONAL NURSE CROP IN ACCORDANCE WITH SEEDING DATES AS STATED BELOW:

MARCH, APRIL THROUGH MAY 15TH	ANNUAL RYE
MAY 16TH THROUGH AUGUST 15TH	FOXTAIL MILLET
AUGUST 16TH THROUGH SEPTEMBER, OCTOBER	ANNUAL RYE
NOVEMBER THROUGH FEBRUARY	WINTER RYE

*** IF FLATPEA IS USED, INCREASE TO 30 LBS./ACRE. ALL LEGUME SEED MUST BE PROPERLY INOCULATED. WEEPING LOVEGRASS MAY ALSO BE INCLUDED IN ANY SLOPE OR LOW-MAINTENANCE MIXTURE DURING WARMER SEEDING PERIODS; ADD 10-20 LBS./ACRE IN MIXES.

SEED ALL DISTURBED AREAS THAT WILL NOT BE A LANDSCAPED AREA, PAVED OR SIDEWALKS

3.32 C4.1 C6.0 PERMANENT SEEDING
NOT TO SCALE



3.39 C2.1 C6.0 TREE PROTECTION DETAIL - PLASTIC FENCING
NOT TO SCALE

INSTALL TREE PROTECTION AROUND ALL TREES ADJACENT TO DISTURBED AREA

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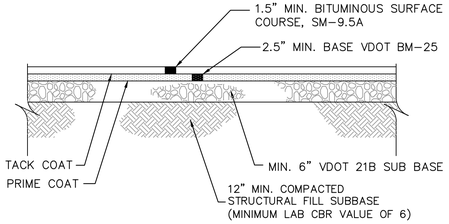
EROSION & SEDIMENT CONTROL DETAILS
NORTH CENTRAL AVENUE IMPROVEMENTS
STAUNTON, VIRGINIA

REVISIONS

DESIGNED BY:	DAA
DRAWN BY:	ECB
CHECKED BY:	CAH
SCALE:	NO SCALE
DATE:	JULY 1, 2019
PROJECT NUMBER:	R08349-17CV

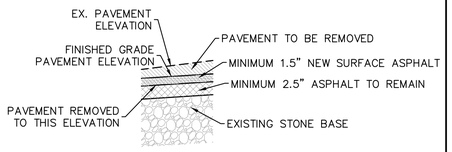
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MINIMUM SECTION

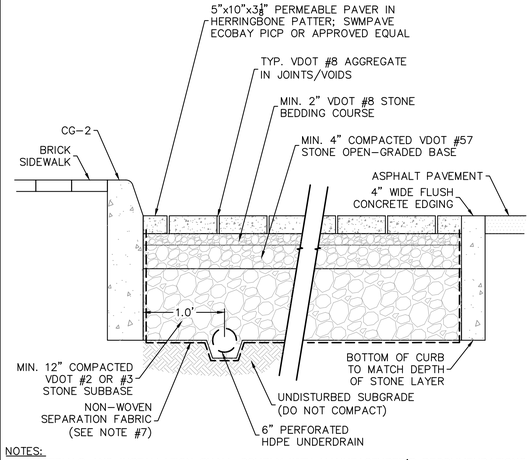
NOTE: PAVEMENT SECTIONS TO BE VERIFIED WITH ADDITIONAL GEOTECHNICAL INVESTIGATION.



TYPICAL REMOVAL SITUATION

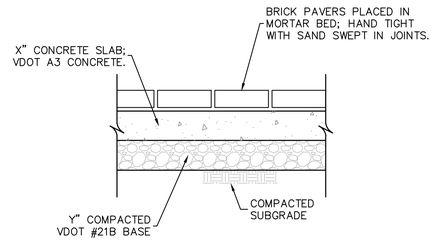
REMOVE PAVEMENT AS REQUIRED TO ACHIEVE AN ELEVATION 1.5" BELOW THE FINISHED GRADE AS SHOWN ON THE PLANS. PERFORM TEST PITS TO VERIFY DEPTH OF REMAINING ASPHALT. IF REMAINING ASPHALT IS AT LEAST 2.5" THICK, NEW ASPHALT MAY BE OVERLAID ON TOP OF EXISTING. IF ASPHALT IS LESS THAN 2.5" THICK, REMOVE ALL ASPHALT TO STONE LAYER. AT THIS POINT, VERIFY DEPTH OF REMAINING STONE BASE LAYER. IF REMAINING STONE IS AT LEAST 6" THICK, NEW ASPHALT MAY BE PLACED ON TOP OF EXISTING STONE. IF STONE IS LESS THAN 6" THICK, REMOVE ALL STONE TO AN ELEVATION REQUIRED TO ACHIEVE THE MINIMUM PAVEMENT SECTION SHOWN ABOVE.

1 C3.1 C6.1 ASPHALT PAVEMENT SECTION
NOT TO SCALE



NOTES:
1. MATERIALS AND INSTALLATION SHALL COMPLY WITH MANUFACTURER'S RECOMMENDATIONS.
2. ALL STONE SHALL BE THOROUGHLY WASHED PER VIRGINIA DEQ AND SWMPAVE SPECS.
3. PERFORM CBR TEST ON SUBGRADE PRIOR TO PLACEMENT OF PAVERS. IF CBR VALUE IS LESS THAN 6, GEOGRID MAY NEED TO BE ADDED TO THE DESIGN.
4. ALL PAVERS SHALL BE SET IN 90 DEGREE HERRINGBONE PATTERN.
5. PARKING SPACE STRIPES SHALL BE DELINEATED BY PERPENDICULAR RUN OF LIGHTER COLORED PAVER.
6. MATERIAL SAMPLES AND SHOP DRAWINGS SHOWING PAVER LAYOUT PATTERNS SHALL BE SUBMITTED PRIOR TO ORDERING.
7. 30 MIL PVC IMPERMEABLE LINER (OR APPROVED EQUAL) SHALL BE INSTALLED IN PLACE OF FABRIC WHERE PAVERS ARE WITHIN 15' OF A BUILDING. TURN LINER UP TO THE TOP ELEVATION OF THE PAVER AGAINST THE CURBS ON ALL SIDES.

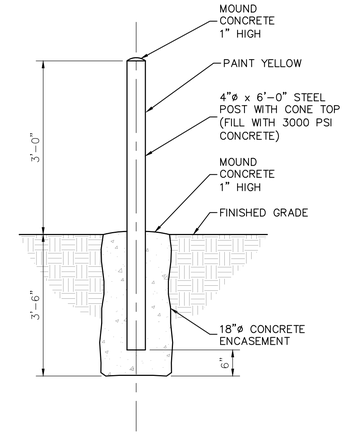
3 C3.1 C6.1 PERMEABLE PAVER SECTION
NOT TO SCALE



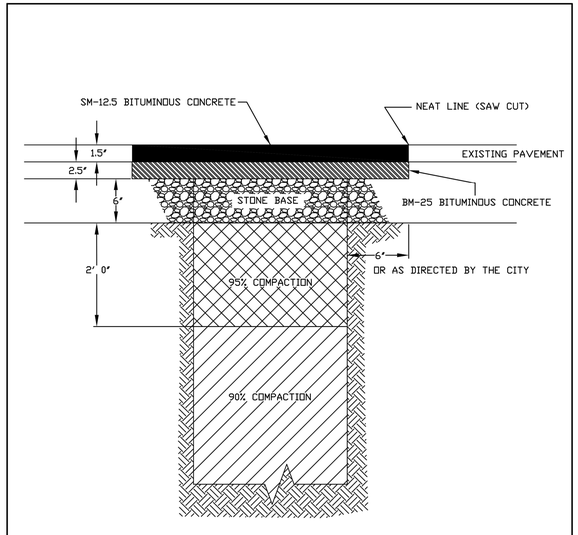
SIDEWALKS – X = 4"; Y = 4"
CROSSWALKS – X = 6"; Y = 6"

NOTES:
1. INSTALL IN ACCORDANCE WITH SPOT ELEVATIONS WHEN SHOWN ON PLANS. OTHERWISE INSTALL WITH CROSS SLOPE OF 2.0% MAX.
2. RUNNING SLOPE SHALL BE LESS THAN OR EQUAL TO 5.0%.
3. PLACE EXPANSION JOINTS IN CONCRETE SLAB EVERY 40' AND AT ENTRANCES.
4. BRICK PAVERS SHALL BE SAW CUT WHERE HALF SIZES ARE NEEDED.
5. CROSSWALKS SHALL BE LAID IN A HERRINGBONE PATTERN WITH A STANDARD RUNNING BORDER.
6. SIDEWALKS SHALL BE LAID PERPENDICULAR TO THE CURB USING A STANDARD RUNNING BOND.

5 C3.1 C6.1 BRICK SIDEWALK AND CROSSWALK SECTION
NOT TO SCALE



7 C3.2 C6.1 CONCRETE BOLLARD DETAIL
NOT TO SCALE

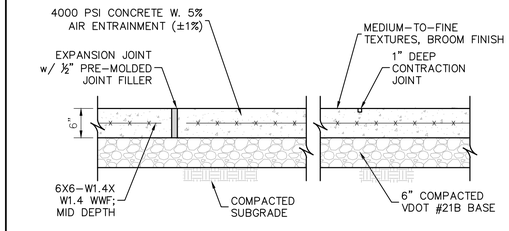


NOTE:
1. COMPLETED PATCH TO BE FLUSH WITH EXISTING PAVEMENT

TO BE USED FOR STORM PIPE AND ELECTRICAL CONDUIT INSTALLATION UNDER EXISTING ASPHALT PAVEMENT.

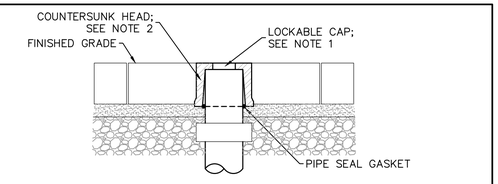
2 C3.1 C6.1

CITY OF STAUNTON, VA	**HEAVY DUTY PATCH FOR ASPHALT PAVEMENT**	Draw No. **M-5(H)**



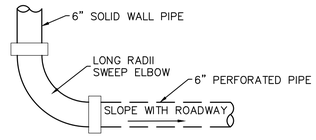
NOTES:
1. INSTALL IN ACCORDANCE WITH SPOT ELEVATIONS WHEN SHOWN ON PLANS. OTHERWISE INSTALL WITH CROSS SLOPE OF 2.0% MAX.
2. RUNNING SLOPE SHALL BE LESS THAN OR EQUAL TO 5.0%
3. TRANSVERSE EXPANSION JOINTS SHALL BE PLACED AT 30'–0" o.c. (MAX)
4. TRANSVERSE CONTROL JOINTS SHALL BE PLACED AT 5'–0" o.c. BETWEEN EXPANSION JOINTS.
5. LONGITUDINAL JOINTS ARE REQUIRED FOR SIDEWALKS WITH WIDTHS GREATER THAN 10'–0". LONGITUDINAL JOINTS SHALL BE PLACED AT EQUAL INTERVALS NOT TO EXCEED 10'–0" IN WIDTH.

4 C3.1 C6.1 CONCRETE SIDEWALK SECTION
NOT TO SCALE

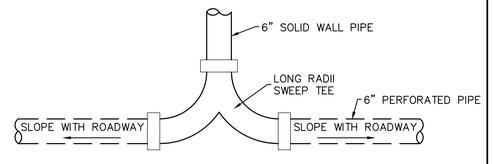


TOP SECTION

NOTES:
1. LOCKABLE CAP SHALL BE BRASS AND RATED FOR HS–20 LOADING, MOUNTED FLUSH TO GRADE.
2. THE TUBE SHALL HAVE A FACTORY ATTACHED BRASS WITH RIBS TO PREVENT ROTATION WHEN REMOVING LOCKABLE CAP.



CLEANOUT AT END



CLEANOUT AT HIGH POINT

6 C3.1 C6.1 UNDERDRAIN CLEANOUT DETAIL
NOT TO SCALE

Applicable VDOT Details			
Type	**Number**	**Name**	**Description**
Drainage	103.04	T-DI-2	Standard Precast Top Units
	103.05	T-DI-3, 4	Standard Precast Top Units
	103.06	T-DI-3, 4	Standard Precast Top Units
	103.09	T-MH-2	Standard Precast Manhole Top Units
	104.03	DI-2A, 2B, 2C	Standard Curb Drop Inlet
	104.04	DI-2A, 2B, 2C	Standard Curb Drop Inlet
	104.09	DI-3A, 3B, 3C	Standard Curb Drop Inlet
	104.10	DI-3A, 3B, 3C	Standard Curb Drop Inlet
	106.08	IS-1	Standard Method of Shaping Manholes & Inlet Inverts
	106.09	ST-1	Standard Step
	107.00	PB-1	Installation of Pipe Culverts & Storm Sewer General Notes
	107.01	PB-1	Instal. of Pipe Culverts and Storm Sewer - Circ. Pipe Bedding and Backfill - Method "A"
Erosion	113.07	EC-5	Temporary Silt Barriers
	113.07A	EC-5	Temporary Silt Barriers
Curbs	201.01	CG-2	Standard 6" Curb
	201.03	CG-6	Combination 6" Curb and Gutter
	203.01	CG-9A	Standard Entrance Gutter with Flared Opening (for use Across Sidewalk)
	203.05	CG-12	CG-12 Detectable Warning Surface (General Notes)
	203.06	CG-12	CG-12 Detectable Warning Surface - Type A (Perpendicular) Application
	203.07	CG-12	CG-12 Detectable Warning Surface - Type B (Parallel) Application
Signs	1321.10	STP-1	Square Tube Sign Post
	1321.12	STP-1	Square Tube Sign Post
	1321.13	STP-1	Square Tube Sign Post - Foundation Type A

*Note: Refer to the latest revision of the VDOT Road & Bridge Standards for all detail sheets. The list above may not be all inclusive of details required for the project.

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CURB AND PAVEMENT DETAILS
NORTH CENTRAL AVENUE IMPROVEMENTS
STAUNTON, VIRGINIA

REVISIONS

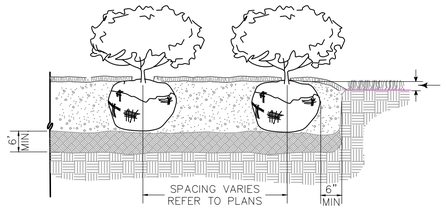
DESIGNED BY: DAA
DRAWN BY: ECB
CHECKED BY: CAH
SCALE: NO SCALE
DATE: JULY 1, 2019
PROJECT NUMBER: R08349-17CV

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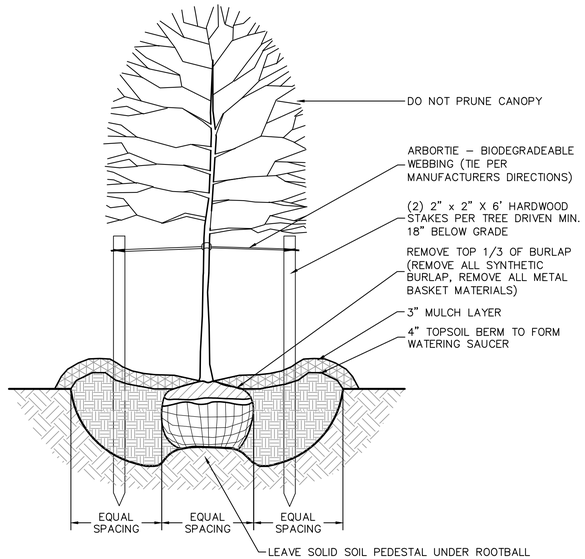
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FOR CONTAINER SHRUBS, COMPLETELY REMOVE ALL NON-BIODEGRADABLE CONTAINERS AND SCARIFY ROOTBALL.

FOR B&B SHRUBS, CUT AND REMOVE BURLAP FROM TOP 1/ 3 OF ROOT BALL



FLOWERING SHRUB
NO SCALE



TREE PLANTING DETAIL
LAWN AREAS AND PLANTING BEDS
NO SCALE

NOTES

PLANTING AND LANDSCAPE SPECIFICATIONS:

1. ALL TREES SHALL BE PLANTED IN GOOD CONDITION AND MEET 'AMERICAN STANDARD FOR NURSERY STOCK' (1990), ANSI Z60.1–1990, AS MAY BE AMENDED.

2. ALL TREES OF THE SAME SPECIES SHALL BE UNIFORM IN SIZE AND STRUCTURE AND SHALL COME FROM THE SAME SOURCE.

3. THE PLANTING OF TREES SHALL BE DONE IN ACCORDANCE WITH THE STANDARDIZED LANDSCAPE SPECIFICATION JOINTLY ADOPTED BY THE VA NURSERYMAN'S ASSOCIATION AND THE VA SOCIETY OF LANDSCAPE DESIGNERS.

4. REFER TO DRAWINGS FOR VARIETIES, LAYOUT, AND SPACING OF PLANT MATERIALS. HAVE TREE LOCATIONS STAKED AND GROUNDCOVER BEDS PREPARED AND SPRAY–PAINT OUTLINED ON THE GROUND FOR APPROVAL BY OWNER'S REPRESENTATIVE PRIOR TO PLANT INSTALLATION. QUANTITIES SHOWN ON DRAWINGS SHALL TAKE PRECEDENCE OVER QUANTITIES SHOWN ON THE PLANT LIST. FIELD ADJUSTMENTS NECESSARY TO WORK AROUND UNKNOWN UTILITIES MAY BE REQUIRED.

5. ALL PLANT MATERIALS MUST BE APPROVED AND INSPECTED BY OWNER'S REPRESENTATIVE AND ACCEPTED PRIOR TO INSTALLATION. NOTIFY OWNER'S REPRESENTATIVE 48 HOURS PRIOR TO ARRIVAL TO SITE.

6. PLANTING TIMING: UNLESS OTHERWISE SHOWN ON THE PLANS OR DIRECTED BY THE OWNER'S REPRESENTATIVE, THE PLANTING SHALL BE DONE DURING THE FOLLOWING SEASONS FOR ALL TREES, SHRUBS, AND GROUNDCOVERS:
   6.1. SEPTEMBER 15 TO DECEMBER 1 OR MARCH 1 TO MAY 1.
   6.2. PLANTING AT OTHER DATES WILL BE SUBJECT TO APPROVAL BY THE OWNER'S REPRESENTATIVE AND MAY REQUIRE SPECIAL PROCEDURES.

7. ALL DISTURBED AREAS NOT OTHERWISE TREATED, ARE TO BE SEEDED AS SPECIFIED.

8. MOVE AND LIFT TREES, SHRUBS, AND PLANTS BY THE ROOTBALL ONLY AND NEVER BY THE TRUNK OR STALK.

9. IF SYNTHETIC OR METAL WRAPPING IS USED ON ANY ROOTBALL, REMOVE IT ENTIRELY BEFORE PLANTING. METAL CAGES MUST ALSO BE REMOVED ENTIRELY FROM THE ROOTBALL.

10. CUT, TRIM AND REMOVE THE TOP 6"–9" OF NATURAL BURLAP WRAPPING FROM ROOTBALL PRIOR TO FINAL PLANTING SOIL BACKFILLING.

11. WATERING OF PLANTS: WATERING IS TO PROVIDE VIGOROUS PLANT GROWTH AND SHALL BE SUFFICIENT TO MAINTAIN MOISTURE IN THE ENTIRE ROOT ZONE.
   11.1. WATERING OF PLANT MATERIAL SHALL OCCUR IMMEDIATELY AFTER PLANTING AND WITHIN IN 24 HOURS OF INSTALLATION. THE FIRST WATERING SHALL FLOOD THE PLANTING HOLE TO REMOVE AIR POCKETS AND SATURATE THE SOIL.
   11.2. WATERING SHALL CONTINUE EACH DAY FOR ONE WEEK FROM INSTALLATION AT A RATE OF 2 GALLONS PER INCH TREE CALIPER.
   11.3. AFTER THE FIRST WEEK OF WATERING, WATERING SHALL CONTINUE ON A WEEKLY BASIS UNTIL PLANTS ARE FULLY ESTABLISHED. WEEKLY WATERING SHALL BE AT A RATE OF 2 GALLONS PER INCH OF TREE CALIPER.

12. ALL PLANTS SHALL BE GUARANTEED TO REMAIN ALIVE AND HEALTHY FOR A PERIOD OF ONE YEAR BEGINNING FROM THE DATE OF INSPECTION BY THE OWNER'S REPRESENTATIVE AND A WRITTEN FIELD REPORT STATING OWNER ACCEPTANCE FOR PLANTS THAT MEET QUALITY STANDARDS, PLANTING SPECIFICATIONS, PROPER LAYOUT PLACEMENT, AND EXHIBIT A HEALTHY VIGOROUS GROWTH.
   12.1. PLANTS THAT ARE EXHIBITING 25 PERCENT OR MORE DEAD GROWTH OR DO NOT MEET THE PLANT MATERIAL QUALITY SPECIFICATIONS SHALL BE REPLACED IMMEDIATELY OR UPON THE NEXT PLANTING SEASON WHICHEVER IS SOONER.
   12.2. NEW PLANTS, REQUIREMENTS, ETC. AND METHOD OF PLACING SHALL COMPLY WITH THESE SPECIFICATIONS AND DRAWINGS. PLANTS REPLACING DEAD PLANTS SHALL RECEIVE THE SAME CARE AND MEET SPECIFICATIONS.
   12.3. WARRANTY SHALL BE LIMITED TO ONE REPLACEMENT PER PLANT.
   12.4. CONFORMANCE OF PLANTING LAYOUT TO PLANTING PLAN MUST BE APPROVED BY THE OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION. PLANTS NOT PROPERLY LOCATED AS SHOWN ON THE PLANTING PLAN SHALL BE REPLANTED TO THE PROPER LOCATION AT THE EXPENSE OF THE CONTRACTOR.

13. PLANTING HOLE SHALL BE 3 TIMES LARGER THAN THE SIZE OF THE ROOT BALL DIAMETER. SCARIFY BOTTOM AND EDGES OF PLANTING PIT SUFFICIENTLY TO ALLOW BONDING OF THE PLANTING SOIL AND EXISTING SOIL.

14. ALL PLANTS SHALL BE MULCHED WITH A 3" MULCH LAYER WITHIN 24 HOURS OF PLANTING. MULCH SHALL BE DOUBLE–SHREDDED HARDWOOD BARK MULCH AND SHALL COVER THE PLANTING BED ENTIRELY, EXCEPT FOR A ONE INCH CLEAR SPACE AROUND THE TRUNK SHALL REMAIN FREE FROM MULCH.

15. WATERING BERM: CONSTRUCT A 4" MIN. SOIL BERM AROUND EVERY TREE PLANTING, SAUCERS WILL BE ESTABLISHED AT PLANTING TO HOLD WATERING, SAUCERS ARE TO BE MAINTAINED UNTIL PLANTS ARE FULLY ESTABLISHED, 2 YEARS.

16. TREE STAKING SHALL BE REQUIRED FOR PLANTS TALLER THAN 6 FEET AND WITH A TREE CALIPER GREATER THAN 1". USE TWO 3" DIA. OR 2"X2" WOOD STAKES, 6'–0" LENGTH. STAKES SHALL BE PLACED A MIN. OF 18" INTO ADJACENT GROUND. TREE GUYS SHALL BE "ARBORTIE", A UV DEGRADABLE NYLON WEBBING AND INSTALLED PER MANUFACTURERS RECOMMENDATIONS.

17. ALL PLANTING AREAS (TREE PITS AND PLANTING BEDS) SHALL BE PROVIDED WITH STRUCTURAL SOIL MIX.

Tree Planting List

Sym.	Key	Qty.	Botanical Name	Common Name	Size/Condition
TREES					
	ZS	4	Zelkova Serrata	Musashino	2.5" Cal.
	UA	3	Ulmus americana	New Harmony American Elm	2.5" Cal.
SHRUBS					
	PV	146	Panicum Virgatum	Shenandoah Switch Grass	1 Gal. Pot
	AM	66	Achillea millefolium	Desert Eve Terracotta	1 Gal. Pot
	HA	16	Hydrangea arborescens	Annabelle Hydrangea	3 Gal. Pot

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PLANTING LIST AND DETAILS
NORTH CENTRAL AVENUE IMPROVEMENTS
STAUNTON, VIRGINIA

REVISIONS

DESIGNED BY: DAA
DRAWN BY: ECB
CHECKED BY: CAH
SCALE: NO SCALE
DATE: JULY 1, 2019
PROJECT NUMBER: R08349-17CV

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GENERAL NOTE: ALL EASEMENTS ARE FOR DOMINION POWER UTILITY LINES. EASEMENTS SHOWN ON THIS SHEET ARE FOR DESIGN PURPOSES ONLY. REFER TO PLATS BY DRAPER ADEN ASSOCIATES (DATED 6/25/2019) FOR OFFICIAL EASEMENT DOCUMENTATION. ALL EASEMENTS SHALL BE ACQUIRED PRIOR TO PROJECT ADVERTISEMENT.

COMMONWEALTH OF VIRGINIA
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GRAPHIC SCALE
10 0 5 10 20
(IN FEET)
1 inch = 10ft.

PROPERTY # 4783
JOYCE M. EAVERS
FAMILY, LLC
DB 414 PG 442
221 N Lewis St

PROPERTY # 7378
Allen P & Carolyn M Dahl
INST.# 050003464
211 N Lewis St

PROPERTY # 1262
WALTER P. &
CLAUDIA L. WITTMANN
INST.# 000002379
212 N Central Ave

PROPERTY # 1266
WALTER P. &
CLAUDIA L. WITTMANN
INST.# 000002379
212#A N Central Ave

PROPERTY # 1263
WALTER P. &
CLAUDIA L. WITTMANN
INST.# 000002379
212#B N Central Ave

PROPERTY # 4729
FIVE FIRST
COUSINS, LLC
DB 251/274
240 N Central Ave #B

PROPERTY LINE (TYP.)
ROW LINE (TYP.)
12' ALLEY
South side of Alley
North side of Alley
planter, typ.
Railroad Spike
HOLIDAY COURT MALL
West side of North C
NORTH CENTRAL AVE.

PROPOSED EASEMENT LINE (TYP.)
PROPOSED EASEMENT FOR PROPERTY #1263 = 682 SF
PROPOSED EASEMENT FOR PROPERTY #1266 = 1082 SF
PROPOSED EASEMENT FOR PROPERTY #4729 = 136 SF

16+36.12 –124.21
16+84.96 –123.89
17+27.84 –123.24
16+45.66 –109.06
16+85.04 –108.89
17+28.22 –108.24
16+45.25 –78.06
16+35.40 –78.22
17+39.83 –86.05
17+48.68 –86.45
17+49.01 –71.45
17+40.47 –71.06

51.50' N5°17'00"W
15.0
N84°43'00"E 15.00'
N3°32'00"W 45.50'
S5°17'00"E 41.50'
45.50' S3°32'00"E
46.00' S84°43'00"W
10.0
N84°43'00"E 31.00'
S5°17'00"E 10.00'
N5°48'36"W 9.24'
S84°03'05"W 15.00'
15.00' N85°33'02"E
8.85' S5°48'36"E

R201 TERMINI FLAG
16+35.10
0.00
PC: 16+41.43
PT: 18+04.32
16+00
17+00
18+00
Rail Road Spike found

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Blacksburg, VA 24060 1604 Perry Street, Suite 200
Fayetteville, NC 28303 3414 Bellevue Avenue
Hampton Roads, VA 23666 739 Thimble Shoals Blvd, Suite 1004
Northern Virginia 22030 3975 Fair Ridge Drive, Suite 20 North
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EASEMENT LINE INFORMATION
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STAUNTON, VIRGINIA

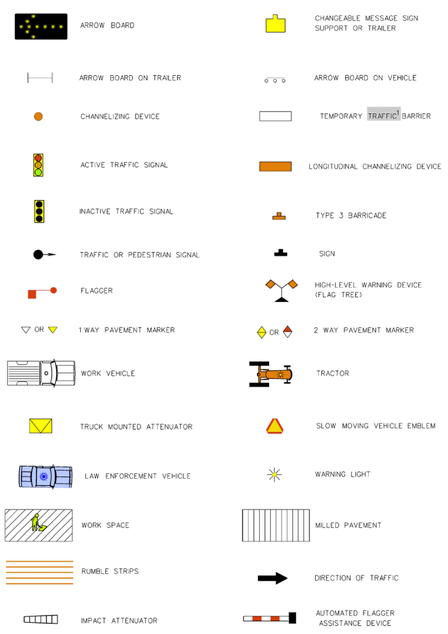
REVISIONS

DESIGNED BY:	DAA
DRAWN BY:	ECB
CHECKED BY:	CAH
SCALE:	1" = 10'
DATE:	JULY 1, 2019
PROJECT NUMBER:	R08349-17CV

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Figure 6H-1, Symbols Used In Typical Temporary Traffic Control Figures Application

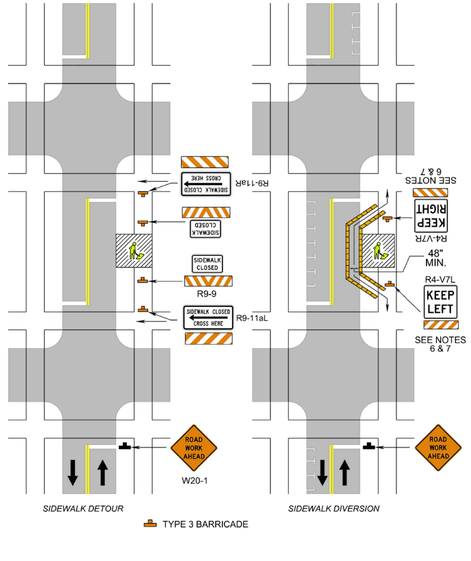


1: Revision 1 – 4/1/2015

ADDITIONAL NOTE

1. ALL WORK AND TRAFFIC CONTROL MEASURES SHALL BE IN ACCORDANCE WITH THE MOST RECENT VDOT STANDARDS AND SPECIFICATIONS.

Sidewalk Closure and Bypass Sidewalk Operation (Figure TTC-35.0)



NOTES FROM VDOT WORK AREA PROTECTION MANUAL
SIDEWALK CLOSURE

STANDARD:
1. WHEN CROSSWALKS OR OTHER PEDESTRIAN FACILITIES ARE CLOSED OR RELOCATED, TEMPORARY FACILITIES SHALL BE DETECTABLE AND SHALL INCLUDE ACCESSIBILITY FEATURES CONSISTENT WITH THE FEATURES PRESENT IN THE EXISTING PEDESTRIAN FACILITY.

GUIDANCE:
2. WHERE HIGH SPEEDS ARE ANTICIPATED, A TEMPORARY TRAFFIC BARRIER AND, IF NECESSARY, A CRASH CUSHION SHOULD BE USED TO SEPARATE THE TEMPORARY SIDEWALKS FROM VEHICULAR TRAFFIC.
3. AUDIBLE INFORMATION DEVICES SHOULD BE CONSIDERED WHERE MIDBLOCK CLOSINGS AND CHANGED CROSSWALK AREAS CAUSE INADEQUATE COMMUNICATION TO BE PROVIDED TO PEDESTRIANS WHO HAVE VISUAL DISABILITIES.
4. TEMPORARY MARKINGS SHOULD BE CONSIDERED FOR OPERATIONS EXCEEDING THREE DAYS IN DURATION.

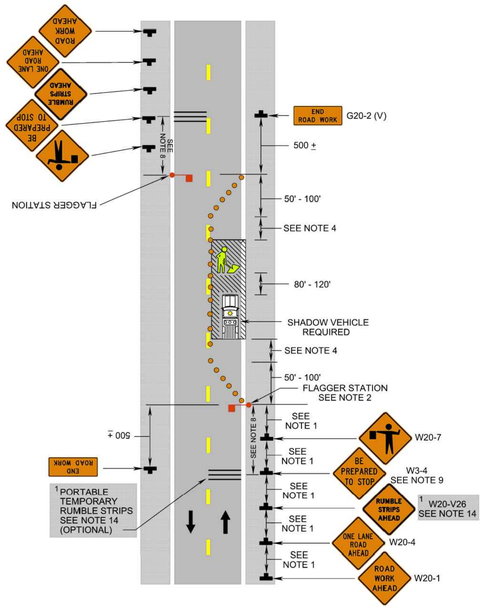
OPTION:
5. ONLY THE TTC DEVICES RELATED TO PEDESTRIANS ARE SHOWN. OTHER DEVICES, SUCH AS LANE CLOSURE SIGNING OR ROAD NARROWS SIGNS, MAY BE USED TO CONTROL VEHICULAR TRAFFIC.
6. FOR NIGHTTIME CLOSURES, TYPE A FLASHING WARNING LIGHTS MAY BE USED ON BARRICADES THAT SUPPORT SIGNS AND CLOSE SIDEWALKS.
7. SIGNS, SUCH AS KEEP RIGHT AND KEEP LEFT, MAY BE PLACED ALONG A TEMPORARY SIDEWALK TO GUIDE OR DIRECT PEDESTRIANS.

STANDARD:
8. ALL SIDEWALK CLOSURES SHALL BE CLOSED WITH TYPE 3 BARRICADES.

Table 6H-3, Length of the Longitudinal Buffer Space[1]

Posted Speed Limit (mph)	Distance (Feet)
≤ 20	115 – 120
25	155 – 165[1]
30	200 – 210
35	250 – 260
40	305 – 325[1]
45	360 – 380
50	425 – 445
55	500 – 530[1]
60	570 – 600[1]
65	645 – 675
70	730 – 760

Lane Closure on a Two-Lane Roadway Using Flaggers (Figure TTC-23.1)



1: Revision 1 – 4/1/2015

NOTES FROM VDOT WORK AREA PROTECTION MANUAL

1. SIGN SPACING DISTANCE SHOULD BE 350' TO 500' WHERE THE POSTED SPEED LIMIT IS 45 MPH OR LESS, AND 500' TO 800' WHERE POSTED SPEED LIMIT IS GREATER THAN 45 MPH.
2. CARE SHOULD BE EXERCISED WHEN ESTABLISHING THE LIMITS OF THE WORK ZONE TO INSURE MAXIMUM POSSIBLE SIGHT DISTANCE IN ADVANCE OF THE FLAGGER STATION AND TRANSITION, BASED ON THE POSTED SPEED LIMIT AND AT LEAST EQUAL TO OR GREATER THAN THE VALUES IN TABLE 6H–3 (TO THE LEFT). GENERALLY SPEAKING, MOTORISTS SHOULD HAVE A CLEAR LINE OF SIGHT FROM THE GRAPHIC FLAGGER SYMBOL SIGN TO THE FLAGGER.
3. WHERE RIGHT OF WAY OR GEOMETRIC CONDITIONS PREVENT THE USE OF 48"X48" SIGNS, 36"X36" SIGNS MAY BE USED.
4. FLAGGING STATIONS SHALL BE LOCATED FAR ENOUGH IN ADVANCE OF THE WORK ZONE TO PERMIT APPROACHING TRAFFIC TO REDUCE SPEED AND/OR STOP BEFORE PASSING THE WORK ZONE AND ALLOW SUFFICIENT DISTANCE FOR DEPARTING TRAFFIC IN THE LEFT LANE TO RETURN TO THE RIGHT LANE BEFORE REACHING OPPOSING TRAFFIC (SEE TABLE 6H–3, TO THE LEFT).
5. ALL FLAGGERS SHALL BE STATE CERTIFIED AND HAVE THEIR CERTIFICATION CARD IN THEIR POSSESSION WHEN PERFORMING FLAGGING DUTIES.
6. CONE SPACING SHALL BE BASED ON THE POSTED SPEED AND THE VALUES IN TABLE 6H–4 ON PAGE 6H–6.
7. A SHADOW VEHICLE WITH AT LEAST ONE HIGH INTENSITY AMBER ROTATING, OSCILLATING, OR STROBE LIGHT SHALL BE PARKED 80'–120' IN ADVANCE OF THE FIRST WORK CREW.
8. A SUPPLEMENTAL FLAGGER MAY BE REQUIRED IN THIS AREA TO GIVE ADVANCE WARNING OF THE OPERATION AHEAD BY SLOWING APPROACHING TRAFFIC PRIOR TO REACHING THE FLAGGER STATION OR QUEUED TRAFFIC.
9. IF THE QUEUE OF TRAFFIC REACHES THE "BE PREPARED TO STOP" (W3–4) SIGN THEN THE SIGNS, AND IF USED THE PORTABLE TEMPORARY RUMBLE STRIPS (PTRS), SHOULD BE READJUSTED AT GREATER DISTANCES.
10. WHEN A HIGHWAY–RAIL CROSSING EXISTS WITHIN OR UPSTREAM OF THE TRANSITION AREA AND IT IS ANTICIPATED THAT QUEUES RESULTING FROM THE LANE CLOSURE MIGHT EXTEND THROUGH THE HIGHWAY–RAIL GRADE CROSSING, THE TEMPORARY TRAFFIC CONTROL ZONE SHOULD BE EXTENDED SO THAT THE TRANSITION AREA PRECEDES THE HIGHWAY–RAIL CROSSING (REFER TO FIGURE TTC–56 OF THE VDOT WORK AREA PROTECTION MANUAL FOR ADDITIONAL INFORMATION ON HIGHWAY–RAIL CROSSINGS).
11. AT NIGHT, FLAGGER STATIONS SHALL BE ILLUMINATED, EXCEPT IN EMERGENCIES.
12. CONES MAY BE ELIMINATED WHEN USING A PILOT VEHICLE OPERATION OR WHEN THE TOTAL ROADWAY WIDTH IS 20 FEET OR LESS.
13. FOR LOW–VOLUME SITUATIONS WITH SHORT WORK ZONES ON STRAIGHT ROADWAYS WHERE THE FLAGGER IS VISIBLE TO ROAD USERS APPROACHING FROM BOTH DIRECTIONS, A SINGLE FLAGGER, POSITIONED TO BE VISIBLE TO ROAD USERS APPROACHING FROM BOTH DIRECTIONS, MAY BE USED (SEE CHAPTER 6E).
14. WHEN APPROVED FOR USE, THREE PORTABLE TEMPORARY RUMBLE (PTRS) STRIPS SHALL BE INSTALLED ACROSS THE ENTIRE TRAVEL LANE ADJACENT TO THE BE PREPARED TO STOP (W3–4) SIGN. THE PORTABLE TEMPORARY RUMBLE STRIPS SHALL BE MONITORED AND ADJUSTED AS NECESSARY DURING THE WORK SHIFT TO ENSURE PROPER PLACEMENT ON THE ROADWAY. WHEN THE PTRS ARE INSTALLED, THE RUMBLE STRIPS AHEAD (W20–V26) SIGN SHALL ALSO BE UTILIZED.

POSTED SPEED	0 – 35 MPH	36 – 55 MPH
PTRS SPACING (CENTER TO CENTER)	5 FEET	8 FEET

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MAINTENANCE OF TRAFFIC NOTES
NORTH CENTRAL AVENUE IMPROVEMENTS
STAUNTON, VIRGINIA

REVISIONS

DESIGNED BY: DAA
DRAWN BY: ECB
CHECKED BY: CAH
SCALE: 1" = 50'
DATE: JULY 1, 2019
PROJECT NUMBER: R08349-17CV

C8.0

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SIGN LEGEND

NOTES:

- WORK TO BE PREFORMED ON ONE SEGMENT AT A TIME.
- SIGNS ARE SHOWN APPROXIMATE DISTANCES TO THE PROJECT AREAS. SIGNS SHALL BE MOVED AS THE CONSTRUCTION PROGRESSES TO MEET THE REQUIREMENTS ON FIGURE TTC-23.0 ON SHEET C6.1.
- SIDEWALK DETOUR SIGNS SHALL BE PLACED AT THE BEGINNING/END OF EACH BLOCK AS SHOWN IN FIGURE TTC-35.0 ON SHEET C6.1
- ACCESS ACROSS THE WORK AREA TO ALL DRIVEWAYS AND ENTRANCES SHALL BE MAINTAINED AT ALL TIMES. AFTER THE SIDEWALK IS DEMOLISHED, VDOT 57 STONE SHALL BE TEMPORARILY PLACED UP TO GRADE AT THESE POINTS TO MAINTAIN ACCESS.

GRAPHIC SCALE

100 0 50 100 200 400

(IN FEET)
1 inch = 100 ft.

COMMONWEALTH OF VIRGINIA
C. CAMPBELL HOLTON
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PROFESSIONAL ENGINEER
7/1/19

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MAINTENANCE OF TRAFFIC PLAN
NORTH CENTRAL AVENUE IMPROVEMENTS
STAUNTON, VIRGINIA

REVISIONS

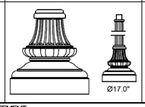
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GENERAL ELECTRICAL SPECIFICATIONS

LIGHTING FIXTURE SCHEDULE

MARK	IMAGE	DESCRIPTION	MFR/MODEL (BASIS OF DESIGN)	MTG	LAMPS NO.	LAMPS TYPE	REMARKS
S1		CLASSIC GLOBE STYLE FIXTURE. CAST ALUMINUM HOUSING. TYPE 3 HORIZONTAL SEGMENTED REFLECTOR IN TOP HOUSING. FULL CUT-OFF. FLAT GLASS LENS. FINISH WITH BENJAMIN MOORE ESSEX GREEN EXCEPT GOLD BAND. FULL COVER, MEDALLIONS, BAND, RIBS AND SPIKE FINIAL. WET LOCATION LISTED WITH IP55 RATED ELECTRICAL ENCLOSURE.	HOLOPHANE UTILITY WASHINGTON POSTLIGHT WAU62-P50-30K-AS-XX-3-XX	P	--	LED 105W	
S1 POLE		FLUTED HEAVY WALL CAST ALUMINUM POLE, 16' HEIGHT, 5" DIAMETER, POLE BASE AT 17" HIGH WITH 17" DIAMETER BASE AND 3" X 5" X 4.5" DOOR OPENING TO ACCESS WIRES. BREAKAWAY FEATURE. ESSEX GREEN FINISH TO MATCH POSTLIGHT. HOT DIP GALVANIZED STEEL ANCHOR BOLTS. WP IN USE GFCI RECPTACLE, MTD 6" BELOW TOP OF POLE	HOLOPHANE CAST ALUMINUM POST, WADSWORTH SERIES W16F5/17 FGIUL	--	--	--	NOTE 2

BASIS OF DESIGN STATEMENT:
THE DESIGN SHOWN IS BASED ON THE MANUFACTURERS AND MODELS INDICATED AND IS INTEDED ONLY TO SHOW THE GENERAL SIZE, CONFIGURATION, LOCATION, CONNECTIONS AND/OR SUPPORT FOR THE EQUIPMENT OR SYSTEMS SPECIFIED WITH RELATION TO THE OTHER BUILDING SYSTEMS. SEE SPECIFICATION FOR ADDITIONAL TECHNICAL REQUIREMENTS.

KEY:
P POLE

NOTES:
1. ALL FIXTURES SHALL BE AUTO-SENSING 120 THRU 277 VOLTS, UNLESS NOTED OTHERWISE.
2. PROVIDE POLES WITH BANNER ARMS FOR EVERY OTHER POLE. PROVIDE ALL POLES WITH FLAG MOUNTS.

PANELBOARD LP
LOCATION: **EXTERIOR** MOUNTING: **SURFACE**
VOLTS: **120/240** PHASE: **1** MAINS AMPS: **60**
60A MB KAIC **22 (NOTE 3)** SERVICE ENTRANCE RATED

LOAD SERVED	WIRE SIZE	GND SIZE	CND SIZE	CKT BRKR	CKT NO.	A	B	CKT NO.	CKT BRKR	CND SIZE	GND SIZE	WIRE SIZE	LOAD SERVED
POLE LTS - SOUTH SIDE 1	10	10	--	20	1	1.0 0.9		2	20	--	10	10	POLE LTS - NORTH SIDE 1
					3		1.0 0.9	4					
POLE LTS - SOUTH SIDE 2	10	10	--	20	5	1.0 0.9		6	20	--	10	10	POLE LTS - NORTH SIDE 2
					7		1.0 0.9	8					
RECEPTACLES	12	12	3/4	20	9	0.4 0.8		10	20	--	8	8	RECEPTACLES - NORTH
RECEPTACLES - SOUTH	8	8	--	20	11		0.8 0.8	12	20	--	10	10	RECEPTACLES - NORTH
RECEPTACLES - SOUTH	10	10	--	20	13	1.0 0.8		14	20	--	8	8	RECEPTACLES - NORTH
RECEPTACLES - SOUTH	8	8	--	20	15		0.8 0.8	16	20	--	10	10	RECEPTACLES - NORTH
RECEPTACLES - SOUTH	8	8	--	20	17	1.0		18					SPACE
SPACE					19			20					SPACE
						7.8	7.0						

KVA TTL= 14.7
VOLTAGE: 240 0.240
CONNECTED AMPS: 61
DEMAND FACTOR 1.0
DEMAND AMPS: 61

NOTES:
1. SEE PLANS FOR CONDUIT SIZE(S)
2. LOAD CENTER HAS 16 SPACES WITH CAPACITY FOR 24 CIRCUITS. UP TO 8 TANDEM BREAKERS ALLOWED.
3. COORDINATE AVAILABLE FAULT CURRENT WITH UTILITY.

26 0500 - ELECTRICAL GENERAL PROVISIONS
ALL WORK SHALL COMPLY WITH THE REQUIREMENTS OF THE 2012 VUSBC AND THE 2011 NEC (NFPA 70) AND ALL LOCAL CODES. ALL MATERIALS AND EQUIPMENT SHALL BE UL LISTED AND LABELED WHERE APPLICABLE.

THE CONTRACTOR SHALL GIVE CONSIDERATION TO ALL OTHER TRADES, AND MAKE ARRANGEMENTS TO AVOID CONFLICTS AND INTERFERENCE WITH OTHER WORK, NEW OR EXISTING. CONTRACTOR SHALL COORDINATE ALL COMPONENTS OF THE WORK, AND PROVIDE MINOR ADJUSTMENTS AS REQUIRED, INCLUDING OFFSETS, TRANSITIONS, FITTINGS, AND ACCESSORIES TO MEET ACTUAL CONDITIONS.

INSTALL FIXTURES SECURELY, IN A NEAT AND WORKMANLIKE MANNER.

CONCRETE POLE FOUNDATIONS: CAST IN PLACE, WITH ANCHOR BOLTS TO MATCH POLE-BASE FLANGE. GROUNDING AND BONDING LUGS: WELDED 1/2 INCH THREADED LUG, LISTED FOR ATTACHING GROUNDING AND BONDING CONDUCTORS OF TYPE AND SIZE LISTED IN THAT SECTION, AND ACCESSIBLE THROUGH HANDHOLE. CONCRETE PER REQUIREMENTS OF DIVISION 3. PROVIDE CONCRETE BASES FOR LIGHTING POLES AT LOCATIONS INDICATED. INSTALL POLES PLUMB. PROVIDE SHIMS TO ADJUST PLUMB, GROUT AROUND EACH BASE.

TESTING AND CLEANING: OPERATE EACH LUMINAIRE AFTER INSTALLATION AND CONNECTION. INSPECT FOR IMPROPER CONNECTIONS AND OPERATION. CLEAN ELECTRICAL PARTS TO REMOVE CONDUCTIVE AND DELETERIOUS MATERIALS. REMOVE DIRT AND DEBRIS FROM ENCLOSURE. CLEAN PHOTOMETRIC CONTROL SURFACES AS RECOMMENDED BY MANUFACTURER. CLEAN FINISHES AND TOUCH UP DAMAGE.

SUBMITTALS: THE CONTRACTOR SHALL SUBMIT INFORMATION, FOR ARCHITECT/ENGINEER'S REVIEW, TO DEMONSTRATE COMPLIANCE OF PROPOSED PRODUCTS AND/OR INSTALLATIONS WITH THE CONTRACT DOCUMENTS. THIS INFORMATION SHALL INCLUDE, BUT NOT BE LIMITED TO: CATALOG DATA; PERFORMANCE DATA; ETC. PROPOSED PRODUCTS THAT ARE NOT IN COMPLIANCE WITH THE CONTRACT DOCUMENTS MAY BE REJECTED. INFORMATION MUST BE SUBMITTED ON ALL REQUIRED PRODUCTS.

RECORD DRAWINGS: DURING CONSTRUCTION AN ACCURATE RECORD OF ALL DEVIATIONS BETWEEN THE WORK SHOWN ON THE CONTRACT DOCUMENTS AND THAT WHICH IS ACTUALLY INSTALLED SHALL BE MAINTAINED. THESE DEVIATIONS SHALL BE NOTED NEATLY AND ACCURATELY IN RED INK ON ONE SETS OF FULL-SIZE PRINTS OF THE CONTRACT DOCUMENTS. WHEN ALL DEVIATIONS HAVE BEEN NOTED ON THESE PRINTS, THEY SHALL BE DATED AND LABELED AS RECORD DRAWINGS AND BE DELIVERED TO THE ARCHITECT/ENGINEER.

UNLESS OTHERWISE NOTED, INSTALL EQUIPMENT IN ACCORDANCE WITH MANUFACTURER'S PRINTED INSTRUCTIONS FOR APPLICATION INDICATED. MAINTAIN COPIES OF MANUFACTURER'S PRINTED INSTRUCTIONS AT THE PROJECT SITE. INSTALL, OPERATE, AND ADJUST SYSTEMS IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.

VERIFY FINAL LOCATIONS FOR EQUIPMENT WITH FIELD MEASUREMENTS, THE REQUIREMENTS OF THE EQUIPMENT TO BE INSTALLED AND THE OWNER. COORDINATE INSTALLATION OF ELECTRICAL SYSTEMS, EQUIPMENT AND MATERIALS WITH OTHER SYSTEMS.

INSTRUCTION & TRAINING: AFTER ALL EQUIPMENT AND SERVICES ARE IN OPERATION AND RECEIPT OF THE APPROVED OPERATION AND MAINTENANCE MANUALS, INSTRUCTION AND TRAINING SESSIONS SHALL BE CONDUCTED FOR REPRESENTATIVES OF THE OWNER. THE TRAINING SESSION SHALL ADDRESS THE OPERATION AND MAINTENANCE OF EACH PIECE OF EQUIPMENT AND OF THE SYSTEM AS A WHOLE. PREVENTATIVE MAINTENANCE TECHNIQUES SHALL BE INCLUDED. INSTRUCTIONS AND TRAINING SHALL BE GIVEN BY COMPETENT, FACTORY-TRAINED SERVICE AND OPERATING PERSONNEL FROM THE APPROPRIATE MANUFACTURER(S). THE CONTRACTOR SHALL RECORD THE NAMES OF ALL PERSONNEL PRESENT AT EACH INSTRUCTION AND TRAINING SESSION AND SHALL FORWARD A COPY OF THE ATTENDANCE LOG TO THE ARCHITECT/ENGINEER WITHIN SEVEN DAYS AFTER EACH SESSION.

WORK TO BE GUARANTEED/WARRANTED FOR 12 MONTHS FROM THE DATE OF ACCEPTANCE.

26 0519 - BUILDING WIRE & CABLE

CONDUCTORS: CONDUCTORS ARE TO BE COPPER WITH TYPE THWN/THHN OR XHHW INSULATION. MINIMUM SIZE SHALL BE #12 AWG FOR POWER AND LIGHTING CIRCUITS. CONDUCTOR COLOR CODING SHALL MATCH EXISTING CONVENTION. PROVIDE AN EQUIPMENT GROUNDING CONDUCTOR IN ALL CIRCUITS.

PULL CONDUCTORS SIMULTANEOUSLY WHERE MORE THAN ONE ARE BEING INSTALLED IN THE SAME RACEWAY. USE UL LISTED PULLING COMPOUND OR LUBRICANT WHERE NECESSARY. NO MORE THAN THREE SINGLE PHASE CIRCUITS SHALL BE INSTALLED IN A SINGLE CONDUIT.

KEEP CONDUCTOR SPLICES TO A MINIMUM. INSTALL SPLICE AND TAP CONNECTORS THAT POSSESS EQUIVALENT OR BETTER MECHANICAL STRENGTH AND INSULATION RATING THAN THE CONDUCTORS BEING SPLICED. USE SPLICE AND TAP CONNECTORS THAT ARE COMPATIBLE WITH THE CONDUCTOR MATERIAL. SPLICES IN IN-GROUND PULL BOXES OR OTHER EXTERIOR LOCATIONS ARE TO BE WATERPROOF.

PRIOR TO ENERGIZING, TEST WIRE AND CABLES FOR ELECTRICAL CONTINUITY AND SHORT-CIRCUITS. SUBSEQUENT TO WIRE AND CABLE HOOK-UPS, ENERGIZE CIRCUITS AND DEMONSTRATE PROPER FUNCTIONING. CORRECT ANY MALFUNCTIONS AND RETEST TO DEMONSTRATE COMPLIANCE.

26 0526 - GROUNDING

GROUNDING IS TO BE PER THE REQUIREMENTS OF NEC ARTICLE 250. GROUND AND BOND ALL NON-CURRENT-CARRYING PARTS OF EQUIPMENT. ALL CIRCUITS ARE TO HAVE A GREEN EQUIPMENT GROUNDING CONDUCTOR. GROUND RODS TO BE COPPER-CLAD STEEL, ¾" DIAMETER BY 10' LONG. CONNECTIONS TO GROUND RODS TO BE EXOTHERMAL TYPE. SERVICE ENTRANCE GROUNDING ELECTRODE SYSTEM RESISTANCE SHALL NOT EXCEED 25 OHMS.

BOND LUMINAIRES, METAL ACCESSORIES, AND METAL POLES TO BRANCH CIRCUIT EQUIPMENT GROUNDING CONDUCTOR. PROVIDE SUPPLEMENTARY GROUNDING ELECTRODE AT EACH POLE.

26 0529 - HANGERS & SUPPORTS

INSTALL SUPPORTING DEVICES TO FASTEN ELECTRICAL COMPONENTS SECURELY AND PERMANENTLY IN ACCORDANCE WITH NEC REQUIREMENTS. COORDINATE WITH EQUIPMENT AND OTHER INSTALLED SYSTEMS.

26 0534 - RACEWAY & BOXES

CONDUIT: ALL WIRING SHALL BE INSTALLED IN CONDUIT, MINIMUM SIZE IS TO BE 3/4", CONDUIT SHALL BE PVC SCHEDULE 40 OR RIGID GALVANIZED STEEL FOR DIRECT BURIAL APPLICATIONS AND PVC SCHEDULE 40 FOR CONCRETE ENCASEMENT. PVC SCHEDULE 40 CONDUIT SHALL CONFORM TO NEMA TC-2 AND NEMA TC-3 SPECIFICATIONS. SWEEP ELLS SHALL HAVE A MINIMUM RADIUS OF SIX TIMES THE CONDUIT DIAMETER WITH THE EXCEPTION OF TWO-INCH CONDUIT, WHICH SHALL BE TWENTY FOUR-INCH MINIMUM RADIUS. LIQUID-TIGHT FLEXIBLE CONDUIT IS TO BE USED FOR CONNECTIONS TO EQUIPMENT SUBJECT TO MOVEMENT OR VIBRATION, MAXIMUM LENGTH TO BE 6'.

BOXES: METAL OUTLET, DEVICE AND JUNCTION BOXES SHALL COMPLY WITH NEMA OS1 AND FB1. BOXES SHALL BE EITHER CAST TYPE OR NEMA 3R RATED. CAST BOXES SHALL BE TYPE FD, CAST FERALLOY. PROVIDE GASKETED COVER AND THREADED HUBS. WP COVERS ARE TO BE "IN USE" TYPE, IN-GRADE EXTERIOR BOXES TO BE COMPOSITE TYPE.

CONDUIT ROUTING IS SHOWN ON DRAWINGS IN APPROXIMATE LOCATIONS UNLESS DIMENSIONED. ROUTE AS REQUIRED TO COMPLETE WIRING SYSTEM. JOIN NONMETALLIC CONDUIT USING CEMENT AS RECOMMENDED BY MANUFACTURER. WIPE NONMETALLIC CONDUIT DRY AND CLEAN BEFORE JOINING. APPLY FULL EVEN COAT OF CEMENT TO ENTIRE AREA INSERTED IN FITTING. ALLOW JOINT TO CURE FOR 20 MINUTES, MINIMUM.

INSTALL NO MORE THAN EQUIVALENT OF THREE 90 DEGREE BENDS BETWEEN BOXES.

PROVIDE SUITABLE PULL STRING IN EACH EMPTY CONDUIT EXCEPT SLEEVES AND NIPPLES.

USE SUITABLE CAPS TO PROTECT INSTALLED CONDUIT AGAINST ENTRANCE OF DIRT AND MOISTURE.

GROUND AND BOND CONDUIT AND BOXES UNDER PROVISIONS OF SECTION 260526.

INSTALL ELECTRICAL RACEWAYS AND BOXES IN ACCORDANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS, THE NEC AND NECA STANDARDS OF INSTALLATION. UPON COMPLETION OF INSTALLATION OF RACEWAYS AND BOXES, INSPECT INTERIORS. CLEAR ALL BLOCKAGES AND REMOVE BURRS, DIRT AND CONSTRUCTION DEBRIS.

26 0553 - ELECTRICAL IDENTIFICATION

TAG AND LABEL CIRCUITS IN CABINETS, PULL AND JUNCTION BOXES. PHASE AND VOLTAGE MAY BE INDICATED BY COLOR-CODED CONDUCTOR INSULATION.

26 2100 - LOW-VOLTAGE ELECTRICAL SERVICE ENTRANCE

TRANSFORMER PADS: FURNISHED AND INSTALLED BY CONTRACTOR PER UTILITY COMPANY REQUIREMENTS.

TRANSFORMERS: FURNISHED AND INSTALLED BY UTILITY COMPANY.

TRANSFORMER GROUNDING PROVISIONS: FURNISHED AND INSTALLED BY CONTRACTOR PER UTILITY COMPANY REQUIREMENTS.

PRIMARY:

TRENCHING AND BACKFILLING: PROVIDED BY CONTRACTOR.

CONDUITS: FURNISHED AND INSTALLED BY CONTRACTOR.

CONDUCTORS: FURNISHED AND INSTALLED BY UTILITY COMPANY.

SECONDARY:

TRENCHING AND BACKFILLING: PROVIDED BY CONTRACTOR.

CONDUITS: FURNISHED AND INSTALLED BY CONTRACTOR.

CONDUCTORS: FURNISHED AND INSTALLED BY CONTRACTOR. (SERVICE POINT OF DELIVERY AT TRANSFORMER).

TERMINATIONS AT SERVICE POINT OF DELIVERY: PROVIDED BY UTILITY COMPANY.

METERING PROVISIONS: METER BASES FURNISHED AND INSTALLED BY CONTRACTOR PER UTILITY COMPANY REQUIREMENTS.

26 5600 - EXTERIOR LIGHTS

FURNISH FIXTURES AS INDICATED IN SCHEDULE.

LIGHT LEVELS TO BE: 1.2 FC AVERAGE, 3FC MAX.

CONTRACTOR TO PROVIDE POINT-BY-POINT PHOTOMETRIC CALCULATION FOR THE LIGHTING LAYOUT AS A PART OF THE SUBMITTAL PROCESS. POINTS TO BE ON A 10FT X 10FT GRID. FIXTURE SUBMITTAL WILL NOT BE APPROVED WITHOUT CALCULATIONS.

LUMINAIRE ATTACHMENT PROVISIONS: COMPLY WITH LUMINAIRE MANUFACTURERS' MOUNTING REQUIREMENTS, ANCHOR BOLTS, LEVELING NUTS, BOLT CAPS AND WASHERS: HOT-DIP GALVANIZED AFTER FABRICATION, UNLESS STAINLESS-STEEL ITEMS ARE INDICATED. ANCHOR-BOLT TEMPLATE TO BE PLYWOOD OR STEEL.

CONCRETE POLE FOUNDATIONS: CAST IN PLACE, WITH ANCHOR BOLTS TO MATCH POLE-BASE FLANGE. GROUNDING AND BONDING LUGS: WELDED 1/2 INCH THREADED LUG, LISTED FOR ATTACHING GROUNDING AND BONDING CONDUCTORS OF TYPE AND SIZE LISTED IN THAT SECTION, AND ACCESSIBLE THROUGH HANDHOLE. CONCRETE PER REQUIREMENTS OF DIVISION 3.

INSTALL FIXTURES SECURELY, IN A NEAT AND WORKMANLIKE MANNER.

PROVIDE CONCRETE BASES FOR LIGHTING POLES AT LOCATIONS INDICATED. INSTALL POLES PLUMB. PROVIDE SHIMS TO ADJUST PLUMB. GROUT AROUND EACH BASE.

BOND LUMINAIRES, METAL ACCESSORIES, AND METAL POLES TO BRANCH CIRCUIT EQUIPMENT GROUNDING CONDUCTOR. PROVIDE SUPPLEMENTARY GROUNDING ELECTRODE AT EACH POLE.

OPERATE EACH LUMINAIRE AFTER INSTALLATION AND CONNECTION. INSPECT FOR IMPROPER CONNECTIONS AND OPERATION.

CLEAN ELECTRICAL PARTS TO REMOVE CONDUCTIVE AND DELETERIOUS MATERIALS. REMOVE DIRT AND DEBRIS FROM ENCLOSURE. CLEAN PHOTOMETRIC CONTROL SURFACES AS RECOMMENDED BY MANUFACTURER. CLEAN FINISHES AND TOUCH UP DAMAGE

33 7173 - COMBINATION SERVICE ENTRANCE DEVICES

COMBINATION METER/LOAD CENTER SHALL UL LISTED FOR USE AS SERVICE ENTRANCE EQUIPMENT. NEMA TYPE 3R ENCLOSURE WITH PAINTED, G90 GALVANIZED STEEL, SIDE-HINGED LOAD CENTER DOOR, REQUIRING REMOVAL OF ONE SCREW TO REMOVE DOOR, UNIT SHALL BE SUITABLE FOR SURFACE OR POLE MOUNTING, BUS BARS TO BE TIN-PLATED COPPER BUS BARS , UNIT RATINGS TO BE AS INDICATED IN SCHEDULE. SUITABLE FOR OVERHEAD AND UNDERGROUND UTILITY FEED. METER CENTER TO BE BY SQUARE D OR EQUIVALENT.

INSTALL IN ACCORDANCE WITH MANUFACTURERS WRITTEN INSTRUCTIONS AND NEC REQUIREMENTS. INSPECT COMPLETED INSTALLATION FOR PHYSICAL DAMAGE, PROPER ALIGNMENT, ANCHORAGE AND GROUNDING. ENSURE THAT ALL CONNECTIONS AND TERMINATIONS ARE PROPERLY TIGHTENED. CLEAN TO REMOVE ALL CONSTRUCTION DEBRIS.

GENERAL NOTES ELECTRICAL

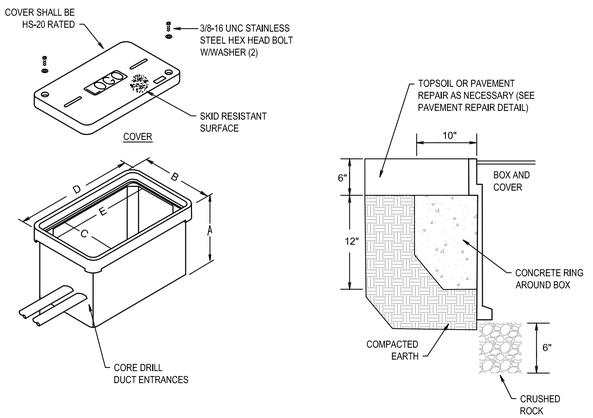
1. TELEPHONE AND CATV SERVICES REMOVED FROM POLES TO BE PROVIDED BY OTHERS.
2. DIVISION 26 CONTRACTOR(S) SHALL COORDINATE THEIR WORK WITH ALL OTHER TRADES PRIOR TO FABRICATION OF SYSTEMS AND COMMENCEMENT OF INSTALLATION. IT SHALL BE THE RESPONSIBILITY OF EACH CONTRACTOR TO REVIEW THE WORK OF OTHER TRADES (INCLUDING, BUT NOT LIMITED TO CIVIL) AS IT AFFECTS THE ELECTRICAL WORK, AND AS THEIR WORK AFFECTS OTHER TRADES, TO INSURE THAT THE CONSTRUCTION DOCUMENTS ARE CLOSELY FOLLOWED. WHERE DISCREPANCIES ARISE, THEY SHALL BE REFERRED TO THE OWNER AND ENGINEER FOR RESOLUTION BEFORE PROCEEDING WITH THE WORK.

LEGEND

- UNDERGROUND CONDUIT/WIRING
- PANELBOARD, 120/240V
- IN GROUND PULL BOX
- ## STREET LIGHT FIXTURE, FIRST # IS LTG CKT NO, SECOND # IS RECEPTACLE CKT NO
- POWER POLE
- EXISTING LIGHT POLE

ABBREVIATIONS

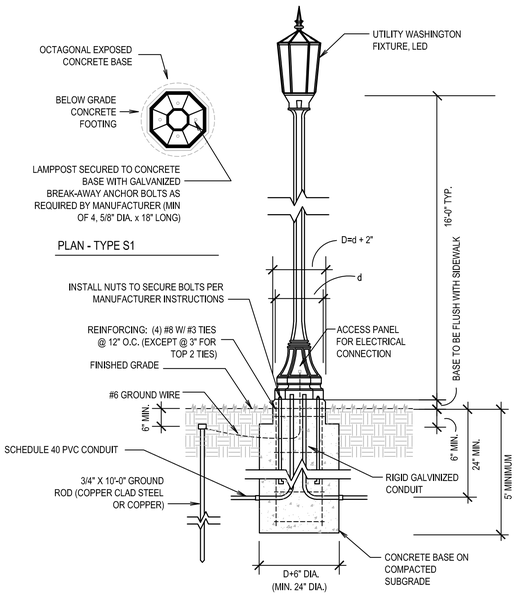
A	AMPS, AMPERE
AFG	ABOVE FINISHED GRADE
BRKR	BREAKER
BLDG	BUILDING
C,CND	CONDUIT
CKT	CIRCUIT
CONC	CONCRETE
COORD	COORDINATE
DIA	DIAMETER
EC	ELECTRICAL CONTRACTOR
ELEC	ELECTRIC
GEC	GROUNDING ELECTRODE CONDUCTOR
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
G,GND	GROUND
KAIC	THOUSAND AMPS INTERRUPTING CURRENT
LED	LIGHT EMITTING DIODE
LTG	LIGHTING
MB	MAIN BREAKER
MH	MOUNTING HEIGHT, METAL HALIDE
MIN	MINIMUM
MTD	MOUNTED
NEC	NATIONAL ELECTRICAL CODE
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NO	NUMBER
O.C.	ON CENTER
OH	OVERHEAD
P	POLE
RGS	RIGID GALVANIZED STEEL
SW	SIDEWALK
TYP	TYPICAL
UG	UNDERGROUND
UNO	UNLESS NOTED OTHERWISE
UTIL	UTILITY
V	VOLTS, VOLTAGE
VUSBC	VIRGINIA UNIFORM STATE BUILDING CODE
W	WIRE
WP	WEATHERPROOF
XFMR	TRANSFORMER
Ø	DIAMETER



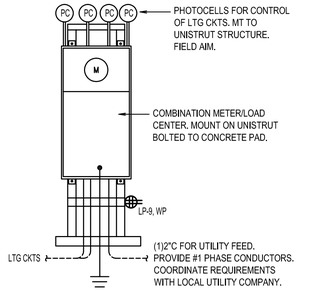
2 - E0 IN-GRADE PULL BOX DETAIL
SCALE: NONE

NOTES:
1. HOUSING SHALL BE A POLYMER CONCRETE REINFORCED WITH A HEAVY WEAVE FIBERGLASS REINFORCING WITH COMPRESSIVE STRENGTH OF NO LESS THAN 10,000 PSI.cCOLOR TO BE BRICK RED.
2. PROVIDE STAINLESS STEEL BOLTS AND INSERTS.

SCHEDULE						
HANDHOLE TYPE	DIMENSION A	B	C	D	E	CUSTOM COVER DESIGNATION
A	18"	15-1/2"	11-3/4"	25"	21-1/4"	LIGHTING
B	24"	26"	22-1/4"	37-5/8"	33-7/8"	ELECTRIC
C	33"	32-1/8"	28-1/8"	49-5/8"	45-5/8"	ELECTRIC



1 - E0 POLE BASE DETAIL - TYPE S1
SCALE: NONE



3 - E0 RISER DIAGRAM
SCALE: NONE

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ELECTRICAL SITE PLAN - PHASE 2
NORTH CENTRAL AVENUE IMPROVEMENTS
STAUNTON, VIRGINIA

REVISIONS
.

DESIGNED BY: SAH
DRAWN BY: BJP
CHECKED BY: AMH
SCALE:
DATE: July 01, 2019
PROJECT NUMBER: R08349-17CV

E0

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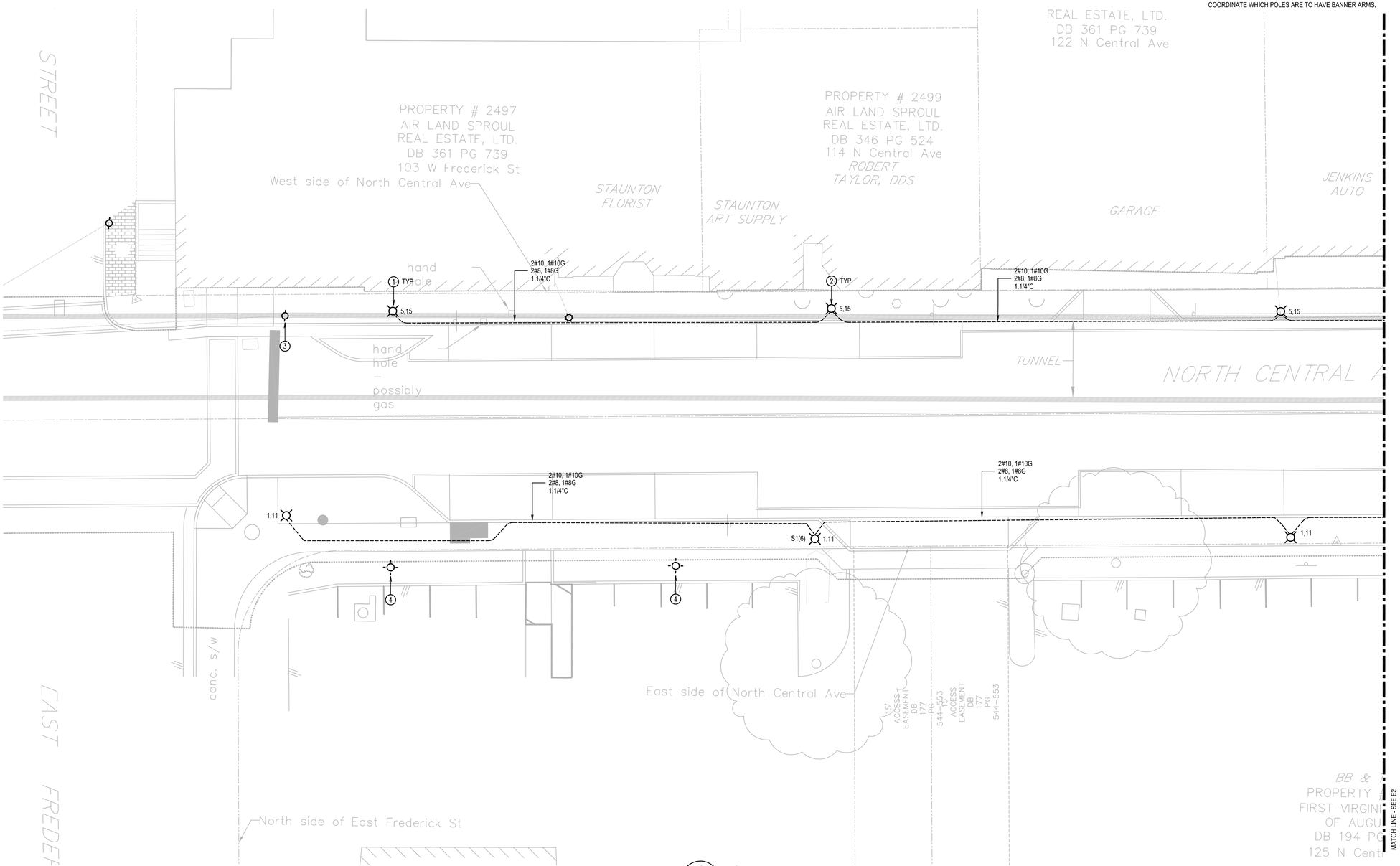
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GENERAL NOTES

1. LOCATION OF POLE IS TO CENTER OF SYMBOL. FIELD VERIFY/LOCATE ALL POLES PRIOR TO ROUGH-IN.
2. X,X AT EACH POLE INDICATES CIRCUIT NUMBERS. FIRST NUMBER IS LTG CKT NUMBER; SECOND IS RECEPTACLE CKT NUMBER.
3. SEE PANEL SCHEDULE FOR WHICH CIRCUIT GOES WITH WHICH WIRE SIZE. GROUNDING CONDUCTORS MAY BE SHARED BETWEEN CIRCUITS OF THE SAME WIRE SIZE.
4. CONTRACTOR IS TO ASSUME THAT ALL METERS/SERVICES ARE 200A, UNO.
5. CONTRACTOR IS TO COORD THE DISCONNECTION OF EXISTING SERVICES FROM THE EXISTING INCOMING OVERHEAD LINES WITH THE UTILITY COMPANY. UNLESS INDICATED OTHERWISE, ALL NEW METERS SHALL BE IN THE SAME LOCATION AS THE EXISTING METERS. CONTRACTOR SHALL RECONNECT CONDUCTORS DOWNSTREAM OF METERS TO NEW METER. EXTEND ALL EXISTING CONDUCTORS FROM EXISTING METER LOCATION TO NEW METER LOCATION AS REQUIRED. USE #3/0 FOR 200A METERS AND 500 KCMIL FOR 400A, UNO. FIELD VERIFY EXACT LOCATIONS AND ROUTINGS.
6. PROVIDE BANNER ARMS FOR EVERY OTHER POLE. FIELD COORDINATE WHICH POLES ARE TO HAVE BANNER ARMS.

ⓧ KEY NOTES

1. FIXTURES ON WEST SIDE SHALL BE LOCATED ALONG THE BACK OF THE CURB; NO PART OF BASE SHALL BE IN THE CURB. PROVIDE MINIMUM 3' CLEAR WIDTH OF SIDEWALK; FOUR FOOT CLEAR WIDTH IS PREFERRED.
2. SEE POLE BASE DETAIL ON SHEET E0.
3. EXISTING POLE AND ASSOCIATED OH UTILITY LINES TO BE REMOVED. COORD WORK WITH UTILITY COMPANIES.
4. EXISTING LIGHT FIXTURE TO REMAIN, MAINTAIN CIRCUITRY TO FIXTURE. PROVIDE NEW CIRCUITRY AS REQUIRED TO MAINTAIN SERVICE TO FIXTURES. ASSUME 20A, 120V CIRCUIT(S), UNO.



1 / E1 SITE PLAN
SCALE: 1" = 10'

COMMONWEALTH OF VIRGINIA
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ELECTRICAL SITE PLAN - PHASE 2

NORTH CENTRAL AVENUE IMPROVEMENTS

STAUNTON, VIRGINIA

REVISIONS
.

DESIGNED BY:	SAH
DRAWN BY:	BJP
CHECKED BY:	AMH
SCALE:	
DATE:	July 01, 2019
PROJECT NUMBER:	R08349-17CV

E1

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ENERGY BY DESIGN
100 10th St. NE, Suite 202
Charlottesville, VA 22902
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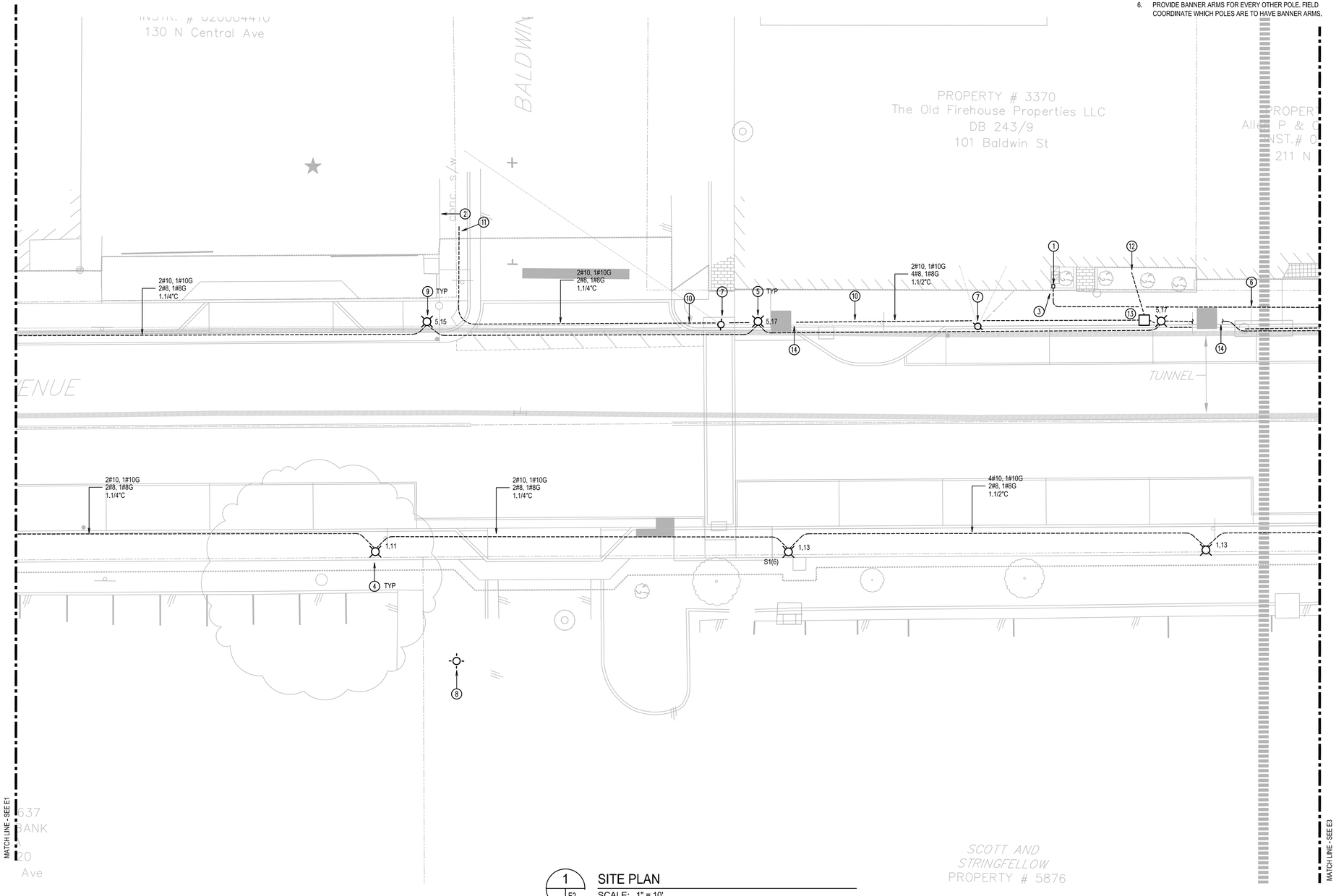
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GENERAL NOTES

1. LOCATION OF POLE IS TO CENTER OF SYMBOL. FIELD VERIFY/LOCATE ALL POLES PRIOR TO ROUGH-IN.
2. X,X AT EACH POLE INDICATES CIRCUIT NUMBERS. FIRST NUMBER IS LTG CKT NUMBER; SECOND IS RECEPTACLE CKT NUMBER.
3. SEE PANEL SCHEDULE FOR WHICH CIRCUIT GOES WITH WHICH WIRE SIZE. GROUNDING CONDUCTORS MAY BE SHARED BETWEEN CIRCUITS OF THE SAME WIRE SIZE.
4. CONTRACTOR IS TO ASSUME THAT ALL METERS/SERVICES ARE 200A, UNO.
5. CONTRACTOR IS TO COORD THE DISCONNECTION OF EXISTING SERVICES FROM THE EXISTING INCOMING OVERHEAD LINES WITH THE UTILITY COMPANY. UNLESS INDICATED OTHERWISE, ALL NEW METERS SHALL BE IN THE SAME LOCATION AS THE EXISTING METERS. CONTRACTOR SHALL RECONNECT CONDUCTORS DOWNSTREAM OF METERS TO NEW METER. EXTEND ALL EXISTING CONDUCTORS FROM EXISTING METER LOCATION TO NEW METER LOCATION AS REQUIRED. USE #3/0 FOR 200A METERS AND 500 KCMIL FOR 400A, UNO. FIELD VERIFY EXACT LOCATIONS AND ROUTINGS.
6. PROVIDE BANNER ARMS FOR EVERY OTHER POLE. FIELD COORDINATE WHICH POLES ARE TO HAVE BANNER ARMS.

ⓧ KEY NOTES

1. PROVIDE NEMA 3R PULL BOX FOR SERVICE, SIZE AS REQUIRED. FIELD COORD PULL BOX LOCATION. PROVIDE 3"C WITH #3/0 CONDUCTORS FROM PULL BOX, AROUND BLDG TO LOCATION OF REMOVED WEATHE RHEAD, TO INSIDE THE BUILDING. MAKE CONNECTIONS TO EXISTING SERVICE ENTRANCE CTS/MAIN. COORDINATE REMOVAL OF WEATHER HEAD AND OH SERVICE AND CONNECTION OF NEW WITH UTILITY COMPANY.
2. EXISTING POLE WITH TRANSFORMERS THAT SERVES CHURCH OF CHRIST. SEE NOTE 3.
3. EXISTING WEATHERHEAD FOR OVERHEAD SERVICE TO CHURCH OF CHRIST. COORDINATE RELOCATION OF SERVICE TO NEW PULL BOX ON EXTERIOR OF BUILDING. PROVIDE #3/0 PHASE CONDUCTORS AS REQUIRED. COORD WITH UTILITY COMPANY.
4. FIXTURES ON EAST SIDE SHALL BE LOCATED ALONG THE BACK EDGE OF THE SIDEWALK. NO PART OF THE BASE SHALL BE OUTSIDE THE SIDEWALK. PROVIDE MINIMUM 3' CLEAR WIDTH OF SIDEWALK; FOUR FOOT CLEAR WIDTH IS PREFERRED.
5. SEE POLE BASE DETAIL ON SHEET E0.
6. SERVICE FEEDER FOR PROPERTY #3370. 3" CONDUIT. PROVIDE #3/0 PHASE CONDUCTORS FOR 200A SERVICE. COORD WITH UTILITY COMPANY.
7. EXISTING POLE AND ASSOCIATED OH UTILITY LINES TO BE REMOVED. COORD WORK WITH UTILITY COMPANIES; DOMINION AND COMCAST.
8. EXISTING LIGHT FIXTURE TO REMAIN. MAINTAIN CIRCUITRY TO FIXTURE. PROVIDE NEW CIRCUITRY AS REQUIRED TO MAINTAIN SERVICE TO FIXTURE. ASSUME 20A, 120V CIRCUIT(S), UNO
9. FIXTURES ON WEST SIDE SHALL BE LOCATED ALONG THE BACK OF THE CURB; NO PART OF BASE SHALL BE IN THE CURB. PROVIDE MINIMUM 3' CLEAR WIDTH OF SIDEWALK; FOUR FOOT CLEAR WIDTH IS PREFERRED.
10. 1-2"C FOR COMCAST; MIN 24" DEEP. CONDUIT TO BE IN SEPARATE TRENCH FROM ANY DOMINION PRIMARY CONDUITS.
11. STUB UP AT EXISTING POLE LOCATION. CONDUIT IS TO SWEEP UP AND STUB UP 6" ABOVE FINISHED GRADE.
12. STUB UP AT BUILDING. FIELD COORD EXACT LOCATION WITH COMCAST. CONDUIT IS TO SWEEP UP AND STUB UP 6" ABOVE FINISHED GRADE.
13. VAULT PROVIDED BY COMCAST. FIELD COORD LOCATION WITH COMCAST AND LOCATION OF EXISTING RG6 CABLE ENTRY. COORDINATE VAULT INSTALLATION WITH UG CONDUIT INSTALLATION.
14. COORDINATE ROUTING WITH OTHER UG UTILITIES.



1 – E2 SITE PLAN
SCALE: 1" = 10'

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ELECTRICAL SITE PLAN - PHASE 2
NORTH CENTRAL AVENUE IMPROVEMENTS
STAUNTON, VIRGINIA

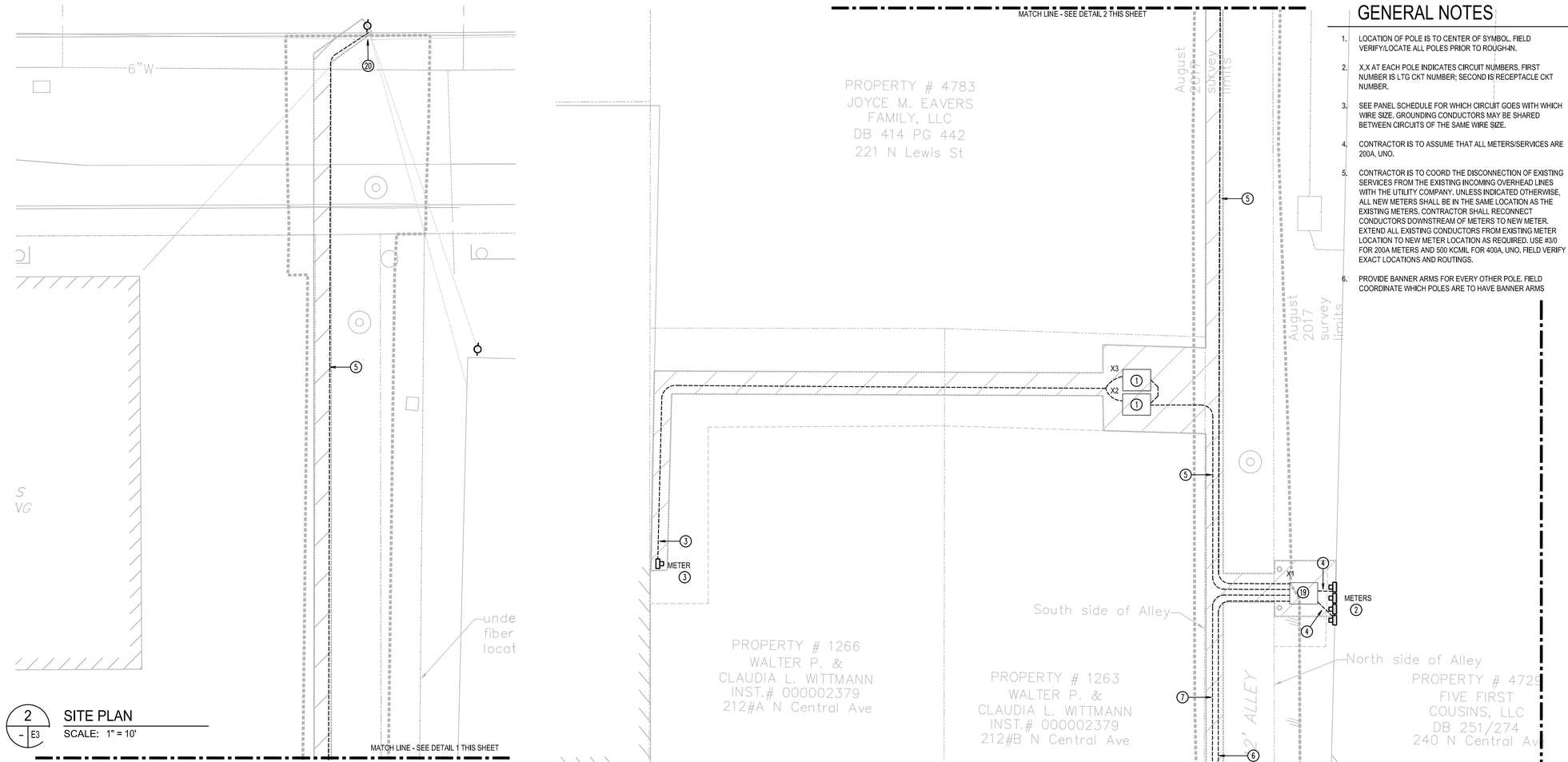
REVISIONS
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DESIGNED BY:	SAH
DRAWN BY:	BJP
CHECKED BY:	AMH
SCALE:	
DATE:	July 01, 2019
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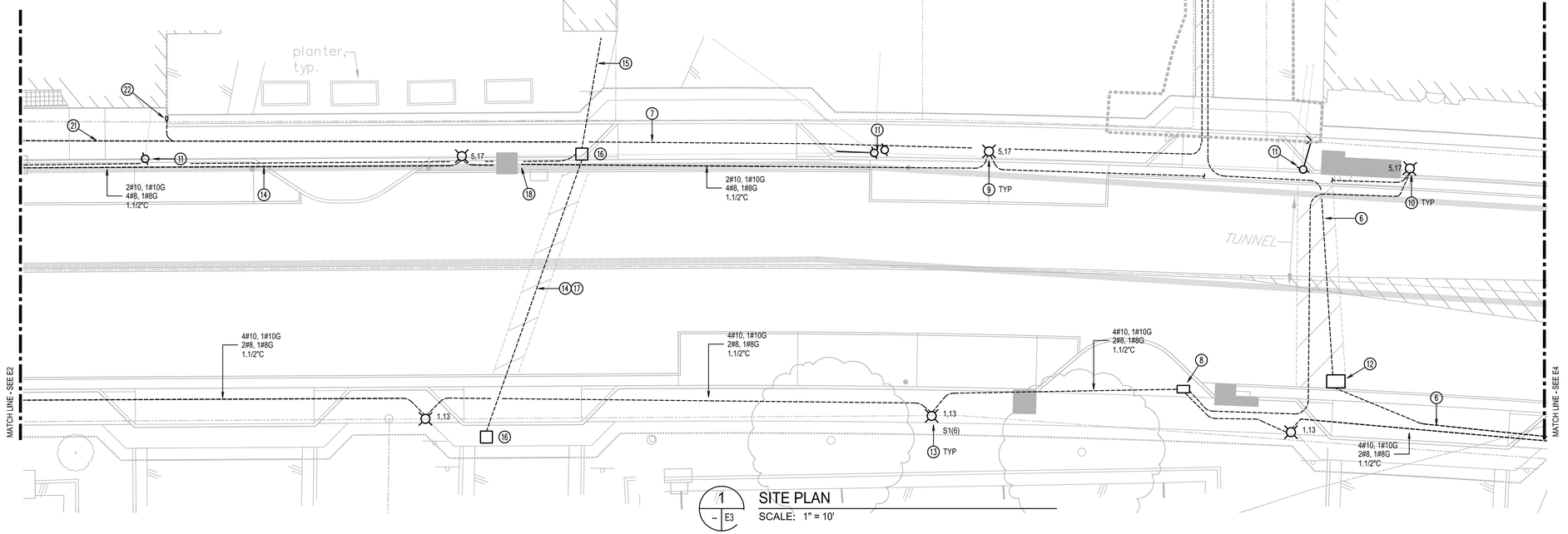
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E2

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2 - E3 SITE PLAN
SCALE: 1" = 10'



1 - E3 SITE PLAN
SCALE: 1" = 10'

GENERAL NOTES

1. LOCATION OF POLE IS TO CENTER OF SYMBOL. FIELD VERIFY/LOCATE ALL POLES PRIOR TO ROUGH-IN.
2. X,X AT EACH POLE INDICATES CIRCUIT NUMBERS. FIRST NUMBER IS LTG CKT NUMBER; SECOND IS RECEPTACLE CKT NUMBER.
3. SEE PANEL SCHEDULE FOR WHICH CIRCUIT GOES WITH WHICH WIRE SIZE. GROUNDING CONDUCTORS MAY BE SHARED BETWEEN CIRCUITS OF THE SAME WIRE SIZE.
4. CONTRACTOR IS TO ASSUME THAT ALL METERS/SERVICES ARE 200A, UNO.
5. CONTRACTOR IS TO COORD THE DISCONNECTION OF EXISTING SERVICES FROM THE EXISTING INCOMING OVERHEAD LINES WITH THE UTILITY COMPANY. UNLESS INDICATED OTHERWISE, ALL NEW METERS SHALL BE IN THE SAME LOCATION AS THE EXISTING METERS. CONTRACTOR SHALL RECONNECT CONDUCTORS DOWNSTREAM OF METERS TO NEW METER. EXTEND ALL EXISTING CONDUCTORS FROM EXISTING METER LOCATION TO NEW METER LOCATION AS REQUIRED. USE #3/0 FOR 200A METERS AND 500 KCMIL FOR 400A, UNO. FIELD VERIFY EXACT LOCATIONS AND ROUTINGS.
6. PROVIDE BANNER ARMS FOR EVERY OTHER POLE. FIELD COORDINATE WHICH POLES ARE TO HAVE BANNER ARMS

KEY NOTES

1. NEW PAD MOUNTED TRANSFORMERS X1, X2, AND X3 FOR UNDERGROUND SERVICES. X2 AND X3 PROVIDE OPEN-DELTA 3-PHASE AT 240V. COORD ALL CONDUIT RUNS TO AVOID MANHOLE IN ALLEY. PROVIDE ONE SINGLE TRANSFORMER PAD PER UTILITY COMPANY REQUIREMENTS.
2. PROVIDE NEW (4) METER STACK FOR CHINA HOUSE. SEE NOTE 4. METERS TO BE LAID OUT HORIZONTALLY, TO MATCH EXISTING CONFIGURATION; ONE GROUP OF THREE AND ONE SINGLE METER.
3. PROVIDE NEW METER AND 4" PVC CONDUIT TO NEW TRANSFORMERS X2 AND X3. SERVICE TO FURNITURE SHOP, 400A, 3-PHASE 240V OPEN DELTA SYSTEM. PROVIDE 500 KCMIL PHASE CONDUCTORS. COORD WITH UTILITY COMPANY. CONNECT NEW CONDUCTORS TO EXISTING CONDUCTORS DOWNSTREAM OF METER.
4. (2) 3" CNDS TO METER STACK. 24" BURIAL DEPTH, MIN. PROVIDE #3/0 PHASE CONDUCTORS FOR EACH 200A SERVICE. COORD WITH UTILITY COMPANY. CONNECT NEW CONDUCTORS TO EXISTING CONDUCTORS DOWNSTREAM OF METERS.
5. (2) 6" CNDS FOR XFMR PRIMARY, 36" BURIAL DEPTH, MIN.
6. 2" CND TO PANEL LP, 24" BURIAL DEPTH, MIN.
7. 2- 3" CND FOR SERVICE TO FIRE PLACES & THINGS AND PROPERTY #3370, 24" BURIAL DEPTH, MIN. PROVIDE #3/0 PHASE CONDUCTORS FOR EACH 200A SERVICE. COORD WITH UTILITY COMPANY.
8. TYPE "A" HANDHOLE. FIELD COORD EXACT LOCATION. SEE DETAIL ON SHEET E0. FIELD COORD LOCATION WITH OTHER UG UTILITIES.
9. SEE POLE BASE DETAIL ON SHEET E0.
10. FIXTURES ON WEST SIDE SHALL BE LOCATED ALONG THE BACK OF THE CURB; NO PART OF BASE SHALL BE IN THE CURB. PROVIDE MINIMUM 3' CLEAR WIDTH OF SIDEWALK; FOUR FOOT CLEAR WIDTH IS PREFERRED.
11. EXISTING POLE AND ASSOCIATED OH UTILITY LINES TO BE REMOVED. COORD WORK WITH UTILITY COMPANIES.
12. TYPE "B" HANDHOLE. FIELD COORD EXACT LOCATION. SEE DETAIL ON SHEET E0. HANDHOLE TO HAVE HEAVY TRAFFIC RATED COVER. FIELD COORD LOCATION WITH OTHER UG UTILITIES.
13. FIXTURES ON EAST SIDE SHALL BE LOCATED ALONG THE BACK EDGE OF THE SIDEWALK. NO PART OF THE BASE SHALL BE OUTSIDE THE SIDEWALK. PROVIDE MINIMUM 3' CLEAR WIDTH OF SIDEWALK; FOUR FOOT CLEAR WIDTH IS PREFERRED.
14. 1-2"C FOR COMCAST: MIN 24" DEEP. CONDUIT TO BE IN SEPARATE TRENCH FROM ANY DOMINION PRIMARY CONDUITS.
15. STUB UP AT BUILDING. FIELD COORD EXACT LOCATION WITH COMCAST. CONDUIT IS TO SWEEP UP AND STUB UP 6" ABOVE FINISHED GRADE.
16. VAULT PROVIDED BY COMCAST. FIELD COORD LOCATION WITH COMCAST AND LOCATION OF EXISTING RG6 CABLE ENTRY. COORDINATE VAULT INSTALLATION WITH UG CONDUIT INSTALLATION.
17. COORD INSTALLATION ACROSS ROAD WITH OTHER WORK IN AREA. CONDUIT MAY BE PUSHED/BORED IF ACCEPTABLE TO COMCAST.
18. COORDINATE ROUTING WITH OTHER UG UTILITIES.
19. NEW PAD MOUNTED TRANSFORMER X1. PROVIDE TRANSFORMER PAD PER UTILITY COMPANY REQUIREMENTS. SEE DETAIL ON SHEET E6.
20. STUB UP PRIMARY CONDUITS AT EXISTING POLE ON LEWIS ST. FIELD COORD EXACT LOCATION.
21. 3" CND FOR SERVICE TO PROPERTY #3370. 24" BURIAL DEPTH, MIN. PROVIDE #3/0 PHASE CONDUCTORS FOR 200A SERVICE. COORD WITH UTILITY COMPANY.
22. PROVIDE NEMA 3R PULL BOX FOR SERVICE, SIZE AS REQUIRED, LOCATE IN VICINITY OF REMOVED WEATHER HEAD. FIELD COORD EXACT LOCATION. PROVIDE 3"C WITH #3/0 CONDUCTORS FROM PULL BOX TO LOCATION OF REMOVED WEATHER HEAD. TO INSIDE THE BUILDING. MAKE CONNECTIONS TO EXISTING SERVICE ENTRANCE CTS/MAIN. COORDINATE REMOVAL OF WEATHER HEAD AND OH SERVICE AND CONNECTION OF NEW WITH UTILITY COMPANY.

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ELECTRICAL SITE PLAN - PHASE 2
NORTH CENTRAL AVENUE IMPROVEMENTS
STAUNTON, VIRGINIA

REVISIONS
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DESIGNED BY:	SAH
DRAWN BY:	BJP
CHECKED BY:	AMH
SCALE:	
DATE:	July 01, 2019
PROJECT NUMBER:	R08349-17CV

E3

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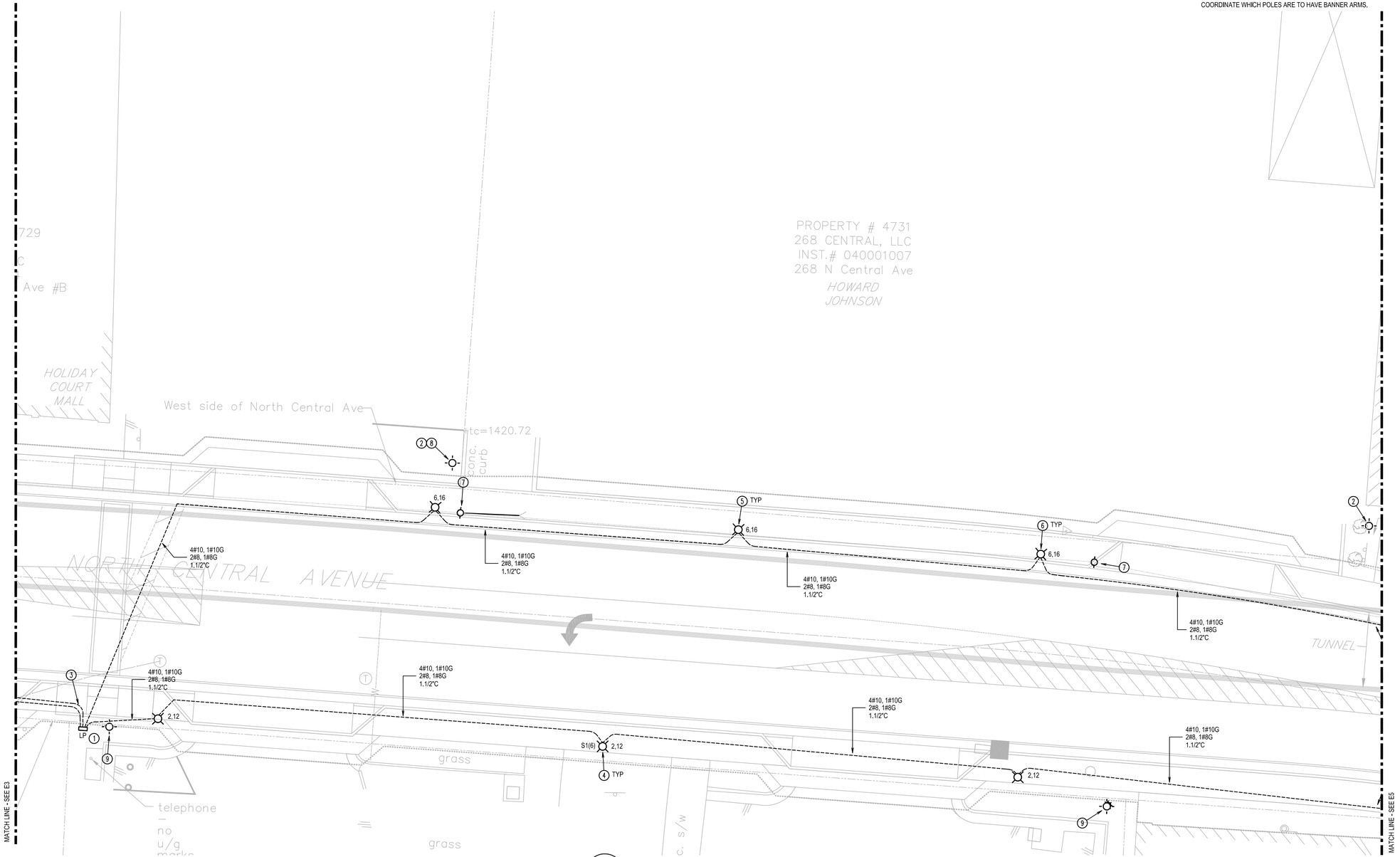
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GENERAL NOTES

1. LOCATION OF POLE IS TO CENTER OF SYMBOL. FIELD VERIFY/LOCATE ALL POLES PRIOR TO ROUGH-IN.
2. X,X AT EACH POLE INDICATES CIRCUIT NUMBERS. FIRST NUMBER IS LTG CKT NUMBER; SECOND IS RECEPTACLE CKT NUMBER.
3. SEE PANEL SCHEDULE FOR WHICH CIRCUIT GOES WITH WHICH WIRE SIZE. GROUNDING CONDUCTORS MAY BE SHARED BETWEEN CIRCUITS OF THE SAME WIRE SIZE.
4. CONTRACTOR IS TO ASSUME THAT ALL METERS/SERVICES ARE 200A, UNO.
5. CONTRACTOR IS TO COORD THE DISCONNECTION OF EXISTING SERVICES FROM THE EXISTING INCOMING OVERHEAD LINES WITH THE UTILITY COMPANY. UNLESS INDICATED OTHERWISE, ALL NEW METERS SHALL BE IN THE SAME LOCATION AS THE EXISTING METERS. CONTRACTOR SHALL RECONNECT CONDUCTORS DOWNSTREAM OF METERS TO NEW METER. EXTEND ALL EXISTING CONDUCTORS FROM EXISTING METER LOCATION TO NEW METER LOCATION AS REQUIRED. USE #3/0 FOR 200A METERS AND 500 KCMIL FOR 400A, UNO. FIELD VERIFY EXACT LOCATIONS AND ROUTINGS.
6. PROVIDE BANNER ARMS FOR EVERY OTHER POLE. FIELD COORDINATE WHICH POLES ARE TO HAVE BANNER ARMS.

ⓧ KEY NOTES

1. PANEL LP. SEE DETAIL 3/E0. PROVIDE FOUR (4) PHOTOCELLS FOR CONTROL OF THE LIGHTING CIRCUITS. LOCATE PANEL IN RIGHT OF WAY.
2. EXISTING STREET LIGHT POLE. COORD REMOVAL OF POLE AND ASSOCIATED CIRCUITRY WITH CITY AND UTILITY COMPANY. SALVAGE POLE AND TURN OVER TO OWNER.
3. FEEDER TO PANEL LP. SEE ALSO RISER DIAGRAM ON E0.
4. FIXTURES ON WEST SIDE SHALL BE LOCATED AN EQUAL DISTANCE FROM THE BACK OF CURB. LOCATE 4' FROM BACK OF CURB.
5. SEE POLE BASE DETAIL ON SHEET E0.
6. FIXTURES ON WEST SIDE SHALL BE LOCATED ALONG THE BACK OF THE CURB; NO PART OF BASE SHALL BE IN THE CURB. PROVIDE MINIMUM 3' CLEAR WIDTH OF SIDEWALK; FOUR FOOT CLEAR WIDTH IS PREFERRED.
7. EXISTING POLE AND ASSOCIATED OH UTILITY LINES TO BE REMOVED. COORD WORK WITH UTILITY COMPANIES.
8. PATCH/REPAIR PAVEMENT TO MATCH SURROUNDINGS AS NECESSARY.
9. EXISTING LIGHT FIXTURE TO REMAIN. MAINTAIN CIRCUITRY TO FIXTURE. PROVIDE NEW CIRCUITRY AS REQUIRED TO MAINTAIN SERVICE TO FIXTURES. ASSUME 20A, 120V CIRCUIT(S), UNO.



1 / E4 SITE PLAN
SCALE: 1" = 10'

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ELECTRICAL SITE PLAN - PHASE 2

NORTH CENTRAL AVENUE IMPROVEMENTS

STAUNTON, VIRGINIA

REVISIONS
.

DESIGNED BY:	SAH
DRAWN BY:	BJP
CHECKED BY:	AMH
SCALE:	
DATE:	July 01, 2019
PROJECT NUMBER:	R08349-17CV

E4

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GENERAL NOTES

1. LOCATION OF POLE IS TO CENTER OF SYMBOL. FIELD VERIFY/LOCATE ALL POLES PRIOR TO ROUGH-IN.
2. X,X AT EACH POLE INDICATES CIRCUIT NUMBERS. FIRST NUMBER IS LTG CKT NUMBER; SECOND IS RECEPTACLE CKT NUMBER.
3. SEE PANEL SCHEDULE FOR WHICH CIRCUIT GOES WITH WHICH WIRE SIZE. GROUNDING CONDUCTORS MAY BE SHARED BETWEEN CIRCUITS OF THE SAME WIRE SIZE.
4. CONTRACTOR IS TO ASSUME THAT ALL METERS/SERVICES ARE 200A, UNO.
5. CONTRACTOR IS TO COORD THE DISCONNECTION OF EXISTING SERVICES FROM THE EXISTING INCOMING OVERHEAD LINES WITH THE UTILITY COMPANY, UNLESS INDICATED OTHERWISE, ALL NEW METERS SHALL BE IN THE SAME LOCATION AS THE EXISTING METERS. CONTRACTOR SHALL RECONNECT CONDUCTORS DOWNSTREAM OF METERS TO NEW METER. EXTEND ALL EXISTING CONDUCTORS FROM EXISTING METER LOCATION TO NEW METER LOCATION AS REQUIRED. USE #3/0 FOR 200A METERS AND 500 KCMIL FOR 400A, UNO. FIELD VERIFY EXACT LOCATIONS AND ROUTINGS.
6. PROVIDE BANNER ARMS FOR EVERY OTHER POLE. FIELD COORDINATE WHICH POLES ARE TO HAVE BANNER ARMS.

ⓧ KEY NOTES

1. SEE POLE BASE DETAIL ON SHEET E0.
2. EXISTING POLE AND ASSOCIATED OH UTILITY LINES TO BE REMOVED. COORD WORK WITH UTILITY COMPANIES.
3. FIXTURES ON WEST SIDE SHALL BE LOCATED ALONG THE BACK OF THE CURB; NO PART OF BASE SHALL BE IN THE CURB. PROVIDE MINIMUM 3' CLEAR WIDTH OF SIDEWALK; FOUR FOOT CLEAR WIDTH IS PREFERRED.
4. FIXTURES ON EAST SIDE SHALL BE LOCATED ALONG THE BACK EDGE OF THE SIDEWALK. NO PART OF THE BASE SHALL BE OUTSIDE THE SIDEWALK. PROVIDE MINIMUM 3' CLEAR WIDTH OF SIDEWALK; FOUR FOOT CLEAR WIDTH IS PREFERRED.
5. COORDINATE ROUTING WITH OTHER UG UTILITIES.

PROPERTY # 4731
268 CENTRAL, LLC
INST.# 040001007
268 N Central Ave
HOWARD
JOHNSON

PROPERTY # 10662
DAVID B. MORGAN
INST.# 080002517
280 N Central Ave

Concrete/Block
Tunnel Headwalls
(approx. location)

TUNNEL

Landscaped
Area

NORTH CENTRAL AVENUE

6,16
6,14
6,14
6,14
TYP 3
2
2
2
2
5
1 TYP
4 TYP
S1(8)
2,10
2,10
2,10
2,12

4#10, 1#10G
2#8, 1#8G
1.1/2"C

2#10, 1#10G
2#8, 1#8G
1.1/4"C

PROPERTY # 10682
Dupont Community Credit Union
Book/Page: 140000915
410 N Augusta St

August 2017 survey limits

MATCH LINE - SEE E4

MATCH LINE - SEE E6

1 / E5 SITE PLAN
SCALE: 1" = 10'

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NORTH CENTRAL AVENUE IMPROVEMENTS
STAUNTON, VIRGINIA

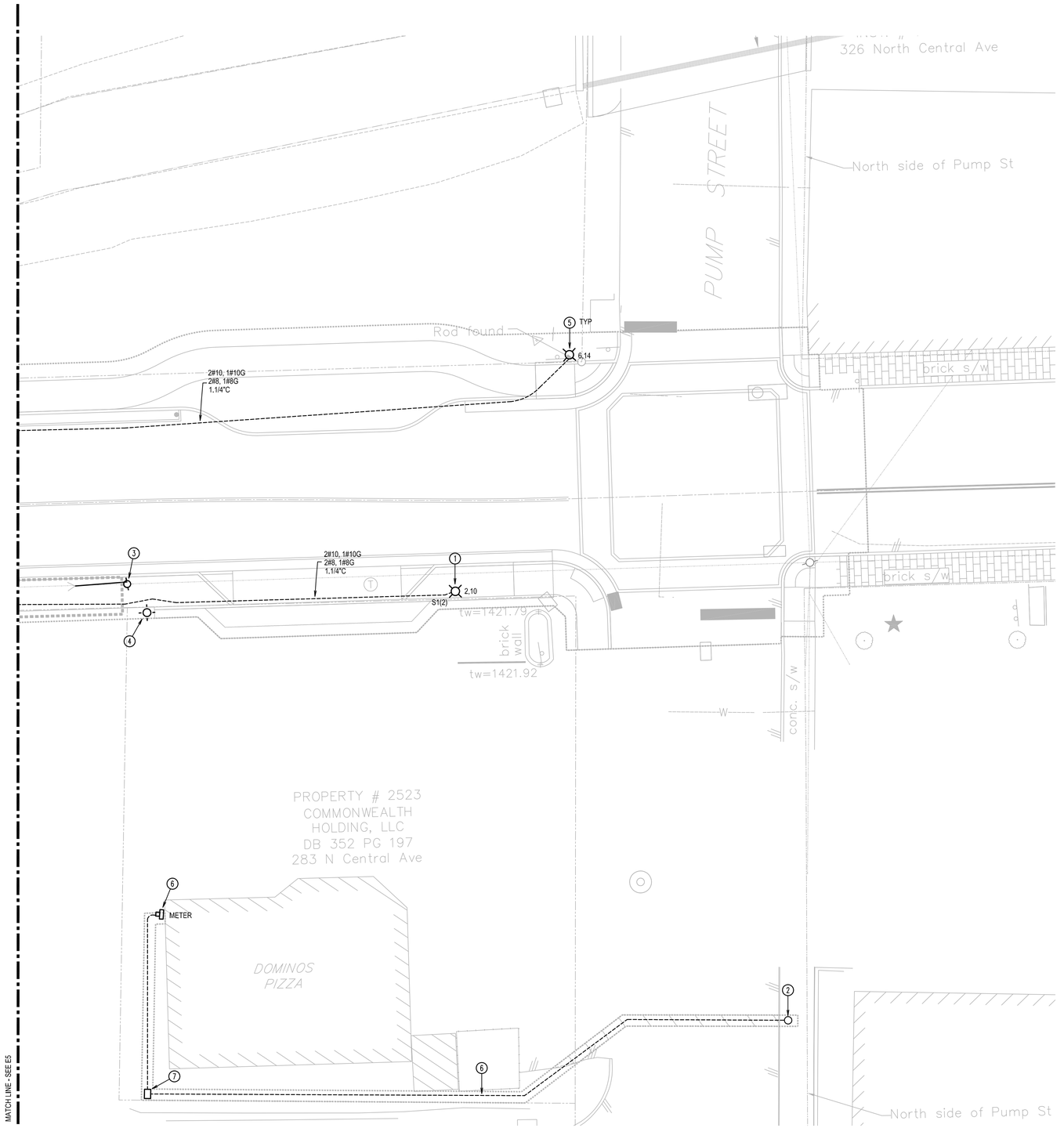
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CHECKED BY:	AMH
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E5

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1 – E6 SITE PLAN

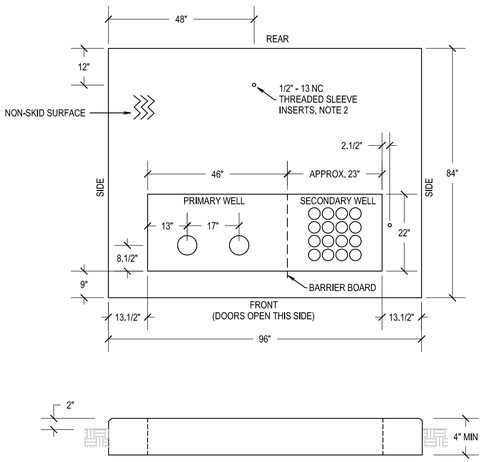
SCALE: 1" = 10'

GENERAL NOTES

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2. X.X AT EACH POLE INDICATES CIRCUIT NUMBERS. FIRST NUMBER IS LTG CKT NUMBER; SECOND IS RECEPTACLE CKT NUMBER.
3. SEE PANEL SCHEDULE FOR WHICH CIRCUIT GOES WITH WHICH WIRE SIZE. GROUNDING CONDUCTORS MAY BE SHARED BETWEEN CIRCUITS OF THE SAME WIRE SIZE.
4. CONTRACTOR IS TO ASSUME THAT ALL METERS/SERVICES ARE 200A, UNO.
5. CONTRACTOR IS TO COORD THE DISCONNECTION OF EXISTING SERVICES FROM THE EXISTING INCOMING OVERHEAD LINES WITH THE UTILITY COMPANY. UNLESS INDICATED OTHERWISE, ALL NEW METERS SHALL BE IN THE SAME LOCATION AS THE EXISTING METERS. CONTRACTOR SHALL RECONNECT CONDUCTORS DOWNSTREAM OF METERS TO NEW METER. EXTEND ALL EXISTING CONDUCTORS FROM EXISTING METER LOCATION TO NEW METER LOCATION AS REQUIRED. USE #3/0 FOR 200A METERS AND 500 KCMIL FOR 400A, UNO. FIELD VERIFY EXACT LOCATIONS AND ROUTINGS.
6. PROVIDE BANNER ARMS FOR EVERY OTHER POLE. FIELD COORDINATE WHICH POLES ARE TO HAVE BANNER ARMS.

ⓧ KEY NOTES

1. FIXTURES ON EAST SIDE SHALL BE LOCATED ALONG THE BACK EDGE OF THE SIDEWALK. NO PART OF THE BASE SHALL BE OUTSIDE THE SIDEWALK. PROVIDE MINIMUM 3' CLEAR WIDTH OF SIDEWALK; FOUR FOOT CLEAR WIDTH IS PREFERRED.
2. POLE AND TRANSFORMER TO SERVE DOMINOS. POLE AND TRANSFORMER BY UTILITY COMPANY.
3. EXISTING POLE AND ASSOCIATED ON UTILITY LINES TO BE REMOVED. COORD WORK WITH UTILITY COMPANIES.
4. EXISTING LIGHT FIXTURE TO REMAIN. MAINTAIN CIRCUITRY TO FIXTURE. PROVIDE NEW CIRCUITRY AS REQUIRED TO MAINTAIN SERVICE TO FIXTURES. ASSUME 20A, 120V CIRCUIT(S), UNO.
5. SEE POLE BASE DETAIL ON SHEET E0.
6. NEW SERVICE TO DOMINOS PIZZA. PROVIDE NEW METER ADN 4" PVC CONDUIT TO THIS LOCATION. COORD CONDUCTORS WITH UTILITY.
7. PROVIDE PULL BOX FOR DOMINOS SERVICE. COORD PULL BOX SIZE AND TYPE WITH UTILITY COMPANY.



2 – E6 TYPICAL UTILITY XFMR PAD DETAIL

SCALE: NONE

NOTES:
1. PAD DESIGNED FOR MAXIMUM TRANSFORMER WEIGHT 10,000 LBS (150 KVA-1000 KVA DEADFRONT TRANSFORMERS AND 150 KVA-1000 KVA LIVEFRONT TRANSFORMERS BUILT SINCE 1977).
2. LIFTING SLEEVE INSERTS, LOCATED AT BALANCE POINT, TO BE USED WITH STANDARD 1/2" BOLT.
3. SURFACE EDGES OF PAD TO BE ROUNDED.
4. GROUND INSIDE OF CABINET AROUND BASE TO MAKE IT TAMPERPROOF.
5. ANY DISTURBED EARTH OR FILL SHALL BE COMPACTED PRIOR TO INSTALLING PAD.
6. INSTALL ONE 6" CONDUIT AT POSITIONS 1 AND 2. (USE 36" RADIUS SCH. 40 PVC CONDUIT ELBOWS)
7. A MAXIMUM OF 16 FOUR INCH SECONDARY CONDUITS MAY BE INSTALLED IN THIS PAD.
8. DO NOT FILL PRIMARY WELL WITH CONCRETE.
9. TRANSFORMER REQUIRES 10' OF CLEAR SPACE FROM FRONT OF PAD.
10. TRANSFORMER REQUIRES 3' OF CLEAR SPACE FROM REAR AND SIDES OF PAD.
11. COORD TRANSFORMER PAD REQUIREMENTS WITH UTILITY COMPANY.

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ELECTRICAL SITE PLAN - PHASE 2
NORTH CENTRAL AVENUE IMPROVEMENTS
STAUNTON, VIRGINIA

REVISIONS
.

DESIGNED BY:	SAH
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SCALE:	
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