

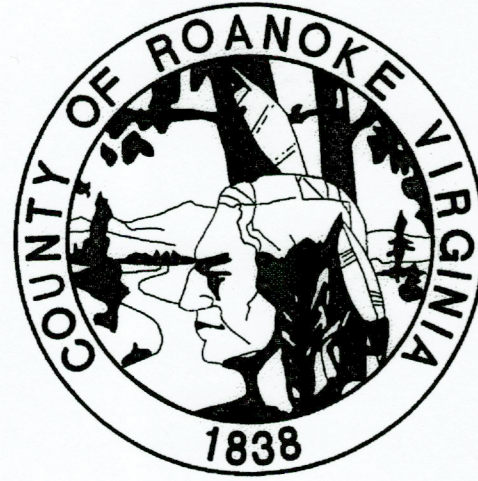
GENERAL NOTES

PRE-CONSTRUCTION MEETING AND CONSTRUCTION COMMENCEMENT:

- All construction methods and materials shall conform to the Construction Standards and Specifications of Roanoke County, the Western Virginia Water Authority, and the Virginia Department of Transportation.
 - Stormwater Management Agreements with an attached 8 1/2" x 11" or 8 1/2" x 14" plat must be approved and recorded prior to the pre-construction meeting.
 - Once all required items are submitted to the County of Roanoke, the developer must contact the Development Review Coordinator to indicate that a pre-construction meeting needs to be scheduled. The pre-construction meeting will be scheduled with the owner/developer two (2) working days later.
 - All land disturbing projects that require approval of an erosion and sediment control plan, grading or clearing permit shall require that the applicant provide the name of an individual who will be responsible for land disturbing activities and that this individual hold a Responsible Land Disturber (RLD) Certificate from the Department of Environmental Quality. The Responsible Land Disturber can be anyone from the Project team that is certified by the Commonwealth of Virginia to be in charge of carrying out the land disturbing activity for the project.
 - It is the responsibility of the owner/developer to notify the certified Responsible Land Disturber and the Utility Contractor to attend the pre-construction meeting.
 - The Development Review Coordinator will schedule the pre-construction meeting with the County Review Engineer, the County Inspector, and the Western Virginia Water Authority and the Town of Vinton Public Works Department if applicable.
 - An approved set of plans, Storm Water Pollution Prevention Plan (SWPPP), VSMP coverage letter, and all permits must be available at the construction site at all times.
 - The developer and/or contractor shall supply all utility companies with copies of approved plans, advising them that all grading and installation shall conform to approved plans.
 - The project engineer will inform the owner/developer verbally and in writing of the County's obligation to perform inspections on site. Everyone in the meeting will be required to sign a pre-construction checklist indicating their knowledge of Roanoke County's obligation to perform inspections on site.
 - The Erosion Control Permit or Combined Erosion Control & VSMP Permit is given to the developer at this pre-construction meeting.
 - Notify the County of Roanoke prior to beginning installation of ESC measures. The County will inspect initial installations to ensure compliance with approved plan prior to start of grading. The developer SHALL contact the project inspector 24 hours before beginning any grading or construction on the property.
 - County inspectors must inspect storm drain / stormwater management / BMP installations during the process of installation. Please contact the site inspector 24 hours in advance.
 - All work shall be subject to inspection by Roanoke County, the Western Virginia Water Authority and the Virginia Department of Transportation Inspectors.
 - Contractors shall notify utilities of proposed construction at least two (2), but not more than ten (10) working days in advance. Area public utilities may be notified thru "Miss Utility": 1-800-552-7001 or VA 811.
 - The 100 year Floodway shall be staked prior to any construction.
 - Grade stakes shall be set for all curb and gutter, culvert, sanitary sewer and storm sewer at all times of construction.
 - The Department of Community Development shall be notified when a spring is encountered during construction.
 - Construction debris shall be contained in accordance with the Virginia Litter Control Act. No less than one litter receptacle shall be provided on site.
 - The contractor shall provide adequate means of cleaning mud from trucks and/or other equipment prior to entering public streets or rights of ways. It is the contractors responsibility to insure that the streets are in a clean, mud and dust free condition at all times.
 - Plan approval in no way relieves the developer or contractors of the responsibilities contained within the erosion and sediment control or stormwater management policies.
 - Field construction shall honor proposed drainage divides as shown on plans.
 - Field corrections shall be approved by the Roanoke County Engineering Division and/or the Western Virginia Water Authority and the Professional of Record, prior to such construction.
 - The developer or contractor shall supply the County and the Western Virginia Water Authority with correct As-Built plans before final acceptance.
- VIRGINIA DEPARTMENT OF TRANSPORTATION:**
- Plan approval by Roanoke County does not guarantee issuance of any permits by the Virginia Department of Transportation.
 - A permit must be obtained from the Virginia Department of Transportation, Salem Residency Office prior to construction in the highway right-of-way.
 - The preliminary pavement designs should be based on a predicted sub-grade CBR value of 7.0 and with a Resiliency Factor (RF) of 2.0 as shown in Appendix I of the 2000 Virginia Department of Transportation Pavement Design Guide for Subdivision and Secondary Roads. The sub-grade soil is to be tested by an independent laboratory and the results submitted to the Virginia Department of Transportation prior to base construction. Should the sub-grade CBR value and/or the RF value be less than the predicted values, additional base material will be required in accordance with Departmental specifications. Refer to the same manual as the number and locations of the required soil samples to be tested. All pavement designs shall be submitted to the Department for review and approval. The sub-grade shall be approved by the Virginia Department of Transportation prior to placement of the base. Base shall be approved by the Virginia Department of Transportation for depth, template, and compaction before the surface is applied.
 - Standard guardrail with safety end sections may be required on fills or in areas where hazards exist as deemed necessary. After completion of rough grading operations, the County Engineer and Virginia Department of Transportation shall be contacted to schedule a field review. Where guard rail is warranted, the standard shoulder width shall be provided and the guard rail shall be installed in accordance with the 2001 VDOT Road and Bridge Standards as part of this development.
 - Standard street and traffic control signs shall be erected at each intersection by the developer prior to final street acceptance.
 - All traffic devices shall be in accordance with current edition of the "Manual on Uniform Traffic Control Devices" (MUTCD).
 - All unsuitable material shall be removed from the construction limits of the roadway before placing embankment.

See Sheet N/A for Stormwater Site Statistics Table.
See Sheet N/A for New BMP Information Table.

The Project Engineer shall provide electronic copies of the approved plans to the Development Review Coordinator within 5 working days of the pre-construction meeting.
The notes on this sheet shall not be modified.



COUNTY OF ROANOKE, VA

NAME OF DEVELOPMENT	SANITARY SEWER EXTENSION THE PINES APARTMENTS		
MAGISTERIAL DISTRICT(S)	CAVE SPRING		
OWNER (name, address, telephone)	PINES OF ROANOKE LLC 400 INTERSTATE NORTH PARKWAY - SUITE 1300 ATLANTA, GA 30339 LOCAL CONTACT: MR. JEFF MARTIN, TEL: (540) 989-6666		
DEVELOPER (name, address, telephone)	(SAME AS OWNER)		
ENGINEER, ARCHITECT OR SURVEYOR (name, address, telephone)	CALDWELL WHITE ASSOCIATES PO BOX 6260 ROANOKE, VA 24017	ATTN: CORBIN L. WHITE, PE TEL.: (540) 366-3400 EMAIL: CWA@roanoke@aol.com	REVISED TO REFLECT CORPORATE OWNER & ADDRESS RATHER THAN LOCAL - LOCAL CONTACT UNCHANGED
TAX MAP NO(S)	076.07-02-48.00-0000		

WATER NOTES

All water facilities shall be constructed according to the Western Virginia Regional Design and Construction Standards (Latest Edition).

A minimum cover of three (3) feet is required over proposed lines.

Contractor shall be responsible for locating and uncovering valve vaults after paving and adjustment to final grade if necessary.

All existing utilities may not be shown in their exact location. The contractor shall comply with the (State Water Works Regulations, Section 12VAC5-590-1150, where lines cross.

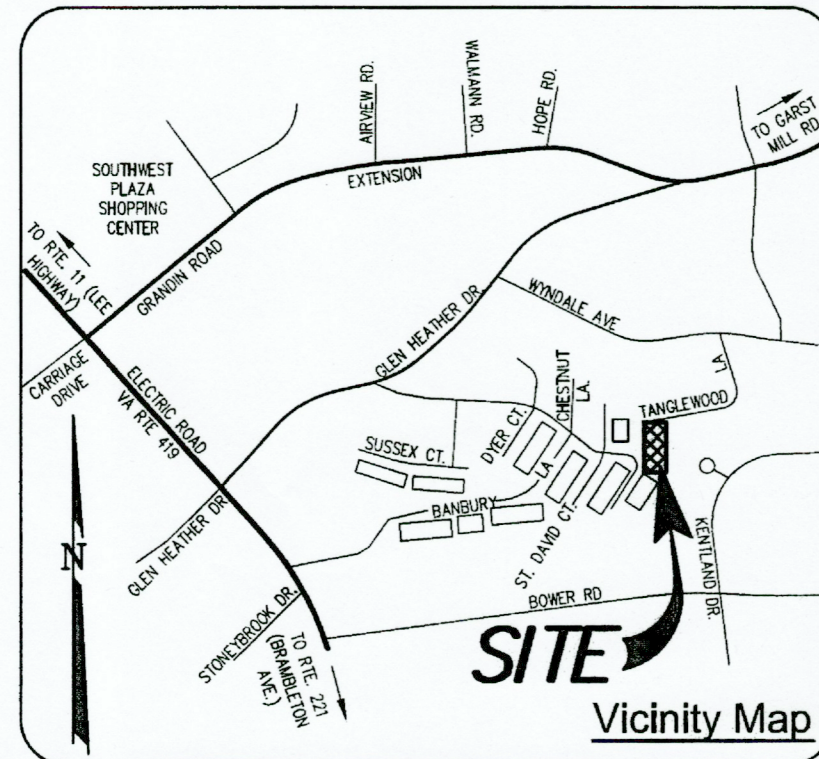
All trenches in existing or future highway right-of-ways shall be compacted according to Virginia Department of Transportation standards.

Lines shall be staked prior to construction.

Water main shall be minimum Class 350 Ductile Iron in accordance with AWWA C151 or DR-14 PVC in accordance with AWWA C-900.

Ductile Iron Pipe in accordance with the Western Virginia Regional Design and Construction Standards shall be required for all pipe with a working pressure equal to or greater than 100 p.s.i.

Western Virginia Water Authority
Availability letter number: N/A



LEGEND

Property Line		P
Right-of-way		R/W
Centerline		CL
Minimum Building Line		MBL
Existing Storm Sewer		SD
Existing Sanitary Sewer		SS
Existing Water Main		W
Existing Contour		1045
Proposed Contour		1045
Proposed Drainage Divide		
Proposed Limits of Clearing		24' S.D.
Proposed Storm Sewer		8" M.H.
Proposed Sanitary Sewer		
Proposed Water Main		
		HYDRANT
		VALVE
		BLOWOFF

SEWER NOTES

All sanitary sewer facilities shall be installed according to the Western Virginia Regional Design and Construction Standards. (Latest Edition).

A minimum cover of three (3) feet is required over proposed lines.

Contractor shall be responsible for locating and uncovering all manholes after paving. Manhole tops shall be adjusted to grade if necessary.

All existing utilities may not be shown in their exact location. The contractor shall comply with (State Water Works Regulations, Section 12VAC5-590-1150, where lines cross.)

All trenches in existing or future rights-of-way shall be compacted according to Virginia Department of Transportation standards.

Lines shall be staked prior to construction.

PRIVATE UTILITIES

Underground utilities installed on private property or in private utility easements and building related storm drains shall be designed and installed per the current edition of the Virginia Uniform Statewide Building Code. Design and installation requirements issued by the Western Virginia Water Authority that meet or exceed the USBC requirements are acceptable for private utilities. All private utilities are to be permitted through and inspected by the Roanoke County Inspections Office. Vaults, valves and other devices installed by or under the control of the Western Virginia Water Authority may not substituted for the code required devices.

- C-01 ROANOKE COUNTY STANDARD COVER SHEET
- C-02 NOTES AND LEGEND
- C-03 PLAN AND PROFILE - NEW SANITARY SEWER
- C-04 DETAILS-SOIL EROSION CONTROL AND SANITARY SEWER CONSTRUCTION

Sheet Index

SURVEY INFORMATION

Horizontal and vertical control surveys were performed in year: 2017
By: FIELD-RUN SURVEY BY CALDWELL WHITE ASSOCIATES

All vertical elevations must be referenced to the National Geodetic Vertical Datum of 1929 or 1988. All horizontal elevations must be referenced to the North American Datum of 1927 or 1983.

Horizontal Datum: LOCAL COORD. SYSTEM Vertical Datum: ASSUMED DATUM

Source of topographic mapping is dated 2017

Boundary was performed by N/A dated: N/A

Benchmark Information: TOP OF IRON PIN FOUND AT SOUTHEASTERN PROPERTY CORNER OF TAX PARCEL 076.07-01-21.00, LOCATED AT TERMINUS OF TANGLEWOOD LANE. ELEVATION = 100.00 (ASSUMED DATUM)

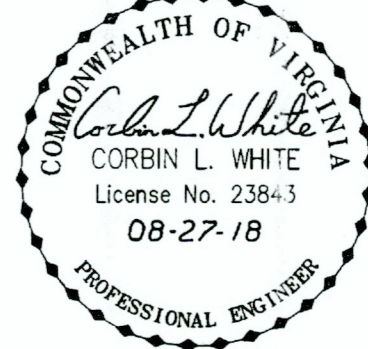
The professional seal and signature certifies the boundary survey and topographic mapping to be accurate and correct.

QUANTITY & COST ESTIMATE

ITEM	QUANTITY	UNIT	UNIT PRICE	COST	BONDABLE
CLEARING AND GRUBBING		ACRES			
EXCAVATION		C.Y.			
EMBANKMENT		C.Y.			
GRATE INLET DI-1		EACH			
GRATE INLET DI-7		EACH			
CURB INLET DI-3		EACH			
CONC. STORM MANHOLE		EACH			
15-IN. CONCRETE PIPE, CLASS III		LINEAL FT.			
30-IN. CONCRETE PIPE, CLASS III		LINEAL FT.			
36-IN. CONCRETE PIPE, CLASS III		LINEAL FT.			
15-IN. ES-1 FLARED END SECTION		EA			
-IN. ES-1 FLARED END SECTION		EA			
WATER QUALITY -		LS			
WATER QUALITY -		SP			
WATER QUALITY -		SP			
-IN. C.M. CULVERT		LINEAL FT.			
-IN. C.M. CULVERT		LINEAL FT.			
BOX CULVERT		LINEAL FT.			
12" WIDE CL. III RIP-RAP CHANNEL CP		LINEAL FT.			
RIPPRAP - CLASS		S.F.			
PERMANENT GRASS SWALE					
-IN. CONCRETE ENDWALL EW-					
-IN. END SECTION ES-					
CONCRETE SIDEWALK (PUBLIC)		S.F.			
CONCRETE ENTRANCE APRON CG-80		S.F.			
CONCRETE CURB & GUTTER CG-6		S.F.			
CONCRETE CURBING CG-2		LINEAL FT.			
VALLEY GUTTER		EACH			
GRAVEL BASE		S.Y.			
GRAVEL SHOULDER		S.Y.			
SURFACE TREATMENT		S.Y.			
-IN. BIT. CONC. TYPE B-		S.Y.			
-IN. BIT. CONC. TYPE S-		S.Y.			
-IN. BASE MATERIAL TYPE		C.Y.			
-IN. SUBBASE MATERIAL		C.Y.			
TRAFFIC CONTROL		LS			
8" WATER LINE		LINEAL FT.			
6" WATER LINE		LINEAL FT.			
WATERLINE SPECIALTY VALVE (PRV, DETECTOR, ETC.)		EACH			
FIRE HYDRANT ASSEMBLIES (w/ VALVE & BOX)		EACH			
BLOW OFFS W/VAULT, FRAME & COVER		EACH			
-IN. GATE VALVES, W/VAULT, FRAME & COVER		EACH			
-IN. GATE VALVES, W/VAULT, FRAME & COVER		EACH			
8" SANITARY SEWER		LINEAL FT.			
STANDARD MANHOLE W/FRAME & COVER		EACH			
SAMPLING MANHOLE/PORT		EACH			
LANDSCAPING		LUMP SUM			
AMENITIES (INCLUDING BUT NOT LIMITED TO TRAILS, ETC.)		LUMP SUM			
STORMWATER MANAGEMENT (ORIFICE PLATE)		LUMP SUM			
AS-BUILT PLANS (STORM SEWER SYSTEMS)		LUMP SUM			
AS-BUILT PLANS (STORMWATER MANAGEMENT)		LUMP SUM			
SUBTOTAL					
10% CONTINGENCY					
ESTIMATED TOTAL					
BY SEALING THE PLANS, THE DESIGN PROFESSIONAL HEREBY CERTIFIES THAT THE FOREGOING ESTIMATE REFLECTS THE CURRENT IMPROVEMENT COSTS OF THIS PROJECT.					

Revisions:

Revised August 27, 2018
Per 1st County, VDOT and
WVWA Review - C.L. White



APPROVED



DEVELOPMENT PLAN	APPROVED FOR CONSTRUCTION BY ROANOKE COUNTY	DATE	10/31/18
Department	Development Review	DATE	10/31/18
Engineering	Water & Sewer	DATE	10/31/18
Planning & Zoning		DATE	10/31/18

SANITARY SEWER EXTENSION PLANS

FOR The Pines Apartments

4630 Roxbury Lane
Roanoke County Tax Parcel 076.07-02-48.00-0000
Cave Spring Magisterial District
County of Roanoke, Virginia



ENGINEERS / SURVEYORS / PLANNERS

4203 MELROSE AVENUE
P.O. BOX 6260
ROANOKE, VIRGINIA 24017-0260
(540) 366-3400
FAX: (540) 366-8702

Designed: C.L. White
Drawn: C.L. White
Checked: August 13, 2018
Date: CH-14
Field Book: 18-0048
W.O. No.:

SHEET
C-01
OF
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