

Located off Glade Road In the Town of Blacksburg, Virginia

Date: November 30, 2022 Revised February 6, 2023 Revised February 16, 2023 Revised March 3, 2023

Glade Spring Crossing Planned Residential District Rezoning Application

Owner:

Glade Spring Crossing: Cary Hopper 707 South Main Street Blacksburg, VA 24060

Submitted on behalf of Owner by the Applicant:

Meredith Jones, P.E.

Eden & Associates, P.C.

1700 Kraft Dr. Suite 2350

Blacksburg, VA 24060



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TOWN OF BLACKSBURG CHANGE OF ZONING CLASSIFICATION APPLICATION (REZONE)

This application and all accompanying information must be submitted in full before the Rezoning Request can be considered complete and accepted by Town staff. Once the application is accepted it will be referred to the Planning Commission and Town Council for consideration. The application and all accompanying information will become conditions of approval. Proffered conditions of approval are binding. Please contact the Planning and Building Department at (540) 443-1300 for application deadline or questions, or to schedule the required presubmittal meeting (§1150).

The following items MUST accompany this application for the Town of Blacksburg to accept this application for processing and review. Any items submitted cannot be larger than 11x17 in size:

- Digital copies (PDF) of all application materials are required at the time of submittal, or within 5 working days of the submittal date.
- Written, signed consent of the property owner. If the applicant is the contract purchaser, the written consent of the current property owner is required (§1150).
- 3) Legal description of the property
- 4) Vicinity map showing surrounding uses, zoning districts, buildings, and other improvements
- 5) Concept plan with surveyed boundaries for the property showing the lot, existing and proposed structures, site improvements, parking areas and spaces, and any other information necessary to determine the ability to meet the Zoning Ordinance site development standards, Use & Design standards, and compatibility with the neighborhood. A stormwater management concept plan with calculations is required. Application should also include projected water and sewer flows to determine impact to Town infrastructure.
- 6) Building elevations for all proposed buildings, or elevations showing any changes to existing buildings
- 7) Signage plan showing details for any proposed signage including location, size, and materials
- Completed Town of Blacksburg VDOT TIA Supplemental Form, and any other traffic information required by Town Staff as identified in the pre-submittal meeting
- 9) A list of adjacent property owners (including properties across a street) and their addresses. Reimbursement to the Town for Certified First Class Mail will be required upon Town verification of recipients and postage necessary to mail the application to all adjacent property owners.
- Fee of \$1500 for Rezoning, or \$2000 for Planned Residential Rezoning, or \$1000 for amendment to existing Planned Residential District.
- Proof of pre-submittal meeting between Town staff and applicant/agent (email correspondence or calendar appointment is sufficient) (§1150).
- 12) Prior to the initiation of an application for Rezoning, or prior to the issuance of final approval, the applicant shall produce satisfactory evidence that any delinquent real estate taxes owed, which have been properly assessed against the subject property, have been paid (§1150)
- 13) Any applicant for a Rezoning shall make complete disclosure of the equitable ownership of the real estate to be affected including, in the case of corporate ownership, the names of stockholders, officers and directors, and in any case the names and addresses of all of the real parties of interest. The requirement of listing names of stockholders shall not apply to a corporation whose stock is traded on a national or local stock exchange, and which corporation has more than 500 shareholders (§1110)

OWNER CONSENT STATEMENT

I/We the owner(s)/applicant/contract purchaser(s) of the property described on this application do hereby apply for a change of zoning district classification described on this application.

I/We state that no application for a change in zoning district classification, substantially the same as this request, has been considered by the Town Council for the above-referenced property, or any part thereof, within one year prior to the date of this application.

SIGNATURE OF OWNER APPLICANT

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Location or Address of Property for Rezoning:
Tax Parcel Number(s):
Acreage:
Present Zoning District:
Proposed Zoning District:
Present Use of Property:
Proposed Use of Property:
Is this request for an amendment to an existing Conditional Zoning or Planned Residential District?
Previous Rezoning Ordinance Number
APPLICANT/MAIN CONTACT PERSON (Contract Purchaser if applicable)
NAME:
ADDRESS:
PHONE: EMAIL:
PROPERTY OWNER(s) (If property is held in an LLC or other corporation, names of all partners must be disclosed. All names of members or beneficiaries of a trust must also be disclosed. Signature blocks for multiple property owners may be obtained on separate sheets if needed) NAME: ADDRESS:
PHONE: EMAIL:
ENGINEER/ARCHITECT (optional)
NAME:
ADDRESS:
PHONE: EMAIL:

DESCRIPTION OF REZONING REQUEST

Section 15.2-2286(A)(7) of the State Code of Virginia states that, "Whenever the public necessity, convenience, general welfare, or good zoning practice requires, the governing body may, by ordinance, amend, supplement, or change the regulations, district boundaries, or classifications of property. It is the applicant's responsibility to provide a narrative outlining the following information in order to assess the public necessity, convenience, general welfare, or good zoning practice of the request (attach additional pages if necessary).

Need and justification for the change in zoning classification
Identify any anticipated effect of the proposed change on public services and facilities
Justify appropriateness of the property for the proposed changes, as it relates to the intent of the zoning district requested and applicable use and design standards for all proposed uses
Relationship of the proposed change to the Comprehensive Plan (Include FLU designation)
Way in which the proposed change will further the purposes of the Zoning Ordinance and general welfare of the community

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Description of the Planned Residential Rezoning Narrative

Introducing Glade Spring Crossing:

Glade Spring Crossing features one hundred seventy-six (176) single-family new construction homes as part of a thoughtfully crafted and curated community. Glade Spring Crossing will offer a diverse collection of market-rate and mixed-income new construction homes affordable to the Town of Blacksburg's critical workforce, young families, and first-time homeowners. Glade Spring Crossing's well-crafted, aesthetically pleasing, and energy efficient homes will offer residents, currently priced out of Blacksburg's housing market, an opportunity to fulfill the dream of homeownership.

Glade Spring Crossing is a lifestyle-forward community offering convenient access to local grocers, shops, and restaurants, as well as area schools and natural parks. The community will be able to access public transit, and will be within walking and biking distance of University Boulevard, and minutes from Downtown Blacksburg and Virginia Tech.

In order to provide mixed income housing and affordable housing, Glade Spring Crossing has carefully considered every expense to ensure that each is necessary to contribute to a community that provides a high level of housing to each resident without sacrificing safety or the quality of their living experience.

Permanently Affordable Housing will comprise approximately 14% of the development's housing but will be unnoticeable within the community, as all housing will be seamless in architecture. The remaining percentage will be a combination of mixed-income and market-rate housing, which is also in high demand. All three: affordable, mixed-income, and market-rate housing types will offer and appeal to a wider variety of household incomes; far more so than many of the recently proposed single family developments. To achieve this goal, it is important that all aspects of the development are cost-efficient to enable the overall balance of multiple housing options within the development.

Of great importance is the inclusion of infrastructure to support community health through trails, stewardship of the environment through purposeful open space and landscaping, regional stormwater management, and the necessary utility and road infrastructure.

The developer's commitment to environmental and social justice will come to life at Glade Spring Crossing, driven by the developer's deep-seated devotion to improving equality, raising standards of living, and eliminating discrimination. Glade Spring Crossing literally builds upon the developer's advocacy for social justice and fervent belief that Blacksburg must improve and expand its housing opportunities for the underserved, yet vital members of our community's workforce.

To accomplish this, the developer has partnered with a Virginia builder as a partner who builds communities that celebrate life's moments by bringing people together and keeping families connected. The builder's commitment to excellence and their track record of building affordable homes in other parts of Virginia, makes them the perfect partner to breathe life into the developer's vision for Glade Springs Crossing.

This application further details the specific features of Glade Spring Crossing that will make it a special community for its residents for years to come.

Need and justification for the change in zoning classification

Housing Affordability

This 45-acre tract, with frontage on Glade Street and adjacent to University City Boulevard, is in a prime location for dense mixed-income housing, possessing access to both town water and sewer services, within a half mile of transit, and walking/biking to the Town's bustling commercial center. The town of Blacksburg lacks single family homes affordable and available to the Town's permanent workforce. This is due to a combination of factors. The availability of land, which possesses existing access to town water and sewer facilities, to support new housing stock within the town corporate limits is now limited. Adequate zoning density in these limited areas with infrastructure is lacking. Consequently, the number of new single-family homes developed within Town limits has declined, while demand due to population growth has increased. In addition, housing that is affordable to our workforce is also attractive to investors looking to turn that housing into rental housing for students, and this has left many segments of our workforce with few home choices in Blacksburg.

To provide affordable housing, with or without public contribution, careful consideration has to be given to each expense and thus careful crafting of new zoning and subdivision ordinances requirements. Existing requirements are costly and identifying which are most necessary is an important exercise to achieve our desired public benefits. Rezoning through PRD allows for these considerations, increasing housing affordability through changes to density, lot size, and flexibility in housing type without sacrificing safety and function.

Density

It is the Goal of Glade Spring Crossing to provide the Town with affordable housing through the use of a variety of mixed-income products. Although RR-1 zoning allows for similar use of housing types proposed in this development: single-family detached, two-family dwelling, and townhouse, RR-1 is limited in its density. Density above the one unit per acre is necessary to lower costs of infrastructure per unit and provide additional revenue to offset the large up-front investments costs. For example, today's cost for a Town sewer Pump Station of approximately \$600,000 will not increase much based on a difference in 45 units vs. 176 units. At one-unit per acre, each lot includes a cost for the pump station of \$13,333. Whereas a 176-unit development will be just over \$3,400 cost. The ability to spread that fixed cost over more lots allows the development cost per land to come down, reducing overall lot price and needed.

Lot size

Detached single-family, two-family, and townhouse units that create buying opportunities for low to moderate-income qualifying homeowners represent the greatest residential housing need currently existing in the town of Blacksburg. While single-family detached units are desired, minimum lot sizes are too large to support low to moderate-income priced lots. Frontage or lot sizes can have a profound effect on density regardless of the allowable density stated in the zoning. As an example, within the RR-1 zoning, a FAR of 0.3 minimum exists. This effectively pushes a house square footage to a larger lot size than needed, which leads to higher lot costs and a less affordable product. For example, in our development, a 1200 square foot house can exist on a 1200 square foot lot, but in RR-1 it would

have to be a minimum of a 4000 square foot lot. Low FAR's spread infrastructure out, allowing for fewer housing units per lane mile of road. This works against smart growth principles that encourage more clustering of housing units. The RR-1 regulations are not written to encourage smaller size lots, which are important to families considering the affordability of long-term maintenance expenses.

Flexibility

Flexibility in the number of units within each use type is better achieved through a PRD. This is extremely important with economic market variabilities that can exist between rezoning and construction. The ability to have a wide range of lot types and housing types allows the developer to respond to the market needs to keep the development viable, especially when attempting affordable units. Similarly, being able to include market rate unit lot sales early in the project can offset large capital expenses for the development. This PRD lays out a variety of lot sizes with different lot requirements so that market flexibility is achieved for the developer, still giving the Town enforceable regulations on whichever lot type is chosen in a specific location.

The site is surrounded by R-4 properties which exceed the proposed density of this development allowing 4 units per acre to our 3.9. The PRD Village at Tom's Creek at 2 units per acre exceeds the underlying development rights under the RR-1 by double. The flexibility of the PRD to provide the appropriate lot characteristics needed for density is necessary because the R- 4 zoning is outdated and not easily used in areas with significant grading challenges.

Canopy Requirements

Another specific zoning regulation driving this request for a PRD is a desired change in the canopy coverage requirements to include a more affordable, practical solution that produces the same beneficial outcomes. One of the largest struggles facing all Homeowner's Association is the cost of landscaping. Mowing and maintenance of landscaped areas is extremely expensive and comprise a large portion of an HOA budget. The current standards specifically for canopy coverage within the landscaping ordinance are impractical as they typically require an enormous number of trees to be planted early on. For developments especially sensitive to affordability this is an economic burden. Though not the intent, developments on former agricultural use areas are penalized with the current landscaping standard as opposed to properties that have remain untouched as forested areas. The 20% planting requirement for an area that does not have existing coverage is arduous requiring an excessive number of newly planted trees. In addition, the maintenance and replacement costs of these are very expensive for Homeowner's Associations in years to come. Typically, these trees will be taken over by invasive species or crowded out by the other plantings past their 20-year canopy. To avoid this, HOA's must remove and replace trees, mow around the trees, prune, fertilize, spray, and often remove crowded out trees. This can burden an HOA with expenses for years to come, which transfers a considerable cost to homeowners, and a decision point for where to live.

This development proposes a model new type of vegetated land coverage; Managed Successive Areas. This alternative approach requires management time and resources to be spent on removing invasive species in areas formerly grazed with cattle or mowed regularly, to support a natural succession of understory vegetation and trees. While this will appear to be a more unkempt look in some seasons and the short term, it will eventually provide the more natural coverage humans crave in nature, resulting in a healthier forested condition years later. This approach is not only better for ensuring environmental

benefits including a more natural habitat that supports wildlife and water quality protection, but it will also result in significant savings to the HOA.

Identify any anticipated effect of the proposed change on public services and facilities

Vehicular Transportation

This 45-acre rezoning and proposed planned residential subdivision will provide its main access on Glade Road with a turn lane to lessen the impact to existing traffic on Glade. It will also include a connection to the existing right-of-way access at the Village at Tom's Creek to provide interconnectivity for Village residents as well as new Glade Spring crossing residents.

Alternative Transportation

The use of alternative transportation will be increased in the region with the addition of the "Paths to the Future" connector bike trail. The proposed trail will allow Village at Tom's Creek residents and those north of the Village to connect to Glade Road and hence University City Boulevard or Heritage Park by bicycle and on foot. An additional public trail connection will be made from the development to Shadow lake Road where some bike trail currently exists further down Shadow Lake. A transit stop on University City Boulevard is ½ mile in distance from Glade Spring Crossing, further encouraging residents to use mass transit.

Sewer Capacity and Efficiency

A new pump station is proposed that will carry new development flows as well as offload "The Farm" effluent currently traversing the site in gravity sewer lines which will be removed to accommodate the project. While the Glade Spring crossing Pump station will be sized accordingly to carry the extra flows, this should reduce the amount of flow and energy consumption currently at the Westover Hills pump station and Karr Heights pump station and allow those stations to take on additional future growth. It is anticipated that the force main from the Glade Spring Crossing pump station will connect to the existing force main from Karr Heights in Glade Rd. The Town is analyzing downstream capacity of its sewer system for the additional 176 units of sewer effluent. The future residents of this planned development will be customers to the existing water system that serves the Tom's Creek basin, again traversing the site to serve the Village at Tom's Creek. The project will be replacing the water line to build regional stormwater management, but the resulting system has adequate pressure and flow to handle the proposed subject development.

Storm water Management

Because the development property is uniquely placed at the confluence of two urban creek tributaries to Tom's Creek, and this area is largely unusable for development, the developer has proposed consideration of a public-private partnership with the Town for regional stormwater management facilities. The project plans to revitalize an existing town stormwater management detention facility that is under-utilized and not well maintained on the north tributary draining areas under the 460 bypass. As a public-private partnership, the development will redesign this facility to reduce flows more effectively. Additionally, Glade Spring Crossing is adding another regional detention facility on the south tributary also draining urban areas across the bypass that have been problematic for stormwater since development in the 80s. Both detention facilities will be maintained by the development, thus

offloading responsibility from the Town on the existing one. Finally, a water-quality wet pond will be installed by the project for its pollutant reduction. The benefit of this pond will extend beyond that of the developer's needs by providing the Town much-needed pollutant removal from its flows from the University Boulevard area.

Justify appropriateness of the property for the proposed change, as it relates to the intent of the zoning district requested and applicable use and design for all proposed uses

The purpose of the Planned Residential district is to provide for the development of planned residential communities that incorporate a variety of housing options as well as certain limited commercial and office uses designed to serve the inhabitants of the district. The proposed zoning change to PRD allows this site, which is central in location to the Town's commercial corridor, Virginia Tech, and existing infrastructure, to create an opportunity for affordable housing and mixed-income housing.

Additional density is needed to ensure the housing affordable to the populations in greatest need of affordable homeownership opportunities. The underlying zoning of RR-1 does not allow affordability, defined as under 120% Average Median Income (AMI), with current land costs and infrastructure costs. Therefore, additional density and thus revenue is needed to subsidize development costs, resulting in lower lot costs to builders and ultimately to residents seeking affordable housing. While this development does not include limited commercial and office uses, it is located less than ½ mile from one of the Town's urban centers containing those uses. Since housing is a major goal of the Council's, commercial and office uses were not included in the development, rather than as much single-family housing as possible being sensitive to surrounding neighborhood densities.

The development's permitted uses are compatible with those uses allowed in the underlying zoning of RR-1. While the RR-1 seeks to cap the single-family attached uses (townhouse, two-family dwellings) to encourage single family detached uses; our PRD will also seek a variety of housing, including single-family detached in its proffers which incorporate a minimum of each use type per road.

Relationship of the proposed change to the Comprehensive Plan

The zoning request for Planned Residential District Zoning at a density of 3.9 units per acre is consistent with the Future Land Use Land Use Series Map A of the 2021 Comprehensive Plan for the area encompassing the development. Low Density residential shown over the applicant's property boundaries is defined as the following: "Up to four dwelling units per acre; commonly single-family detached residential units. The *Typical Implementing Zoning Districts*: Low Density Residential (R-4) and Planned Residential (PR)." Parameters of the R-4 development do not allow for flexibility in smaller lot sizes, FAR's and lot frontage that are required for the density, open space desired, and elevation changes present on the property. Therefore, to allow for creativity in product, affordability, and lot design, the developer has chosen to use the flexibility allowed in the PR zoning.

While single-family detached residential units comprise a large portion of units on the property, to fulfill other goals of the Town, townhouses and two-family dwellings will also be utilized. These not only allow more affordable lot construction by reducing lot frontage and infrastructure needed per home, but

also provide more efficiency in building construction meeting a variety of Comprehensive Plan goals. Those include energy efficiency and material reduction through building design with shared walls.

Other community character principles further supported by Glade Spring Crossing include the following goals from the Housing Chapter of the Comprehensive Plan:

- CCP 1. Well-designed pedestrian and bicycle friendly infrastructure is essential to the Town's identity as a walkable and bikeable community. Pedestrian infrastructure is incorporated in the development through bike trails and sidewalks while making critical connections to trails and surrounding streets as shown on the Paths to the Future map.
- CCP 2. Lifestyle conflicts are inherent in a college town, where neighborhoods may have a mix of students and non-students. All properties will be owner occupied only allowing for occasional leasing terms. Property management will be achieved through a homeowner's association that will mitigate any potential noise, upkeep, parking, and occupancy conflicts through strict controls.
- CCP 5. **Equity and inclusion are important values in the community.** This development will provide opportunities for all income levels within Blacksburg to obtain homeownership within the same development. Furthermore, the project plans to intermingle income qualifying homes with market rate homes with seamless architecture eliminating visual barriers to equity. Social interactions and community engagement of diverse incomes and backgrounds will be encouraged in development open spaces centered between the south and north areas of the property. The development will increase the affordability of living in Town, once again eliminating community-wide barriers to equity.
- CCP 6. **Historic landmarks and properties are an important part of the character of the Town.** The property will protect the Linkous cemetery on the center eastern portion of the property.
- CCP 13. To encourage mode shift, transportation planning should be multimodal and prioritize designs that move people rather than vehicles. This development increases the sustainability of the transportation network by reducing car dependency and greenhouse gas emissions largely by providing trail connections, its convenient location to the University City Commercial Corridor and location within ½ mile of Transit facilities.
- CCP 14. Public health and broader community wellbeing are greatly valued in the Town. This development expands the Town's trail and sidewalk infrastructure and creates connections to existing infrastructure that fosters a healthy community by increasing walking and bicycling for daily activities.
- CCP 17. **Blacksburg is a responsible headwaters community for Southwest Virginia.** This development minimizes its impact on surface waters by preserving 35% open space, respecting the creek valley overlay and 100-year floodplain, and installing regional stormwater management ponds that significantly reduce pollutants and reduce quantity of runoff that has been contributing to significant erosion in the Tom's Creek basin tributaries for over 30 years.

CCP 18. Responsible site design and development practices should be used to minimize environmental impacts within the Town. Glade Spring Crossing will exceed state, and local stormwater regulations to minimize the impacts of soil erosion, stormwater runoff, and non-point source pollution. Site design and development practices will preserve existing tree canopy and specimen trees and replace lost urban forest areas through successional growth concepts. This will encourage native species and allow for cost effective association management fees further ensuring short- and long-term affordable living in the neighborhood.

CCP 19. Creation of public and private parks and recreation amenities, both for active and passive uses, is an important part of land use development decisions. A variety of gathering spaces will be accessible to community members throughout the Town. Recreation areas are located and thoughtfully designed to meet the needs of the development, neighborhood, and broader community in its passive and active recreation areas, both public and private.

CCP 20. The preservation of open spaces is highly valued by the community. Thoughtful, functional, contiguous, and logical open spaces are provided for the variety of residents that will reside within the community. Particular attention was paid to the uses and types of users within the open spaces and cost-effective management of these spaces. For instance, while managing turf is expensive, "free-play" areas were considered for flatter areas where a team sport may occur and a sledding hill for children. To balance the maintenance, other areas were considered for successive growth that might be less desirable for active recreation but valuable for future canopy or wildlife habitat that might allow for more passive recreation.

CCP 21. The Town is committed to minimizing light pollution by adhering to International Dark Sky Association standards. The development furthers this with no streetlights.

CCP 22. For safety, maintenance, and aesthetics, new developments are required to place utilities underground. All utilities will be placed underground.

In general, this development will serve the Town of Blacksburg's Sustainability goals by providing open space, trails, and recreation that support public health and community well-being. Our trails will tie existing neighborhoods to the north and west to our development, but also allow them to pass through to other areas of Town creating a long network of biking and walking trails. As discussed earlier, the mixed-income opportunities for homeownership will be welcomed in the development and provide the social equity the Town desires. The following is a list of sustainable qualities of the development as described in the Comprehensive Plan:

- Reducing air and water pollution as well as greenhouse gas emissions by locating near jobs and shopping.
- Planning for future climate resiliency and adaptation with Green building practices and density where infrastructure already exists.
- Supporting biodiversity and conservation of open spaces
- Expanding tree canopy with the addition of successive growth areas beyond the existing condition.

- Promoting energy conservation, energy efficiency
- Reducing car-dependency by providing trails, sidewalks and locating near existing transit, jobs, and shopping.
- Adopting land-use policies that promote smart growth practices through clustered development and protection of natural environmental areas.
- Minimizing waste and encouraging recycling through building practices in affordable units.
- Improving watershed management practices and water quality through regional dry and wet pond facilities

Way in which the proposed change will further the purposes of the Zoning Ordinance and general welfare of the community

The purpose of Glade Spring Crossing is to provide homeownership diversity and housing affordability in an attractive, responsibly maintained community including environmental stewardship. This aligns with the purposes of the Zoning ordinance and welfare of the community in the following ways:

- Perhaps the most important way this development meets the purpose of the zoning ordinance is best described by the ordinance itself:
 - "(11) **Create** and preserve **affordable housing** suitable for meeting the current and future needs of the Town as well as a reasonable proportion of the current and future needs of the planning district within which the Town is situated." (Section 1102-Purpose, Blacksburg Zoning Ordinance)
- Twenty-four (24) affordable housing units will be provided on lots donated by the developer.
- The development provides for a healthy environment through the use of purposeful natural open space in excess of the requirements, environmental conservation, and many opportunities for recreation.
- The development provides for convenient access to surrounding properties with road and new public trail connections.
- The property location near the commercial center and job core of the Town allows for convenient access to needs for our residents and will reduce congestion by encouraging alternative transportation modes.
- The development will include attractive, well-built homes for a diversity of income ranges, seamlessly integrated through architecture, to bring people together throughout the community.
- The Development will have a strong infrastructure to further support the general safety and welfare of community members for water, sewer, stormwater management, flood protection, and fire protection.
- The development will add to the recreational facilities in Town with the addition of trails.
- The cemetery on the site will be protected and promoted for its history.

- The development provides housing on an infill parcel with existing infrastructure thus preventing urban sprawl.
- Focusing the population in the core of Town allows for maximization of infrastructure that already exists such as roads and utilities.
- Regional stormwater management will reduce flooding and provide for wetland creation supporting not only human desires for property protection downstream, but also enhancing creek habitat.
- One hundred and seventy six new residences will enlarge the real estate tax base in Blacksburg as well as place these residents near retail opportunities, fueling the economy.
- The development will preserve a portion of forested areas and encourage new forested areas onsite with its successively managed areas. This is different from the traditional landscaping requirements which do not typically produce forested areas after 20 years.
- The creek valley overlay including 100-year floodplain, springs, wetlands and steep slopes will be protected within the development.
- A wet pond will further enhance old cow ponds and eroded creek beds that have suffered from years of urban runoff.

	OFFICE USE ONLY
Date R	eceived:
RZN#	
CUP#	N

TOWN OF BLACKSBURG VDOT TRAFFIC IMPACT ANALYSIS (TIA) SUPPLEMENTAL APPLICATION

This application, appropriate fee, and accompanying documentation must be submitted in conjunction with the corresponding rezoning, conditional use permit, or comprehensive plan amendment before any application can be reviewed by staff. If you have any questions, please contact the Planning and Building Department.

Na	me of Development: Glade Spring Crossing
	Address/Location: Bound by Glade Rd and Shadowlake Rd.
	Tax Map Parcel: 225-(A)-3, 225-(A)-4, and 224-(A)-57
	Size of Site: 44.855 acres Proposed Use: Planned Residential District
	Current Zoning District: RR-1
	Current Zoning District: RR-1 Existing Future Land Use Classification: Low-Density Residential
	This application is submitted in conjunction with a
17	■ Rezoning Application. Proposed Zoning District: PR
	☐ Conditional Use Permit Application. Proposed Conditional Use:
	☐ Comprehensive Plan Amendment. Proposed Future Land Use:
1.	traffic impact analysis <u>□</u> is <u>□</u> is not required for the proposed project: <u>□</u> Yes or <u>□</u> No, the site is located 3,400 feet along the vehicle path of traffic which is less than 3,000 feet from VDOT maintained roadways, or is within 3,000 feet of a non-limited access state controlled highway, or is within 3,000 feet of a connection to a state limited access highway. If the answer to question #1 is Yes, complete the following:
۷.	
	a. <u>\(\superscript{\subscript{Ves or } \subscript{\subscript{No}}\)</u> , the proposed development generates
3.	☐ Yes or No. the proposed comprehensive plan amendment results in substantial impact of 5,000 additional vehicle trips per day or results in substantial changes to the existing transportation network and infrastructure of state controlled highways.
4.	☐ No , a new TIA study is not required because a previously submitted TIA is still applicable for the project site. (Note: the appropriate documentation must be attached to this application)
5.	□ Yes or 🗷 No, a VDOT Scope of work meeting has been held. A Town scope of work meeting was held
Na Ad	a TIA is required, please provide the following information: ame of Property Owner(s): Carγ Hopper Idress: 707 N. Main St. Blacksburg, VA 24060 sone: 540-641-1768 Fax:
	najl address: _caryhopper@msn.com
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Applicant to whom review comments will be sent: Meredith Jones, Eden & Associates P.C. Address: 1700 Kraft Dr, Ste 2350
Phone: 540-250-6613 Fax:
Phone: 540-250-6613 Fax:
Project Engineer who prepared TIA (if different from applicant): Chase Smith Address: 5808 Faringdon Place, Raleigh, NC 27609
Phone: 336-725-5470 Fax:
Email address: csmith@rameykemp.com
Please check all applicable boxes of information submitted with this application: 1. Review Fee Check made payable to VDOT for First, Second or Third review by VDOT
KI Rezoning or Conditional Use Permit request
☐ Low volume road submission 24VAC30-155-40 A 3: \$250
☑ All other submissions: \$1000
☐ Comprehensive Plan Amendments: \$10002. For the Town of Blacksburg, please provide a digital submission of the following:
a. 🛛 One signed copy of the Town's VDOT Supplemental TIA application.
 b. \(\text{\text{\$\text{Q} One complete copy} of the TIA submitted to VDOT including a completed checklist of information and signed scope of work meeting agreement.
c. \square One copy of the VDOT review fee check.
d. One copy of letter and supporting information documenting why a new or updated TIA is not required for this project.
3. 🛛 For VDOT, three paper copies of the complete Traffic Impact Analysis. Forms and additional information can be found at http://www.virginiadot.org/projects/chapter527/default.asp
By signing below, I acknowledge that all information on this application and included in the supporting documentation is correct and accurate, and has been prepared by an appropriate licensed professional. SIGNATURE OF APPLICANT:
For Staff Use Only:
☐ First Submission ☐ Second Submission ☐ Third or Subsequent Submission
Reviewed and Accepted as complete by Date TIA forwarded to VDOT by Date
Rejected byDate
Reason for rejection:
Town of Blacksburg, Planning & Building Department 300 South Main Street • PO Box 90003, Blacksburg, VA 24060-9003 Phone: (540) 951-1126 • Fax: (540) 951-0672 • www.blacksburg.gov

List of Adjacent Property Owners

NUMBER	PARCEL ID	TAX MAP ID	OWNER	SITE ADDRESS	MAILING ADDRESS	ACRES
1	006038	225- A 5	FARM BLACKSBURG LLC	900 GLADE RD BLACKSBURG, VA 24060	1951 GREENBRIER CIR	3.492
2	004493	225- 13 1	VO THOI TAN & NGUYEN HONG NHU N	1703 ORIOLE DR BLACKSBURG, VA 24060	BLACKSBURG VA 24060 1703 ORIOLE DR BLACKSBURG VA 24060	0.343
3	003276	225- 13 2	CROCKETT JAMES D & CROCKETT ARLENE R	1003 GLADE RD BLACKSBURG, VA 24060	1003 GLADE RD BLACKSBURG VA 24060	0.33
4	016570	224- 5 3	SIMONPIETRI AMY B	1005 GLADE RD BLACKSBURG, VA 24060	1906 W MAIN ST RICHMOND VA 23220	0.311
5	016723	224- 5 4	MARTIN DAVID B & MARTIN ELIZABETH N	1007 GLADE RD BLACKSBURG, VA 24060	113 EAGLE CREEK TER ZION CROSSROADS, VA 22942	0.307
6	090332	224- A 54A	DUTCH WEST LLC	1008 GLADE RD BLACKSBURG, VA 24060	P O BOX 101 BLACKSBURG VA 24063	0.267
7	004999	224- A 53	COLLINS KERRY A & PORTER THOMAS RICHARD ASHLEY	1100 GLADE RD BLACKSBURG, VA 24060	5 WINDWARD WALK BRUNSWICK ME 04011	0.558
8	009278	224- A 52	KIMBROUGH IAN F	1102 GLADE RD BLACKSBURG, VA 24060	109 4TH ST SE CHARLOTTESVILLE VA 22902	0.417
9	021991	224- A 55	LELAND JARROD E	1802 SHADOW LAKE RD BLACKSBURG, VA 24060	1802 SHADOW LAKE RD BLACKSBURG VA 24060	0.872
10	006825	224- A 56	CRAFTON JOLENE S	1806 SHADOW LAKE RD BLACKSBURG, VA 24060	1806 SHADOW LAKE RD BLACKSBURG VA 24060	0.563
11	018043	224- 8 14	FALLS ANNE S	1805 SHADOW LAKE RD BLACKSBURG, VA 24060	1805 SHADOW LAKE RD BLACKSBURG VA 24060	
12	014472	224- 8 15	PHIPPS SYLVIA T	1901 SHADOW LAKE RD BLACKSBURG, VA 24060	1901 SHADOW LAKE RD BLACKSBURG VA 24060	
13	013335	224- 816	CARJAR HOLDINGS LLC	1903 SHADOW LAKE RD BLACKSBURG, VA 24060	1904 FOREST LN BLACKSBURG VA 24060	
14	020377	224- A 58	WALTERS LOTTIE C	1904 SHADOW LAKE RD BLACKSBURG, VA 24060	1904 SHADOW LAKE RD BLACKSBURG VA 24060	1
15	090701	224- 8 26R	DUTCH WEST LLC & UNCLE DALE PROPERTIES LLC	1908 SHADOW LAKE RD BLACKSBURG, VA 24060	1908 SHADOW LAKE RD BLACKSBURG VA 24060	0.679
16	090700	224- 8 25R	PRICE FAMILY TRUST & C/O ROBERT M PRICE II CO-TRS	1910 SHADOW LAKE RD BLACKSBURG, VA 24060	2195 OLINGER RD BLACKSBURG VA 24060	0.66
17	012579	224- 9 A	QUINONES MOISES E	1201 LAKEWOOD DR BLACKSBURG, VA 24060	1201 LAKEWOOD DR BLACKSBURG VA 24060	7.469
18	110104	224- 9 B	FABRYCKY FAMILY TRUST & WOLTER J FABRYCKY TRUSTEE	1200 LAKEWOOD DR BLACKSBURG, VA 24060	3900 MCCOY RD BLACKSBURG VA 24060	0.188
19	006225	224- 9 A1	FABRYCKY FAMILY TRUST & WOLTER J FABRYCKY TRUSTEE	1200 LAKEWOOD DR BLACKSBURG, VA 24060	3900 MCCOY RD BLACKSBURG VA 24060	1.53
20	120659	224- 24A	VILLAGE AT TOMS CREEK & HOMEOWNERS ASSOCIATION	VILLAGE WAY SOUTH BLACKSBURG, VA 24060	1504 N MAIN ST BLACKSBURG VA 24060	10.786
21	120607	224- 24105	DEAN J SPADER REV TRUST ETAL C/O DEAN J SPADER & VIKKI L FIX TRS	1301 VILLAGE WAY SOUTH BLACKSBURG, VA 24060	1301 VILLAGE WAY SOUTH BLACKSBURG, VA 24060	0.207
22	035953	224- 22 24	STEIN MICHAEL R & STEIN SARAH	1225 VILLAGE WAY SOUTH BLACKSBURG, VA 24060 1223 VILLAGE WAY SOUTH	1225 VILLAGE WAY SOUTH BLACKSBURG VA 24060 1223 VILLAGE WAY SOUTH	0.393
23	035952	224- 22 23	HODGES CLAYTON C & HODGES KIMBERLY J	BLACKSBURG, VA 24060	BLACKSBURG VA 24060	0.384
24	035951	225- 16 22	ACCIAI GUY F & ACCIAI LISA A	1221 VILLAGE WAY SOUTH BLACKSBURG, VA 24060	1221 VILLAGE WAY SOUTH BLACKSBURG VA 24060	0.372
25	035950	225- 16 21	BUNDREN LIVING TRUST & C/O CHRISTOPHER M BUNDREN CO-TRS	1219 VILLAGE WAY SOUTH BLACKSBURG, VA 24060	1219 VILLAGE WAY SOUTH BLACKSBURG VA 24060	0.358
26	035949	225- 16 20	VIKESLAND PETER J & VIKESLAND JUDY C	1217 VILLAGE WAY SOUTH BLACKSBURG, VA 24060	1217 VILLAGE WAY SOUTH BLACKSBURG VA 24060	0.337
27	035948	225- 16 19	CHOI KOEUN & MOROTA GOTA	1215 VILLAGE WAY SOUTH BLACKSBURG, VA 24060 1213 VILLAGE WAY SOUTH	1215 VILLAGE WAY SOUTH BLACKSBURG VA 24060	0.311
28	035947	225- 16 18	TOUCHTON GREGORY T & TOUCHTON LUCIE A	BLACKSBURG, VA 24060 1211 VILLAGE WAY SOUTH	1213 VILLAGE WAY S BLACKSBURG VA 24060 1211 VILLAGE WAY SOUTH	0.279
29	035946	225- 16 17	STERLING RICKY L & STERLING TRACI F	BLACKSBURG, VA 24060	BLACKSBURG VA 24060 1209 VILLAGE WAY SOUTH	0.271
30	035945	225- 16 16	SALLEE HEIDI H & SALLEE DAVID N	BLACKSBURG, VA 24060 1207 VILLAGE WAY SOUTH	BLACKSBURG VA 24060 1207 VILLAGE WAY SOUTH	0.234
31	035944	225- 16 15	WEAVER HIGHTOWER MARCUS & WEAVER HIGHTOWER REBECCA CANABBIA DADILLA EDNIESTO & SANABBIA DADILLA	BLACKSBURG, VA 24060 1205 VILLAGE WAY SOUTH	BLACKSBURG VA 24060 1205 VILLAGE WAY SOUTH	0.258
32	035943	225- 16 14	SANABRIA-PADILLA ERNESTO & SANABRIA-PADILLA MINERVA L	BLACKSBURG, VA 24060 1513 POPLAR RIDGE CIR	BLACKSBURG VA 24060 1513 POPLAR RIDGE CIR	0.329
33	035941		WHITENER JAMES E & WHITENER ADELE L	BLACKSBURG, VA 24060 VILLAGE WAY SOUTH	BLACKSBURG VA 24060 1504 N MAIN ST	0.33
34	035966	225- 16 A	VILLAGE AT TOMS CREEK & HOMEOWNERS ASSOCIATION	BLACKSBURG, VA 24060 BLVD	BLACKSBURG VA 24060 PO BOX 2485	15.649
35	016814		STURBRIDGE SQUARE LLC	BLACKSBURG, VA 24060 909 UNIVERSITY CITY BLVD	CHAPEL HILL NC 27515 P O BOX 27497	11.645
36	071137	225- 10 G	UNITED STATES POSTAL SERVICE	BLACKSBURG, VA 24060	GREENSBORO NC 27498 220 PROFESSIONAL PARK DR	3.933
37	026763	225-A 7 A	UNIVERSITY PLACE HOMEOWNERS		BLACKSBURG VA 24060	0.504

Pre application meeting FORM



November 15, 2022

Kinsey O'Shea, Development Planner Town of Blacksburg Planning and Building 400 South Main Street Blacksburg, VA 24060

RE: Pre-application meetings for Glade Spring Crossing Rezoning

Dear Mrs. O'Shea,

Please accept this letter as proof of several pre-application meetings held this year on the following dates with various Town engineering, planning and housing staff. These were preceded by concept plan discussions but these meetings in particular were helpful in pre-application issues:

- July 14th (Planning),
- July 21st (Engineering),
- July 26th (Engineering),
- July 28th (housing),
- August 9th (whole Group)
- October 11th (whole group),
- October 13th (with you on Landscaping),
- November 8th (whole group),
- November 14 (you on Proffers/Landscaping).

Yours sincerely,

Meredith Jones, P.E. VP Engineering

Eden & Associates, P.C. 1700 Kraft Dr. Suite 2350 Blacksburg, VA 24060

Meridith pres

District Rezoning Regulations and Features

Purpose:

The purpose of this Planned Residential District, Glade Spring Crossing, is to provide additional infill density for a total of 176 units in order to support a development with homeownership diversity and housing affordability, much needed in the Town of Blacksburg. The community will embrace multiple income levels insuring home-ownership opportunities for our critical workforce, young families and first-time homebuyers. The 45 acre development proposal utilizes existing infrastructure, while locating its residents in close proximity to the Town's existing urban fabric. Glade Spring crossing is envisioned "open community" prepared to share its active and passive recreation opportunities with all Town citizens. The confluence of two urban drainage tributaries are a unique feature of the property lending itself to regional stormwater management areas included in the project that have long been a Town goal for Tom's Creek at this location. A public private partnership is sought for both the stormwater and affordability goals of the development. Efficient but effective management of the community will ensure home-ownership that can remain affordable.

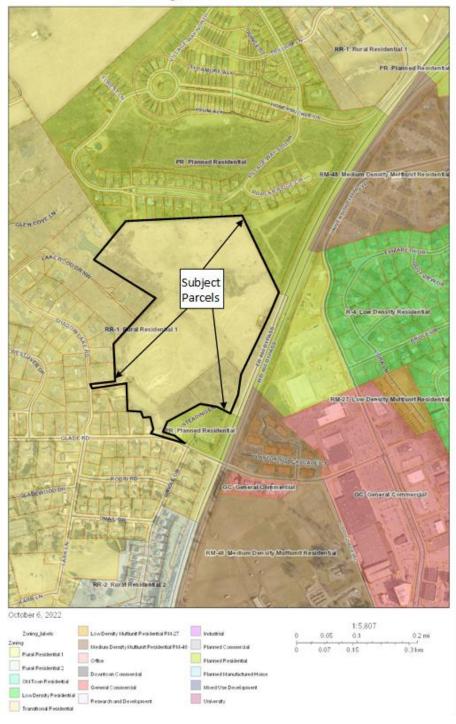
Other goals of the development include:

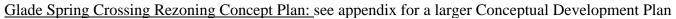
- To provide home ownership opportunities that do not currently exist for 24 affordable housing units in the Town of Blacksburg.
- Utilizing increased density to support much needed home ownership to all ranges of income levels within the community: 134 mixed-income lots.
- To efficiently provide lots utilitizing existing and new infrastructure with long-term maintenance costs as a consideration.
- To provide housing that promotes sustainable living by utilizing Green Building standards and by locating residents near the Town's existing core including jobs, retail opportunities, and major Street Connectivity.
- Conservation of natural resources including wetlands, floodplains, natural drainage ways, aquifer recharge areas, existing tree cover, steep slopes adjacent to floodways, and creek valleys.
- Promoting multi-use open space with specific attention to stewardship of the natural environment, cost efficient maintenance, and appropriate passive and active recreational areas to be professionally managed.
- Encouraging successive native vegetation as land cover in properly planned corridors along the creek and throughout the development which will give way to new habitats and provide for wildlife.
- To complete a critical Town trail connection for citizens biking or walking between Glade Street And the Village at Tom's Creek along the North/South trail connector along 460 and completing a connection to Shadow Lake Road.
- To provide a network of trails for the adjacent existing neighborhood residents to enjoy and safely travel to and from the University City Boulevard commercial corridor.
- To add to the real estate tax base in Blacksburg.

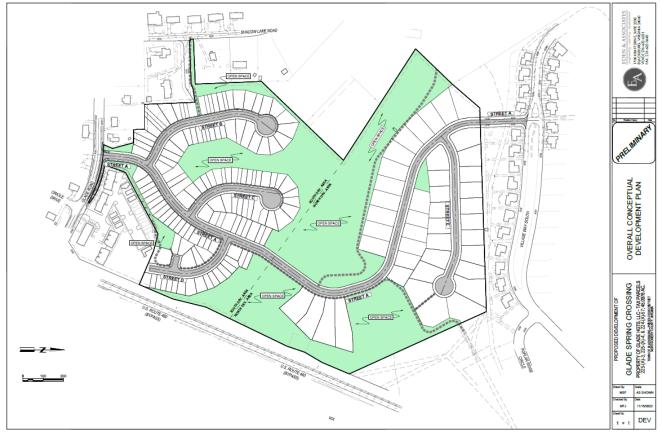
- To reduce fossil fuel consumption and carbon emissions utilizing attached building design concepts, promoting walkability through alternative transportation modes, and location to transit and commercial areas.
- Efficient but effective strategies for ongoing community management to prevent absentee owners and to keep fees affordable for all residents.

VICINITY MAP

Town of Blacksburg, VA WebGIS Parcels - Subdivision:







Permitted Uses: The following uses are permitted in this Planned Residential Development

Residential

Single Family Dwelling Detached *Two-family Dwelling Townhouse

*Definition for Two Family dwelling includes two units on an individual lot. For this rezoning, each dwelling unit will be on its own fee-simple individual lot that will be subdivided prior to a certificate of occupancy.

Civic:

Open Space Utility Services, Minor

Miscellaneous:

Accessory Structures

The accessory structures are limited to the following list:

- Detached private garage
- Shed
- Roof-mounted solar panels. The height of solar panels attached to the roof of the principal or accessory building shall not exceed 5 feet above the highest point of the roof of the building on which it is installed.
- Ground-mounted solar panels. Ground Mounted Solar Panels must meet the principal building setback requirements.
- other uses and structures that the zoning administrator finds similar in scope, size, and impact

Site Development Regulations

Density: total of 176 lots on 45.17 acres.

Maximum density shall be 3.89 Units per acre.

Minimum Lot Requirements:

Southern Area:

- o Area: no minimum lot size
- o Minimum frontage: Fifteen (15) feet on a publicly owned and maintained street.

Northern Area:

- o Area: no minimum lot size
- o Minimum frontage: Forty (40) feet on a publicly owned and maintained street.

Minimum Setback Requirements: Principal Structures

Southern Area:

- o Front Yard:
 - For lots adjoining local streets: Twenty (20) feet
- Side Yard
 - Non-corner lots: five (5.0) feet.
 - For corner lots, where a side yard fronts a local street: fifteen (15) feet
 - Minimum building separation of seventeen (17) feet.
 - For two family dwelling and townhouse interior attached dwelling units: 0 (zero) feet
- Rear Yard
 - For all lots: ten (10) feet

Northern Area:

- o Front Yard:
 - For lots adjoining local streets: Twenty (20) feet
- Side Yard
 - Non-corner lots: ten (10) feet.
 - For corner lots, where a side yard fronts a local street: fifteen (15) feet
- o Rear Yard
 - For all lots: twenty (20) feet

Accessory Structure Requirements:

- o Location:
 - Must be located behind the front building line

- Setbacks:
 - Three (3') feet from a lot line (sheds) and ten (10) feet for all other structures.
- o Size:
 - The cumulative area of all accessory buildings or structures shall not exceed fifty (50) percent of the square foot area of the principal structure.
- Any accessory building or structure exceeding twenty (20) percent of the square foot area of the principal structure shall be compatible in architectural style, color, and exterior facing material to the principal structure.

Maximum height of buildings shall be forty-two (42) feet measured from the adjoining grade at the front entrance of the building or structure to the highest point of the structure. For corner lots the building height shall be ther average of the front height defined above and the building side height adjacent to the street. The building side height shall be defined as the vertical distance measured from the lowest adjoining grade on the side adjacent to the street to the hightest point of the structure. Utility poles may have a maximum height of forty-five (45) feet.

Maximum coverage

Lot coverage:

Southern Area:

Shall be sixty-five (65) percent for single family detached or two-family dwelling or townhouse end unit lots

Shall be ninety (90) percent interior townhouse unit lots

Northern Area:

Shall be forty (40) percent for lots 11,000 sq. ft or less

Shall be thirty-five (35) percent for lots over 11,000 sq. ft.

Floor Area Ratio:

Southern Area:

0.7 for single family detached

1.0 for two-family dwelling or townhouse end unit lots

1.3 for interior townhouse unit lots

Northern Area:

0.65 for lots 9,000 sq. ft or less

0.55 for lots between 9,000 square feet and 13,000 sq ft

0.40 for lots over 13,000 sq ft.

The following definitions will be used for the calculation of Floor Area Ratio within the Glade Spring Crossing residential planned district:

Attic, Habitable—Finished or unfinished area, not considered a story, that complies with all the requirements of the Virginia Uniform Statewide Building Code including,

but not limited to, height, size, and conditioning of space, for the area to be considered usable occupiable space.

Basement, Habitable—Finished or unfinished area, not considered a story, that complies with all the requirements of the Virginia Uniform Statewide Building Code including, but not limited to, height, size, and conditioning of space, for the area to be considered usable occupiable space.

Floor Area, Gross—The sum of the horizontal areas of the several stories of a building, as measured from the exterior faces of exterior walls, or as measured from the face of the sheathing of the exterior wall. Gross floor area will include habitable basements, habitable attics and heated porches with a roof and walls (whether solid or screened). The surface area of swimming pools, driveways, surface parking spaces, decks, patios, and non-enclosed porches is not included in the total gross floor area.

Floor Plans: are included in the Appendix in the pattern book and should be taken as examples of what may be possible in the South and North areas.

Building articulation: Townhomes are not required to vary front setbacks as required in Section 4231(b)(14) of the zoning ordinance. Instead, the following regulations apply:

- no two adjacent townhomes shall be identical
- a minimum of two variations shall be used to differentiate between the units
- variation may be provided through a selection of exterior color palettes, exterior materials, fenestration, architectural details, and/or porch details.

Parking: All lots containing garages shall provide for one (1) additional off-street parking space. Lots without a garage shall provide for two (2) off-street parking spaces.

Driveways: No more than two consecutive eighteen (18') foot or wider driveways may be constructed contiguous to each other on townhouse lots. Driveways and their associated parking spaces are permitted in front of the buildings on townhouse lots and two-family dwellings. Driveways shall be a minimum of 20' in length as measured from the back of sidewalk, where sidewalk exists, or from back of curb, where no sidewalk exists, or from pavement edge where sidewalk and curb do not exist. Townhomes and two-family dwellings are permitted to back out of driveways and are not required to adhere to zoning ordinance section 5202(c).

Maximum dwelling unit occupancy shall be a family plus two (2) persons unrelated to the family; or no more than three (3) unrelated persons.

Open Space shall be a minimum of thirty-five (35) percent. The minimum for a Town PRD is 20%.

Signage, and Lighting:

The entrance will contain signage that meets the current Town code, Section 5532 (c and e) for the number and identification.

Lighting: No lighting is proposed for the development. Dwelling unit lighting shall be typical permitted as typical wall mounted lighting.

Fencing, Yard Landscaping

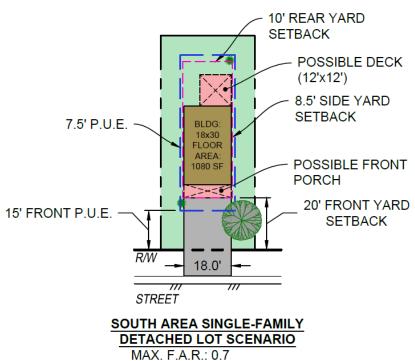
Fences

- Fences and walls shall be fabricated from wood, aluminum, wrought iron, vinyl, brick, or other approved materials manufactured specifically for fences and walls.
- Chain link fences are not permitted.
- Maximum height of fences and walls:
 - o In front of building line: four (4) of height.
 - o All other (side/rear yard): six (6) feet.

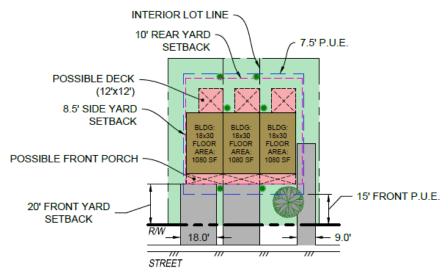
Yard Landscaping

- South area: A minimum of one (1) tree, either in the front, side, or rear yard, to include street trees, shall be planted on each lot. If in the front the tree shall be placed within 10' of the right-of-way edge but no closer than 5' from the sidewalk. Plantings for the community include trees with a 100-180 square feet minimum mature canopy coverage at 20 years. Lots shall also contain a minimum of two (2) shrubs or trees.
- North Area: A minimum of one (1) tree, including street trees shall be planted in the front yard within 10' of the right-of-way edge. Plantings include trees with equal to or greater than 100 square feet of minimum mature canopy coverage at 20 years. The grass strip is the location for utilities. Lots shall also contain a minimum of four (4) shrubs or trees.
- Secure all disturbed soil with grass, mulch, or other vegetation.

Sample Lot Schematics

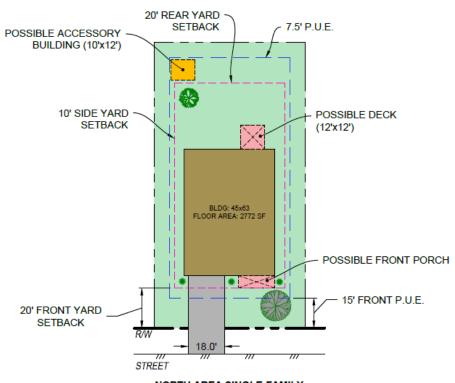


MAX. F.A.R.: 0.7 MAX. LOT COVERAGE: 65%



SOUTH AREA TOWNHOUSE LOT SCENARIO

MAX. F.A.R.: 1.0 (END UNIT) OR 1.3 (INTERIOR UNIT)
MAX. LOT COVERAGE: 65% (END UNIT) OR 90% (INTERIOR UNIT)



NORTH AREA SINGLE-FAMILY DETACHED LOT SCENARIO

MAX. F.A.R.: 0.65 MAX. LOT COVERAGE: 40%

Affordable Unit regulations:

The developer/builder team is committing to construct a minimum of twenty four (24) affordable units are provided throughout the South Area of the development, evenly scattered among streets A,B,C, and D on the conceptual plan. The unit pricing will be based on household size as published by U.S. Department of Housing and Urban Development (HUD). The unit price will be determined by the purchaser, builder, and loan entity as market price will dictate at the time the Certificate of Occupancy is sought. The unit will be required to be occupied by the owner and in conformance with the Homeowner's Covenants. The following is a breakdown of the affordable housing units and their requirements:

- a. Ten (10) units that will be sold to households with incomes no more than 80% of the Area Median Income (AMI). These will be required to be built on Street A in the first phase of the development in the South area. A minimum of Five (5) units shall be single-family detached.
- b. Ten (10) units that will be sold to households with incomes no more than 100% of the Area Median Income (AMI). These may be built during any phase and shall be mixed throughout the development within the South area. Streets A, B, C, and D shall include a minimum of two (2) each of these type units on each Street. A minimum of Five (5 units) shall be single family detached
- c. Four (4) units that will be sold to households with incomes no more than 120% of the Area Median Income (AMI). These may be built during any phase and shall be mixed throughout the development within the South area. Streets A, B, C, and D shall include one of these type units on each street. A minimum of two (2) units shall be single family detached.
- d. All 24 affordable units will meet minimum energy standards as outlined in the Affordable Housing Development Fund Request for Proposal (1142-22) issued by the Town of Blacksburg on October 24, 2022. If choosing not to pursue EarthCraft certification, these homes will undergo a plan review by the New River Home Trust and must meet a third-party tested HERS rating of 55 or better.
- e. The final sales price of all 24 affordable units will be determined at the time of market readiness and based on the formula outlined in the Affordable Housing Development Agreement using updated income limits published by HUD annually, and interest rates and fees as agreed upon by the New River Home Trust 60 days prior to the Certificate of Occupancy.
- f. The ten (10) homes affordable to households earning up to 80% AMI will be completed and sold in accordance with the Town's American Rescue Plan Act deadline. The remaining fourteen (14) homes affordable to households earning between 80%-120% AMI will be completed at the following minimum rate: for every eight (8) certificates of occupancy issued by the Town, at least one unit shall be an affordable unit.

Mixed-income unit regulations:

It is the goal of the development to provide a seamless integration of mixed-income housing. Therefore, each of the permitted residential uses within the development will be scattered evenly throughout the South Side. This way, no one Street Contains all market rate housing, or all townhouses. Rather, each street on the South side will contain a mix of each as grading and elevations will allow. For example, affordable units may not include a full basement, and therefore downsloping lots may not be the best option for these units. It is important to the designer of the project that housing choices and residential uses remain flexible through design. It is also a goal of the development to provide market rate housing to assist in affording mixed incomes. So, the following regulations are included to provide a variety of uses on each street while still maintaining flexibility in design for engineering factors related to each of the unit types.

• South Side:

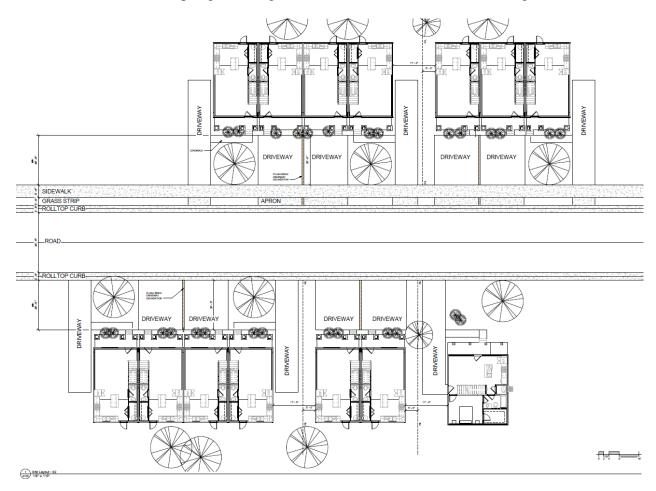
- Single-family detached units shall comprise a minimum of 20% of the units on each of streets A, B, C, and D
- Each individual Two-family attached units shall comprise a minimum of 20% of the units on each of streets A, B, C, and D
- o Individual Townhouse units shall comprise a minimum of 20% of the units on each of streets B, and C.
- At the issuance of the initial Certificate of Occupancy for any new dwelling, the maximum permitted gross floor area shall be:
 - 1,500 square feet if the dwelling is constructed without a finished basement, or
 - 2,250 square feet if the dwelling is constructed with a finished basement.

• North Side:

 Single-family detached units shall comprise 100% of the units on Streets A and E.

Example Streetscape

Glade Spring Crossing: Planned Residential District Rezoning



Excerpt from "Streetscape Exhibit: Site Driveway Concept". See appendix for full exhibit

Visual Streetscape



Excerpt from "Streetscape Exhibit: Driveway Concept Visuals". See appendix for full exhibit

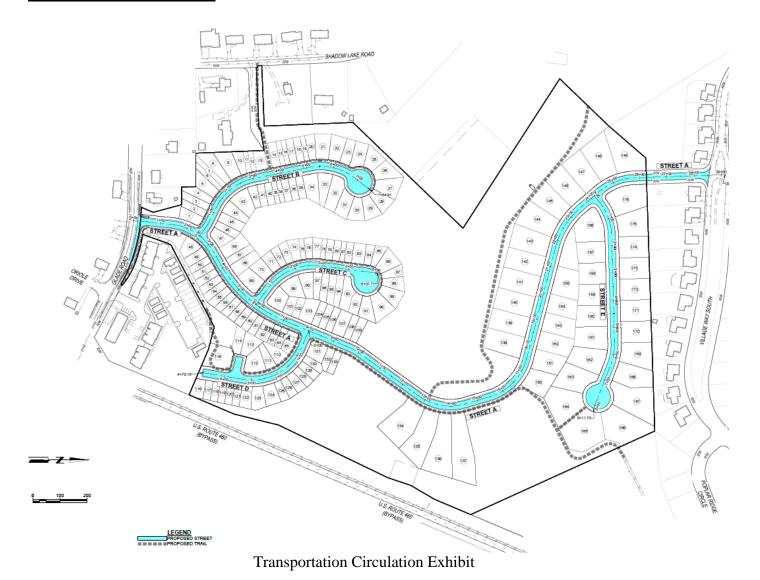
Compatibility with Surrounding Neighborhood Zoning

Zoning	Glade Spring	Glade Spring	R-4	Village at Tom's
Requirement	Crossing	Crossing		Creek
	(South area)	(North area)		
Maximum	3.89 unit/ac	3.89 unit/ac	4 unit/ac	2 unit/ac
Density				
	Feels like 5.7	Feels like 2		
	units per acre	units per acre		
Minimum	15 feet	40 feet	40 feet	0
Lot Frontage				
Minimum		20 feet	30 feet	8-20'
Setbacks:	20feet			
front				
side	5' minimum with	10 feet	10 feet	0-10'
	17' minimum			
	between buildings			
rear	10 feet	20 feet	25 feet	20'
Height	42 feet	42 feet	30 feet or up to 40	
			w/1' additional	
			setback per foot	
			height	
Floor Area	0.7-1.3	0.4-0.65	0.5	0.5-1.0
Ratio				
(FAR)				
Maximum	65-90%	35-40%	45%	50-70%
Lot coverage				

As the chart above indicates, the project density is equivalent to that of the surrounding R-4 areas on Glade Street And Shadowlake Road. The Village at Tom's Creek PRD to the north is a 2 unit per acre development, however, the density of the North side of the Glade Spring Crossing development matches this density adjacent to it. Below is an exerpt from the Village at Tom's Creek specifics by product type. In comparison, the South Area of Glade Spring Crossing will compare better to Townhouse and Cottage lots: the North to the Hamlet and Village Lots.

	-	-	-					-	-
District	Front	Side	Side (Corner Lot)	Rear	Height	Min. Lot Size	FAR	Lot Frontage	Lot Coverage
Tom's Creek									
Townhouse	8'; porch may extend	10' when adj. to							
Lots	5' into yard	SF; otherwise 5'	NA	20'			1		70%
Tom's Creek	13'; porch may extend	0' on one; 7' on							
Cottage Lots	8' into yard	other	NA	20'			0.5		65%
Tom's Creek	13'; porch may extend	5' for 1-1.5 story;							
Hamlet Lots	8' into yard	10' for 2 story	NA	20'			0.5		55%
Tom's Creek	20'; porch may extend	5' for 1-1.5 story;							
Village Lots	10' into yard	10' for 2 story	NA	20'			0.5		50%

Transportation Circulation



Street Network:

The proposed development includes a new "Street A" connection through the property between Glade Street And Village Way South currently in The Village at Tom's Creek. One-hundred and seventy-six (176) lots will have direct access to this street; however, the street will provide the option for traffic from the North to travel to points south, University City Boulevard or Prices Fork Rd. through the site further connecting the two neighborhoods together.

The development is uniquely situated close to the existing interchange of Prices Fork and U.S. 460 Bypass which gives future residents of the development in-Town and out-of-Town access to adequate street systems. In addition to allowing residents direct access to vehicular travel, the project proposes to

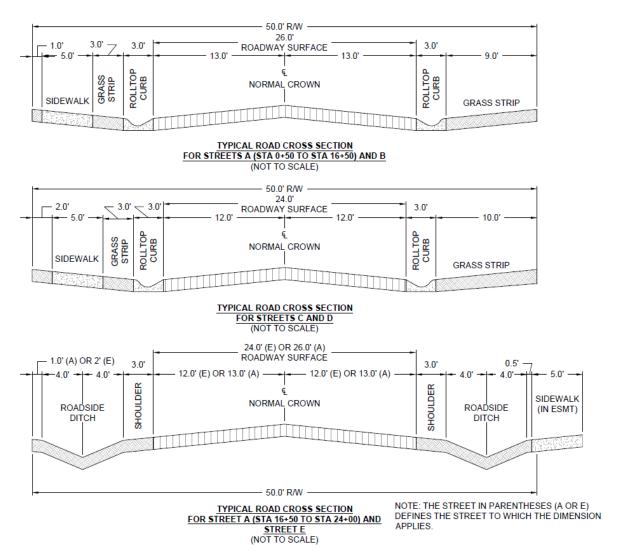
connect to the existing sidewalk/trail system Glade Road, encouraging residents' use of alternative modes of transportation into Town. That is discussed further below.

The project's network of streets consists of the main street through the development, Street "A" and 4 additional cul-de-sacs in the development comprising Streets "B-E", totaling over 5300' of new street. While the terrain is challenging, the project intends to meet the Town Code with a maximum street grade of 10% or less with the exception of a portion of Street "A" that requires a 15% slope to connecting through existing right-of-way to Village Way South. While this is requested as a variance to Town code, it is noted that the AASHTO guidelines and VDOT standards will support this slope. The project is requesting the Town to accommodate a 15mph speed limit on all the streets within the development for safety and to accommodate needed radii and Street Characteristics to support the density and changes in elevation of the topography. All lots are accessed directly from new streets and rights-of-way within the development through private driveways.

Since the site has limiting environmental factors and provisions for regional stormwater management, the development proposes a crossing of the two tributaries prior to their confluence. The crossing will also provide damming for two regional stormwater management areas, allowing efficient use of fill for both Street And pond infrastructure.

A full right turn lane will be installed to serve the entrance to Glade Spring Crossing from Glade Street As it is warranted by traffic. The property in front of the Farm currently exists to accommodate the turn lane

Typical Street Section: The project is divided into two areas for purposes of the rezoning, the North and South areas. This is largely to identify the proper lot characteristics present in the development but also serves as demarcation for the difference in street infrastructure systems.



South Area: (top two typical sections)

The South area of the site contains curb, gutter, and sidewalk which are a necessity for the density of the development on this side of the site. Rolled curb has been selected rather than CG-6 curb because over the life of the development it will save \$240,000 on the South Side furthering the ability to provide mixed-income units. Typically installing CG-6 requires the builder to go back and remove it to replace entrances once the building and driveway location is known. This is costly and wasteful; in a community that is providing affordable housing, this builder cost matters to the overall viability of the development. Rolled curb can be installed by the developer and remain without entrances needed through the building process. The difference in cost includes the cost of installing new entrances to the South area units and would avoid an additional wasted \$80,000 removing brand new installed curb to place the entrances. Since driveways occur much more often on this side of the development, continuous concrete sidewalk with an apron connecting it to the back of the curb allows for the continuity and transition across the driveways. Sidewalks will be separated from the back of the curb with a 2' grass strip where the aprons are not installed. Roadway widths are as follows: "Street A and Street "B" are

twenty-six (26) feet and Streets "C and D" are twenty-four (24) feet. The reduced widths not only intend to reduce impervious surface runoff, but also provide for more "front yard" space for units/driveway lengths.

North area: (lower typical section)

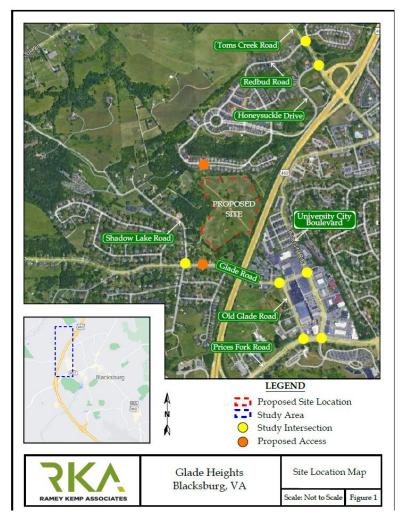
The North area of the site largely contains market rate housing and matches the infrastructure present at the Village at Tom's Creek, adjacent to this area. Since this area is less dense than that of the South Area, it provides the opportunity to utilize sustainable practices for stormwater conveyance and reduce impervious surfaces by eliminating curb, gutter, and sidewalks. While this is a much-needed reduction in costs for the site development further affording mixed income housing, it does not sacrifice the livability of this area. Lots with less than 100' of overland drainage flow from the Street Can pass water between them in grass swales allowing for additional infiltration ultimately reducing stormwater management. Those lots receiving more flow will benefit from lateral roadside ditches. Since driveways are less often on this side of the development, 15" culverts can be used under them where necessary to transfer stormwater. Trails behind units on Street "A" will accommodate pedestrian movement for those residents behind their units to other locations in the development. Street "E" will have low traffic allowing pedestrians to safely walk in the street, and a trail connection exists at the end of the cul-de-sac to connect to other areas of the neighborhood. Pedestrians walking in the roadway, like many neighborhoods around Blacksburg and at the Village at Tom's Creek, will benefit from 15mph speed limits for a safer experience. Roadway widths on Street "A" are 26' and "Street E" is 24', based on the projected traffic. Narrower streets are intended to reduce impervious surface runoff. The more rural design of the North Area supports these alternatives to the traditional street infrastructure that are expensive and not often required from an engineering standpoint.

Traffic Impact Analysis:

Glade Spring Crossing is planning 176 new single-family residences utilizing a new entrance connection at Glade Road which connects to Honeysuckle Drive on the north side with a new street connection, Street A. Obviously, this now imposes additional traffic to both the Village at Tom's Creek and Glade Spring Crossing from external traffic that needs to be analyzed, as well as the impact on existing streets and intersections to the South. Ramey Kemp Associates (RKA) has performed this Traffic Impact Analysis (TIA) in coordination with the Town. The traffic study titled "Glade Spring: Traffic Impact Analysis" dated October 13, 2022, was submitted to Town staff on that date. It included an analysis of streets to the North and South surrounding the site. The following roadways and intersections were considered as part of the very thorough impact analysis.

- Prices Fork Road is a four-lane Minor Arterial with an average daily traffic (ADT) volume of approximately 23,000 vehicles per day.
- University City Boulevard is a four-lane Major Collector with an average daily traffic (ADT) volume of approximately 8,300 vehicles per day (vpd)

- Glade Road is a two-lane Major Collector with an average daily traffic (ADT) volume of approximately 2,000 vehicles per day (vpd)
- Old Glade Road is a local roadway with an ADT volume of approximately 6,200 vpd
- Toms Creek Road is a two-lane Major Collector with an average daily traffic (ADT) volume of approximately 1,800 vehicles per day (vpd)
- Redbud Road is a local roadway with an ADT volume of approximately 720 vpd
- Honeysuckle Drive is a local roadway with an ADT volume of approximately 1,300 vpd
- Intersection of Prices Fork/University City Boulevard
- Intersection of Old Glade Rd/University City Boulevard
- Intersection of Glade Rd/University City Boulevard
- Intersection of Glade Rd/Old Glade Rd.
- Intersection of Glade Rd/Shadow Lake Rd.
- Intersection of Tom's Creek/Honeysuckle Dr.
- Intersection of Tom's Creek/Redbud Rd.
- Intersection of New Street A with Glade Road.



Existing and proposed approved developments were added to the study and an assumed growth rate of 0.5% was used to buildout in year 2026 as an existing condition. The following is the trip generation for the site and assumes all units were detached single family as that is most conservative.

Land Use (ITE Land Use Code)	Size	Weekday Daily Traffic (vpd)		AM Peak Hour (vph)		PM Peak Hour (vph)	
		Enter	Exit	Enter	Exit	Enter	Exit
Single Family Detached Housing (210)	180 units	867	867	33	94	109	64

Site Trip Distribution

The following site trip distribution was applied based on a review of the existing traffic volumes, the adjacent roadway network, and engineering judgement:

- 10% to / from the north on University City Boulevard
- 40% to / from the east on Prices Fork Road
- 30% to / from the west on Prices Fork Road
- 5% to/from the west on Glade Road
- 15% to/from the east on Toms Creek Road

Through coordination with the Town, it was determined that 30% of the existing traffic utilizing Honeysuckle Drive or Redbud Road to access the Village neighborhood to the north of the proposed site would utilize the proposed interconnectivity to access Glade Road instead of continuing to utilize the Toms Creek Road.

RESULTS:

Glade/Old Glade 3-way stop:

A 3-way stop is currently warranted at the Glade/Old Glade intersection. The traffic analysis showed an exacerbation of delays on the left turn northbound of Old Glade. with the addition of the development. While some additional analysis on how this could be designed was submitted by the applicant, the applicant is not proposing to make these improvements as it is a current town issue.

VDOT Turn Lane Warrant Analysis

The projected build-out AM and PM peak hour traffic volumes at the proposed entrance on Glade Road were compared to the turn lane warrants in the Virginia Department of Transportation (VDOT) Access Management Design Standards for Entrances and Intersections. A westbound right-turn lane along Glade Road is warranted at the proposed site access and has been included. Adequate right-of-way exists along Glade Road for this turn lane and The Farm is aware that it will be constructed in front of their units as part of this development.

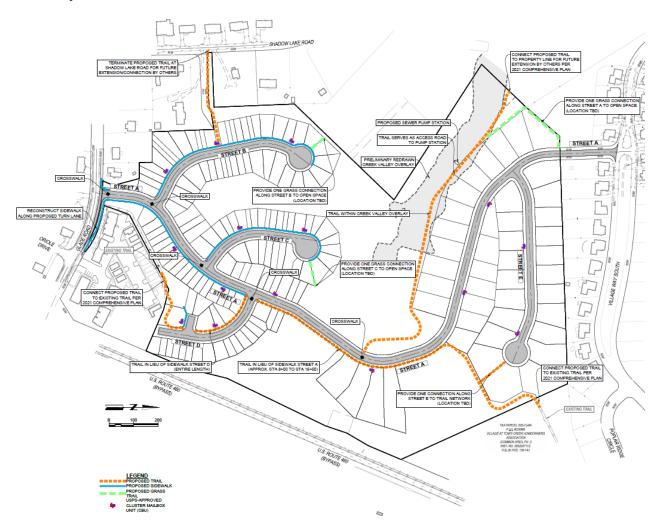
Traffic Capacity Analysis

Traffic capacity analysis for the study intersections was performed using Synchro 10, which is a comprehensive software package that allows the user to model signalized and unsignalized intersections to determine levels-of-service based on the thresholds specified in the Highway Capacity Manual (HCM) -6th Edition. Due to the minimal impacts from the development, no improvements were recommended in intersections.

Site Distance:

Both connections to Glade Road and Honeysuckle Drive are positioned with adequate intersection sight distance.

Bicycle and Pedestrian Circulation:



Glade Spring Crossing emphasizes alternative transportation modes within the development as well as through the development for external and internal users with trails, sidewalks, street connectivity. This development is providing nearly 2000 linear feet of sidewalk, and 4000 linear feet of trail as public amenities on the site. Each of these connections serves a critical purpose

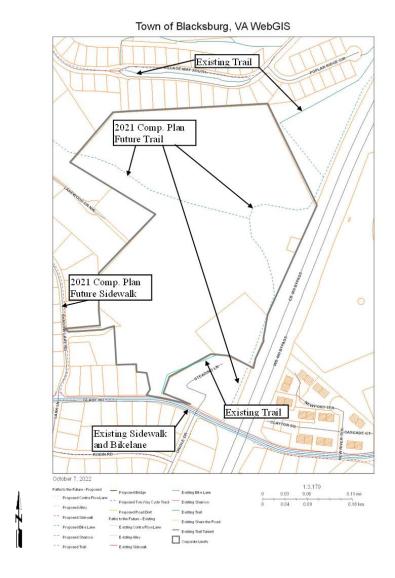
within the community and exterior. For the developer to maintain affordable units, each of these infrastructure items has been evaluated critically for their need and cost efficiency.

Group mailboxes will be utilized within the community to enhance intermingling of neighbors and to declutter streetscape. They are shown on the plan above containing 12-16 addresses each.

Trail circulation: external

External to the development, the trails and walks will connect with Shadow Lake Drive, Glade Road, and the Village at Tom's Creek where trails already exist. Pedestrians and bicyclists from the development will be able to travel to the North or the South and access downtown, University Boulevard commercial area, or campus entirely on off-road trails or sidewalks. Certainly, this will encourage alternative means of transportation for residents from the development. Similarly, bicyclists and pedestrians from the Village at Tom's Creek, Brookfield Village, and Berewick will now have direct bicycle access to those areas that have been incomplete until now.

The Comprehensive Plan's "Paths to the Future" map in the Comprehensive Plan includes future trail connections through the property. This is shown on the exhibit below in light blue dashed lines. It includes a Tom's Creek tributary greenway as well as a North/South connector trail through the property.

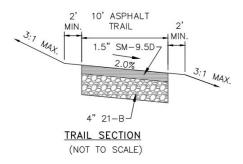


The development plans to also add a connection to Shadow Lake Road where a trail exists currently. These trails are all included in Glade Spring Crossing and are achieved as shown on the "Pedestrian Circulation map" above. Someday, this will provide external users to the west and further into Tom's Creek the opportunity to ride the length of the creek on the greenway and connect into the heart of Town. In the short term, this section of trail will provide for connection to the open spaces in the community and active recreation. The applicant will utilize area within the Creek valley Overlay to provide a 10' wide trail without causing a rise in the 100-year floodplain.

Trail Circulation: internal

Internally, trails interconnect all open space areas, the roadways, and its system of sidewalks. Cul-de-sacs contain connections for pedestrians via hardscape or grass trails. A homeowner's association will be established to maintain all private trails in the development. Opportunities for walking on surfaces with handicap accessibilities exist as well as a more natural walk to the

creek, around the development, or through mature forested areas. Handicap ramps will be provided at all intersections of sidewalks and trails with the Street And at crossings. Pedestrian crossing markings will be provided on Street "A", and Street "D" where sidewalks or the 10' wide trail crosses.



Sidewalk Circulation:

New sidewalks within the development are provided on the South area streets for walkers, runners, and young bicyclists. They provide a key of road connection for pedestrians and bikes from Shadow Lake road to the public North/South connector trail and to Glade Road.

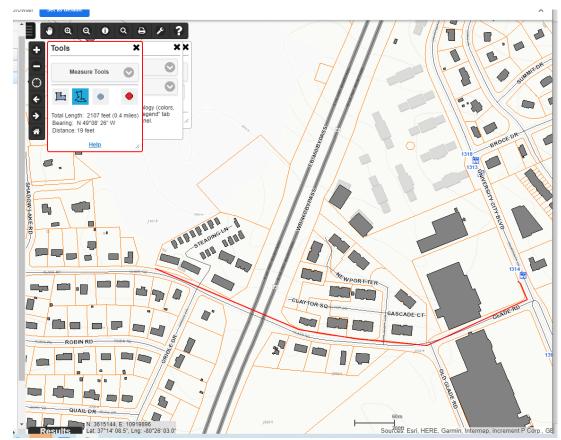
Since the developer must evaluate the cost effectiveness of each infrastructure item to maintain affordability in the overall development, it was determined that sidewalks on the North Area were not critical to the circulation. Sidewalks do not exist along Honeysuckle Drive, so there is no "connection" for a sidewalk on the north end of the development. Therefore, sidewalk is not continued on Street A past the point where the paved trail connects to the Village. Village at Tom's Creek residents may choose to use the North/South connector bike trail to reach Glade Road or use the grass trail from Street A at the property border to access the Tom's Creek Greenway Trail through the site.

Parking:

Guest parking will be provided in limited segments along the roadways. Driveways will accommodate two spaces each for residents or guests. Each lot must accommodate parking spaces by either providing a garage and one additional driveway space, or if no garage exists then the lot must provide two driveway spaces.

Alternative Transportation:

Bus service is not available to areas west of the 460 bypass. However, the closest existing bus stop is near the intersection of Glade Street And University City Boulevard which is only 0.5 miles from the entrance of the new community, as seen in the figure below. This is relatively close compared to most single-family residential neighborhoods in Town. Again, residents will be able to access the stops along University City Boulevard entirely on sidewalks and trails from the development.

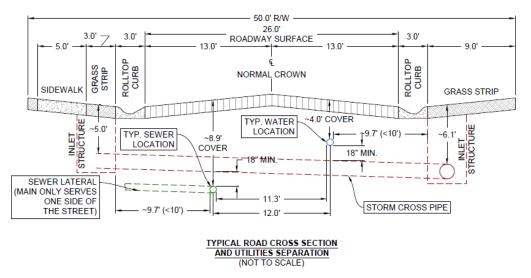


Town of Blacksburg GIS, distance from property to nearest Transit stop.

Public Service and Utilities:

All utilities will be designed as efficiently as possible for future Town maintenance as well as designed effectively to maximize safety and reliability for the Town's future residents. Of course, they will be constructed to Town standards with the least amount of impact to the existing infrastructure as possible. Utilities traversing the site for water and sewer will need to be replaced as they conflict with the new development. This development will utilize the existing utilities surrounding and adjacent to the site thus providing additional customer-based revenue toward the Town's prior investments.

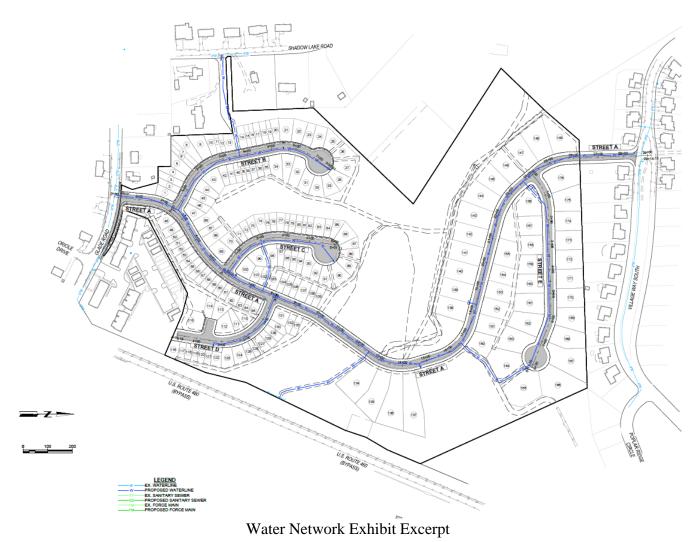
The development will generally provide water and sewer systems in the right-of-way where possible for gravity drainage. Where it is necessary, sewer may be installed in the rear of lots to obtain gravity drainage based on the grading and elevations of lots and buildings. The typical section below shows utilities in the rights-of-way as planned. Note that the applicant is requesting a variance for the separation of utilities in the right-of-way. This is necessary due to the dense nature of the development.



NOTE: ROAD CROSS SECTION APPLIES TO STREET A (STA 0+50 TO STA 16+50) AND STREET B.

All public water, sewer, and stormwater drainage systems will be contained within easement areas as shown on the Conceptual Site Plan. Additionally, public utility easements will be provided along all lot lines as required by current Town code unless otherwise stated in this application. A variance is requested for P.U.Es at the rear of new lots where they share an exterior parcel boundary, and an easement already exists abutting it. Rather than providing the required 15' interior to exterior parcel lines, the applicant proposes only 7.5' in locations where 15' already exists adjacent to the exterior lot line. Grass trails provided throughout the project may include public access easements as well as public utility easements though they will be privately maintained. Public paved trails may also include P.U.E's, and drainage access easements for efficiency of space.

Water:

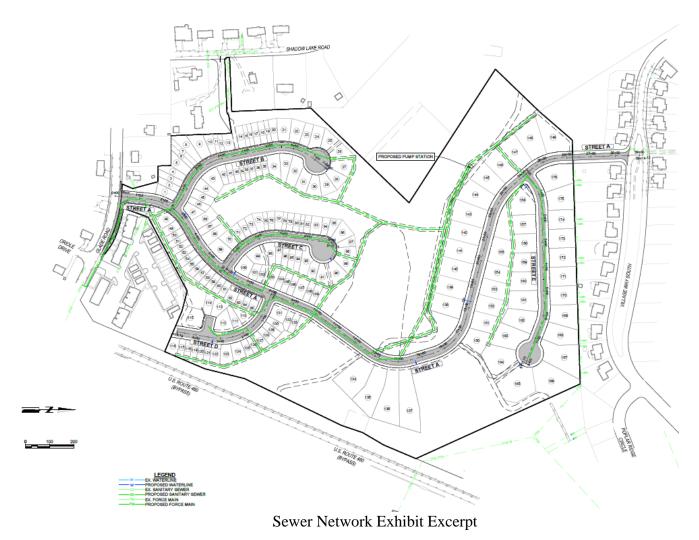


A 10" line loop feed to the Village at Tom's Creek will need to be replaced to allow construction of a stormwater management regional detention area and new proposed units. The new line along Street A and around the detention area will be constructed first and tied into the existing system before abandoning the existing portions of 10" line. This will minimize the time the back feed loop to the Village is out of service during tie-over. Because this is a loop, the line will be able to be constructed without live tapping.

Eight (8) inch waterlines are proposed through the site tying into the existing system at four locations: Glade Road, Shadow Lake Road, Village Way South, and the 10" line located at the 460 bypass above the regional detention facility. Glade Street And Shadow Lake Street Connections will require live taps while the other two can be valved off for tie-ins. The proposed development contains a fully looped system which will provide redundancy in service

to all our residents. Town staff has reviewed the proposed layout of the water line and has confirmed that adequate pressure and flow exist to the project. The new system is comprised of approximately 6,850 feet of eight (8) inch waterline and will contain fire hydrants and other appurtenances as required by the Town water specifications. The proposed locations and sizes of lines may change based on final design criteria.

Sewer:



An existing 8" sewer main serving "the Farm" exists through Glade Spring Crossing and will be replaced with the project to provide the new entrance Street And housing on Street B. The project is proposing to use conventional gravity sewer, like that surrounding (west and south) and through the site. The four unit per acre density lends itself much better to this system than it would the STEP/STEG system as the tanks would have difficulty fitting on small lots proposed. Town Council is requested to remove the parcels for Glade Spring from the Tom's Creek STEP/STEG service area to provide conventional gravity sewer.

All homes will drain by gravity from their lowest floor elevation. Approximately 7,250 feet of eight (8) inch gravity mains will deliver the flows to a centralized pump station at the low point of the site. Flow from the development site is summarized in the table below. Glade Spring Crossing new flows are estimated at approximately 54,000 gallons per day. Because the sewer line from "the Farm" is being abandoned, new project gravity mains will have to pick up the existing flow from the Farm in the amount of 11,700 gpd and deliver it to the station as well. Therefore, a total flow to the new pumping station will be approximately 66,070 gallons per day. Suction lift pumps will deliver effluent up to the existing force main on Glade Road through 2,750' of new six (6) inch force main. It is expected the new force main will run laterally to Glade Street And tie into the existing force main before it crosses the bridge at 460. Actual tie-in will be verified during design once additional survey and public works feedback is received about the exact location of the line. The viability of tying into the existing force main in Glade Road, as well as the downstream capacities are being evaluated by the Town.

Source	DU	Bedrooms	Ave. flow	Peak flow
Source	БО	Bedrooms	(gpd)	(gpd)
"The Farm"	NA	117	11,700	46,800
Existing building at "The Farm"?	NA	0	0	0
Existing dwelling units	1	NA	270	1,080
Proposed dwelling units	180	NA	48,600	194,400
Proposed sewer pipe-infiltration (no peak factor)	NA	NA	5,500	5,500
		Total flow	66,070	247,780

Table of Projected Sewer Flows

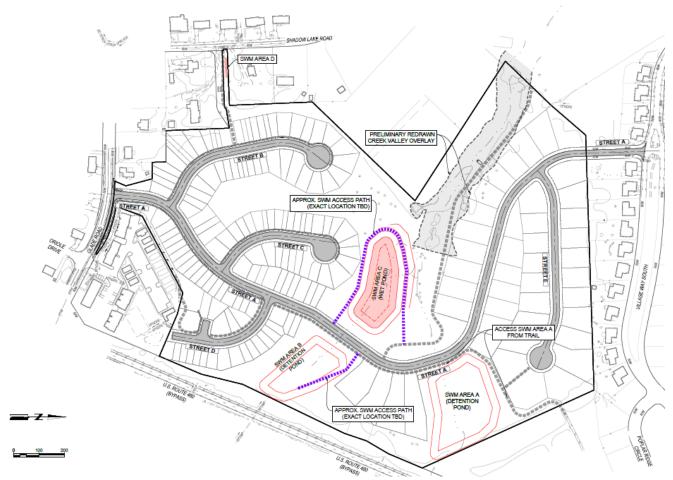
While the development contains a maximum 176 units, preliminary numbers were provided to the Town utilizing 180 units to be conservative. Actual numbers may vary from these during design based on a final count of units and design calculations and regulations at the time of review.

Other Utilities:

New private utilities for power, gas, phone, cable, television, internet, and any other desired services will be provided for the community underground. Utility easements for private utilities are provided on side/rear lot lines and area within the right-of-way and in the grass strip are available.

Trash and recycling will be stored in the front of the units or to the side of the unit. For the few units that are tight in front or middle units, the porches in the front can contain the carts or they can be stored at the rear and walked around.

Stormwater Management:



Stormwater Management Areas Exhibit Excerpt

Introduction:

The main feature for the development is the confluence of two major tributaries of Tom's Creek. The development will protect and, over time, enhance this feature by conserving this area in permanent open space and converting eroded channels into thriving wetlands and functional stormwater areas. Currently, goats and cattle graze over the land and until more recently were permitted to access the creek. Therefore, a large part of the creek tributary remained denuded, and the creek condition is poor. Additionally, water has eroded channels from large culverts under 460 filled with runoff. Pre-existing conditions in the watershed upstream include very little detention and for over 30 years water has rushed through the site. The Town acknowledged this problem in the late 1990's installing a detention facility on the northern most tributary. That exists today on the site although it remains unmaintained and could be improved upon. Currently, the site receives over 260 cubic feet per second of flow from upstream runoff in the 100-year storm. This has left the creek with deep gullies and eroded banks as the urban runoff has increased over the years as the Town has developed. Glade Spring Crossing will significantly reduce the flows through our site with regional detention without impacting the

existing floodplains adversely nor building stormwater facilities in the Creek Valley Overlay. Also, the addition of a site Wet Pond will improve the degraded quality of water from the upstream areas providing the Tom's Creek Basin with much improved water quality.

Regional Stormwater Management

Because the development property is uniquely placed at the confluence of two urban creek tributaries to Tom's Creek, and this area is largely unusable for development, the developer has proposed regional stormwater management facilities. These facilities will be designed to serve both the private development needs as well as regional needs for the watershed. During the Comprehensive Plan Amendment process for the property, the Town suggested a regional facility was desired to reduce quantity after years of runoff inundation from 460 has affected downstream residences. The developer has proposed consideration of a public private partnership for construction of the facilities as this location is ideal, but it is much more than the private development portion would require in reduction of flow and cost.

Existing Town Stormwater Detention Facility A:

The project plans to revitalize an existing town stormwater management detention facility that is under-utilized and not well maintained on the north tributary draining areas under the 460 bypass. Eighty-four acres of 75% impervious area offsite area drains to this pond, and a portion of the North Area is included as well. The project will utilize the embankment for Street A as the dam and excavate additional volume. A control structure will control the 1 and 10-year storms while a culvert will provide emergency spillway relief for the 100-year storm. Adequate volume will be provided to gain freeboard for the permanent pool elevations. The developer has preliminarily redesigned this facility to reduce flows more effectively and proposes to take over maintenance of this detention area.

New Stormwater Detention Area B:

Additionally, Glade Spring Crossing is adding another regional detention facility on the south tributary also draining urban areas across the 460 bypass that have been problematic for stormwater since developing in the 80s. While draining approximately 33 acres of impervious offsite drainage area, this detention area will also manage stormwater from a significant portion of the South area development. The project will utilize the embankment for Street A as the dam. A control structure will control the 1 and 10-year storms while a culvert will provide emergency spillway relief for the 100-year storm. Adequate volume will be provided to gain freeboard for the permanent pool elevations. Since the 460 bypass may not receive backwater, excavated volume is providing most of the storage volume.

Wet Pond:

The new Glade Spring Crossing Wet Pond will be a prominent technical and aesthetic feature installed below the Street A. This DEQ Best Management Practice for pollutant removal will store flows from the South tributary. The benefit of this pond will extend beyond that of the developer's needs by providing the Town much needed pollutant

removal from its flows from the University Boulevard area. Aquatic benches and plantings are critical for the pollutant removal. This wet pond will serve as an amenity for residents to enjoy.

All three ponds, dry and wet, contribute to a total site reduction for the 1 and 10-year storms. These storms are critical because they occur more often and have troubled downstream properties for years. Therefore, these are the measure by which the Town and developer can assess the effectiveness of the facilities. The table below gives a preliminary estimate of the reduction these ponds can offer: a one-year peak reduction of nearly 60% and a 10-year peak reduction of just under 50%. These values are preliminary and should not be interpreted as final until final design of the development. This is important to understand because variations in grading, elevations, storm analysis, and construction standards can all have a significant effect the sensitivity of these flows. However, with preliminary modeling using Storm and Sanitary Analysis and Hydra Flow from Autodesk, these represent an order of magnitude flow reductions achievable.

Stormwater Improvement Summary							
Water Quantity							
	Existir	ng condition	After Regional SWM improvements		Net reduction of peak flow rate at prop. Line (pt. of discharge)		
1-year peak flow rate	75 cfs		25 cfs		50 cfs		
10-year peak flow rate	175 cfs		90 cfs		85 cfs		
Water Quality							
Target TP load reduction		TP load reduction achieved (after SWM improvements)		Excess TP load reduction relative to target			
26 lb/yr 39		lb/yr		12 lb/yr			

There is additional benefit to the Town in water quality as well as the 100-year storm reduction in flows. Again, the space available for the wet pond is highly dependent upon road grading and site grading, but given the information available during the preliminary analysis, pollutant reduction can exceed the required load reduction by 45%. While these ponds are not aiming to reduce the one-hundred-year flows, a reduction of the 100-year peak flow rate is still achievable based on preliminary flow calculations.

Regulatory Requirements:

As shown above, the development plans to meet and exceed all regulatory requirements for flooding, channel erosion, and water quality for its proposed land use changes. To further protect this area from our own development impacts, the applicant will provide the four stormwater best management practices to achieve the Town's regulatory requirements for stormwater. A stormwater concept plan and narrative with calculations has been submitted prior to the application that shows the development can address the stormwater quantity and quality requirements. These are also bulleted below this section.

A preliminary wetland delineation and jurisdictional water evaluation performed has been performed prior to the proposed project however, no preliminary approval has been given as the COE has changed their process and now requires a permitting process which will begin after rezoning. Five areas have been identified as possible wetlands on the site including a spring location. Some are more significant that others, such as the area under Pond C on this plan. Some of these will require mitigation to install more beneficial wetlands in the form of a wet pond and stormwater management detention ponds. In consultation with the environmental professional who performed the delineation, the project has budgeted \$258,000 towards wetland and jurisdictional waters mitigation. A map depicting the preliminary wetlands and jurisdictional waters is included the stormwater management calculations and further explanation of the estimate for wetland mitigation is also included in that document. Note that these areas are preliminary and have not yet been confirmed by the US Army Corps of Engineers.

No flood study is on record establishing the 100-year base flood water surface elevation within the existing drainage way. As such, in pursuance of Section 3243(b) of the zoning ordinance, the engineer prepared a preliminary floodplain study to delineate the existing 100-year floodplain and the subsequent Flood Hazard Overlay (FHO) and Creek Valley Overlay (CVO). This flood study is provided in a separate document. The engineer proposes that the FHO be defined as the floodplain shown within the flood study. A final delineation study of the post developed floodplain and CVO will be prepared during the preliminary plat process for Town approval.

The CVO limits are proposed to be modified as part of this project, pursuant to Section 3231. The calculated 100-year floodplain is utilized as the basis for the redefined CVO. The new CVO includes areas within the floodplain, areas within 50 feet of the channel centerline, and adjacent slopes 25% or steeper. Slopes were confirmed by the topographic survey dated 4/28/2022 sealed by a licensed land surveyor. The resulting CVO is depicted in this stormwater management analysis and shown below on the map. The study further documents that the proposed Glade Spring Crossing development and stormwater management improvements do not result in an increase in the water surface elevation at any point along the analyzed floodplain. The preliminary redrawn Creek Valley Overlay is compared to the existing CVO in Appendix B

Storm Water Requirements Met:

- Channel Protection: Stormwater management basins are located on the "stormwater management concept plan" shown below. These will detain the 1-year storm, as required by the State and Town regulations, back to an acceptable level using the energy balance equation. This ensures that small, frequent storms, do not negatively affect downstream creeks and channels.
- Flood Protection: The stormwater management basins are located strategically to adequately capture runoff and reduce flows to pre-development levels for the 10-year storm.
- Creek Valley Overlay: Largely remains undisturbed as it has been redrawn based on actual field survey. The sewer lift station/access road fall within this area, as utilities are permitted in the creek valley overlay. Additionally, the future greenway trail will be

installed at grade within the Creek Valley Overlay as permitted by code and encouraged in the Comprehensive Plan.

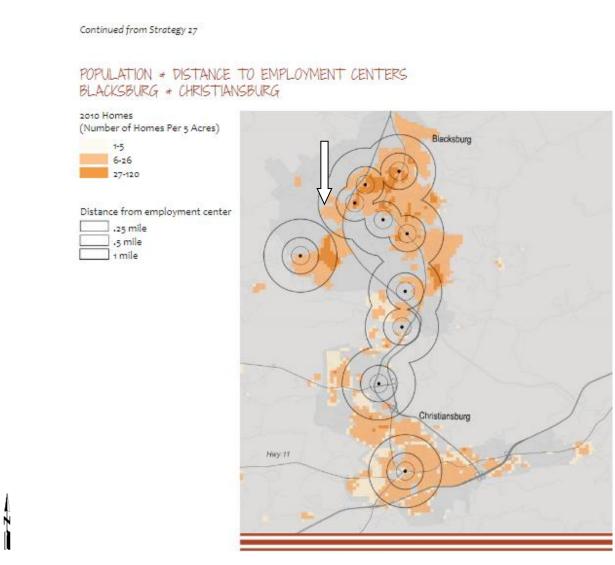
- 100-year floodplain
 - The FHO Floodplain Overlay District standards are met as the pre and post developed one-hundred-year flood elevations were modeled downstream from the street crossing. No rise to the floodplain is proposed. No surrounding properties are negatively affected and no rise in floodplain elevations occur on adjacent properties upstream or downstream. It is typical that the detail required for this engineering solution is done during design, however, we have undertaken a study with a bit more detail prior to design to determine a more realistic engineering solution for the Wet Pond installation.
 - Calculations are provided showing that no overtopping of Street A exists for the 100-year flood.
- Private stormwater management facilities are in private HOA areas. The applicant will provide easements for these areas for Town access if required. Accessibility to each of these facilities is shown on the concept plan by either paved trails or grass trails that can also be dedicated to the Town. Mowing and trash removal are the main maintenance activities required for these facilities which is also required along the trails and throughout the development regularly. Parking for this type of maintenance will occur on the street. Where the occasional need arises for maintenance of structures or piping, the trail can be temporarily closed or coned off as with the rest of town.
- A preliminary wetland delineation and jurisdictional water study was performed and sent to the Corps of Engineers for preliminary approval. During design, a Corps and DEQ joint permit will be sought.

Environmental benefits:

Glade Spring Crossing's location, design features, density, and infrastructure provide inherent environmental benefits:

- To provide home ownership opportunities that do not currently exist for affordable housing in the Town of Blacksburg.
- Utilizing increased density to support much needed home ownership to all ranges of income levels within the community.
- Efficient use of infrastructure to ensure affordability and reduce unnecessary long-term maintenance expense.
- Reducing air and water pollution as well as greenhouse gas emissions by locating near jobs and shopping.
- Planning for future climate resiliency and adaptation with Green building practices and planned density where infrastructure already exists.
- Supporting biodiversity, conservation, and establishment of new open spaces in an affordable manner for the short and long term.
- Conservation of existing natural resources including floodplains in natural drainage ways, aquifer recharge areas, existing tree cover, steep slopes adjacent to floodways, wetlands and springs contiguous to floodplains, and creek valleys.
- Providing open space of 35% in excess of the required 20% in PRD.
- Encouraging successive native vegetation as land cover in properly planned corridors along the creek and throughout the development which will give way to new habitats and provide for wildlife.
- Providing professional management of all open space areas to ensure their long-term viability.
- Expanding tree canopy and shade with the addition of successive growth areas, street trees, and professionally managed landscaped areas.
- Promoting energy conservation, energy efficiency through green building practices and attached building design concepts.
- Adopting land-use policies that promote smart growth practices through clustered development and protection of natural environmental areas.
- Minimizing waste and encouraging recycling through building practices in affordable units.
- Improving watershed management practices and water quality on a regional scale through the addition of regional dry and wet pond facilities
- Reducing car-dependency by providing trails, sidewalks that tie to existing pedestrian and biking infrastructure for new residents and those in surrounding neighborhoods.
- Encouraging healthy lifestyles with the addition of active recreational areas.
- To add to the real estate tax base in Blacksburg.

- Efficient but effective strategies for ongoing community management through a homeowner's association to prevent absentee owners and to keep fees affordable for all residents.
- Sustainable location
 - o Adjacent to existing developments with 2-4 unit/acre densities.
 - Within walking distance of bus stop 0.5 miles away.
 - o Within 1.0 miles of campus, a major employment center.
 - o within 0.4 miles of retail establishments



Liveability initiative, Community Foundation of the New River Valley: "Home in the New River Valley"

Open Space Management Plan, Landscaping, and Recreation

Open Space Management:



Open Space Management Land Use Exhibit Excerpt

General Description:

The goal of the open space management plan for Glade Spring Crossing is to provide purposeful balance of community open space needs and environmental stewardship through long-term preservation in a cost-effective manner. As described earlier, Glade Spring Crossing has a variety of landscape features and environmental features including the confluence of tributaries and springs forming the headwaters of Tom's Creek on the property. These areas are uniquely situated for water quantity and quality management in low lying lands that are not suited for development. To take full advantage of these areas, the open space management plan lays out areas for new regional storm management facilities, as well as protection and revitalization areas

along the creek corridor. Additionally, the plan maximizes remaining areas for purposeful human interaction with the environment as well as passive and active recreation through installation of trails, active play areas, and open turf areas. Professionally managed landscape areas are planned where appropriate, but minimal to keep costs down. Native growth will be encouraged in riparian areas and Managed Successive growth areas through eradicating invasive species at regular intervals. This is a much more cost-effective way to achieve the same outcome: dense land cover. Similarly, only purposeful turf open space areas are included, as these are expensive to maintain. Annual mowing costs of \$15-20,000 is not uncommon for comparable size development with common area greenspace.

The plan will be professionally managed by a Homeowner's Association with special attention to keeping costs of future maintenance minimal. Meaningful turf areas for recreational opportunities require a higher level of maintenance, whereas riparian enhancement areas and successive growth areas will require lower levels of maintenance and expense. Approximately 35% of the project is comprised of usable, contiguous open space which exceeds the required PRD open space by 15%.

Open Space Land Use Descriptions:

- Professionally Managed Landscaped areas: These areas are identified to be professionally managed by a homeowners association and planted as follows:
 - Vegetated embankments
 - specifically called out to include native groundcover plantings for erosion control and tree plantings similar to Service berries or Redbuds.
 - This management technique shall be applied to Street Embankment areas as indicated on the map.
 - o Entrance
 - combination of perenials, shrubs, and ornamental trees that are seasonally maintained and mowed by the HOA.
 - o Gathering area
 - combination of perenials, shrubs, and ornamental trees that are seasonally maintained and mowed, may include hardscape such as benches or patio.
 - Professionally managed and maintained by the HOA.
- Managed Turf Open space:
 - These areas are to be mowed on a regular basis to maintain space for active recreation, grass walking trails, sledding, and organized play. Turf shall be a mix of Kentucky 31 or turf type tall fescue grasses and shall be maintained at an average length of less than ten (10) inches to facilitate these activities. (This is the length permitted for turf in Town Code Chapter 14 Article 2, Weeds and Trash.)
 - o Grass trails connecting to these spaces shall also be mowed and maintained in the same fashion.



Village at Tom's Creek grass mowed trails: similar proposed in Glade Spring Crossing

• Backyard transitional zones:

- Where homes are adjacent to managed successional areas or existing woodlands that are retained.
- The owners will be required to maintain a 10' mowed managed turf area beyond the private lot line (on the common space area) to contain successional creep. The HOA will be responsible for enforcement of the requirement and ultimately responsible.

• Existing Woodland Retained:

- Areas of existing woodlands currently existing with mature trees and tree canopy that are expected to remain.
- The HOA will maintain this area by removing invasive species and encouraging native growth.

• Stormwater Pond (Wet):

- o This area is specifically identifying the permanent water surface and dam embankment of the Wet Pond that will be installed to reduce pollutants within the watershed.
- The wet area will contain aquatic plant species planted per DEQ standards. The dam will be constructed of select compacted soils to meet engineering standards.
- o This area will be maintained as required by DEQ and bushogged where appropriate on the dam embankment as needed for access and maintenance.



Virginia DEQ: similar to proposed Glade Spring Crossing wet pond

• Stormwater Pond (Dry):

- These areas are specifically called out as areas inundated by stormwater flows on a regular basis.
- They will be sustained in an early successional state via periodic bushogging by the HOA, up to 4 times per year.

• Managed Successional:

- These areas include total area coverage of native plant and tree associations evolving and growing with time. Wildlife habitat and changing mature plant and tree growth will evolve with proper management. Some trees will be planted in these areas to begin with mainly to signify to residents the areas that are included.
- Current undesireable riparian areas exist within these areas. The invasive species will be removed and the area supplemented with facultative trees like Sycamores at an interval that will allow for successive and understory growth along the streambank corridor.
- The HOA will be responsible for management of these areas includes ongoing invasive plant removal removal of hazardous trees. The HOA will be required to consult area specialists to secure the adequate selection of invasive species and determine hazardous situations needing corrective action.



Village at Tom's Creek managed successional areas adjacent to grass trails

- Pond Edge Shade Tree Successional area:
 - o these areas are intended to provide shade in the long term over the wet pond and surrounding areas. Trees will be planted at the base of the wet pond embankment at the end of construction to jump start the shading process early in this area. These areas are intended to contain successional growth around and underneath the trees planted.
 - o Management of these areas will be the responsibility of the HOA and managed similarly to the managed successional areas above with removal of invasive species.
- Recreation areas:
 - These areas are identified as centralized flat areas excellent for active play. These will be turf or mulch areas containing structured play equipment such as soccer goals, playground structures, swing sets, or other similar type equipment.
 - These areas will require seasonal maintenance and mowing with the same requirements as the Managed turf open space areas.
- Public Trails:
 - o Ten (10) foot wide asphalt paved trails intended for public use.
 - o These will be maintained by the Town of Blacksburg.

Open Space Regulations:

- A minimum of 35% open space shall be provided.
- Public sidewalk, private grass trails and paved public trails will connect pedestrians from their homes to the open space areas and are shown on the Pedestrian Circulation and Trail Exhibit.
- Private grass trails run throughout the development and are shown as managed turf areas on the Open Space Management Land Use exhibit.

- All open space will be owned and maintained by the Homeowner's association, except as otherwise stated in a developer's agreement, and shall contain the elements shown on the "Open Space Management Land Use Plan map".
- The Homeowners Association documents shall include a provision for an annual site visit and review of the managed successional areas. The review is to be conducted by a person holding relevant qualifications such as a biologist, master naturalist, ecologist, natural resource manager, or person with similar credentials. The purpose of the review is to support the successional process by assessing the general condition of the successional areas and identifying any detrimental invasive plant species or plant diseases, and to make singular or program recommendations to address identified issues. The HOA will be responsible for hiring the individual, following their recommendations and time-frames, as well as establishing a log of the activities.

Landscaping



Open Space Landscaping Exhibit Excerpt

General Description:

Through the use of the Open Space Mananagement Land Use Plan, there are a variety of landscaped areas in Glade Spring Crossing that include purposeful new plantings, existing tree covered areas, and managed successive growth areas. It is intended that all of these areas will add to land cover that ultimately contributes to a minimum tree canopy cover over the development. However, rather than just focusing on tree canopy coverage as a measure of success for landscaping by counting trees, this plan strives for a variety of coverage through environmental stewardship of natural growth areas with a multitude of additional benefits. Those benefits include the following:

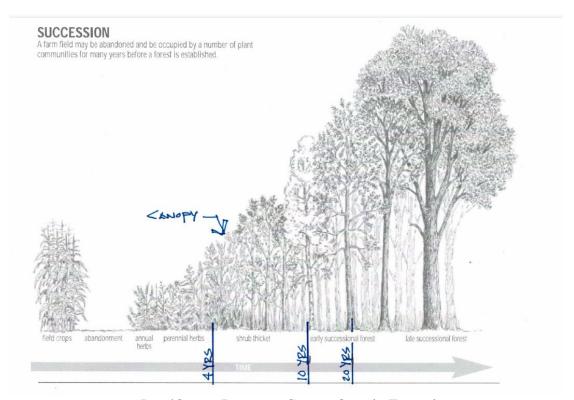
- Affordable, manageable planted areas with minimal maintenance required for a homeowner's association.
- Tree canopy providing over 5' tall land cover beginning in early successional years
- An evolution of wildlife habitat changing at each stage of the successional areas.
- Enhancement of riparian areas reducing erosion and cooling water temperatures in the creek.
- Preserving existing forested areas, wetlands, and spring areas
- Creating purposeful aesthetically planted spaces for enjoyment that are professionally managed and maintained for a purpose.
- Lining streets with trees of a manageable size not detrimental to sidewalks, housing, and utilities
- Texture and shaded lots from additional yard landscaping to break up impervious areas.
- Allowing native species to grow and evolve through the process nature intended to provide shade, habitat, and stormwater runoff reduction.

Managed Successional Area Landscaping:

Blacksburg is located in the Ridge-Valley physiographic region characterized by the Oak-Hickory Forest type. Primary forest succession is influenced by a range of factors including, among others, location, landscape position (hilltop, hillslope, valley), soil, surrounding vegetation types (both native and non-native), wind patterns, animal, and drainage network. In general, successional stages are plant communities that thrive and change over time. At this site the stages might follow a continuum of:

- Annual and perennial herbs (years 2-5) including daisy fleabanes, white clover, Queen Anne's lace, Golden Ragwort, Black-eyed Susan, Milkweed, Goldenrod. Canopy coverage can be seen at 5' of height within this time period. These eventually mix with and transition to a,
- Shrub Thicket community (years 3-20). This community may include early shrub species such as Sumacs and Blackberry, and in its later stage includes pioneer softwood species such as pines and cedar and hardwood saplings leading to the development of an,
- Early Successional Forest (years 15 and beyond). This community is characterized by black cherry, black willow, maple, sycamore, and walnut, among others. In time, this forest transitions to a,

• Late Successional Forest (overlapping early-stage forest to beyond 80 years) hardwoods typical of this region and landscape position including oak, hickory, maple, walnut, and tuliptree in the uplands, and sycamore, maple, and willow in creek valleys and drainage ways.



LandOwner Resource Center, Ontario Extension

An important factor in the forest succession process is the role of invasive species. Management of these species and their removal will be the responsibility of the Homeowner's association. A maintenance plan will be established by the developer for the homeowner's association in conjunction with a landscape architect professional. It is recommended that invasives are identified annually by a Master Naturalist, Botanist or an Extension agent and removal is performed at regular intervals.

Streetscape:

The single-family density required for the development necessitates less frontage than conventional lots. Space for driveways, sidewalks, and utilities leaves little room for street trees along the street. Additionally, the Town no longer desires street trees planted in the grass strip, so the street trees are being planted within 5-10' from the sidewalk edge further pushing trees into the lot. This naturally impedes on the space available for private utilities and walkways, etc. The result is an increased street tree spacing. The owner is providing additional concessions for this by requiring each lot to plant at least one canopy tree. If the lot does not contain a street tree, it will have to plant a tree somewhere else on the lot. In effect, on the south area, this will

require more trees than the requirement and more resulting canopy coverage. However, the trees will be located further from the street and sometimes in back yards.

Landscaping Regulatory Requirements

- a. Canopy coverage: minimum of twenty (20) percent *total* coverage comprising the following areas and calculated as described:
 - i. By Area (square footage): Managed Successional, Existing Woodlands Retained, and Pond Edge Shade Tree Successional area shall be calculated by the area as designated on a preliminary plat Open Space Plan.
 - ii. By Tree Canopy Coverage (square footage): Professionally Managed Landscape Areas, Street Trees, *Recreational Areas*, and Yard Landscaping.
- b. Street trees: Trees shall be planted either within the right-of-way or on a private lot within 10' of the right-of way edge to avoid root interference with sidewalks and limbs with housing. If planted on a private lot the Association shall require the tree be replaced if removed by the homeowner within a year of notifying the owner in writing.
 - i. South area: one (1) street tree for every one hundred (100) feet of street frontage and each tree shall have a minimum mature canopy of 177 square feet at 20 years.
 - ii. North area: one (1) street tree for every eighty (80) feet of street frontage and each tree shall have a minimum mature canopy of 177 square feet at 20 years.
- c. Managed Successional
 - i. planting facultative trees in the riparian corridor *area* (as shown on the open space management plan) approximately one every fifty (50) feet along a 890 linear foot corridor of stream with a minimum mature tree canopy of 250 square feet at 20 years.
 - ii. ii. Planting trees at a rate of two trees per quarter (0.25) acre with a minimum mature 20-year canopy of 177 square feet as shown in the managed successional areas on the Open Space Management and Land Use Exhibit.
- d. Pond edge shade Trees in the Successional area will be planted at a rate of 1 shade tree per fifty (50) feet with a minimum 20-year tree canopy of 250 square feet at 20 years.
- e. Yard Landscaping:
 - i. South area: A minimum of one (1) tree, either in the front, side, or rear yard, to include street trees, shall be planted on each lot. If in the front the tree shall be placed within 10' of the right-of-way edge but no closer than 5' from the sidewalk. Plantings for the community include trees with a 100square feet minimum mature canopy coverage at 20 years. Lots shall also contain a minimum of two (2) shrubs or trees.
 - ii. North Area: A minimum of one (1) tree, including street trees shall be planted in the front yard within 10' of the right-of-way edge. Plantings include trees with equal to or greater than 100 square feet of minimum mature canopy coverage at 20 years. The grass strip is the location for utilities. Lots shall also contain a minimum of four (4) shrubs or trees.

f. Timing:

- i. A minimum of 25% of the total canopy coverage required shall be achieved utilizing a combination of existing woodlands retained and actual new plantings within 3 years after the first certificate of occupancy in phase 1.
- ii. A minimum of 35% of the total canopy required shall be achieved by the development within 3 years after the first certificate of occupancy in phase 2. The calculation may include all existing forested areas and actual new plantings including those in managed successional areas.
- iii. Managed Successional areas shall be planted and begun management by the Association within 1-year after the conclusion of phase 2 infrastructure approval by the Town.
- g. All trees planted at Glade Spring Crossing shall be conform to Town code § 5429 Tree Species or as approved by the Zoning Administrator.



Excerpt from Open Space Management Land Use Exhibit showing Recreational Areas

General Description:

Glade Spring Crossing will strive to provide healthy living with recreation and nature for our diverse residents and children. It is imperative that we provide outdoor recreational opportunities for all ages. Three recreational areas exist on the site labeled as such on the Open Space Management Land Use Exhibit, Area A, B, and C. These areas represent flatter ungraded spaces on the site amenable to potential structural play equipment or "pick up" team sport play such as soccer or kickball.

Site A, while it is nestled among the mixed-income community, is easily accessible for trail users and not central to most residents throughout the development. Therefore, this area lends itself to a more secondary active structure or play area serving less people at a time. Examples might include a swing-set or monkey bars, something more appropriate for children that can be viewed from the homes in the immediate area. For protection of young children playing, it may be more appropriate to place a primary playground in a location with less through trail travelers.

Recreational Areas B and C are more central to the development and provide a larger area for a structural playground. Because the creek valley overlay areas, springs, wetlands, stormwater facilities, and grading are undetermined at this time, it is difficult to say whether B or C is most appropriate for a structural playground. It is desired that the development will include a primary structural playground at one of these locations, and perhaps a team sport field on the other. It is envisioned that mowed turf areas on the plan will include sledding hills for children, large fields for free play, and provide access to the recreation areas. It is intended that the developer will determine the exact structural play items in the preliminary plat stage.

Residents will have access to these recreational areas within the development and bordering neighborhoods exterior to the development through grass trails, sidewalks, and public paved trails. Nearly 4000 feet of new public paved trail exists to connect residents within Glade Spring Crossing and to surrounding developments. Sidewalks (approximately 2000 lf) with handicap accessibility line the South area streets and are provided for walking, running, and young bicyclists. They will also connect Shadow Lake Road trail to the North/South connector trail and Glade Road.

A community gathering area located on the property is situated at the head of the Tom's Creek along Street A off the side of the street in a Professionally Managed Landscape Area from the Open Space Management Land Use exhibit. This is a great location to see the Basin, mountains and at a confluence of the two public trail systems. This area will have a landscaped amenity with possible hardscape for residents and trail travelers to use as a gathering space. All these areas, except for the 10'public bike trail and sidewalks in right-of-way will be maintained by the Homeowner's association.

Recreational Requirements:

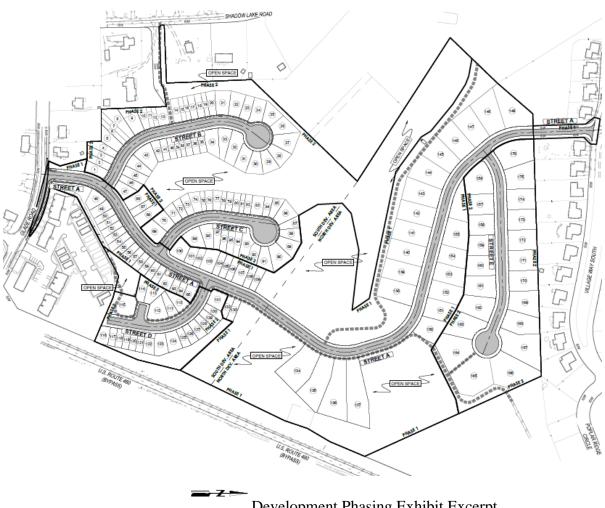
Active:

- A primary playground with play equipment will be installed within the community on either Recreational Area B or C identified in the Open Space Management Land Use exhibit in Phase 2.
- A secondary playground with play equipment will be installed in the Recreational Area A on the Open Space Management Land Use exhibit in Phase 2.
- Private grass trails, public sidewalk, or paved public trails will connect each street to the recreational areas.
- Paved 10' wide bike trails (approximately 4000 lf) with handicap accessibility are shown connecting to the North/South connector at the Village at Tom's Creek and Glade Street As well as along the Tom's Creek Greenway corridor.

Passive:

- A community gathering area along Street A will be installed as part of the project in Phase 1. This area will provide an amenity such as a benches, hardscape, or gazebo to promote community.
- Grass Trails will be provided throughout the open space connecting residents to recreational areas where public trails or sidewalks do not exist. Signage will be installed to distinguish these areas at their intersection with the street.

Project Phasing and Construction:



Development Phasing Exhibit Excerpt

Phasing

To ensure economic sustainability for the project and to provide affordable housing in the early stages of development, phasing is a necessity and is proposed as shown below. The South side will contain 60-80% AMI affordable units which need to be built first. Since stormwater management must also be installed in the first phase, it stands to reason that Street A grading across the tributaries will need to occur. With these expenses, some lots from the North side will also need to be built to offset large capital investments. Therefore, phase 1 makes the most sense to include the areas shown on the plan. Phase 2 will include all remaining areas and lots comprising the cul-de-sacs, Streets B, C, D, and E. Utilities in each phase will be constructed to support the residential units they are served and provide the necessary safety precautions needed. Stormwater management in the creek tributary areas will be constructed in the first phase to meet regulations as required by the entire development. The project phasing areas identify the lots, but the developer will ensure the infrastructure is in place and extended beyond any created lots. "Project phasing" is shown below for a graphic description of the areas.

Phase 1 description: Phase one is generally shown on the Development Phasing Exhibit to include Street A and lots currently shown as 48-65, 66-68, 100-109, 132-149, 150-155, with frontage and necessary supporting infrastructure. Included in the first phase is the sewer pump station, force main, and gravity mains supporting lots; water systems to support the lots, and waterline replacement; all three stormwater management facilities and storm systems required for Street A; trail along the creek from Street A to the western property Parcel ID 012579 and portions of the trail paralleling Street A shown on the map in phase 1. The passive recreational area will be installed in phase 1.

Phase 2 is generally described as the remainder of development lots including the cul-desac streets and remaining infrastructure. This includes sewer mains, water mains, storm drain and ditches, road infrastructure to serve the remaining lots; multi-use and grass trails shown on the plan in the phase 2 area. One active recreational area will be completed prior to the first CO in phase 2. The second active recreational area will be completed within one year after the first CO in phase 2.

Construction:

While affordable units will be linked to a time frame, it is important for all units to move through construction as efficiently as possible to keep loan costs down and to realize revenues as early as possible This is critical to ensuring affordability. The inspections and review process moving efficiently is a key component to this.

Current practice in the Town requires all the infrastructure to be built prior to receiving a building permit. This means that developer's total investment must sit for 6 months until a final resident can occupy. Often this leads to a 6-month additional loan carry for the developer which is expensive. Additionally, the builder must navigate new infrastructure and inevitably ends up damaging new roads, sidewalk, or guttering. In the past, the Town has felt that this can negatively affect the final resident. However, that burden will be on the builder/developer team at Glade Spring Crossing and the Town should not have to deal with it. If for some reason the Town is held responsible, the developer has posted a bond for the items remaining and the Town could utilize it. A proffer is included to ensure that infrastructure is installed prior to a CO being requested by the builder, in exchange for earlier building permits.

Along similar lines, current practices require sidewalk to be fully installed prior to receiving a building permit. Inevitably these are damaged by the builder during home construction and must be replaced. To save overall cost, it is the desire of Glade Spring Crossing to have the builder install the sidewalks on each lot during the final building process prior to receiving a Certificate of Occupancy. Again, this responsibility would fall on the builder/developer team, not the Town. This is in a variance request.

Construction access to the site will be from Glade Road. While some utility traffic and paving for the final tie-in will need to occur on Village Way South, general construction traffic will not be permitted to use Village Way South to access the site. Once the road is opened, the owner shall prohibit

construction traffic to use Village Way South through contractual obligations with vendors/contractors and written notice shall be posted. This is put into a proffer.

Building Design and Construction

A pattern book is included in the Appendix to further describe the architectural style and standards in Glade Spring Crossing. The intent of the placement of homes on the lots is to allow for porches to be placed on the fronts of homes as desired, and for driveways to accommodate for one or two parking spaces as required. Mainly one and two story with some three-story homes are envisioned with basements with walkouts where desirable. The site is extremely sloped lending itself well to walkout basements. Half stories are permitted within the height requirements of the district.

Representative concepts of floor plans are included in the appendix. These are included to indicate possible examples of size and layout but are not intended to be actual floor plans for construction.

Examples of exterior Materials:

- Siding: masonry, wood, stucco, stone, fiber cement composition board, or vinyl
- Roofing: slate, asphalt or fiberglass, metal
- Foundations: masonry, stone, stucco or traditional parging (painted)
- Colors: Traditional colors shall vary throughout the development. No one color shall be used more than 40% of the time on a principal structure in the development.
- Porches: masonry, wood, stucco, stone, fiber cement, or synthetic materials.

Examples of Building and Floor Plans:

See the Appendix for a Pattern Book containing examples of homes that are contained in Glade Spring Crossing

Building Commitment to Sustainability:

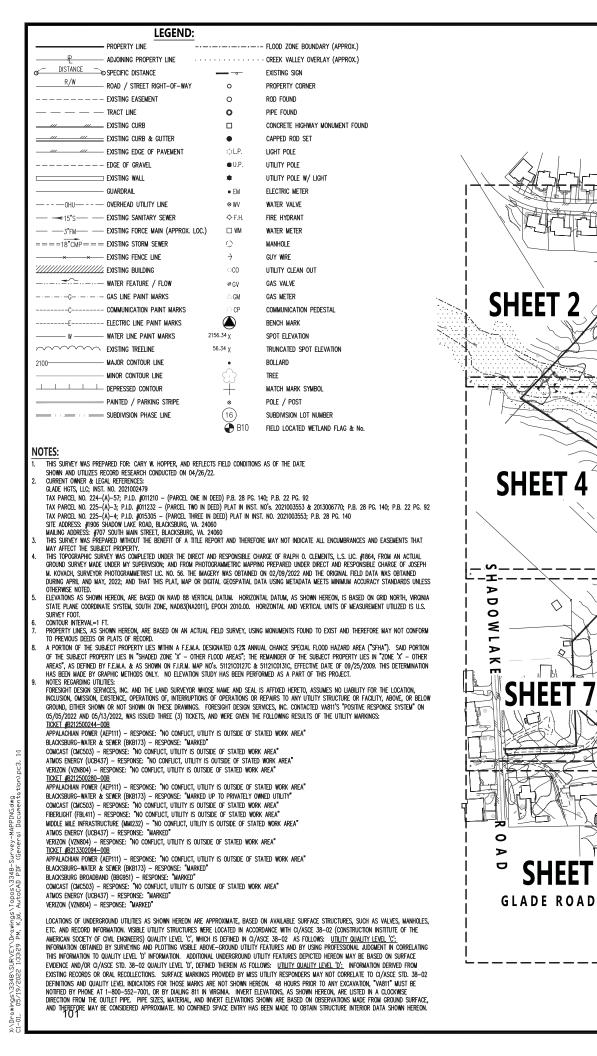
Glade Spring Crossing features single-family new construction homes that exceed industry standards for energy efficiency and building performance. It is the desire to provide healthy, long-lasting homes that have lower operating costs, as that is of just as much importance to homebuyers of all income levels. The project proposes the following regulations:

• All affordable units in the 60-80% Average Median Income range will achieve a HERs maximum rating of 55.

HERs index represents a percentage performance improvement as compared to the building code. This standard is set by Energy Star and will provide for more energy efficient units.

APPENDICES

Property Survey



TOPOGRAPHIC & BOUNDARY SURVEY OF TAX PARCEL 225-(A)-3, 225-(A)-4, 224-(A)-57 & SURROUNDING AREAS **SITUATED ALONG GLADE ROAD** TOWN OF BLACKSBURG PRICES FORK MAGISTERIAL DISTRICT

SHEET 5

SHEET 8

SITE MAP & SHEET INDEX:

THE VILLAGE AT TOM'S CREE WESTOVER MONTGOMERY COUNTY, VIRGINIA GLADE RD VILLAGE WAY SOUTH BE KROGER **VICINITY MAP: SHEET 2 SHEET BENCH MARKS:**

(BYPASS)

SHEET 10

3,617,101.01 10,917,839.62 2029.00 TOP OF CAPPED ROD SET 2' SOUTH OF GATE POST

INTX =INTERSECTION

INVout=INVERT OUT

L.S.=LAND SURVEYOR

II C=I IMITED LIABILITY CORPORATION

L.P.=LIGHT POLE / LAMP POST

TOWN OF BLACKSBURG

ABBREVIATIONS:

0

(TYP.)=TYPICAL ±=PLUS OR MINUS ABAN.=ABANDONED AC.=ACRE(S)
APCO=APPALACHIAN POWER COMPANY ASCE=AMERICAN SOCIETY OF CIVIL ENGINEERS BLDG.=BUILDING BLVD.=BOULEVARD BR.=BRICK BSMT.=BASEMENT BTM=BOTTOM C / COMM.=COMMUNICATIONS
C&G=CURB AND GUTTER
C&P=CHESAPEAKE & POTOMAC CI=CONSTRUCTION INSTITUTE CMP=CORRUGATED METAL PIPE CO=UTILITY CLEAN OUT CONC.=CONCRETE CP=COMMUNICATION PEDESTAL D.B.=DEED BOOK
D.E.=DRAINAGE EASEMENT DR.=DRIVE DWI G = DWFI LING E / ELEC.=ELECTRIC E.B.L.=EAST BOUND LANE E=EAST ELEV.=ELEVATION EM=ELECTRIC METER EP=ELECTRIC PEDESTAL EOI=END OF INFORMATION ESMT.=EASEMENT EX. / EXIST.=EXISTING
F.E.M.A.=FEDERAL EMERGENCY
MANAGEMENT AGENCY F F S =FLARED FND SECTION F/L=FLOWLINE FM=FORCE MAIN FNC.=FENCE FND.=FOUND FR.=FRAME FT.=FOOT/FEET G=GAS LINE PAINT MARKS GM=GAS METER GND.=GROUND GNI=GAY AND NEEL, INC. GV=GAS VALVE GW(S)=GUY WIRES HDPF=HIGH DENSITY POLYFTHYLENE PIPE HWY.=HIGHWAY
INC.=INCORPORATED

LIC.=LICENSE LOC.=LOCATION LT.=LIGHT M.P.H.=MILES PER HOUR MH=MANHOLE MON.=MONUMENT N.F.V.=NOT FIELD VERIFIED N/F=NOW OR FORMERLY NAD=NORTH AMERICAN DATUM NAVD=NORTH AMERICAN VERTICAL DATUM NO. / #=NUMBER OHU=OVERHEAD UTILITY LINE(S)
P.B.=PLAT BOOK
P.I.D.=PARCEL IDENTIFICATION P.S.S.E.=PUBLIC SANITARY SEWER EASEMENT P.U. & D.E.=PUBLIC UTILITY AND DRAINAGE EASEMENT PIL=PUBLIC LITHITY P.U.E.=PUBLIC UTILITY EASEMENT PED.=PEDESTAL PG. / PGS.=PAGE/PAGES PH.=PHASE PROJ.=PROJECT PVC=POLYVINYLCHLORIDE PIPE R+C=CAPPED ROD RCP=REINFORCED CONCRETE PIPE RD.=ROAD REG.=REGISTERED RET.=RETAINING RTE.=ROUTE
S.W.M.F.=STORMWATER MANAGEMENT FACILITY

S=SOUTH SHT'S=SHEETS STD.=STANDARD STY.=STORY

TEMP.=TEMPORARY

U.S.=UNITED STATES

TRANSPORTATION

W=WEST WM=WATER METER

WV=WATER VALVE

VA.=VIRGINIA

NOTES, SHEET INDEX, VICINITY MAP, ABBREVIATIONS, LEGEND.

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TOPOGRAPHIC STAX PARCEL

ಹ

224-(A)-57

:: (540) 381-6011 (540) 381-2773

AREAS

L 225-(A)-3, 225-(v s SURROUNDING /

SITUATED ALONG GLADE ROAD

RALPH O.CLEMENTS Lic. No. 1864

EVISIONS NO. COMMENTS DATE

ROJECT TEAM MTM K.ID

SSUE DATE 04/28/22

SCL, VGH

DS JOB NO.

TOPOGRAPHIC & **BOUNDARY SURVEY**

1 OF 10

HEET NUMBER

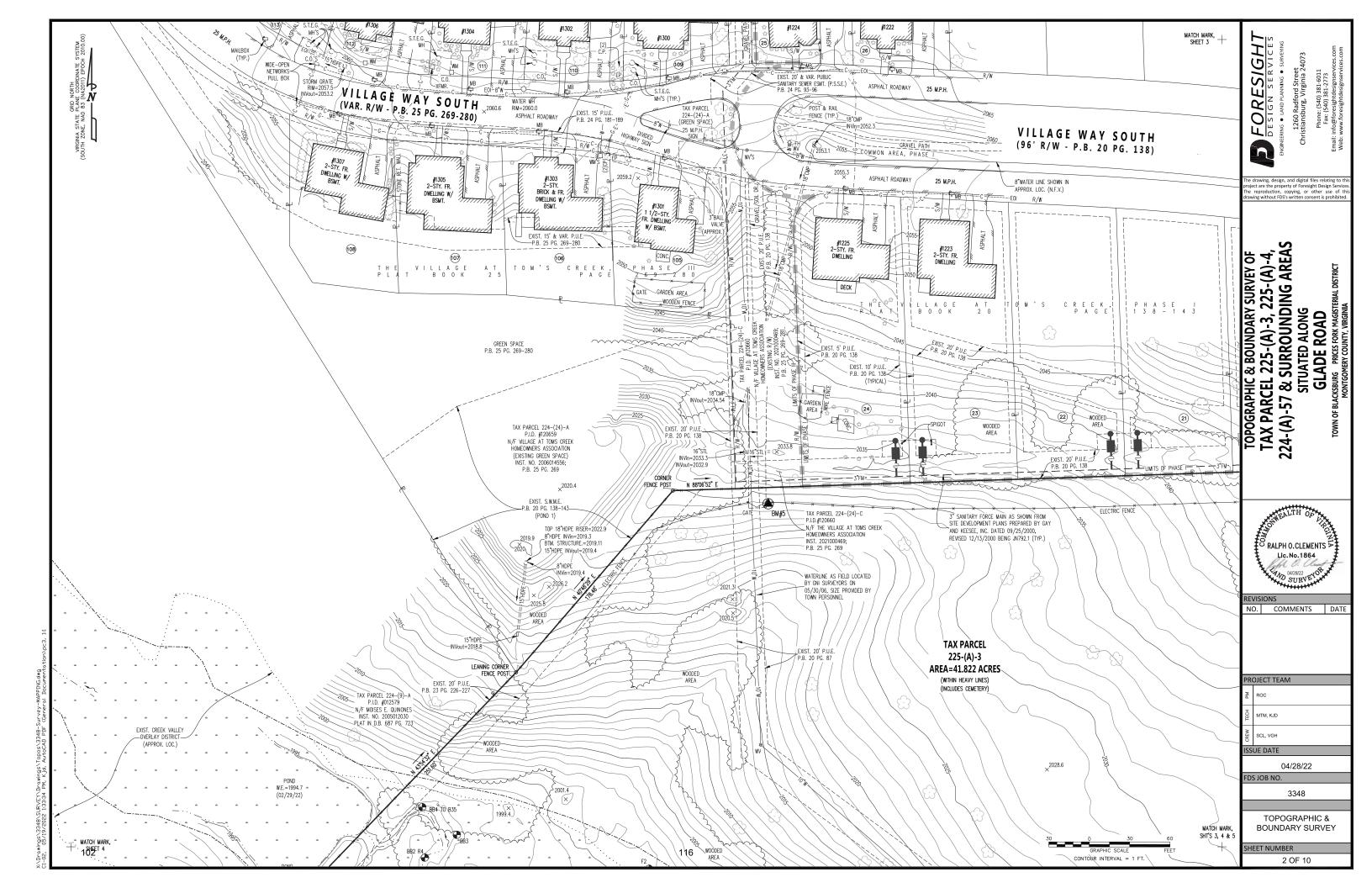
VAR.=VARIABLE
VDH=VIRGINIA DEPARTMENT OF HIGHWAYS

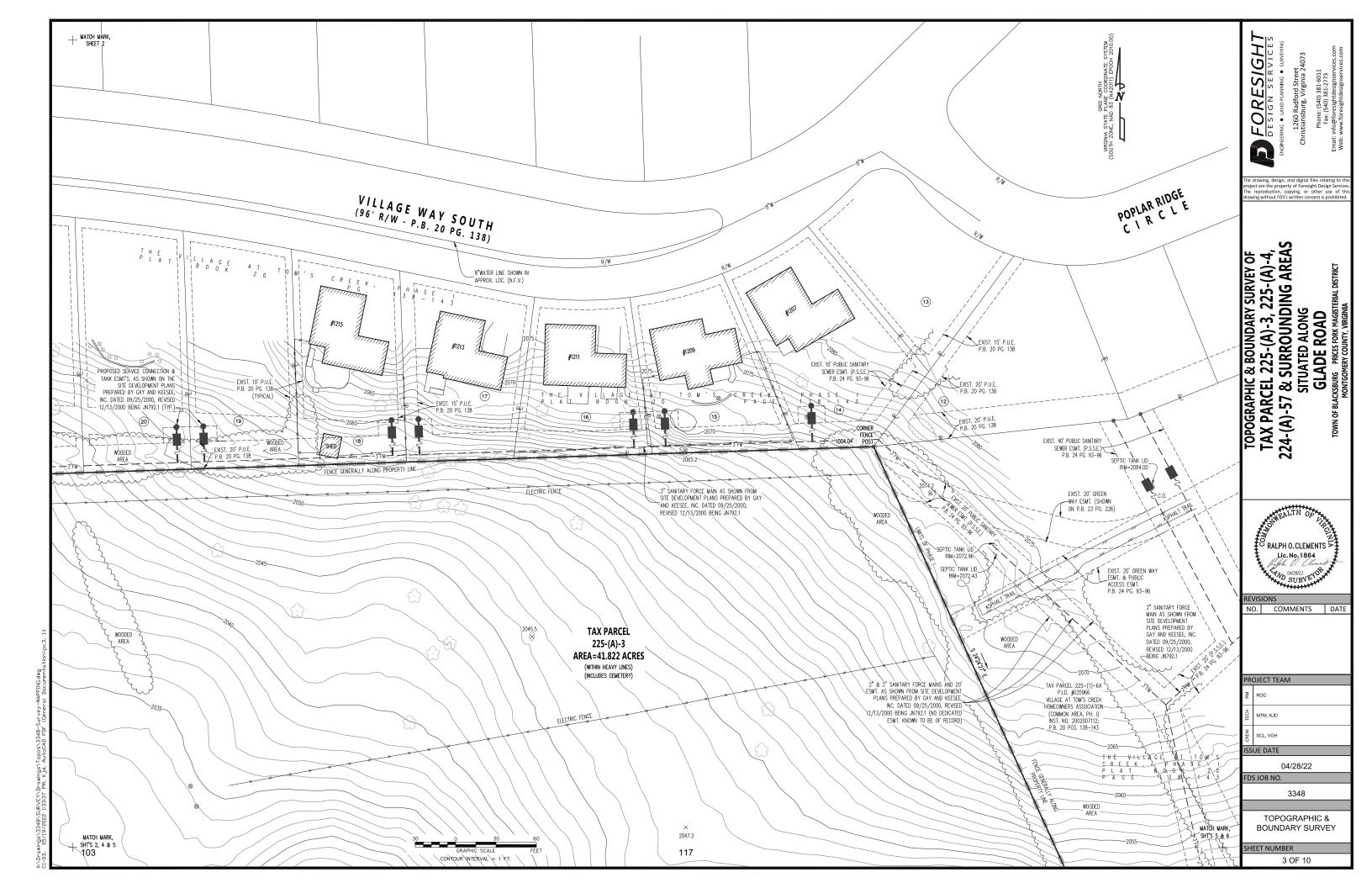
VDOT=VIRGINIA DEPARTMENT OF

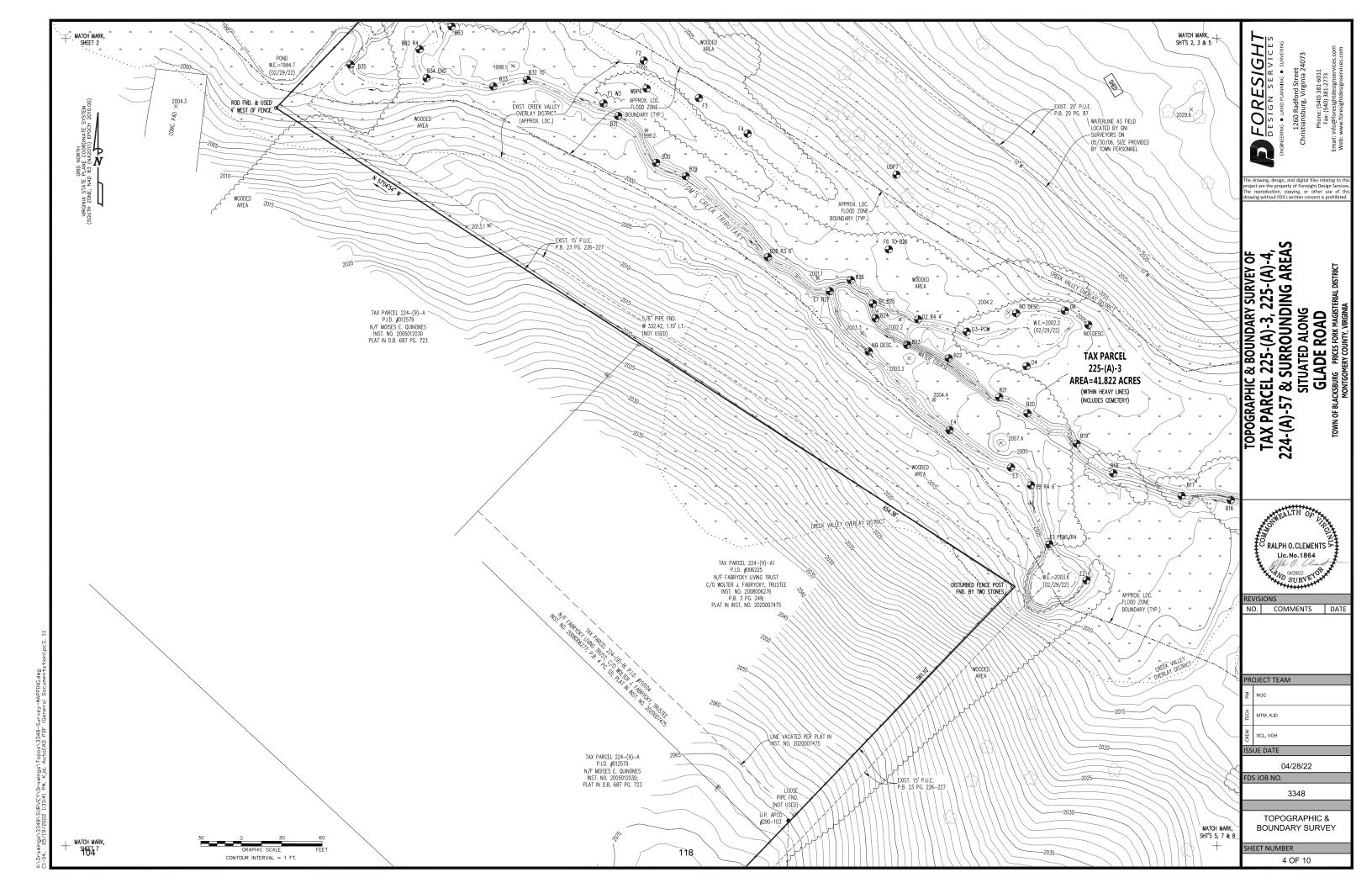
W=WATERLINE PAINT MARKS

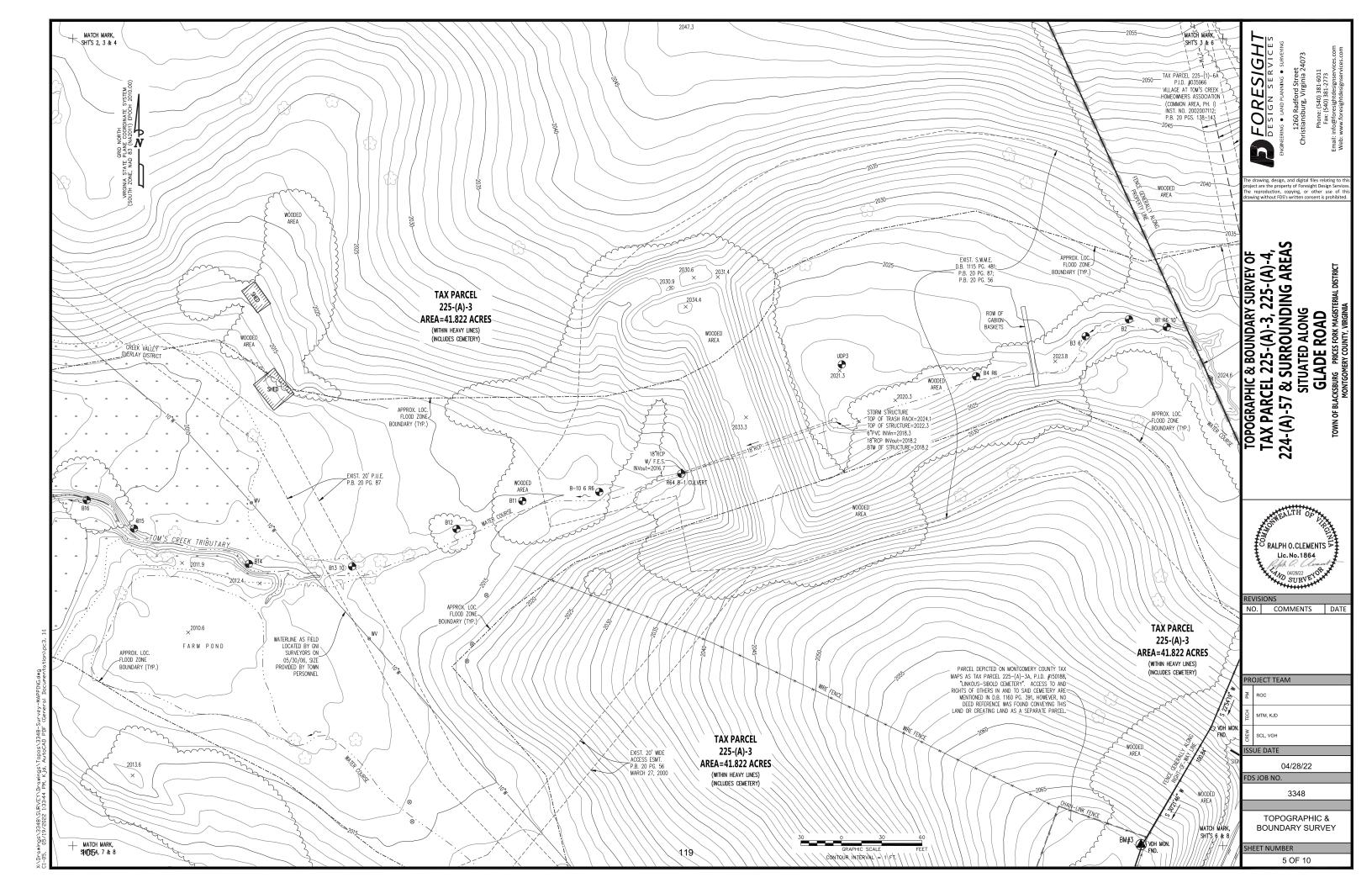
SHEET INDEX:

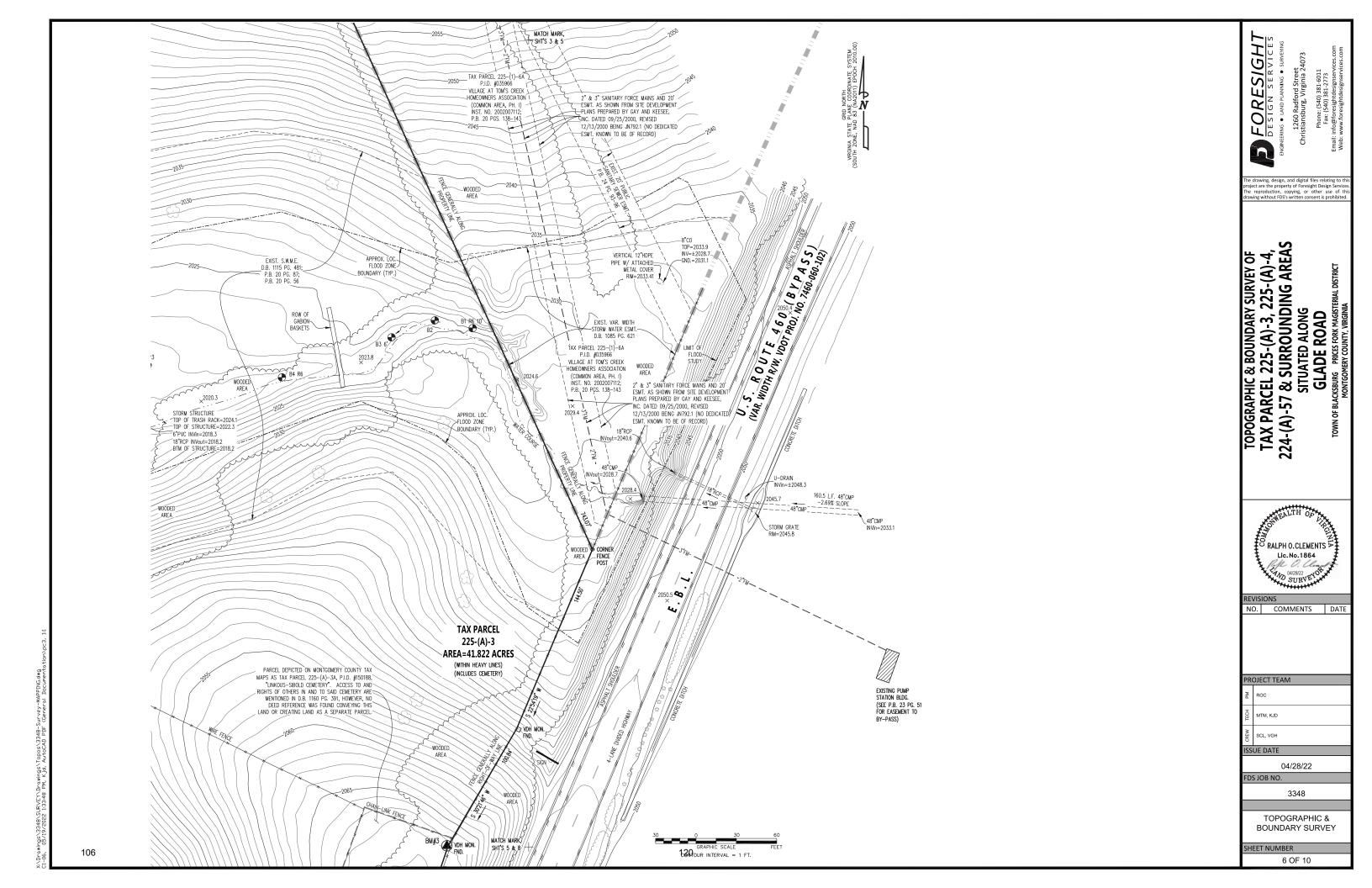
LINE & CURVE TABLES ETC. SHEETS 2 THRU 10: BOUNDARY AND TOPOGRAPHIC SURVEY

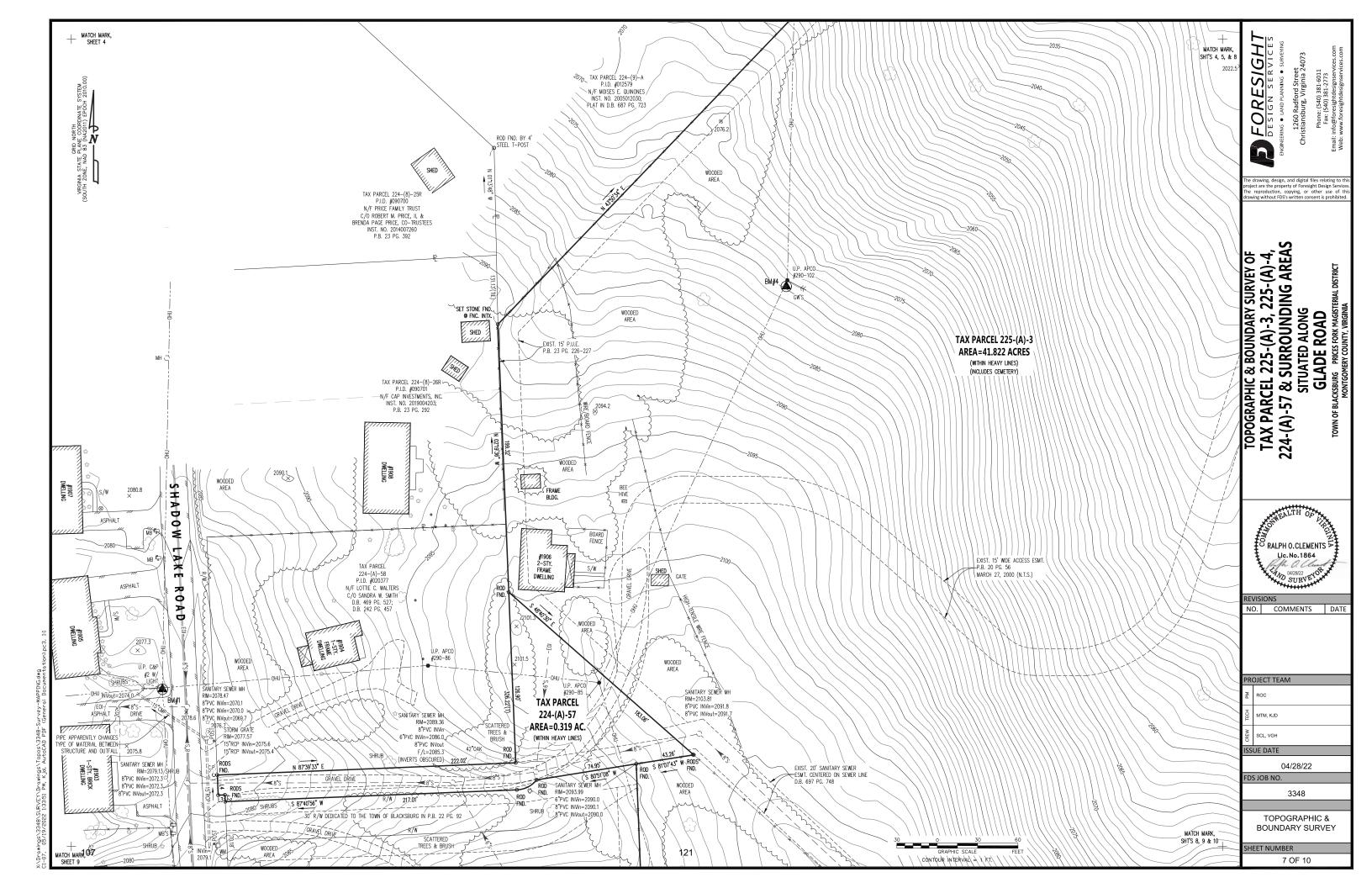


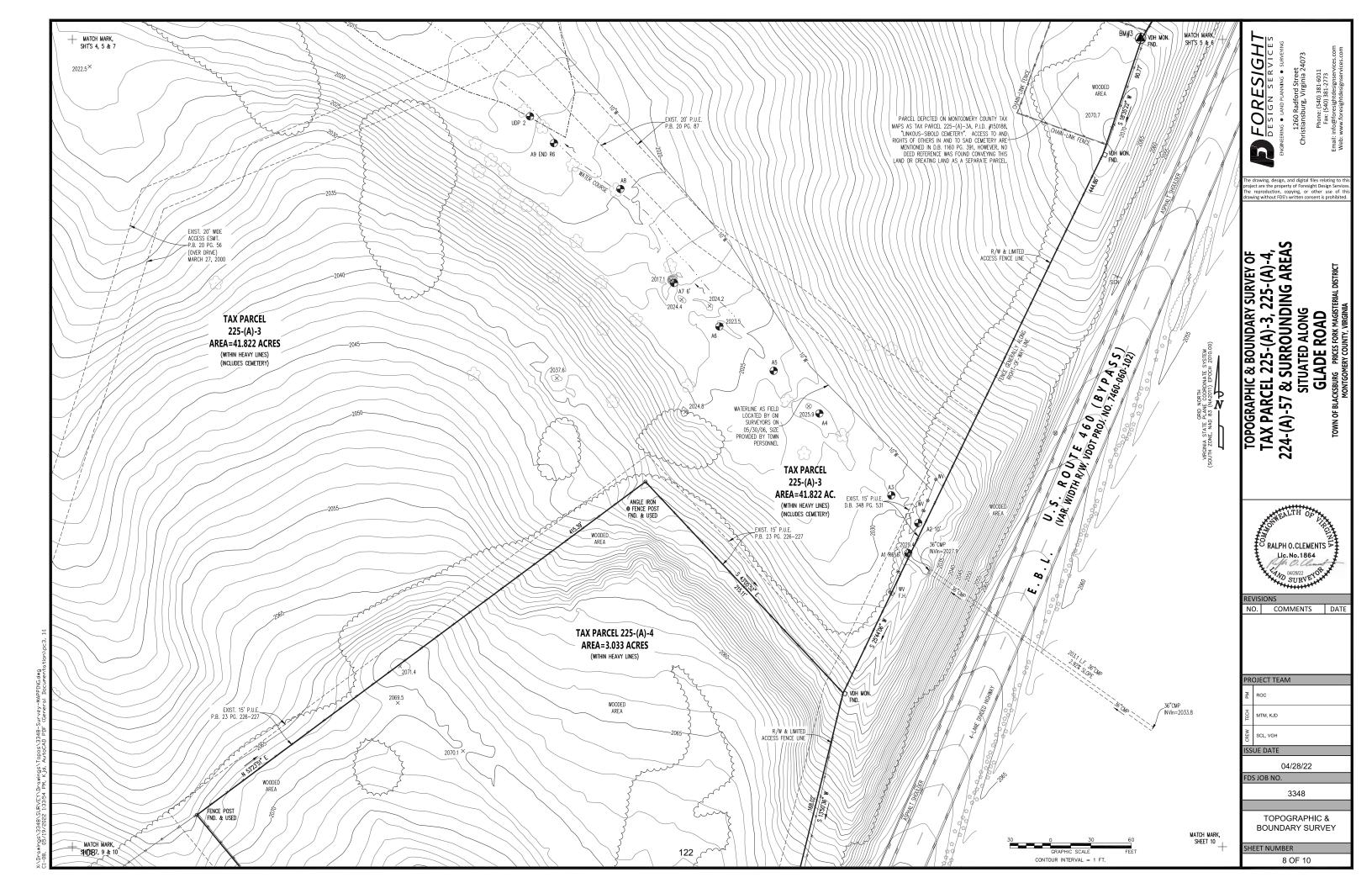


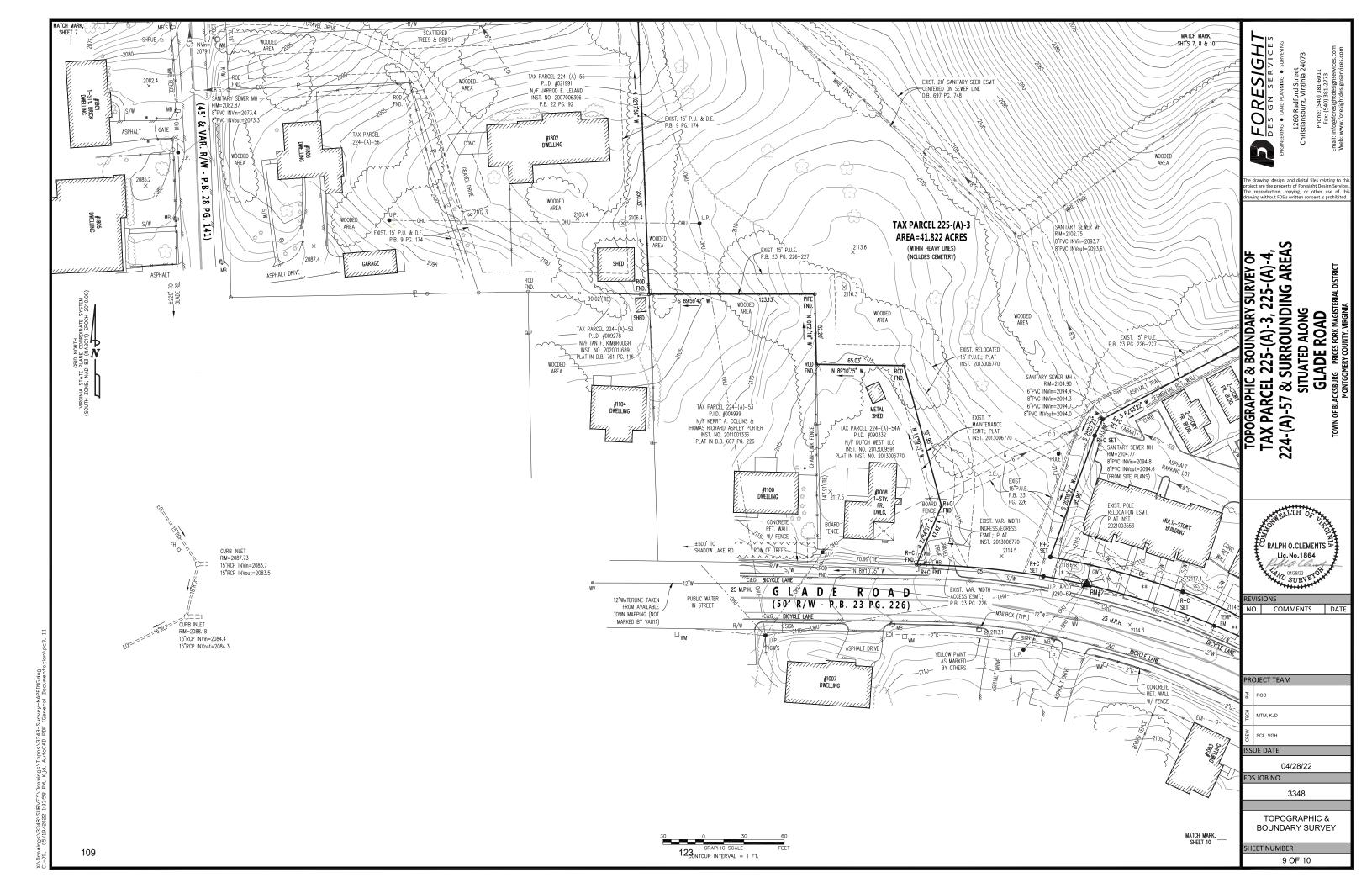


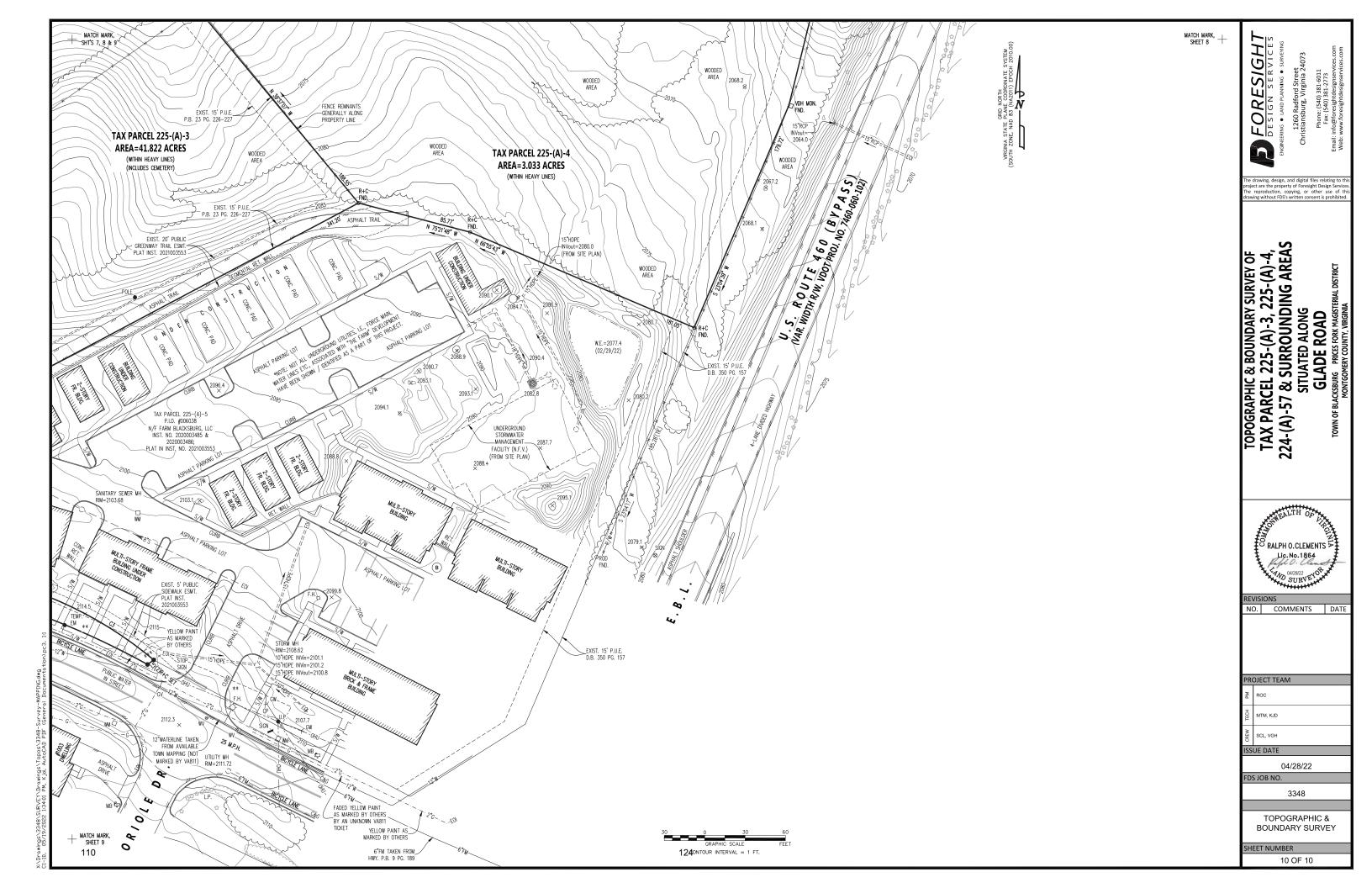












Property Deeds

Title Insurance Underwriter: None

Grantee's Address: 707 South Main Street, Blacksburg, VA 24060

Exemption: 58.1-811(A)(10)

THIS DEED OF GIFT made and entered into this 27th day of July, 2022, by and between **Glade Hgts, LLC**, a Virginia Limited Liability Company, Grantor, party of the first part, and **Glade Spring Crossing, LLC**, a Virginia Limited Liability Company, Grantee, party of the second part;

WITNESSETH:

THAT for and in consideration of One Dollar (\$1.00) cash in hand paid, and in accordance with §58.1-811(A)(10) of the Code of Virginia, 1950, as amended, the receipt of which is hereby acknowledged, the party of the first part does hereby grant and convey, unto the party of the second part in fee simple all those certain lots or parcels of land with improvements thereon and the appurtenances thereto, lying and being in the Town of Blacksburg, Prices Fork Magisterial District, Montgomery County, Virginia and more particularly described as follows:

PARCEL ONE: ALL that certain parcel designated as Tax Map Number 224-(A)-57, containing 0.318 acre, as shown on that certain plat of survey entitled, "Plat Prepared For HSG, LLC Showing Surveys Of Tax parcels 224-(A)-57, 225-(A)-3 & 225-(A)-4 Situated in the Town Of Blacksburg, Virginia Prices Fork Magisterial District Montgomery County Virginia", dated April 6, 2007, prepared by Ralph O. Clements, Land Surveyor, Gay and Neel, Inc., designated Job No. 1108.2, which survey is of record in the Office of the Clerk of the Circuit Court of Montgomery County, Virginia in Plat Book 28, Page 140-141. *Tax Map No. 224- A 57 Parcel No. 011210*

PARCEL TWO: ALL that certain parcel designated as Tax Map Number 225-(A)-3, containing 41.713 acres, as shown on that certain plat of survey entitled, "Plat Prepared For HSG, LLC Showing Surveys Of Tax parcels 224-(A)-57, 225-(A)-3 & 225-(A)-4 Situated in the Town Of Blacksburg, Virginia Prices Fork Magisterial District Montgomery County Virginia", dated April 6, 2007, prepared by Ralph O. Clements, Land Surveyor, Gay and Neel, Inc., designated Job No. 1108.2, which survey is of record in the Office of the Clerk of the Circuit Court of Montgomery County, Virginia in Plat Book 28, Page 140-141. TOGETHER WITH a 0.047 acre portion of Tax Map No. 224-(A)-54A added to the herein described property by Boundary Line Adjustment, which plat is of record in the aforesaid Clerk's Office as part of Instrument Number 2013006770, creating thereon a parcel containing 41.760 acres.

Tax Map No. 225- A 3 Parcel No. 011232

HAMRICK & HAMRICK
ATTORNEYS AT LAW
104 S FRANKLIN STREET
CHRISTIANSBURG, VA 24073

PARCEL THREE: ALL that certain parcel designated as Tax Map Number 225-(A)-4, containing 3.719 acres, as shown on that certain plat of survey entitled, "Plat Prepared For HSG, LLC Showing Surveys Of Tax parcels 224-(A)-57, 225-(A)-3 & 225-(A)-4 Situated in the Town Of Blacksburg, Virginia Prices Fork Magisterial District Montgomery County Virginia", dated April 6, 2007, prepared by Ralph O. Clements, Land Surveyor, Gay and Neel, Inc., designated Job No. 1108.2, which survey is of record in the Office of the Clerk of the Circuit Court of Montgomery County, Virginia in Plat Book 28, Page 140-141. Tax Map No. 225- A 4 Parcel No. 015305

BEING all that same property conveyed to Glade Hgts, LLC by deed dated the 12th day of March, 2021, from Cary W. Hopper, which deed is of record in the aforesaid Clerk's Office as Instrument Number 2021002479;

PROVIDED, HOWEVER, that these conveyances are made subject to reservations, restrictions, easements, and agreements of record to the extent that they may lawfully apply to the property herein conveyed.

WITNESS the following signature and seal:

Glade Hgts, LLQ

₿v: Car√ W. Hopper

Sole Member of Glade Hots, LLC A Virginia Limited Liability Company

STATE OF VIRGINIA COUNTY OF MONTGOMERY, to-wit:

The foregoing instrument was acknowledged before me this ZSTVday of . 2022, by Cary W. Hopper, sole member of Glade Hgts, LLC, A Virginia Limited Liability Company.

My commission expires: 8131123 Notary ID#: 7829236

Hally Coly Notary Public

THE THE PROPERTY OF THE PARTY O

Prepared by:

Daniel D. Hamrick (VSB# 19127) Hamrick & Hamrick Attorneys at Law

104 South Franklin Street Christiansburg, VA 24073

(540) 382-0131

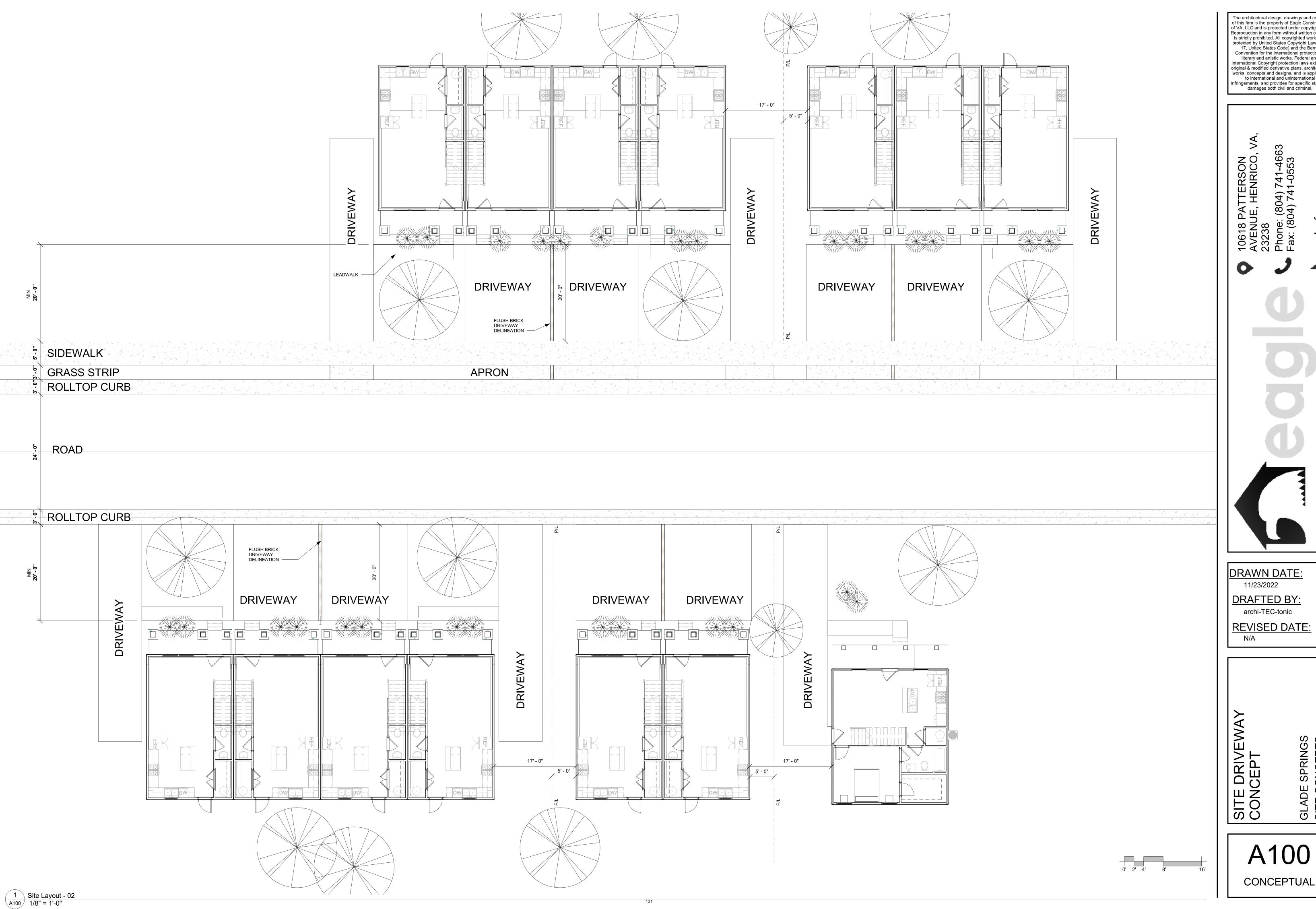
No title examination completed by this office

HAMRICK & HAMRICK ATTORNEYS AT LAW 104 S. FRANKLIN STREET CHRISTIANSBURG, VA 24073

INSTRUMENT # 2022006021 E-RECORDED IN THE CLERK'S OFFICE OF MONTGOMERY ON JULY 29, 2022 AT 01:45PM

ERICA W. CONNER, CLERK RECORDED BY: BMC

Exhibits



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DRAWN DATE: 11/23/2022

DRAFTED BY: archi-TEC-tonic

REVISED DATE:

SITE DRIVEWAN CONCEPT

A100

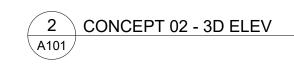
GLADE SPRINGS SITE CONCEPTS

CONCEPTUAL

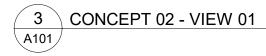








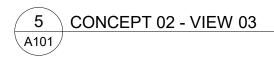






4 CONCEPT 02 - VIEW 02





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DRAWN DATE: 11/23/2022

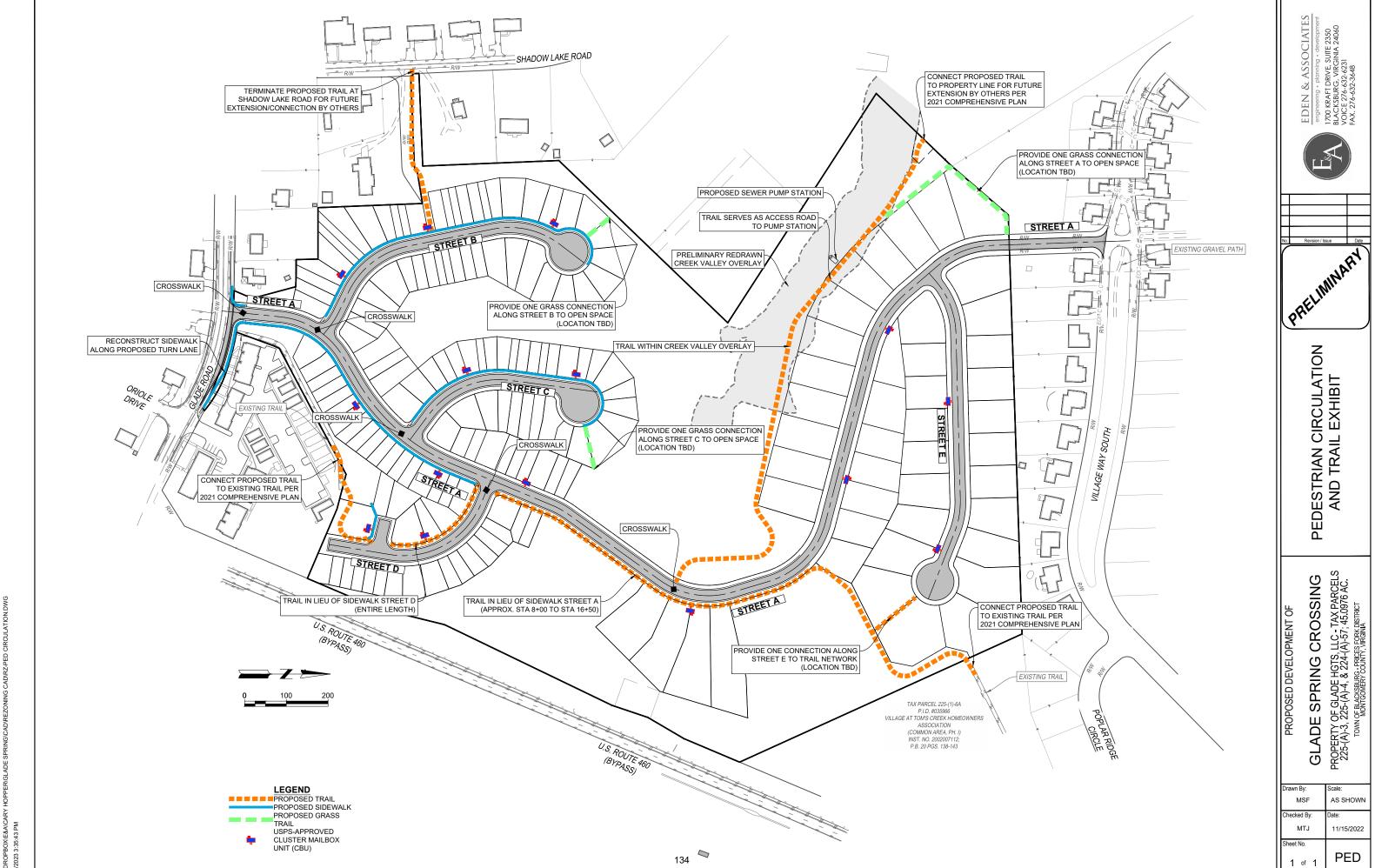
DRAFTED BY: archi-TEC-tonic

REVISED DATE:

GLADE SPRINGS SITE CONCEPTS

CONCEPTUAL

C.)DROPBOX/E&AICARY HOPPERIGLADE SPRING/CADIREZONING CADIRZ-CONCEPT DEV PLA



C:\DROPBOX\E&A\CARY HOPPER\GLADE SPRING\CAD\REZONING CAD\RZ-GEOMETRIC PLA

C:\DROPBOX\E&A\CARY HOPPER\GLADE SPRING\CAD\REZONING CAD\RZ-GEOMETRIC PLAN.DWG

AS SHOWN 11/15/2022 ST 1 of 1

AS SHOWN 11/15/2022 SS