

MEMORANDUM

To: Planning Commission

From: Kinsey O’Shea, AICP; Town Planner for Current Development

Date: **Updated September 11, 2020**

Subject: RZN 20-0005/ORD 1941-Request to rezone 40.34 acres of land from RR-1 Rural Residential Zoning District to PR-Planned Residential Zoning District at 1900 Toms Creek Road (Tax Map No. 195-A 5) by Meredith Jones of Eden and Associates (applicant) for Lucas TCR, LLC (property owners)

SUMMARY OF REQUEST

Property Location	1900 Toms Creek Road
Tax Parcel Numbers	195-A 5
Parcel(s) Size	40.34 acres
Present Zoning District	RR-1 Rural Residential - 1
Current Use	Agriculture; Undeveloped
Adjacent Zoning Districts	North: RR-1 East: RR-1 South: RR-1, RR-2 (Brookfield Village) West: RR-1
Adjacent Uses	North: TOB Town Park; Vacant/agriculture East: Single-family residential; agriculture South: Single-family residential; agriculture West: Single-family residential; agriculture
Adopted Future Land Use	Very low density residential
Proposed Uses	Single-family residential
Proposed District Standards	
Maximum Height	35’
Minimum Setbacks	Front: 15’ local street / 60’ from centerline of collector street Side: 7.5’ / 15’ corner on local street / 60’ corner from centerline of collector Rear: 25’ along perimeter lots / 10’ interior lots
Maximum lot coverage	Variable based on lot size; up to 55%
Minimum lot size	No minimum lot size
Minimum frontage	20’ on a publicly owned and maintained street
Maximum FAR	Variable based on lot size; up to 0.75
Proposed Maximum Density	84 units; 2.08 units per acre
Proposed Minimum Parking	At least 2 off-street spaces per unit
Minimum Open Space	35% provided; 20% of total district area required

UPDATE TO STAFF REPORT

This staff report has been updated to reflect the revised application submitted on September 2, 2020. The applicant and staff have had a number of communications via phone and email. Staff anticipated that the results of the conversations would be incorporated in the revised application. In some instances, staff and Planning Commission concerns were addressed, and in others, no changes have been made. Where updates to the staff report have been made, they are identified in ***bold italic text***.

STRUCTURE OF REPORT AND KEY ELEMENTS

This staff report is divided into topical areas of evaluation. Many of the overarching principles in the Comprehensive Plan, the Residential Infill Guidelines, and the Zoning Ordinance overlap into key topical focus areas. To aid in review of the staff report each topic or focus area is covered only once. The analysis is contained in the staff report. The pertinent text sections from the Comprehensive Plan and the Zoning Ordinance have been included as an appendix to this report.

UPDATED KEY ELEMENTS

- Future Land Use designation, proposed density, and infrastructure
 - Proposed rise in the flood elevation which is not consistent with the Floodplain Overlay District
 - Proposed disturbance within the Creek Valley Overlay District
 - Adequacy of proposed road ***network including connectivity and improvements***
 - ***Exception request to eliminate sidewalk or trail along Toms Creek Road***
 - ***Variances and exceptions memo from applicant***
 - ***Pattern Book, including minimum home size and minimum driveway width***
 - ***Location of access to stormwater management facilities has not been shown***
 - ***Tree canopy requirement and perimeter buffering***
 - ***Allowance of accessory apartments, and impact on infrastructure and neighborhood compatibility***
 - ***Green building certification***
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EXISTING CONDITIONS AND DEVELOPMENT PROPOSAL

EXISTING SITE CONDITIONS

The property subject to this rezoning request is currently undeveloped and in agricultural use. The parcel has frontage on both Toms Creek Road and Redbud Road. The property contains tributaries to Toms Creek toward the front of the property near Toms Creek Road. There is significant topographical change across the site, rising from the creek bed up toward the rear of the property. There is more than 100' of elevation change from the creek bottom to the ridge near the rear of the parcel. Much of the parcel is cleared for agriculture/pasture. There are a few stands of trees dotted throughout the site, and some denser vegetation toward the northern portion of the property in the creek area.

Portions of the property are covered by the Town's Creek Valley Overlay District which has substantial restrictions on development, with the intent of preserving and protecting the Town's natural streams as significant environmental resource areas. These protections and restrictions prohibit any grading and ground disturbing activities in the overlay area. Passive recreation, open space, and agriculture are generally the only uses that are allowed in the overlay area. Portions of the property are also within the Town's Floodplain Overlay District, which is generally defined by the 100-year floodplain on the FEMA Flood Insurance Rate Map, or land which is inundated by the 100-year flood. While the intent of the Creek Valley Overlay District is to limit development to provide protections to the environmental resources within the riparian area, the intent of the Floodplain Overlay District is to provide protections to structures and property by prohibiting developments

from raising the flood elevation. Further discussion regarding these two zones is provided in the Stormwater Management section of the staff report, and in the attached memo provided by the Town’s stormwater engineer.

DEVELOPMENT PATTERN WEST OF US 460 BYPASS

The land west of the US 460 Bypass has remained largely undeveloped for a number of years. The Retreat PRD student housing development and the by-right single-family major subdivision Kipps Farm off Merrimac Road are the most recent major developments in this part of Town. Most recently, the Town Council approved the Farm PRD just west of the bypass on Glade Road for the development of 117 bedrooms in a mixed townhome/cottage/multifamily development on 3.5 acres. The Chimney Hill minor subdivision on Toms Creek Road is currently under administrative review for the development of 10 large single-family lots. Otherwise, individual homes developed on lots of record have been the primary development pattern west of the bypass for many years. Much of this land is still in active agricultural use and has been the subject of both regulations and policy-level decisions that preserve the rural character of the area and protect the sensitive ecological resources therein.

There are portions of this part of town that are developed at densities higher than 1 unit per acre; but in general, except for the Retreat and Hethwood/Foxridge, the developed densities are less than 4 units per acre west of the Bypass. The Village at Toms Creek PRD is developed at approximately 1 unit per acre, with at least 50% open space. Thus, the built area of the development is approximately 2 units per acre. The developed portion of Brookfield Village RR-2 district is built at approximately 2 units per acre, but as required in the RR-2 district, open space in equal or greater acreage than the built portion of the development was dedicated off-site.

DEVELOPMENT PROPOSAL

The applicant is proposing to develop a single-family subdivision on the 40± acre parcel with up to 84 lots which equates to approximately 2 units per acre. Individual lots will be developed for sale. Streets in the development will be public, along with sidewalks and trails. The applicant is also proposing to dedicate a minimum of 35% of the parent parcel **as private common open space for the development**, including a picnic shelter within the development and adjacent to the Toms Creek Park. ***The application states that the picnic shelter will be dedicated to the Town for public use by all citizens.***

EVALUATION OF REQUEST

There are a number of analysis points for evaluation of a request to rezone a property within Town. The policies and maps in the Comprehensive Plan lend guidance to the Town’s vision of growth in the future, while specific codes and requirements in the Zoning Ordinance, Subdivision Ordinance, and the Town Code ensure that the development meets all applicable regulations. Specifically, the Zoning Ordinance calls out the criteria for evaluation of a rezoning request, as found below:

CRITERIA FOR EVALUATION

Section 1151 of the Zoning Ordinance requires the Commission to study all rezoning requests to determine:

- 1) *Whether the proposed amendment conforms to the general guidelines and policies contained in the Comprehensive Plan.*
- 2) *The relationship of the proposed amendment to the purposes of the general planning program of the Town, with appropriate consideration as to whether the change will further the purposes of [the Zoning Ordinance] and the general welfare of the entire community.*

- 3) *The need and justification for the change.*
- 4) *When pertaining to a change in the district classification of the property, the effect of the change, if any, on the property, surrounding property, and on public services and facilities. In addition, the Commission shall consider the appropriateness of the property for the proposed change as related to the purposes set forth at the beginning of each district classification.*

Additionally, section 1162 of the Zoning Ordinance states that proposals for rezoning to a planned zoning district constitute an application for conditional zoning. Section 1160 of the Zoning Ordinance gives guidance to the evaluation of proffers that may be proffered by the applicant. The applicant has provided a statement of need and justification for the change in the application, ***beginning on page 8 of the application***, in the “Description of the Planned Residential Rezoning Narrative”.

Rezoning Process and Subdivision Regulations

Rezoning to the Planned Residential zoning district requires a binding development plan. Typically, applicants perform enough preliminary engineering work as part of the rezoning process to ensure that the proposed development plan is feasible since the plan is binding. For example, the stormwater concept plan is reviewed with the rezoning to determine stormwater needs and how they will be accommodated in the project design. Another example is preparation of a traffic study to determine if roadway improvements are needed and how those will impact project design. If the rezoning is approved, then the applicant moves forward to the next step of the development process where much more detailed engineering work is performed. This level of engineering work includes items such as designing road profiles and identifies the exact location of utility easements. This level of analysis and design is costly and most applicants want to ensure that the “entitlement” or local government permission for the development project has been approved first.

Most of the planned residential developments that have come before the Planning Commission and Town Council in recent years have been for multi-family developments. If approved, for a multi-family development, the next step in the development process after rezoning is the preparation of a site plan. Site plans undergo an administrative review by staff. In the case of the subject rezoning, the request is for a single-family subdivision. The same approach applies in terms of having adequate information at the rezoning level to determine that the proposed development is feasible as shown on the binding plan. The difference is that the next step in the development process, if the rezoning is approved, is a filing for a major subdivision. Any subdivision over 50 lots is considered a major subdivision and goes to the Planning Commission for review and approval through a public hearing process. Major subdivisions are not reviewed by Town Council. The Planning Commission takes the final action and evaluates the proposed subdivision against the required development standards in the Town ordinances. The Planned Residential zoning district in Section 1162 allows an applicant to run both processes concurrently and have the approved rezoning also serve as the major subdivision plan approval. However, in order for this to occur, the applicant must provide the level of data and plans required at the subdivision level. This is costly, especially since there is no guarantee of the rezoning or “entitlement” approval. The applicant has the choice of how to proceed. This applicant has opted to go through the rezoning process and if the rezoning is approved, then follow with the submission of a major subdivision plan. However, the rezoning master plan is binding, and should not presume the approval of any variances that may be needed from the subdivision ordinance standards, unless specifically addressed in the ordinance language. Should the review of the major subdivision bring to light elements of the binding master plan that must be changed, then the applicant will have to amend the planned residential district.

There are a number of specific variances that the applicant seeks for the rezoning request. Pages 15-16 of the application contain the specific code sections and the requests. The Variances and Exceptions memo dated September 1, 2020 contains additional justification and context not found in the application. The analysis of

each of these variance requests is found within the relevant staff report sections and within the attached updated Engineering memos.

COMPREHENSIVE PLAN EVALUATION

Comprehensive Plan Map Series

In evaluating whether the proposed use conforms to the general guidelines and policies contained in the Comprehensive Plan, all applicable sections of the Plan should be included in the review of the application. The Comprehensive Plan offers a wide range of guiding principles for the future of development within Town. The following text identifies the designation of the proposed rezoning property on the maps in the Future Land Use map series. Other relevant Comprehensive Plan text sections applicable to this request are included in the Staff Appendix.

Map A: Future Land Use Designation

In evaluating whether the proposed planned residential development conforms to the general guidelines and policies contained in the Comprehensive Plan, the Future Land Use designation of the subject property shall be considered. The Future Land Use Designation for this property is Very Low Density Residential, which allows development up to 1 unit per acre, and low-intensity agricultural uses. Typical implementing zoning districts for this designation are RR-1, RR-2, or PR. The vast majority of the land in town west of the 460 bypass and north of Prices Fork Road is designated as Very Low Density Residential. This area of the Town has historically, and continues to be used for agriculture. The area generally does not have transportation or utility infrastructure to support more intense development and a conscious decision has been made to preserve a more rural development pattern. The consideration of residential density more typically found east of the 460 bypass may be hampered by the cost of extending necessary infrastructure to serve these uses.

The proposed rezoning calls for more than twice the envisioned density under the Future Land Use designation. The proposal is not consistent with the FLU. The request should be evaluated as a whole to determine if the proposed density is in keeping with the surrounding area, as well as whether or not the proposed density minimally impacts the Town's infrastructure.

The density of the development is a factor in considering whether the proposed development is appropriate to the surrounding neighborhood. Most of the surrounding area is zoned RR-1, which allows up to 1 dwelling unit per acre. By-right subdivisions in this district also require at least 50% of the parent parcel dedicated as open space which has the effect of preserving a large portion of land in this area with even minor subdivisions of property. The area also includes Brookfield Village that is zoned RR-2, which allows up to 2 dwelling units per acre ***excluding acreage that is located within the floodplain***, and requires dedication of at least 50% open space, some of which may be located off-site.

Map B: Urban Development Areas/Mixed Use Areas

The parcel does not lie within an Urban Development or Mixed Use area. UDAs and Mixed-Use Areas are intended to serve as focal points for commercial and residential growth in town. However, the designation of UDA does not prevent developments outside a UDA, nor obligate the Town to approve rezoning applications within a UDA.

Map C: Neighborhood, Employment, and Service Areas Map

The areas of Town generally west of the bypass and north of Prices Fork Road are categorized as Rural/Undeveloped land. Characteristics of development in areas with this designation include preservation of the rural nature of the area while balancing the need for additional development. Cluster development is specifically referenced in both this section of the Comprehensive Plan as well as the intent of the RR-1 zoning

district. This housing model utilizing small lots and preservation of open space can accommodate some additional housing needs while keeping development in scale with the surrounding neighborhood as well as the availability of existing infrastructure. Cluster development can also lead to lower development costs as public improvements such as roads and utilities, as well as earth moving activities, are limited to a smaller footprint of a site. Generally, areas with this designation are not slated for extension of public utilities such as wastewater, thereby limiting potential growth, and allowing the rural character of the area to remain as it is today. Additional characteristics and key issues for this designation are found in the staff appendix. If approved, this development would likely be re-designated to the Suburban Residential Neighborhood category, which typically includes detached single-family homes on quarter acre or larger sized lots. This category places emphasis on connectivity for streets and sidewalks/trails.

ZONING AND SUBDIVISION ORDINANCE EVALUATION OF APPLICATION

Zoning Ordinance Intent of Districts

There is a statement of purpose for each district in the Zoning Ordinance.

Planned Residential §3110

The purpose of this 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. This district is intended to allow greater flexibility than is generally possible under conventional zoning district regulations by encouraging ingenuity, imagination, and high quality design to create a superior living environment for the residents of the planned community. The PR district is particularly appropriate for parcels which contain a number of constraints to conventional development. In addition to an improved quality of design, the PR district creates an opportunity to reflect changes in the technology of land development, provide opportunities for new approaches to home ownership, and provide for an efficient use of land which can result in reduced development costs.

It is the burden of the applicant to prove that the design submitted meets the intent of the Planned Residential District. In some cases, a development application for a PR district provides the Town with a housing model or type that is not found elsewhere in town, such as the Shadowlake Village Co-Housing Community PR district. In other instances, the PR district allows an applicant to put forward housing for an underserved population and proffer limitations to ensure the need is met as with the Grissom Lane Senior Housing development. In all cases, these applications are reviewed by the Planning Commission and Town Council for their merits on a case-by-case basis. The applicant has provided the purpose of the proposed PRD in the “District Rezoning Regulations and Features” Purpose section of the application.

Need for Housing

There is a need in Town for non-student housing, both single-family detached, and multifamily housing. Specifically, there is an acknowledged need and market for single-family homes to accommodate the Town’s growth. This need is reflected in the number of single-family neighborhoods proposed and currently under development, including remaining lots in Kipps Farm, Bold Springs, Fiddler’s Green, and the Villas on North Main. Kinloch, a 23-lot single-family subdivision off North Main Street, and an additional phase of Northside Park subdivision with 49 lots, are both currently under construction for public improvements and no building permits for individual homes have been issued. The Berry Court single-family subdivision on Airport Road, the Old Blacksburg High School, and the Midtown development will also provide additional housing in town, but construction has not begun on these developments. However, even with the influx of new construction, there is still a shortage of housing for non-students. Some of this shortage is due in part to single-family homes being purchased as investment properties and rented to students. Further exacerbation of the housing shortage is due to a lack of housing that is affordable to a number of different income brackets. Housing to meet the needs of all citizens in Town should be appropriately located and with supporting infrastructure.

Development and District Standards

The characteristics of physical site development are regulated by the Zoning District standards. In a Planned Residential Zoning District the applicant may propose most of the individual standards for the proposed development. The layout and standards of the development, if approved, are binding. Since the applicant proposes the standards in the PRD, the evaluation of the proposed standards is different. The evaluation should be based on how well the proposed standards, when applied, fit into the existing character of the surrounding area. The Planning Commission and Town Council evaluate each Planned Residential development on its own merit. In this instance, the surrounding area is developed at a very low intensity, largely of single-family homes and agricultural uses. There is a great deal of flexibility in proposing the development’s standards, but the standards should not be so out of scale or character, or different from the various surrounding districts as to create an incompatibility in use or site layout. As previously discussed, the proposal should include enough engineering detail to ensure feasibility as any deviations from the standards would require an amendment to the PRD.

The following table illustrates the proposed Planned Residential District standards for the proposed development as compared with the district standards for the surrounding RR-1 zoning district:

	BEREWICK PROPOSED STANDARDS	RR-1 DISTRICT STANDARDS
MAXIMUM DENSITY	2.08 units per acre (<i>gross acreage</i>)	1 unit per acre, <i>excluding 100-year floodplain acreage</i>
MINIMUM LOT SIZE	No minimum (5,700 – 24,850 sf proposed)	No minimum
MINIMUM ROAD FRONTAGE	20’ on a public street	20’ on a public street
MINIMUM SETBACKS	Front: 15’ local street / 60’ from centerline of collector street Side: 7.5’ / 15’ corner on local street / 60’ corner from centerline of collector	Front: 13’ local street / 60’ from centerline of collector street Side: 10’ / 20’ on corner lots
	Rear: 25’ along perimeter lots / 10’ for interior lots	Rear: 20’
MAXIMUM LOT COVERAGE	Varies by lot size; up to 55%	None specified
MAXIMUM FAR	Varies by lot size; up to 0.75	0.30
MAXIMUM HEIGHT	35’	35’
MINIMUM PARKING	2 off-street parking spaces per unit	2 off-street parking spaces per unit
MINIMUM OPEN SPACE	35% of parent parcel	50% of parent parcel

Density and Lot Size

While the proposed overall density is approximately 2 units per acre, the proposed development pattern gives an appearance more in keeping with R-4 zoning which allows up to 4 units per acre. Excluding the 35% open space, the remaining 26 acres of the proposed development will be built at a density of approximately 3.2 units per acre. Minimum lot sizes, setbacks, floor-to-area ratio (FAR), and other regulations can define the feel of a neighborhood. Large lot subdivisions, even when developed with larger homes, have a very different feel than neighborhoods with smaller lots and homes closer together. The proposed PRD includes a variety of lot sizes ranging from approximately 5,700 square feet to more than 24,000 square feet. For comparison, R-4 zoning requires a minimum of 10,000 square feet per lot. The majority of the lots in the proposed development (more than 57%) are less than 10,000 square feet. Roughly 40% of the proposed lots range in size from 10,000 square feet to 21,000 square feet (quarter-acre to half-acre). Two lots are more than one half acre in size as proposed. The applicant has proposed other development standards such as lot coverage, FAR, and setbacks that vary based on the size or location of the lot.

Accessory Apartments and Density

Accessory apartments can be a tool in helping to address housing affordability and aging in place, but it can also have the effect of significantly increasing a neighborhood's density. While the Town Code accessory apartment program does not include PRD districts in the areas where new accessory apartments are allowed, the neighboring RR-1 zoning district does allow them. The applicant has included as a part of the application, a request to allow accessory apartments if the Town Code is amended in such a way that they can be developed in PRD districts. Current policy **allows** existing Planned Residential Districts to amend the district regulations to allow for accessory apartments, **or for proposed Planned Residential Districts to propose accessory apartments as an allowed use. This request should be evaluated for its impacts to infrastructure and compatibility with the surrounding area. The applicant may wish to revise the application to simply state that accessory apartments, meeting the current Town Code standards, are a permitted use notwithstanding a future zoning ordinance amendment.**

Lot Configuration and Layout

The plan shows 84 lots generally fronting on proposed streets to be constructed within the development. There will be 5 lots that are served by Redbud Road, and 3 lots that are located toward the front of the development near Toms Creek Road. These 8 lots will not feel like a part of this development because they are physically disconnected from the rest of the lots.

The 5 lots along Redbud Road may feel more like an infill development of single-family lots. Redbud Road is a narrow winding lane with single-family homes on the south side, and vacant/agricultural land on the north side. These 5 lots will be located on the north side of the street, and will feel disjointed and disconnected from the rest of the proposed development. **The applicant has provided additional information that shows that there is frontage on the existing ROW for Lot 5, which was previously unclear, but appeared to result in an undesirable ROW and lot configuration. The applicant has adequately addressed this concern. Additionally, the applicant has shown that these lots will be accessed from a private alley off of Redbud Road and located at the rear of the lots. The application states that these 5 lots will not be allowed to have driveway access from Redbud Road. Individual driveways would be constructed from the alley to the residences. Additional analysis of the proposed alley including the variance request for a nonstandard T-turnaround is found in the Transportation section of this staff report and in the updated attached Transportation memo.**

Lots 6, 7, and 8 are located near the intersection of new Road A and Toms Creek Road and have no connection otherwise to the rest of the development. These lots may also feel like infill along Toms Creek Road, though they would have access off of Road A, as no new driveways are permitted for new lots along Toms Creek Road.

The remaining lots are arranged along the interior subdivision streets in a pattern consistent with a typical suburban single-family neighborhood. The northern reaches of the proposed Road B contains three flag lots, with each lot having a minimum of 20' of road frontage. While flag lots are not specifically prohibited by code, they are not desirable in new subdivisions where the purpose of the "pole" of the lot meets only the minimum required road frontage in an effort to maximize the number of lots along a street, and does not provide adequate frontage for a home to have a relationship to the street. Furthermore, the proposed standards allow an 18' driveway for lots with frontage less than 50'. These three flag lots all have approximately 30' of frontage, so if each of the lots has its own driveway, 54' of the 90' of combined frontage could be paved for individual driveways.

Site Development Regulations

Regulations such as FAR, lot coverage, and height can help to define the pattern of development in a neighborhood. In the previous table, the proposed district regulations are provided in comparison to the RR-1

zoning district, which surrounds the subject property. However, as previously mentioned, the development will more likely feel like a neighborhood in the Town's R-4 zoning district due to similar standards and the proposed development pattern. However, it should be noted that a number of the proposed development standards are more intense than the R-4 district, such as the proposed FAR, lot coverage, and setbacks.

Floor to Area Ratio (FAR)

The floor to area ratio (FAR) of a structure is a ratio of total gross square footage of all the floors of all buildings on a lot to the total lot size. **A FAR of 0.30, which is the maximum FAR for the RR-1 zoning district, means that the total square footage of buildings can be up to 30% of the total square footage of the lot, with no minimum lot size. The R-4 zoning district allows up to 0.50 FAR and has a minimum lot size of 10,000 square feet. This would allow building construction of up to 5,000 square feet (including any detached accessory structures). The proposed maximum FAR for the development is 0.75 for lots up to 9,050 square feet, which could result in a 6,787 square foot home on a 9,050 square foot lot, or a 4,275 square foot home on a 5,700 square foot lot. While the applicant has reduced the maximum allowed FAR from 1.0 to 0.75 and has added additional groups to the scaled FAR based on lot size, the proposed FAR, especially for the smaller lot sizes is larger than any other zoning district in Town:**

- **0.75 for lots under 9,050 square feet**
- **0.65 for lots 9,050 to 10,500 square feet**
- **0.6 for lots 10,500 to 11,500 square feet**
- **0.5 for lots 11,500 to 15,000 square feet**
- **0.35 for lots larger than 15,000 square feet**

Furthermore, the applicant has mimicked the R-4 definitions and calculations for FAR, which does count all floors of all structures, including habitable basements and habitable attics. This is consistent with staff's previous recommendation. It should be noted that FAR does include gross floor area of all accessory structures such as sheds and detached garages as well. The applicant has provided supplemental graphics in the application in an effort to represent typical scenarios for site layout and FAR and lot coverage calculations. However, the graphics are not clear about what is being represented, and do not appear to show the maximum scenarios for lot coverage or FAR. The applicant should clarify the diagrams, providing maximum scenarios, or remove the graphics from the application.

Lot Coverage

The lot coverage of a development is the percentage of impervious area to total area of a lot. The applicant has proposed a sliding scale for lot coverage, also based on lot size. Smaller lots would be given larger proportions of lot coverage, **up to 55% for lots under 6,000 square feet.** For comparison, the R-4 district allows up to 45% lot coverage and 10,000 square foot minimum lot size. **The application breaks down the lot coverage on a scale based on lot size, as below:**

- **55% for lots up to 6,000 square feet**
- **50% for lots 6,000 to 9,500 square feet**
- **40% for lots 9,500 to 12,000 square feet**
- **35% for lots larger than 12,000 square feet**

Staff suggests that the applicant simplify the proposed standards for FAR and lot coverage by using the same categories for lot size.

Setbacks

Setbacks or required yards provide areas on a property that are to remain free from structures. This allows for both landscaping and open space around buildings for light and air circulation, but it also generally provides areas where public utilities may be installed. In many cases, public utility easements (PUEs) are established around the interior of lot lines, within the setbacks to allow for both Town public utilities, but also for private utilities such as telecommunications, gas, and power. Consistent setbacks in a neighborhood can help maintain a sense of regular rhythm and uniformity while also allowing for landscaping and open space. As with other district standards, the applicant can propose specific setbacks for the proposed rezoning area. The applicant has proposed 7.5' setbacks on interior side lot lines, which does allow for a 15' PUE to be centered on the interior lot lines. The applicant has differentiated rear setbacks based on whether a lot is interior to the site, or located along the periphery. Peripheral lots will have rear setbacks of at least **25'** for principal structures. Interior lots will have rear setbacks of at least 10'. The proposed setbacks are generally smaller (more intense) than the R-4 zoning district. For example, the rear yard setback for R-4 is 25', and for RR-1, it is 20'. Front setbacks are determined by whether the lot is located along Toms Creek Road, a collector, or interior to the site. Similar differentiation for front setbacks is also inherent in the neighboring RR-1 district. ***The applicant has resolved the numerical discrepancy for rear setbacks on perimeter lots.***

Building Construction

The building orientation, style, materials, scale, massing, and height of a development are elements affecting how a proposed development fits into the surrounding area. In most of the recent PRD development requests, the proposals have been for multifamily housing, and a significant amount of work had gone into the architectural development of the proposed buildings early in the development process to determine neighborhood compatibility.

With the development of a single-family neighborhood, it is not known if all of the homes will be built at the same time, or even by the same builder. In this case, there are 84 lots proposed that will have 84 different owners and it is not feasible to commit to individual home designs. In some planned subdivisions, applicants have provided a pattern book to narrow the design choices such as the Village at Toms Creek or Shadowlake Village. ***The revised application includes a pattern book as an appendix. The pattern book generally sets forth design guidelines for individual homes. The pattern book states that a number of floor plans and elevations are available for homebuyers. There will be "no fewer than five building plans, each with three or more elevations and an assortment of colors." The pattern book further explains that no two homes side by side, or across the street, will be the same model and elevation, or color. The pattern book also gives specific regulations regarding building details such as porch column size, roof pitches, porch depth, and overhang depth. This will provide variety in the neighborhood while also maintaining a cohesive development pattern. The application does not specify whether the homes will be built by a single builder, or if they will be purchased and developed individually. The pattern book will apply to any builder.***

The pattern book specifically states that all homes will be 1,600 square feet or greater. The preclusion of smaller homes from a development unnecessarily restricts affordability and choice for homebuyers. Staff recommends eliminating the minimum home size. Additionally, the pattern book states that driveways be a minimum of 18' wide, while the application states that driveway width vary from up to 18' to up to 20', based on the length of lot frontage. Including a minimum driveway width eliminates the possibility of less impervious surfaces or other driveway configurations that may be desirable and appropriate. Staff recommends eliminating the minimum driveway width, or simply following the subdivision ordinance minimum standard of a 12' curb cut.

Sustainability

The application also provides some information regarding building sustainability guidelines, and a proffer outlining a number of design features intended to reduce resource consumption and increase energy efficiency. **While the revised proffer statement does provide quantifiable metrics for building sustainability and energy efficiency, the Town's Building Official notes that in comparison to current building practices, some of the proposed proffers do not achieve significant increases in energy efficiency, nor do they provide accommodations for future code updates. A default percentage increase in energy efficiency over current codes at the time of building permits would provide more measurable and meaningful commitments to building sustainability.**

The proffer also states that all homes will have a "green building criterion with a third-party certification." No information regarding what certification(s) are proposed. The proffer, as written, is unclear regarding whether or not a third-party certification such as EarthCraft or LEED will be provided.

Landscaping, Buffering, and Screening

Landscaping

The PRD regulations in the zoning ordinance do not specify landscaping requirements, but rather leave the overall site's landscaping up to the creativity of the designer, and the specific applicable regulations in the zoning and subdivision ordinance standards (street trees, parking lot trees, and total canopy coverage). In this case, the only landscaping regulations that are required for this development are for street trees to be planted along Toms Creek Road as a part of the subdivision process, and for a total canopy coverage of at least 20% of the entire parcel to be provided. The subdivision standards require street trees for collector and arterial streets, but not for local streets within a subdivision development. The application does show significantly more than the minimum requirement for **street trees. However, the application states that at least 12.5% of the overall site will be provided in tree canopy coverage. The minimum requirement for tree canopy is 20% per §5426. The application and landscape plan will have to be amended, or a specific exception to this standard must be requested as a part of the rezoning request.**

The applicant has submitted a landscape exhibit that shows generally the location of street trees and screening trees. There is one area of the site in particular toward the rear of the property that does have some dense forest vegetation. While the plan does show some of this to be protected, a significant portion of it is not being preserved, in order to install stormwater management, grass trails, and individual building lots. **The revised proffer states that where trees cannot be preserved due to construction activity, "the equivalent tree canopy square footage area removed will be replanted or established in other areas of open space."** While it may not be feasible to know all of the locations for landscaping due to individual homeowners and specific onsite conditions, a landscape plan can help to show the general concept for landscaping within the development. However, as provided in the Sanitary Sewer memo, there may be conflicts between proposed landscaping and some of the utility easements. The landscaping plan will need to ensure that there are no conflicts with PUEs (or other improvements), as well as still satisfying the requirements of the proposed district. **The revised proffer statement includes more detail regarding landscaping. Specifically, the proffer includes details regarding street trees, including the provision of at least 2 street trees per lot within the subdivision; canopy coverage (which will have to be revised or an exception is needed); and specific requirements for architectural and vegetative, or vegetative-only screening and buffering. The overall concept of the landscape plan and proffer addresses staff's previous concerns, but the applicant will have to address the overall tree canopy coverage.**

Buffering and Screening

There is no specific buffer yard requirement for the Planned Residential district as a whole because the nature of the proposed developments can vary so widely and the buffering proposed should be appropriate for the type

and intensity and context of the development proposed. Each application is evaluated with regards to buffering to determine the appropriateness of the proposal as it relates to the surrounding uses and neighborhood, and whether the effects of proposed buffering mitigate any adverse impacts to the surrounding area.

Buffering and screening can help to mitigate visual and noise impacts between neighboring properties. Screening trees are shown around some of the perimeter areas, as well as near the stormwater and open space areas. The subject parcel shares a portion of its northern property line with the Town's Toms Creek Park. The remainder of the northern property line is shared with a single parcel used for single-family and agriculture. The aerial imagery shows that a portion of this property line contains vegetation along a fencerow. To the east, the property borders another single-family/agriculture use, and also contains vegetation along a fencerow. It is unknown at this time if the vegetation in the fencerow is on the subject property, or adjacent properties. Toward the south and east, the neighboring properties are more densely wooded until the subject property is adjacent to Redbud Road. Across Toms Creek Road, trees line the road edge shielding more agriculture beyond. Screening trees are shown along some lot lines where parcels are adjacent to open space and stormwater management areas. While screening would not be required for a by-right subdivision in this district, it should be noted that this rezoning request is for more than twice the density allowed by the RR-1 zoning district and under the future land use designation. ***Staff suggested additional screening/buffering along the perimeter to mitigate potential impacts of the proposed development. The revised landscape plan provides some specific locations for screening trees, but also allows for coordination between adjacent property owners and homeowners in the development to mutually agree to appropriate screening based on the language in the proffer statement. While this idea is well-intended, it may not produce a desirable effect, if individual homeowners have different needs or desires along an adjacent property line.***

Parking

The standard ratio for single-family homes is two off-street spaces per unit, regardless of the number of bedrooms and this is the standard proposed for the development. The required spaces may be satisfied by driveways, garages, or a combination of the two. Where garages provide all or a portion of the required parking, this can become problematic if the garage is not used for parking a vehicle. For instance, if a home has one driveway space, and one garage space, but the resident does not use the garage for parking, then overflow parking on the street will be inevitable. The application states that overflow and guest parking would occur on one side of subdivision streets, but as Town right-of-way, these spaces cannot be counted toward required minimums, as there may be field conditions that necessitate removal of on-street parking such as sight distance inhibited by parked cars, or horizontal and vertical curves. Due to the location of the neighborhood, it is unlikely that the surrounding areas will receive overflow parking pressure from the proposed development, which is more common closer to the center of Town and the University and in multi-family developments.

Occupancy and Lifestyle Conflicts

The applicant has proposed an occupancy standard consistent with the surrounding neighborhood. The occupancy standard for the proposed development is a family plus 2 persons unrelated to the family, or no more than 3 unrelated individuals in a home. While these neighborhoods are not generally constructed as student housing, there are examples of recently constructed single-family developments turning over to investment homes purchased for student rentals. When this has happened, the character of the neighborhood has changed and it has further limited the availability of housing for full-time residents. Given the location, it is not anticipated that this will occur as it is not occurring in the adjacent Brookfield Village. While the application does not indicate students as the target market, there are also no proffers to help ensure this does not happen.

Signage

The Planned Residential District allows applicants to propose a cohesive signage plan for the entire development as a part of the review of the application. The application states that signage shall conform to current TOB zoning regulations. However, no specific regulations exist for the PR district. Zoning Ordinance section 5532 states that a maximum of two permanent signs and three directional signs are permitted per lot in any residential zoning district. Additionally, one freestanding identification sign is permitted at each primary entrance to a residential development, up to a maximum of two. No signage has been proposed at this time, though the application states that signage **dimensions and size** will comply with Town zoning regulations **§5532(e)** for identification signage. **The application should also include compliance with §5532(c) which regulates the number of allowed signs.**

Bicycle and Pedestrian Improvements

Many individual policies and regulations address streetscape, bicycle, and pedestrian improvements as being a high priority to encouraging walkability and contributing to a high quality of life in Town. Providing enhanced pedestrian and bicycle facilities will encourage alternate-transportation behavior and lead to less dependency on personal vehicle trips. These facilities may include wider sidewalks, separation between the street and the sidewalk with a vegetated buffer strip, on or off-street bicycle facilities, covered bicycle parking, and other elements to provide a pleasant and safe streetscape experience. Often, private development serves an important role in providing missing links in the sidewalk and trail network throughout Town, as there is not enough funding within the Town's budget to complete all the bicycle and pedestrian projects as the Town grows.

Sidewalks and Trails

Sidewalks are required along all streets within and adjacent to a subdivision. The Comprehensive Plan Paths to the Future map shows a route along Toms Creek Road, paralleling the road. The map also shows trail along the creek bed generally where an internal trail is proposed. The applicant has provided a bicycle and pedestrian circulation exhibit that shows the locations of trails, sidewalks, and grass paths.

Toms Creek Road Trail

The proposed development includes a trail along a portion of Toms Creek Road to the proposed development entrance. The proposal does not include a sidewalk or trail along the remainder of the parcel frontage. The application shows an easement instead. This bicycle and pedestrian infrastructure is critical to future routes in the area and is supported by the Road Project Priorities section and Paths to the Future map within the Comprehensive Plan, **as well as the Bicycle Master Plan and Sidewalk Priority Matrix**. The subdivision ordinance states that multi-use trails are required to implement concepts in the Comprehensive Plan. For a subdivision of this magnitude, along a collector road, sidewalk or trail should be provided. **The applicant has specifically requested an exception to not construct this portion of the trail. Justification for this request is found in the Variances and Exceptions Memo provided by the applicant. Specifically, the applicant points to potential flooding of the trail and additional disturbance within the creek area as reasons for requesting the variance. The updated Transportation Memo provides analysis of these points, and also gives guidance for how the trail construction could be achieved. The variance further explains that the proposed trail from Road A through the development to the park will serve as the north-south connection along Toms Creek Road. However, the Comprehensive Plan Paths to the Future Map shows two routes on the subject property, one along the creek where the proposed trail is located, and one along Toms Creek Road. It is anticipated that a trail in this location would be heavily used by both recreational users and for transportation/commuting. Further discussion is included in the Engineering Transportation Memo and the Corridor Committee section of the staff report.**

Most of the Toms Creek Road trail is proposed as part of Phase 2, after the construction of the 5 lots on Redbud Road. The preference is for common infrastructure and amenities in the subdivision to be provided at the outset of the development so they are available for early residents. This also prevents any issues that may arise if the development does not move forward and the phases are not built according to the planned timeline. This is especially important if these improvements are not bonded as part of the subdivision process. ***Critical infrastructure, such as the trail, should be installed with the first phase of development.***

Internal Trails

The application also shows internal trail along the creek bed generally where the route on the Paths to the Future Map is shown. This trail is proposed to be a 10' wide asphalt trail, dedicated to the Town for public use. The trail will provide a connection to the proposed picnic shelter.

Internal Public Sidewalks

The applicant has shown sidewalks meeting the minimum requirement along much of the interior streets. ***Sidewalk has been extended around half of the cul-de-sac of Road B, satisfying staff's previous comments.***

Internal Grass Trails

The application and plan also propose "grass trails" behind the homes along the northern property lines, and behind the homes fronting on Road A and Road B in the center of the development. The application states that the grass trails will be a minimum of 10' wide, but no other information, such as how (or by whom) they will be maintained, or if they are accessible, has been provided. The location of these trails and the connectivity they provide is desirable. ***The application should more clearly define ownership and maintenance of these trails.***

Corridor Committee Review

The Corridor Committee reviewed this application and provided the following comments:

- Where the proposed paved trail meets the Town of Blacksburg property/Dog Park to north: Show and complete the connection from the proposed trail to the road going into the Dog Park. Ease up the hard right turn from the proposed paved trail to the grass trail, as well as from the proposed paved trail to the road going into the Dog Park. Difficult to make these hard turns on a bicycle.
- Consider the grade of Road A where it intersects/crosses the trail along Toms Creek Road. Preference is for Road A to be level or ascending (rather than descending) in this location, so that car speeds do not cause conflicts with bicyclists/pedestrians on the trail, crossing Road A.
- Provide and show ADA turnouts on the proposed paved trail where grades exceed 5% (i.e. along Road A and where the trail connects up to the cul-de-sac). Avoid 10+% grades on the paved trail, if possible-difficult for users.
- Where sidewalk is only shown on one side of the newly constructed streets, consider adding sidewalk on both sides of the streets.
- Complete the sidewalk fully around the cul-de-sac. Ending sidewalk abruptly a portion of the way around the cul-de-sac is awkward and not optimal for users.
- If there is an opportunity now or in the future to expand BT neighborhood service in this area, please coordinate with BT and plan for this with this rezoning.

In a September 9, 2020 email from the chairperson of the Corridor Committee, it was noted that the committee did not come to any specific conclusion regarding the lack of trail along Toms Creek Road. The email further describes a desire to prioritize bicycle and pedestrian connectivity in the Toms Creek Road/Meadowbrook Road corridor based on information gathered during the Brush Mountain Trail planning process. Due to these considerations, and the applicant's revisions which include a variance request and

justification, the Corridor Committee has requested to review the variance at the September 16, 2020 regular meeting of the Committee. Additional information from the Committee will be provided to the Planning Commission after this meeting. Further staff analysis of this trail segment was previously provided in the staff report and is include in the updated transportation memo.

Open Space

The provision of open space is another component of residential communities that is included as a requirement for nearly every type of residential development. The Planned Residential Zoning District Standards requires a minimum of 20% open space for developments. It is important that the open space be meaningful in its size and function and geared toward the use of the residents in the development.

The applicant has shown 35% of the parent parcel as open space and indicates that ***all of the open space would be owned and maintained by the homeowners' association, but would be available to the Town residents for use.*** Much of the open space provided is found toward the front of the site and encompasses the most sensitive areas of the site around the creek. Providing protection for this resource achieves one of the purposes for the requirement of open space. The open space also contains trail areas, as well as the proposed picnic shelter near the front of the property adjacent to the Toms Creek Park. The open space areas contain the recreation areas for the development but also the development's private stormwater management areas.

The Town's Director of Parks and Recreation has commented that the shelter and the trails would be a benefit to the Town's citizens.

IMPACTS TO PUBLIC INFRASTRUCTURE

In evaluating the potential effect on public services and facilities that this rezoning would have, the Town Engineering department has reviewed the Master Plan and application and the following comments are provided. The evaluation of impacts to public infrastructure should take into account the proposed intensity of the development and the current condition of the Town's public infrastructure. Specific improvements necessary to support a proposed development, and attributable to a development should be constructed by the developer. Where no infrastructure exists to support development, the evaluation should also include the appropriateness of the development in the proposed location.

Sanitary Sewer

The Town's engineering staff has reviewed the ***revised*** application with regards to the impact of the development on public sanitary sewer, and ***an updated memo*** from the Town's sanitary engineer is attached.

Type of Sewer, Maintenance, and Location

The property is located in the Town's "unsewered" area, but is located in an area where STEP/STEG systems may be installed. This model of service incorporates a septic tank on each lot that is maintained by the Town, and effluent from the tank is either pumped (STEP) or gravity-fed (STEG) to the Town's collection system. Notably, the Village at Toms Creek was the first development in Town to utilize STEP/STEG systems. Over time, these systems need additional maintenance above and beyond what is required of traditional gravity sewer.

The location of the tanks is usually finalized at the major subdivision/engineering plan phase, but with a binding plan, enough needs to be known about the locations of the utility infrastructure that the layout of the development does not change substantially. Additionally, the location of the required pump station and vehicle access is shown on the plan, but additional information is needed to determine whether the location is feasible. Specifically, information regarding the elevation of the wet well is required to determine if there are conflicts with the water table or creek area. Lastly, as previously mentioned, landscaping is shown in areas that may

need to be clear for tank access. The applicant will need to verify that there are no conflicts that alter the proposed plan.

Sanitary Sewer Capacity

In the attached memo, the Town's sanitary sewer engineer outlines that a downstream capacity analysis was conducted for the proposed development, and indicates that there are downstream inadequacies in the sanitary sewer system. ***Proffer #5 addresses the downstream capacity issues, and Proffer #4 is no longer needed. The applicant should revise the proffer statement.***

The applicant requested a variance to the Sanitary Sewer Specifications as outlined in the Variance and Exception Memo. Staff analysis is provided in the attached updated sanitary sewer memo and the variance is found to be acceptable by staff.

Water

The Town's engineering staff has reviewed the application with regards to the impact of the development on public water supply and a memo from the Town's water engineer is attached. The Town's water system has adequate access to water mains in both Toms Creek Road and Redbud Road, as well as adequate required minimum pressure based on projected demand. Additional infrastructure may be required and can be shown at the major subdivision and site plan stage to ensure that the proposed infrastructure meets all Town standards and specifications.

Stormwater Management

The Town's engineering staff has reviewed the ***revised*** application with regards to the impact of the development on the Town's stormwater management system, and ***an updated memo*** from the Town's stormwater engineer is attached. The stormwater concept plan is ***not*** approved at this time. Resolution to the items below is necessary in order for the concept plan to be approved. Additionally, it should be noted that the applicant will need to provide further study to determine impacts to jurisdictional waters and wetlands. All SWM facilities will have to be able to be accessed for maintenance. Maintenance to these facilities is generally provided by paved or gravel paths capable of supporting heavy trucks and machinery. The locations and routes of these accesses must be shown at this stage.

Creek Valley Overlay District, Floodplain Overlay District, and Flood Elevation

As previously mentioned, portions of the property fall within the Creek Valley Overlay District, and the Floodplain Overlay District. These are two overlay zoning districts within the Zoning Ordinance that provide specific regulations regarding development in riparian areas and floodplains. The Creek Valley Overlay District regulates development for the protection of the natural riparian resources while the Floodplain Overlay District provides regulations to protect property from flood damage. While both of these districts have different goals, the methods are similar: restrict or limit development in vulnerable areas. ***The Creek Valley Overlay District specifically limits most construction and grading activities within the district. In the proposed development, roads, sidewalks and trails, and utilities including water, sanitary sewer, and stormwater are proposed to be constructed within the overlay area on the property. Additionally, significant tree planting and grading are proposed. All of this work requires specific approval prior to the construction process per Zoning Ordinance §3235.***

The Floodplain Overlay District states that no development can increase or raise the base flood elevation. The "base flood elevation" is the specific elevation above sea level of the limits of the floodplain. To raise or increase the flood elevation would cause deeper and/or more widespread flooding during flood events. The prohibition of raising the flood elevation protects properties upstream of development from further inundation.

Upon consultation with the Town Attorney and with careful review of the zoning text and recent court cases, changes to allow for rise in the base flood elevation can only be pursued through a zoning ordinance amendment process. The applicant has requested an interpretation concerning this provision as this is a key rezoning issue. ***The Zoning Administrator prepared an interpretation for the applicant, who responded with additional clarification questions. The Zoning Administrator is preparing a follow-up determination answering these questions and concludes that portions of the property are governed by the Floodplain Overlay District, and that the plan as proposed is not consistent with the regulations therein.***

With respect to consideration of a zoning ordinance amendment, Town Council reviewed a portion of the Floodplain Overlay District in 2019, for very specific changes necessary to allow the University to construct a portion of the Western Perimeter Road. The University, while not under the zoning or regulatory jurisdiction of the Town, still must comply with the Town's floodplain ordinance. Specifically, the University needed a change to allow an increase in the flood elevation upstream from a stream crossing. The Town Council considered the change, and granted approval to allow specific provisions in the ordinance to not apply to University-zoned land where additional information from FEMA has been provided.

The application states that there is a "slight" increase in the floodplain, though as the Town's stormwater engineer points out in the memo, the calculations indicate an 11' increase in the flood elevation upstream of the proposed road crossing. The applicant has indicated that the rise in the floodplain does not impact roads or homes in the proposed development and is driven by a desire to limit disturbance in crossing the stream due to environmental and financial concerns. A larger crossing size will be required in order to pass the 100-year storm without a rise in the flood elevation. The stormwater management plan is not approved at this time and is not approvable without a zoning ordinance amendment or an alternate design that does not raise the flood elevation.

The applicant has not proposed any changes to the design with respect to the floodplain. Ultimately, the application proposes a rise in the 100-year flood elevation, which is not consistent with the current Floodplain Overlay District standards. The applicant has requested a variance to allow a rise in the flood elevation. However, the rezoning process does not allow the granting of a variance to this standard. A zoning ordinance amendment would need to be undertaken and approved in order to consider the plan as currently proposed. The zoning ordinance amendment process would not presume the approval of the proposed plan. Conversely, as previously mentioned, the applicant can consider other options for passing the storm without a rise in the flood elevation.

Traffic & Transportation

The Town's engineering staff has reviewed the ***revised*** application with regards to the impact of the development on the Town's transportation network, and ***an updated*** memo from the Town's transportation engineer is attached. The development is proposed with one road off of Toms Creek Road to access all but 5 of the lots. The Town subdivision ordinance contains regulations regarding access to adjoining properties, coordination of streets, block layout, and culs-de-sac.

Street Network, Connections, and Cul-de-sac Length

The Comprehensive Plan and Subdivision Ordinance both discuss a functioning street network with interconnections as desirable. The purposes for interconnections in the street network are to relieve congestion along the network, to provide multiple ways of ingress and egress for emergencies, and to facilitate traffic distribution. The attached memo indicates that key considerations for this request include the necessity and desire for additional road connections for the "intended coordination and redundancy of a well-functioning road network". Several Subdivision Ordinance sections pertain to interconnectedness, block length, and coordination

of streets. The Subdivision Ordinance specifically calls out the ability for developers to connect to any existing street that may adjoin, and requires subdividers to provide for the future connections of streets to adjoining properties. A portion of the southern property line abuts the street and right-of-way of Redbud Road. The applicant does not propose a connection to this street as a part of the development, nor is the layout of the proposed development conducive for a connection to be made in the future. The plan does show the extension of right-of-way at the end of the cul-de-sac of both Road A and B to adjoining property.

In recent rezonings, transportation analysis has mostly focused on the existing road network. In contrast, this proposal would start to create a road network in a largely undeveloped area. Providing a connection to Redbud Road and establishing a primary route, as detailed in the attached memo, are vital to the future transportation network in this area.

The proposed design includes a single point of entry/exit onto Toms Creek Road terminating at a cul-de-sac approximately 2,400' (1/2 mile) away. The applicant has provided internal connections so that no individual road segments exceed 900'. Along Road A, the first intersection with Road B occurs approximately 500' away from Toms Creek Road, however neither Road A, nor Road B intersect with other, outside streets and thus the entire development essentially functions as one large cul-de-sac. The Subdivision Ordinance limits permanent culs-de-sac to 900' in length. Several subdivisions exceed this standard including Kipps Farm, Villas on North Main, and Oakton. However, from a broader planning perspective, external connectivity is critical especially given the proposed number of units, the length of proposed streets, and the lack of a connected street system west of the Bypass.

Redbud Road and Toms Creek Road Improvements

The *original* transportation memo *dated August 14, 2020* also included language regarding specific requirements for upgrades to the existing Redbud Road and Toms Creek Road infrastructure. Most notably, the memo indicates that Redbud Road needs additional improvement to meet the Town standard pavement width of 24'; and that improvements to Toms Creek Road *should* include sidewalk or trail along the full Toms Creek Road frontage of the development, and the installation of curb and gutter and stormwater management.

The application has been revised to show Lots 1-5 accessed off a private alley from Redbud Road. While this may eliminate multiple points of intersection onto Redbud Road in the areas where the road needs the most improvement, the applicant is requesting a variance to the requirement for a cul-de-sac or appropriate T-turnaround. The ordinance specifically precludes the use of dead-end alleys. The applicant suggests that the alley will be used for private homeowners and guests, and that large trucks or buses would not use the alley. However, emergency services and other service vehicles such as delivery vehicles, trash and recycling trucks, school buses, and mail service would still utilize Redbud Road to access these homes, and thus the concern from neighbors about poor sight distance on Redbud Road and additional vehicle conflicts is not addressed by the provision of an alley. Additional analysis is provided in the updated transportation memo attached to this report.

The applicant has also included a variance to specifically eliminate the requirement for curb and gutter, and road widening on Toms Creek Road. The attached transportation memo outlines considerations for this request and generally states that asymmetrical widening does not present alignment concerns, and would provide a consistent lane width along the parcel frontage. The memo notes that curb and gutter would be beneficial in managing common to moderate storm events.

NEIGHBORHOOD MEETING and CITIZEN COMMENT

A neighborhood meeting was held at 6:00 pm on Monday August 11, 2020. Notes and the sign-in sheet are attached. The meeting was also broadcast live on WTOB Channel 2 and available for live stream on the Town’s website. Additional citizen comment has been received **between August 13, 2020 and September 11, 2020**, and is included as an attachment to this staff report as well.

PROFFERS

The applicant has provided a **revised** proffer statement containing **seven** proffers on pages **12-14** of the application. The proffers are addressed in the staff report by topic area.

SUMMARY

The Planning Commission is asked to consider and make a recommendation of approval or denial of the proposed Rezoning request. If the request is approved, the property will be rezoned Planned Residential with any proffers offered by the applicant and accepted by Town Council. Any changes to the master plan would be required to be reviewed through the public hearing process to amend this PR district. If denied, the property will continue to be zoned RR-1 and any such subsequent development application will have to adhere to all the minimum standards found therein. The decision to grant or deny the rezoning request is a discretionary decision, and should be made according to the criteria outlined in §1151, and with the analysis provided.

As previously mentioned, if the rezoning is approved, this development request will also be subject to a major subdivision review as provided for in Subdivision Ordinance Article IV Division 2.

The rezoning master plan is binding, and should not presume the approval of any variances that may be needed from the subdivision ordinance standards, unless specifically addressed in the ordinance language. Should the review of the major subdivision bring to light elements of the binding master plan that must be changed, then the applicant will have to amend the planned residential district.

ATTACHMENTS

- **Updated** Engineering memos
- Correspondence received **between August 13, 2020 and September 11, 2020**

ATTACHMENTS PREVIOUSLY PROVIDED IN AUGUST 14, 2020 STAFF REPORT

- Staff GIS maps
- Staff appendix
- Neighborhood meeting notes and sign-in sheet

MEMORANDUM

TO: Kinsey O'Shea, Development Administrator
FROM: Joshua Middleton, Town Engineer
DATE: September 4, 2020
SUBJECT: Berewick – Transportation Comments – Review 2

Overview

The proposed development of eighty-four (84) single-family dwellings would be expected to add a moderate amount of vehicular traffic to the existing road network. The trip generation data should indicate the total number of vehicle trips generated by the site to be 886 trips per day with AM Peak Hour volumes of 64 trips and PM Peak Hour volumes of 86 trips. A new road connection is proposed for the development along Toms Creek Road, which will provide access to seventy-nine (79) dwellings. The remaining five (5) dwellings would utilize a driveway connection to Redbud Road. Therefore, 837 trips per day (approximately 95% of the total new trips) would utilize the new road connection, with the remaining 66 trips per day (approximately 5% of the total new trips) utilizing Redbud Road. All trips would ultimately be distributed to Toms Creek Road.

The existing adjacent traffic volumes, proposed by the analysis, indicate that Toms Creek Road, between US 460 and Redbud Road, currently operates at approximately 2,340 ADT (average daily traffic) with AM Peak Hour volumes of 180 vehicles and PM Peak Hour volumes of 264 vehicles. The proposed development traffic represents a 32 - 38% increase in traffic volumes.

Traffic Impact Analysis (TIA)

Per previous review comments dated August 14, 2020, revisions were requested to address concerns regarding the level of service analysis performed at the Toms Creek Road / 460 and Patrick Henry Drive intersections. The following revisions were requested:

- Provide additional information, clarifications, or revisions as requested by VDOT.
- Revise the Level of Service analysis to provided trip generation volumes per the proposed development.
- Provide additional Level of Service (LOS) analysis data as follows;
 - a. Existing, Background and Buildout Turning Movement Diagrams
 - b. Existing and Background AM and PM Peak Hour Analysis
 - c. Existing, Background and Buildout Queuing Analysis
 - d. Synchro Intersection Analysis Data

- Provide additional information, clarifications, or revisions as requested by VDOT.

As requested, additional information, clarification and revisions have been made per the comment responses outlined in the attached VDOT Review Comment letter dated July 30, 2020. Revised documents and response were submitted to VDOT on August 24, 2020 by the applicant. On September 3, 2020, VDOT provided the following response to the submitted revisions; "Previous VDOT comments have been adequately

addressed. This office takes no exception to the project upon approval by the Town of Blacksburg.”

■ Revise the Level of Service analysis to provided trip generation volumes per the proposed development.

Though the development proposes a layout of 84 lots, the Level of Service Analysis continues to represent a 95-lot development. The applicant has chosen not to update the LOS Analysis indicating that results would not change and the cost associated with correcting the study would be wasted. Though the conclusions of the study would not be expected to change, the data represented within the analysis would be incorrect and would not be representative of the development’s true impact. Therefore, the study could not then be reasonably applied to future analyses. This is particularly important given the 7-year buildout period for this development and the high likelihood that a future development would need to account for the approved growth. Similarly, this applicant was able to utilize three (3) previous development TIA documents in their analysis. The analysis should be revised to align the TIA document fully with the proposed binding development plan and provide an accurate record of the proposed development’s impact.

■ Provide additional Level of Service (LOS) analysis data as follows:

- a. Existing, Background and Buildout Turning Movement Diagrams
- b. Existing and Background AM and PM Peak Hour Analysis
- c. Existing, Background and Buildout Queuing Analysis
- d. Synchro Intersection Analysis Data

As requested, the additional data has been provided. However, as the applicant has chosen to forgo the requested revision of the trip generation volumes, the submitted data is not representative of the proposed development’s impact. The artificial inflation of trips would not be recommended and should be revised to provide a complete and accurate level of service analysis that fully represents the impacts of the development.

➤ Summary of TIA Recommendations:

- Revise the Level of Service analysis to provided trip generation volumes per the proposed development.

New Road Design & Layout

In support of the proposed lot layout, the development proposes the construction of nearly 4000-ft of new road, which is intended to meet the requirements of Section 5-313. However, the following Sections should also be considered with regard to the overall layout of the development:

➤ Section 5-303 – Access to Adjoining Property

The proposed development includes potential future expansion to two adjacent parcels. Proposed right-of-way has been extended to the boundary line of the development parcel; however, the road sections have not been extended. For future residents, it is vital to establish the expectations that extension of these road sections will occur. Constructing the street, and fully occupying the right-of-way, is the mechanism that can establish this expectation. In addition, incorporating the extension into the design and construction of the development would ensure that the street was constructible for future extension.

➤ Section 5-305 – Coordination of Streets

The development parcel has approximately 340-ft of frontage along Redbud Road. Utilizing this frontage to provide a cross connection between Redbud Road and the new road

network within the development should be considered. This connection would facilitate the intended coordination and redundancy of a well-functioning road network.

➤ Section 5-317 – Blocks

High functioning road networks, developed in an urban location, tend to follow a very systematic street grid layout that establishes definitive blocks. In suburban locations street grids are often less distinct and tend to incorporate branch and cul-de-sac style extensions. For both locations, future expansion of primary routes and cross connections to existing routes are critical. A primary route would provide a continuous road section that could be further extended to provide a potential connection to an existing network. Intersections along its length would be facilitated, as needed to support cross connections and cluster development. However, the primary route would generally remain free flowing and would directly convey local traffic along its length. Though the development has provided potential expansion to the surrounding undeveloped areas, neither proposed Road 'A' or 'B' provide a primary route for this expansion and does not propose a cross connection to Redbud Road. Revisions to the road layout should be considered that would better facilitate a high functioning network that would fully support future expansion and cross connection to existing networks.

In review of recent rezonings, transportation analysis has largely focused on upgrading the existing road network, as opposed to creating new. The proposed development would begin to establish a new road network in this largely undeveloped area. Due to this, road layout and connectivity considerations are warranted. The location of the proposed development parcel and extent of frontage along both Toms Creek and Redbud Road could provide a significant step in providing fundamental infrastructure in this area. The establishment of a highly functional road layout, as part of the development, would begin to provide a necessary extension of the network into the area. If this could be achieved, the proposed and adjoining road network could more readily support growth in the future.

Toms Creek Road Improvements

➤ Exceptions Requested

The applicant has requested the following exceptions as outlined in the Memo for Variance and Exceptions for Berewick, dated September 1, 2020:

2. Exception to widening along the parcel frontage on Toms Creek Road
3. Exception to install curb and gutter along the parcel frontage on Toms Creek Road
5. Exception to install trail along the full parcel frontage on Toms Creek Road

Special Note: Though exceptions for widening (2.) and curb and gutter (3.) were submitted separately, they should be considered together. Though feasible, it would not be recommended to install curb and gutter without widening and vice-versa. The intention of subdivision ordinance Section 3-313(3) is that CG-6 curb and gutter and a road section width (face curb to face curb) of 30-ft be provided.

2. Exception to widening along the parcel frontage on Toms Creek Road

Justification for the exception focuses on the potential imbalance of widening along one side of the road (asymmetrical widening) as opposed to a symmetrical widening. The current lane width of Toms Creek Road is between 11 and 12 ft. If the development were to widen and provide curb and gutter to achieve a distance of 15-ft from centerline to the face curb, then only 1 to 2 ft of widening would be required. An asymmetrical widening of this degree, particularly across a significant distance, would not be expected to pose any alignment concerns and would instead provide a consistent lane width of 12 to 12.5 ft.

3. Exception to install curb and gutter along the parcel frontage on Toms Creek Road

Justification for the exception suggests that curb and gutter would exacerbate flooding. Currently, drainage from Toms Creek Road is generally conveyed, via a roadside ditch, directly to the creek. Similar to the proposed development roads, the addition of curb and gutter would include a series of drop inlets and underground pipe networks that would move the conveyance underground. Once collected via the underground system, drainage could then be conveyed and discharged, as required by Stormwater Management principles, which could include detention and treatment prior to release. Therefore, if engineered correctly, the addition of curb and gutter would be beneficial in managing common to moderate storm events.

5. Exception to install trail along the full parcel frontage on Toms Creek Road

Several justifications for the exception are provided. Grades along Toms Creek Road likely reach 12%; however, trail is often installed at or above this grade as trails generally follow existing terrain. Section 5-503 of the subdivision ordinance provides construction and design standards for this type of application. The grade flattens at the creek crossing and similar to the road section would likely encounter future flooding. However, if constructed properly, the trail would be expected to weather flooding similar to the adjacent road and would not require significant maintenance. The Town currently maintains numerous sections of trail adjacent to watercourses as this is a very common and desired location for trail construction.

Another justification for this exception relates to the need for an extension of the existing 30-inch culvert under Toms Creek Road. An extension of the culvert would impact the stream bed and create additional land disturbance in the Creek Valley Overlay. However, trail construction may instead be facilitated by creating a flattened shoulder with supporting slope adjacent to Toms Creek Road by fill placement over the section of culvert currently without soil cover. A wing wall should also be constructed at the end of the culvert as an end treatment. It appears there may be adequate horizontal space to construct a 10-foot wide trail with a 3-foot wide shoulder on each side of the trail per AASHTO guidelines. Trail construction in this location would most likely require a safety rail or some type of physical barrier between the edge of the trail and the top of the slope, plus a 1-foot wide offset from the edge of the trail to this barrier. This scenario will require further analysis by the applicant to determine if the minimum trail dimension of 16 feet (10-foot wide trail plus two, 3-foot wide shoulders) is available without extending the culvert. In addition, this construction cannot create a rise in the 100-year floodplain elevation.

Toms Creek Road functions as a collector road, within the Town's system, providing the primary route for a significant yet largely rural area. The proposed development has approximately 1,070-ft of frontage along Toms Creek Road. Through the requested exceptions, improvements to the road section appear to be limited to the addition of the new road connection and extension of trail for a portion of the development frontage. Turn lanes or tapers are not warranted by the proposed trip generation. Therefore, if Exceptions 2 and 3 are granted the existing function and character of the road would be expected to remain largely unchanged from its existing condition.

As detailed in the Road Project Priorities section and Paths to the Future map, within the Comprehensive Plan, a trail network along Toms Creek Road is needed. Though challenges exist, a trail alignment along the full length of the parcel frontage provides a logical extension of the existing trail network and should be provided for a subdivision of this magnitude along a collector road.

Redbud Road Improvements

The development proposes five (5) new lots along the parcel's frontage (approximately 320-ft) on Redbud Road. The proposed lots would function independently of the bulk of the proposed subdivision with no street or trail connection. A trail has been proposed from Toms Creek Road to the end of Lot 1. However, no improvements are proposed to the existing road section.

➤ Exception Requested

The applicant has requested the following exceptions as outlined in the Memo for Variance and Exceptions for Berewick, dated September 1, 2020:

4. Exception to Section 5-313(3) & (4) to provide improvements along the parcel frontage on Redbud Road.

Special Note: Though one single exception has been requested, an exception to 5-313(3) and 5-313(4) should be considered independently. Both sections address warranted improvements; however, their applicability is independent of one another as you would seek to implement only one of these sections and not concurrently. For example, an exception could be granted to Section 5-313(3) and the requirements of 5-313(4) could be applied.

4a. Exception from Section 5-313(3), widening to a design width of 30-ft (FC to FC) and including CG-6 curb and gutter.

Specific justification for exception from 5-313(3) does not appear to be provided. However, the section does provide for an exception as approved by Town Council as part of a planned residential zoning. Given the current road section and projected volume, granting this exception would be logical in favor of the requirements of Section 5-314(4).

4b. Exception from Section 5-313(4), widening to the minimum width of 24-ft.

Section 5-313(4), of the subdivision ordinance, would require the road to be improved to a minimum width of 24-ft as allowed in the Rural Residential 1 and 2 districts. Redbud Road currently meets these requirements from its connection at Toms Creek through the point where the development's parcel frontage begins. Justification for this exception suggests that the addition of a private alley connection on a section of the road that currently meets this standard should preclude improvements to achieve the Town standard minimum width along the parcel frontage. However, this does not appear to meet the intentions of Section 5-313(4), which seeks to provide a minimum road section in support of the development and surrounding community. An improved road section would seem to better support the proposed new lot configuration and establishes the logical extension of the existing, adjacent road network per Town Standards.

➤ Lot 1 > 5 Private Alley

Revisions to the master plan include the addition of a Private Alley (Alley 'D') that is intended to serve as the primary access to lots 1 through 5, fronting on Redbud Road. Previously the lots were expected to have a direct driveway connection to Redbud Road. The addition of the private alley suggests that the applicant is seeking to avoid likely sight distance issues, regarding direct driveway connections, and potential road improvement. A private alley is allowed by the subdivision ordinance and could provide viable access to the proposed lots. However, the following should be considered:

- The private alley connection to Redbud Road proposes to cross a Town owned parcel (# 034416). This would likely require additional considerations to assure that it could be implemented if desired.
- The private alley does not propose a through connection; therefore, a cul-de-sac or turnaround would be needed. The applicant has requested a variance to the required T-

turnaround standards provided in Section 5-310. Justification for the variance suggests that large vehicles would be prohibited and residents could utilize their driveway connections. However, a variance to these requirements does not meet the intentions of Section 5-325(7), which precludes dead end alleys.

- If direct driveway access to Redbud Road were to be restricted, additional considerations may be warranted to assure this condition was established. Generally, once a lot of record is established access to public right-of-way cannot be restricted, regardless of sight distance. Appropriate language, established through proffer of plat/deed restriction, may be needed.
- Considerations for Waste Management and Fire / Rescue access may be warranted. The proposed width, lack of turnaround and restriction of large vehicle access to the private alley would suggest that access would be from Redbud Road.

Though denoted as a private alley, in many ways the proposed access would function as a shared driveway. Alley design standards would seem to establish more than just resident access. Given the proposed lot layout, the use of an alley would not be recommended, particularly given the requested variance. Resources that would otherwise be expended on the alley construction may be better spent on improvements to Redbud Road, which should include revisions that would support direct driveway connections from each lot.

Site Development Considerations

As expected the proposed rezoning and master plan layout does not include detailed engineering considerations. In general, the master plan does appear to be intended to meet many of the required design intentions established by the Subdivision Ordinance. The following notable sections should also be considered as they could affect the implementation of the binding master plan.

- Street grades along and within all proposed intersections must be designed to meet the requirements of Section 5-313(1) and (2).
- Per Section 5-316, curb cut ramps are needed at each intersection within and adjacent to the development regardless of whether sidewalk is installed.
- The proposed street section provides on-street parking would be restricted to one side of the road and would be restricted at driveway entrances and intersections. Per Section 5-314, signage will be required to identify and restrict parking appropriately.
- Driveways must be located and designed per Section 5-318 and connections onto Toms Creek Road would not be applicable unless approved by Town Council variance.
- Multi-Use trails must be designed to meet the construction and design standards of Section 5-503.

Summary of Layout and Design Recommendations:

- Provide a cross connection to Redbud Road.
- Revise the proposed street configuration to provide a primary route to support future expansion and functionality.
- Provide a sidewalk or trail extension along the remaining frontage of the development parcel on Toms Creek Road.
- Consider additional improvements along Toms Creek Road per Section 5-313(3)
- Consider additional improvements along Redbud Road per Section 5-313(3) or provide improvements per Section 5-313(4).
- Consider numerous site development standards that could affect the implementation of the master plan.

TO: Kinsey O'Shea, Town Planner
VIA: Randy Formica, Director, Engineering and GIS
FROM: Margaret Dean, Town Engineer
DATE: September 8, 2020
SUBJECT: Berewick Rezoning (RZN20-0005)

Capacity

The applicant has requested a variance to the Sanitary Sewer Specifications section 1.22 Capacity Analysis. This section states that projected flows for new developments shall be estimated based upon average per capita wastewater flows as set forth in the VSCAT regulations and that the peaking factor shall be no less than 2.5. Using the Orenco Effluent Sewer Design Manual, the applicant has requested a STEP and STEG daily flow of 50 gallons per day per person. Since the Town generally assumes a single family house is, over average, occupied by 2.7 people, this equates to 135 gallons per day per house. The Sanitary Sewer Specifications use 170 gallons per day per house connected to conventional gravity sewer. Since STEP and STEG tanks are effluent only and retain solids within the tank, Engineering has deemed this to be a reasonable and acceptable variance to the specifications. Using the same Orenco Design Manual, the applicant has requested that the peaking factor for this development be lowered to 2.0. STEP and STEG tanks regulate peak flows, which often occur during the mornings and evenings. This variance request is acceptable to Engineering staff.

In the sewer exception memo, the applicant does not include a specific variance request to the standard infiltration factor applied to new public sewer pipe. Engineering agrees that the infiltration factor of 1.5 that is applied to 8-inch sewer lines, should be lowered in this case where the new sewer pipe is likely to be 2 or 3 inch in diameter. The infiltration factor is for long-term planning purposes and accounts for degradation in the pipe after decades of use. An infiltration factor of 0.3 gallons per day per linear foot of pipe, based on the standard rate for 8-inch pipe, was proposed by Engineering and accepted by the applicant.

The downstream capacity analysis was performed with the new daily flows and infiltration factor. The development still triggers the need to upgrade the three downstream gravity pipes near North Main Street. Section 1.21, (d) of the Sanitary Sewer Specifications states that the developer is required to pay the portion of the cost of the upgrades attributable to the project if there is a currently funded Town project to address the issues. Since the Town does have currently funded CIP projects that are intended to address sewer capacity issues in the sections where line upgrades are necessary, the developer will be required to provide a pro rata share of the costs of the upgrades. Additional analysis utilizing the revised sewer flow data indicates that the Brookfield pump station does have the capacity to accept these proposed flows from this proposed project, therefore, no upgrades are required for the pump station or force main.

Location

With the understanding that STEP/STEG tank locations are determined with the final design documents, these locations and associated easements are a consideration for the applicant at the rezoning stage. Each tank needs to be located in a public utility easement and have access for Public Works so that they can do their routine maintenance and pumping. Vehicular access must be provided to within 50 feet horizontal and 20 feet vertical to each tank. In addition, no trees may be installed within 25 feet of a tank. It is recommended that additional information such as a topographic survey be submitted and preliminary tank locations provided so that the feasibility to meet these requirements can be evaluated.

The proposed pump station is located in the low point on the site, which is located near Toms Creek. The wet well needs to be located in an area where the bottom of the wet well does not extend below the water table. This will greatly reduce the possibility of infiltration of groundwater into the wet well. The applicant should provide verification that this condition can be met with the pump station location as shown.

Landscaping

A requirement of the preliminary/final subdivision plat will be to dedicate 15 foot public utility easements centered on all proposed sewer lines and subdivided lots. Based on the landscaping plan, it appears as though there are many trees that are proposed to be located within public utility easements. Typically, per the language in the utility deeds of easement, landscaping is not allowed within the easement area without written consent of the Town. The root systems of trees can be damaging to sanitary sewer mains. Particularly along Toms Creek Road, between new road A and Redbud Road, the proposed trees appear to closely follow the proposed force main. In addition, the pump station itself needs a large easement, which may conflict with some of the proposed screening trees.

Summary

- The applicant has proposed a maximum daily sewer flow of 50 gallons per day per person, with an average of 2.7 people per house with a 2.0 peaking factor and 0.3 gallons per day per linear foot of new pipe . This variance has been accepted by Engineering.
- The development still triggers the need to upgrade the three downstream gravity pipes near North Main Street which will be addressed by the developer providing their pro rata share of the costs associated with the upgrades.
- The Brookfield pump station does have the capacity to accept these proposed flows from this project therefore, no upgrades are required for the existing pump station and force main.
- The proposed pump station needs to be located so that the wet well can be built where it does not extend into the water table.
- The locations of the STEP/STEG tanks should be addressed in the application to ensure that all lots can be sewerred with an accessible tank located in a public utility easement.
- Proposed trees appear to be located in close proximity to proposed sewer lines and typically, landscaping is not allowed in utility easements. Since the rezoning plan is binding, the location of the landscaping should be shown to be outside any required public utility easements.

September 11, 2020
Eden and Associates, P.C.
Attn: Meredith Jones
1800 Kraft Dr. Suite 111
Blacksburg, VA 24060

RE: **RZN20-0005 Berewick PRD - Stormwater Concept Plan**

Dear Mrs. Jones:

The Engineering Department has completed the review of Berewick Rezoning to Planned Residential district stormwater concept plan. The Concept Plan is **not approved** at this time. This current site, owned by Lucas TCR, LLC consists of one parcel totaling 40.34 acres in size. Currently the area is zoned as Rural Residential and this rezone application is proposing a PRD with density of 2.08 units per acre. The proposed development would result in an 84-lot subdivision with three proposed public streets, open space and a STEP/STEG sewer pump station. This development proposes the use of 5 stormwater detention basins and a maximum of 9 water quality facilities. They have drafted the narrative to have the flexibility to eliminate a few of the water quality filtering facilities, if possible, during the final design and still meet water quality requirements.

Existing Flooding:

This corridor exhibits frequent flooding where the creek crosses Toms Creek on this site and infrequent, but substantial, flooding farther downstream. Flooding is due to the large amounts of drainage upstream of the Toms Creek basin and the elevation of Toms Creek Road in this location where the creek crosses. The flooding along Toms Creek Road is proposed to see a small reduction of flooding across Toms Creek road, but this is due to the undersized pipe under the proposed road, which may need to be revised to comply with the Floodplain Overlay District.

Other areas downstream that see intense flooding issues do so because of the large drainage area and prior unmanaged land development. Stream bank erosion and flooding are an ongoing issue in this corridor, and this will continue. This proposed development is 47 acres of an approximately 500 acre drainage area, about 8% of the land area contributing to this drainage area and is unlikely to make any sizeable impacts to these systemic flooding issues.

Items to be Resolved for Stormwater Concept Plan Approval:

- The Stormwater Management Concept plan includes Floodplain Calculations that show a rise in the floodplain. Page 5 describes a *slight* increase to the floodplain, but the calculations illustrate a maximum of **11.10 ft** rise in the floodplain upstream of the proposed road crossing. This rise violates the Floodplain Overlay District requirements, which prohibit any increase in the 100-year flood elevation. A larger crossing size will be required to pass the 100-year storm without a rise in the floodwaters.
- Private stormwater management facilities may not be dedicated in Town of Blacksburg publicly dedicated lands. Clarification on the areas to dedicated must be provided to confirm that they do not coincide with the geographic location of the private stormwater management facilities.
- This plan states that impacts to jurisdictional waters and wetlands are proposed as part of this project. Please identify the location of these impacts to both the wetlands and stream on the concept plan. At this time only a detailed description s of the impacted areas are needed to be

submitted, although written plan approvals from DEQ and the Army Corps of Engineers will be required prior plan approval.

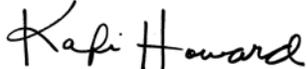
- Access to stormwater management to all 14 stormwater management facilities will be required. The path and method of access must be determined at this point for evaluation. The use of publicly dedicated multi-use paths is discouraged for maintenance of stormwater facilities due to the potential conflict between maintenance vehicle use and pedestrian and bicycle uses.

The following information will be needed to submit a complete and approvable stormwater concept plan:

1. Revisions to the proposed plan addressing all of the conceptual issues listed above.
2. The HEC-RAS cross-sections must be submitted as part of the flood documentation so that a better understanding of the impacts of each cross is evaluated.
3. Hydrologic data illustrating the watershed model schematic is illegible. This illustrates the modeled drainage areas used as the basis in the stormwater model. This needs to be evaluated so that assumptions are clearly understood.
4. Please provide a graphic illustrating the areas to be publicly dedicated and the location of the private stormwater facilities.
5. No grading or other ground disturbing activities shall be permitted in the Creek Valley Overlay District, unless authorized, in writing, by the Zoning Administrator. Both the proposed public street, grading for trail and stormwater facilities and the sewer pump station driveway are proposed within the Creek Valley Overlay. Written authorization from the Zoning Administrator will be required.

Please contact Kafi Howard with the Engineering Department at (540) 443-1354 or via email khoward@blacksburg.gov, if you have questions or concern regarding this review.

Sincerely,

A handwritten signature in black ink that reads "Kafi Howard". The signature is written in a cursive, flowing style.

Kafi Howard, Town Engineer – Stormwater, (540) 443-1354

From: [bob](#)
To: [Kinsey O'Shea](#)
Subject: RZN 20-0005/ORD 1941-berwick rezoning
Date: Wednesday, August 19, 2020 3:55:31 AM

External Message Warning

Kinnsey O'Shea, Town Planner

Some years ago the Town, to its credit, appreciated the importance and character of the Toms Creek Basin (TCB) and that the prevailing R-11 zoning with its one acre lot sizes would promote urban sprawl and destroy what was valued in the region. I participated in all the workshops and meetings in the effort to craft a new ordinance. The new RR-1 was a compromise among those who wanted to preserve their ability to develop their land and realize a return and those who wanted to preserve the area as it was.

For those who wanted to develop, the new zoning allowed the same number of housing units as the old R-11 and for those who were most interested in keeping green space the zoning assured that any developed parcel would have at least 50 percent open space. I thought the compromise and resulting ordinance was good then and I still believe it is a good ordinance.

I do not see any reason to change the zoning for this development. For a cautionary tale look no further than the Market Place, Spradlin Farms and surrounding area in Christiansburg. That started as a rural green blank slate, much of it the old VT horticulture farms, and through poor decisions and development has been transformed into a sea of asphalt. The TCB is still largely a rural green blank slate. If the applicant wants additional units beyond the 40 allowed (and by the way I am not opposed to increased density on the developed portion) then the developer should purchase additional development rights from another parcel in the TCB. The developed parcel must have a minimum of 50% open space. Reject this rezoning. Keep the vision for the TCB embodied in the RR-1.

Sincerely,

Bob Freyman
2501 Toms Creek Road

From: [Greg_Tew](#)
To: [Kinsey O'Shea](#)
Subject: Re: Berewick letter
Date: Wednesday, August 26, 2020 4:22:37 PM
Attachments: [Berewick.pdf](#)

External Message Warning

Hi Kinsey,
If you can, please discard the previous letter sent earlier today. I found an edit that was needed for clarity. Please use the attachment to this message.
Thanks,
Greg

Greg Tew
540-443-6046

On Wed, Aug 26, 2020 at 2:27 PM Greg_Tew <gregoryhtew@gmail.com> wrote:

Hi Kinsey,
Please add the attached letter to the Berewick proposal for the Planning Commission and Town Council.

Thanks!
Greg

Greg Tew
540-443-6046

August 26, 2020

To the Planning Staff, Town Council and Planning Commissioners

RE: RZN 20-0005/ORD 1941

I am writing to ask that you support development of the land near 1900 Toms Creek Road, but to **deny approval of the development as proposed.**

Blacksburg is growing and will have constant pressure to develop land at the edges. As stated in the Berewick proposal, the property under review is close to jobs, shopping and recreation and can be developed as an asset to the town. So yes, that land could be an asset, but if developed as planned it will be an liability for decades. As a nation, for far too long, we have simply accepted auto-dependent single-use, similarly-priced, single-family neighborhood development as a perfectly good solution to the need for more housing. But that sort of development is the last thing we need.

Blacksburg needs housing that is affordable to the diverse mix of people who want to live here. The Berewick plan and "typical" houses shown in the proposal simply do not match our diverse needs as demographics shift toward smaller households and single occupant households. As an example, I had a conversation with a friend recently who happens to be a young attorney. She is single and would like to buy a home in Blacksburg that meets her fairly minimal housing needs. For her an affordable home is no more than \$250,000. She doesn't need 4-bedrooms, 3-1/2 baths, or a garage. She, and many others in Blacksburg, could live very happily in a thoughtfully designed home no bigger than 800-1,000 square feet without a garage on a 2,500 sf building lot. Sadly, zoning rules (big lots), contractor preferences, bank lending practices and NIMBYism all work together to block the sort of housing we desperately need. As long as town and city governments rezone land to allow more "cookie-cutter" single-use, single-family development we will get more of what we do not need.

Yes, in Blacksburg we made a small step forward with the accessory dwelling ordinance (ADUs), but most of our newer neighborhoods prohibit them with HOA rules. ADUs are great, and for or years we considered building in Fiddler's Green, but each time I thought of it, I would reread the development standards and drop the idea. The square footage minimums, prohibition on accessory dwellings, and garage requirements, turned me away. I simply couldn't participate in the legacy of racial and religious segregation those rules evolved from. Exclusion is exclusion. Previously zoning and HOA rules explicitly denied ownership based on racism, today we exclude based on income and wealth. It's a tiny step removed from the egregious past when you consider the fact that in so many cases the first rung in the ladder of generational opportunity is home ownership.

Fortunately for my family, we stumbled on the opportunity to buy a lot on Piedmont Street that didn't have an HOA. So, I worked with the town planning and building department to include a very nice accessory dwelling in my new home. We don't know for sure because they are not required to submit their HOA documents, but I fully expect Berewick plans to exclude based on house size minimums, and the proposal makes no mention of ADUs. We really shouldn't allow any rules that add barriers beyond the huge single-family lot size barrier we already have in our zoning ordinance that limit equal opportunity in housing options.

The advantages of a mix of housing options of every street are many. My tenant is a young professional woman who is very happy to have a beautiful home that is affordable and not in a large apartment complex. Along with a growing movement to up-zone single family zones to allow 3 and 4 units, across the country ADUs are seen as a vital part of the effort to provide affordable housing. They are a win/win housing option. My tenant is happy, and her rent makes my home less of a financial burden for my family. Even better, the promise of rent from the ADU allowed for added construction quality throughout my house including the best available HVAC equipment, insulation and air tightness that far exceeds the code requirements and a PV solar system that is providing 80+% of

our combined energy needs (the main house and the ADU). This also includes the energy needed for our primary mode of transportation – electric bikes.

Now I realize the town is nervous about density because of the number of cars on the street when houses are rented to students, but we need to recognize that the best, most desirable places in the world are the places where cars are more trouble than they are worth. Think of Italian hill towns. People dream of visiting places no bigger, and no more scenic, than the Berewick property that are home for thousands people along with workplaces, restaurants and hotels for tourists. But what those beautiful places don't have are private driveways and garages for every home. Yes, we need some cars, but we don't need to design for cars first and people as an afterthought. Take Spello, Italy for example (images below). It's one of the most beautiful places I've visited. Unlike the bulldozing mentality and practices that dominate new development today, Spello was built with shovels and pickaxes, and the majority of Spello would fit on the Berewick property. We don't need to build with stone, we don't even need to build as densely as Spello, but we do need to think to the future, and the future with more suburban sprawl is grim. We need to promote and provide zoning changes for mixed-use villages, not single-use suburban neighborhoods.



So again, no, we don't need to build as densely as Spello, but Berewick as proposed is nowhere near dense enough. Granted much of the property is wetland, but at about 2 units per acre we would be grossly underutilizing our incorporated land that is bikeable and potentially accessible by transit. Frankly, I don't believe we should ever consider another rezoning at less than 10 units per acre, we already have far more large lot single family homes than the planet can support. This might seem radical, but we are facing radical problems in the world – namely climate change that is in large part due to the sort of sprawling development Berewick is planned to be.

To restate my opening, we need to develop the land under consideration, but not as proposed. We need to build with vision, and create the partnerships needed with developers to ease the path toward high quality sustainable development strategies, but under no circumstances do we need more sprawling low-density neighborhoods.

Sincerely,

Greg Tew, Architect
415 Piedmont Street, Blacksburg

From: [CHRIS WITT](#)
To: [Kinsey O'Shea](#)
Subject: Berewick Proposed rezoning
Date: Tuesday, September 1, 2020 3:35:15 PM

External Message Warning

Ms. OShea I am submitting a comment to the proposed rezoning request:

The following applicant statement is not enforceable as currently proposed.

How does the applicant propose enforcing the statement:

Proffer statement:

"Building commitment to sustainability for energy efficiency, resource consumption, and healthy living in homes. The homes at Berewick will use high efficiency heating and cooling equipment and adhere to stringent standards for sealing and insulating homes. The homes will include insulated exterior doors and Energy Star qualified windows, with extensive air seal caulking around the windows, doors, and sill plates. Comprehensive insulation is used in

attics (R-38), walls (R-15), and basements (R-11). Homes in Berewick will be served by natural gas. Each home will have natural gas furnaces with a 95% efficiency rating, utilize electronic zone damper technology, which automatically directs conditioned air to the areas of the home where it is most needed, and be served with tankless water heaters. Custom calculations are completed for each home to ensure the proper sizing of the HVAC system.

All ductwork is engineered to fit within the thermal building envelope, and the joints are sealed to ensure efficiency. Air leakage tests performed on each home verify that peak efficiency is achieved. These products ensure comfort, low energy bills, and minimal environment impact. Homes will have insulated and conditioned basements, whether those spaces are finished or unfinished. Installation of ventilation systems that incorporate fresh air into the home all year long will be standard practice. Energy-saving LED lightbulbs will be

installed in all recessed lights throughout the home. All kitchens include Energy Star appliances, and all bathrooms are equipped with low-flow toilets that conserve water."

From: [James Lawrence](#)
To: [Kinsey O'Shea](#); jucas@lucasappraisal.com; meredith@edenandassociates.com
Subject: Berewick Project
Date: Wednesday, September 2, 2020 12:18:09 PM

External Message Warning

Hello to all concerned with the Berewick project. My question concerns the Toms Creek sewer line that has been discussed many times over the decades since the Toms Creek basin was annexed by the Town of Blacksburg. If this sewer project comes to fruition at some time in the future, will the pipeline be allowed to pass through the Berewick property in order to serve the residences on the section of Redbud Road that is up-creek from Berewick? I have resided at 805 Redbud Rd. since 1983 and have looked forward to a connecting to a future public sewer. Of course, a Toms Creek sewer would also serve the residences in Berewick.

As an aside, when the sign is installed at the entrance to the development, I recommend against using individual letters. The original Brookfield Village sign used individual polished brass letters and the "B", "R", and two "E"s disappeared repeatedly. They probably adorned a fraternity house rec room or a dorm room. Finally, a solid sign was installed and the problem was solved. Just FYI.

Thank You,
Jim Lawrence

Sent from my iPad