

Docket Item #15  
DEVELOPMENT SITE PLAN #2005-0012  
POLK TOWNHOUSES

Planning Commission Meeting  
June 5, 2007

**REQUEST:** Consideration of a request for a development site plan, with modifications, to construct multi family buildings with townhouses style condominium units on a portion of the site.

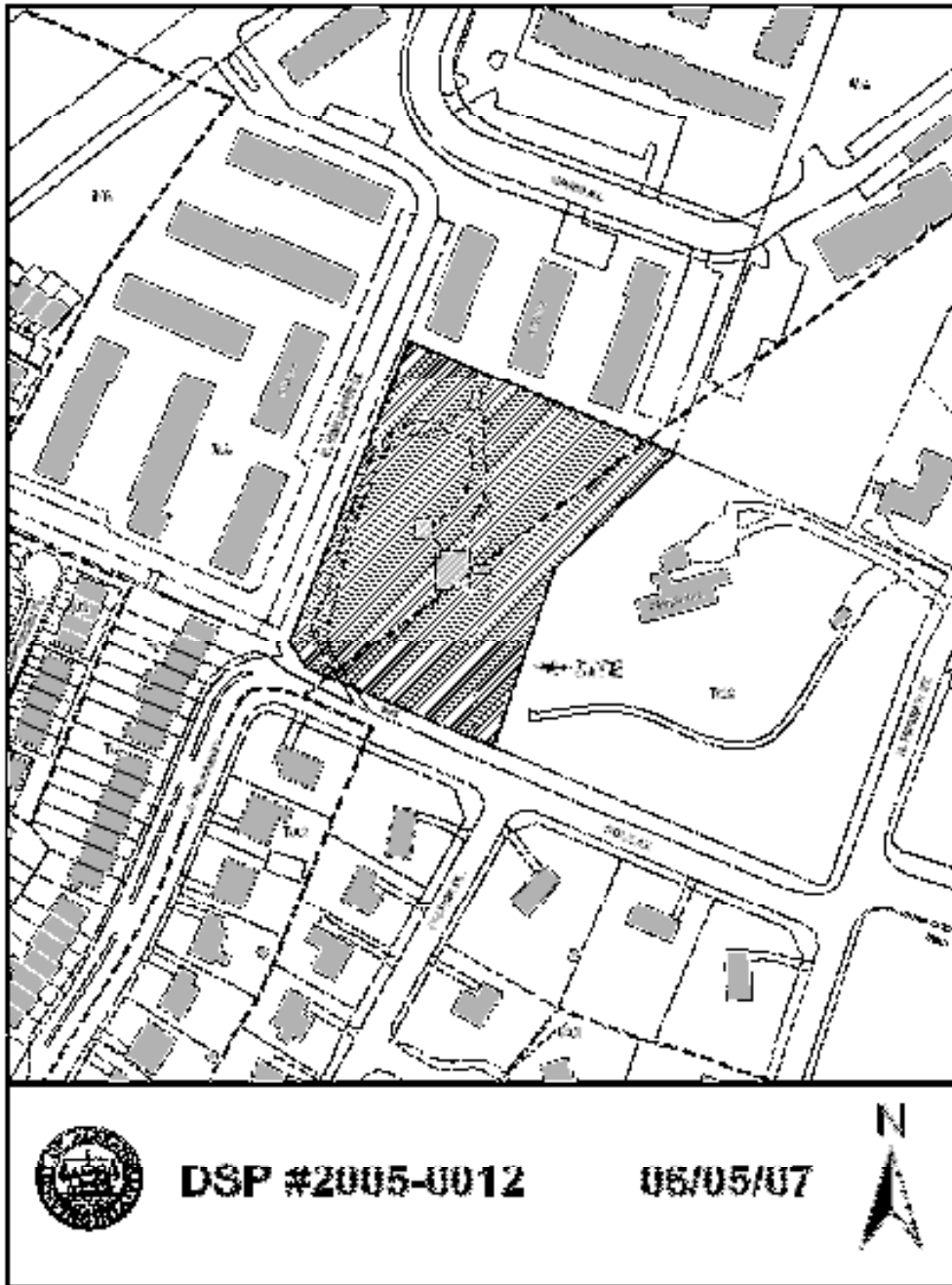
**APPLICANT:** Polk Avenue Brothers, LLC and Bonaventure Reality Group, LLC by Jonathan Rak, McGuire Woods, attorney.

**STAFF:** Patricia Haefeli, Principal Planner  
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**LOCATION:** 5325 Polk Avenue

**ZONE:** Residential Medium/RA and Single Family Residential/R-20

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**DSP #2005-0012**

**05/05/07**



## **I. EXECUTIVE SUMMARY:**

The applicant is requesting approval of a site plan for the construction of fifteen “townhouse-style” condominiums on a 2.38 acre site at the corner of Polk Avenue and North Pelham Street. The site currently contains a vacant single-family house, and is particularly challenging to develop because of its steep topography (15% to 50% slopes) and numerous matures trees. Nevertheless, because the City is near-completely developed and because land values and home prices have increased, even those properties once considered difficult to develop are now viewed for potential development.

In this case, the land is split between two zones and straddles two neighborhoods. The north and western portion of the site is zoned RA, and is adjacent to multifamily condominium complexes on North Van Dorn Street. The southeastern portion of the site is zoned R-20, and adjoins the single family homes in the western part of the Seminary Hill area. The site is immediately adjacent to the Syme project on North Pelgram Street for which site plan approval for five single-family houses was granted and which is now under construction.



Figure 1: Site Plan



Figure 2: View from Polk Avenue



Figure 3: View from Internal Street

### A. Evolution of the Proposal

The applicant initially approached the City about the possibility of constructing up to 18 townhouses or multi-family building, with a special use permit for increased density, raising concerns with staff and the community about the compatibility of the project with surrounding residential areas, and the significant grading and loss of trees on the site. In response, the applicant agreed to revise the proposal to reduce the density, group the units on the northwestern portion of the site and retain a wooded buffer adjacent to Polk Avenue and to proceed with a simple site plan development. Although this second development concept was a significant improvement, staff recommended that it be modified, moving units farther away from Polk Avenue to increase the wooded buffer and retain additional trees.

The proposal has improved significantly over time; the development still requires considerable grading and the construction of retaining walls, and the community has raised additional issues including potential storm water runoff and sewage capacity issues.



Figure 4: Polk Avenue  
Initial Proposal



Figure 5: Polk Avenue  
Current Proposal



## B. Access to the Site:

The principal cause of disruption to the site - extensive grading and large retaining walls - is the introduction of a new street wide enough to carry cars for new residents and fire trucks and graded gradually to allow reasonable driving slopes. Any development on the site that requires the introduction of a new street for access will require significant grading and retaining walls. Although there is an existing driveway for the existing single-family house, it is small and not designed to modern vehicle and emergency specifications.

Because of the topography and geometry of the site, the ideal access point that would require the least disruption would be from the top of slope rather than from Polk Avenue. The applicant and staff explored the possibility of gaining access to and from Van Dorn Street through the parking lot of the Parkside Condominiums with its condominium association, but it was not willing to grant the necessary legal access.

## C. Grading - Retaining Walls:

The proposed grading for this site will be extensive. The applicant is proposing to “cut” into the hillside to create a shelf on which the homes will be constructed as well as the access drive up the hill. In some places, particularly on the top of the site, the proposal requires the removal of sections of land with a depth as large as 20 to 24 ft. and results in a series of extensive and tall retaining walls. While some of the taller walls will not be visible from the internal street or Polk Avenue, because they will be located behind the proposed townhomes, several of the walls, especially at the entrance, will be visible and will range in height from 2.5 to 10 ft.



Figure 6: Potential Access



Figure 7: Retaining Walls at Pickets Ridge

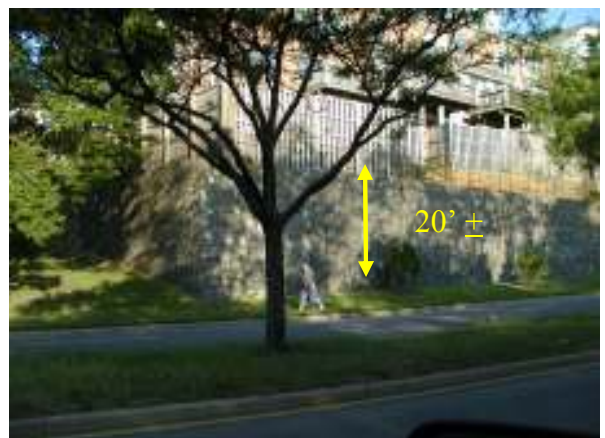


Figure 8: Retaining Walls at Stone Gate

Staff has included recommendations requiring the walls and landscaping to be revised in the final plans to ensure that the visible portions of the site are as attractive as possible. For example, staff's recommendations require the wall material to be a natural stone to ensure that the materials are of high quality. In addition, staff is recommending better pedestrian access and additional landscaping at the entrance. While the height and location of the walls are not ideal, the use of high quality materials and the proposed reconfiguration of the walls at the entrance will help the walls to be better integrated into the site.

**D. Tree Conservation Area:**

The Applicant has announced their intention to pursue a conservation easement on the portions of the property that have been reserved for development under the R-20 zone, in order to assure that the maximum number of trees and the largest natural area possible are preserved. If granted, the conservation easement would ensure that the remaining natural features and woodlands are protected against activities, such as further development, that would be detrimental to preserving the natural and woodland character of the site. The trees to be protected on this site would be contiguous to the trees being retained as part of the adjoining Syme redevelopment. Under the terms of the potential easement, while the open space and habitat will be visually accessible from Polk Avenue, the area would not be open to the public. The Homeowners Association would retain ownership of the protected areas and would be responsible for ongoing maintenance, even though the land would be protected in perpetuity in its existing natural, open condition.

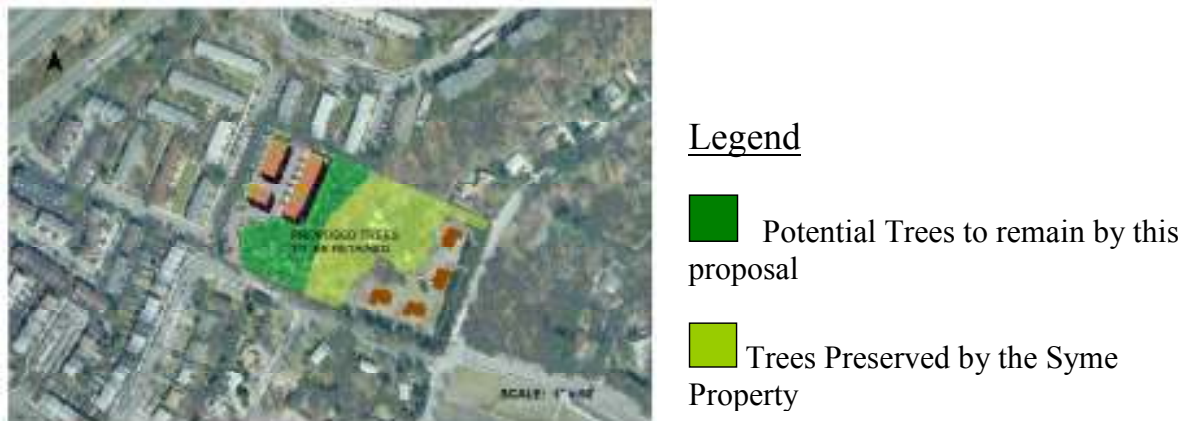


Figure 9: Potential Trees to Retain

### **E. Community**

The applicant and staff have had met with the Brookville Seminary Valley and Seminary Hills groups to discuss the proposal. Primary concerns include:

- Stormwater runoff;
- Sewer capacity;
- Retaining walls; and
- Visitor parking.

Staff has included a series of conditions and development requirements in an effort to address the issues raised by the community, as discussed in more detail below.

### **F. Conclusion:**

Staff recommends approval of the site plan, subject to staff's extensive conditions.

## II. BACKGROUND

### A. Site Description

The site is located at the intersection of Pelham Street and Polk Avenue and contains steep slopes and mature vegetation. One single-family home, built in the 1950s, is currently located on the property. The parcel has two different zone districts; one part is within the RA/Residential multi-family zone and the other portion is zoned for R-20/Single family residential development. The R-20 zone is located on the south and eastern portion of the site and consists of .82 acres. The western, RA zone district consists of 1.58 acres. The development parcel contains a total 2.38 acres. Properties directly to the south and east of the subject property lie within the R-20 zone and are developed with single family homes. The property directly to the east, at 1226 N. Pegram Street, is a 3.5 acre property zoned R-20 (the Syme Property) that recently received City approval for a five lot site plan and subdivision.

The property's steep slopes range from 15% to almost 50%. The site's high point of 236 feet, occurs in northeastern portion of the property and is approximately 70 feet above Polk Avenue. The steepest slopes occur in the southeastern portion of the property with grades approaching 50%. There is an existing driveway on the site for the single family house.

Properties to the west and north of the property are zoned RA and consist of the Parkside at Alexandria Condominiums, KMS Townhomes, Alexandria Overlook Condominiums, and Brookside Townhomes. These developments were built during the late 1960's and mid 1980's with building heights ranging from 2 ½ to 3 story units and overall densities of 15 units to the acre.



Figure 10: The Property's Two Zone Districts



Figure 11: Existing Driveway



Figure 12: Existing Residence



## B. Project Description

The proposal consists of fifteen townhouse-style condominiums, with an internal 22 ft. wide private street. The new street will be located close to where the existing driveway is. It will run north along the western portion of the property where grades are not as severe. The entrance drive will be flanked with retaining walls on either side that range in height from 2.5 feet up to 10.5 feet. The slope of the internal street ranges from 2.7% to 8.5 %.

The proposal consists of three buildings and is situated in the northwestern portion of the property and in close proximity to other existing multi-family residences located along North Van Dorn Street and Maris Avenue. Building #1 (5 units) and Building #2 (three) are rear-loaded units, with garage parking accessed from rear alleys. Building #3 contains seven front loaded units with driveway parking, in addition to garage parking, in front of six of the units unit.

The townhomes are 20 to 26 foot wide, four-level units, which range in size from 3,221 sq. ft to 3,316 sq.ft., and range in height from 39 to 45 feet. Each unit will accommodate two cars within its footprint and six of the units can accommodate an additional 2 cars in their front driveways. The proposal provides eight shared on-street visitor parking spaces.



Figure 13: Parkside Condominium to the north



Figure 14: Parkside Condominiums to the west



Figure 15: The property with adjacent uses

### III. ZONING

The property is bisected by two zone districts. The R-20, single family zoned portion of the lot at the corner of Polk and Pegram is intended to be preserved as open space. Therefore, the zoning analysis pertains only to the RA zone district. The applicant is requesting several modifications to the yard requirements for multifamily development in the RA zone, as listed below.

<b>POLK TOWNHOUSES</b>		
Property Address:	5325 Polk Avenue	
Total Site Area:	2.38 AC or 103,830.50 sq ft	
RA Zone	1.56 AC OR 67,905 sq ft	
Current Use:	Single Family	
Proposed Use:	15 Townhome Condominiums	
	<b>Permitted/Required</b>	<b>Proposed</b>
DENSITY:	27 units per acre	10 units per acre
FAR:	.75	.72
YARDS:		
Front:	20' (Bldg #1 Bldg #3)	185' 182'
Side:	½ height or 22.43' (Bldg #2) ½ height or 21.5' (Bldg #1)	22'/modification 32.5
Rear:	full height or 42.59' (Bldg #1) full height or 39.04 (Bldg #3)	25' 25'
HEIGHT:	45'	39.04' / 44.95'
OPEN SPACE:	800 sf per unit, or 12,000 Sq. Ft.	27,419 Sq. Ft.
PARKING:	33 spaces	
15% Visitor	<u>5 spaces</u>	
Total	38 spaces	50

#### **IV. STAFF ANALYSIS**

This site contains considerable topography and mature trees, and was clearly a remnant area leftover as development on less challenging sites occurred all around it. Given its steep slopes, it is difficult and expensive to develop. With high land values and few other development options in Alexandria, developers are now willing to pursue such sites. However, the City should be cautious in such cases, limiting development to a design, density and location that causes the least possible damage to the natural environment.

Many would prefer that sites such as this one remain in their natural state, as open space, so as to provide green relief from the development areas around it. However, the land is privately owned and zoned for development, and the Open Space Committee has not included the site in its list of priorities for potential purchase by the City. Thus, staff has attempted to work with the applicant and the neighborhood to achieve the development most compatible with adjacent development and most respectful of the site's natural features. Staff established some basic principles for the site:

- Retain a wooded buffer next to Polk Avenue;
- Provide a "buffer" for the single-family homes on Polk Avenue;
- "Cluster" homes to minimize the site disturbance and retain trees;
- Locate the proposed units close to the existing multi-family uses; and
- Ensure long-term retention of the trees to be retained.

The proposed development is small relative to zoning, and the construction will be limited to only one corner of the site. A large portion of the site, including 100 trees, will be preserved. The applicant has agreed to an extensive series of recommendations regarding issues such as the proposed retaining walls, tree protection and landscaping/screening, building and storm water management. The proposed plan, with staff's recommendations, will be as limited and attractive as possible. For these reasons, on balance, staff recommends approval of the site plan.

##### **A. Steep Slopes:**

The extremely steep slopes on the property present development and environmental issues. First, the proposed development requires cutting into the hillside along three sides of the property. Extensive cutting would be required for any development here, simply to create a flat surface for buildings. In this case the applicant will cut off a full 24 feet of soil at the top of the hill to build a building site. However, the damage caused by cutting is exacerbated by the need for a long access road to the building site from Polk Avenue. Staff and the applicant explored the



Figure 16: Subject Site with Topography

possibility of alternative access, through the adjacent condominium parking lot to North Van Dorn Street, without success. Without an alternative plan for access, there will be damage to the site caused by the extensive grading, the loss of tree canopy and natural topography, and the elaborate system of retaining walls necessary to build a road that must, for fire trucks, have no greater than a 10% slope.

At the Planning Commission's direction, staff has investigated potential zoning legislation to protect the remaining steeply sloped parcels of land in the City that are now becoming candidates for development by requiring a SUP and development standards in such cases. Staff's approach in the Polk Avenue case includes each of the elements it discussed with the Commission that could be part of the future steep slope ordinance: limiting the development scope and size as much as reasonably possible, clustering or grouping the development on a small portion of the overall site, retaining as much of the natural topography and as many of the trees as possible, and requiring conservation easements on portions of the site not being developed. Here, even without the SUP, staff and the applicant have accomplished the same result for a steeply sloped parcel.



Figure 17: Bird's Eye View

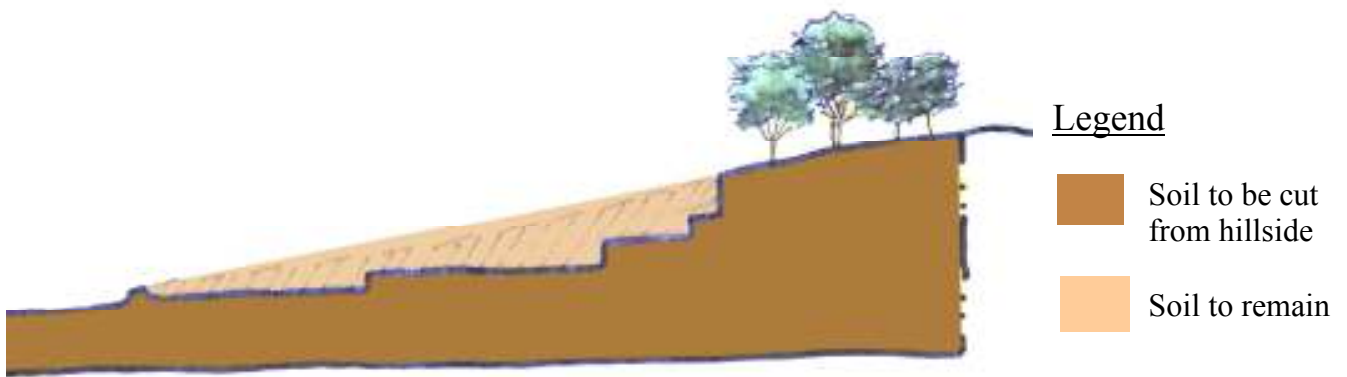


Figure 18: East West Cross Section



## B. Townhouse Style Condominiums:

The applicant is proposing 15 “townhouse-style” condominiums on the site. The Commission and Council have provided clear direction to staff that “townhouse-style” condominiums may be developed instead of fee simple townhouse dwellings, if they allow for a more creative layout, and if they do not permit additional density. In this case, although the units function as townhouses, with vertical party walls that extend into the garages, in fact the units will be collectively built on one large lot.

The condominium approach in this case clearly allows a more creative approach in the layout of the development. Without fee simple lots, the units can be “clustered” more closely together to minimize the amount of site disturbance. In addition, fee simple townhouses would each require frontage on a public street, requiring a wider street than is currently proposed and a cul-de-sac. The result would be even more extensive cutting of the topography than currently proposed.

In addition to the layout, the density of the development is much less than the zone permits. With a 67,905 s.f. site, the RA zone, which permits 27 dwelling units per acre, could theoretically have resulted in 42 fee simple townhouse dwelling units here. Had the applicant proposed a single large multifamily building, the maximum density allowed in the zone could have been achieved. However, in order to achieve a site plan most compatible with surrounding development, which here consists of both single family homes and low density condominium buildings (approximately 15 units per acre), the applicant is proposing only 15 units. The project density is 10 units per acre, far lower than permitted by zoning.

For these reasons, staff finds the proposal to be a successful use of the “townhouse-style” condominium approach.

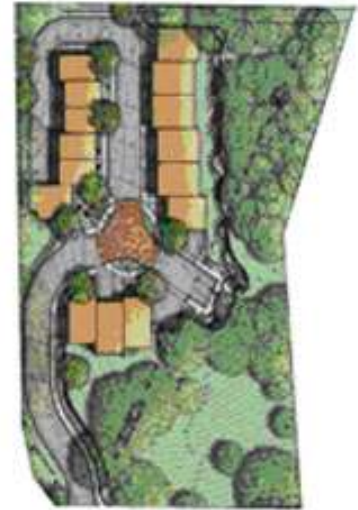


Figure 19: Cul-de-Sac Design



Figures 20 & 21: Existing Vegetation



### C. Site's Mature Vegetation:

The site is a heavily wooded property with trees of varying health and includes an overstory of Tulip Poplars and a variety of Oak species, with an understory that includes Dogwoods, Red Maples, Hickory, Oaks and Beech.

Of the approximately 260 trees on the property that are 6 inch caliper or greater, approximately 100 or 40% of them will be saved with this proposal. The City Arborist has identified no specimen trees on the site.

While the site is heavily wooded, there are a number of trees that are in decline. Trees illustrate their stress with mottled bark, signs of boring insects, dead or dying branches and crowns. As part of the review process, the applicant's arborist evaluated the 32 trees on site with 24 inch caliper or greater, and recommends the removal of 20 of them based on their declining health. Although staff acknowledges that some of the vegetation is in poor health, there is concern with removing that many trees from the site. Staff has incorporated conditions that will require additional plantings to compensate for the loss of the 160 trees.

Although the applicant has reserved its right to develop the R-20 portion of this property, which would require subsequent approvals by the Planning Commission, the applicant has announced its intention to voluntarily provide a tree protection-open space easement on the R-20 portion of the property and has been in discussion with Northern Virginia Conservation Trust. The applicant is proposing to use a program approved under the Virginia Conservation Easement Act of 1999, which will allow the developer to donate an easement on the land to a qualifying conservation organization or the government to protect it in perpetuity in exchange for a state tax credit. The contribution to such organization must be voluntary and not requested by the City. This approach is similar to the process for the Oak Grove and Russell and Lloyds project that were approved by the Commission.



Figure 22: Combined Polk and Syme Properties Showing Trees To Be Retained

If granted, the tree conservation easement will be provided on Polk Avenue where it is most visible to the public and where it preserves the sense of openness for the street and is visually connected to the trees retained on the adjoining Syme property. While passive in nature and not publicly accessible the easement will enable an approximately 35,925 sq.ft area and 100 trees to be retained as open space at no cost for the City.

The conservation easement, in conjunction with the limited development, grouped townhouses, and additional tree planting, will allow a significant portion of the site to remain in its natural, treed state as an amenity for the surrounding neighborhood.

#### D. Retaining Walls:

Because of the topography, a series of retaining walls that range from 2 feet to up to 24 feet are proposed for the development. Although most of these walls will not be visible from the surrounding neighborhoods because they are located behind the townhouses, those near the driveway entrance on Polk Avenue will be. The entrance walls range from 2.5 feet up to 10 feet. While ideally the walls would be lower there are some good examples of taller stone walls that have been integrated successfully.

To make the walls at the visible entrance less harsh and more compatible with the surrounding single family and townhouse neighborhood, staff is recommending that the applicant revise the configuration of the entrance and walls to allow for some plantings on either side to soften the walls' appearance. The incorporation of street trees and plantings on either side will create a sense of entry for those residents and visitors and provide an enhanced design/screening for the single-family homes and townhouses on Polk Avenue. Staff is also recommending that the walls adjacent to the entrance be constructed with a high quality natural stone.

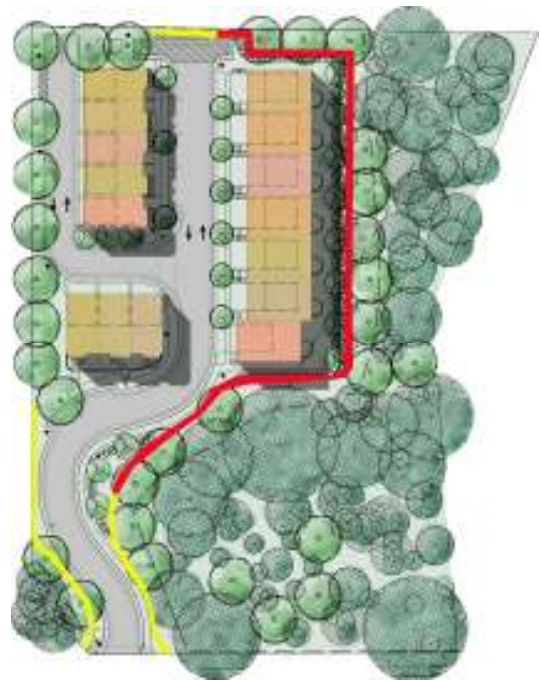


Figure 23: Retaining Walls  
Yellow Walls under 10'  
Red Walls over 10'

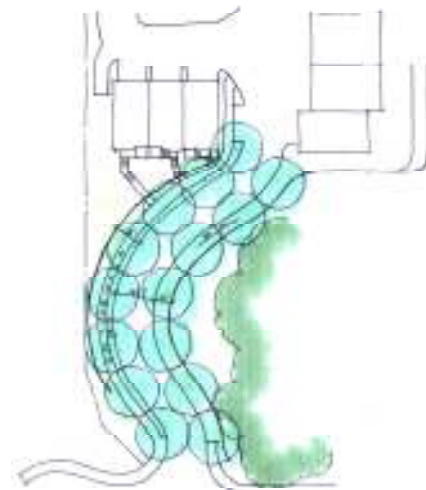


Figure 24: Enhanced Entrance



Finally, because of the size and length proposed for the retaining walls throughout, staff is recommending a series of conditions regarding their stability and construction, including:

- The design of the retaining walls will be subject to a “third party” structural engineer.
- The proposed design and construction of the retaining walls shall be discussed with the community prior to construction of the retaining walls.
- There will be a warranty for the walls that will be retained for five years from the last certificate of occupancy permit, which equates to about six years from the beginning of construction.
- The walls may be constructed using sheet piles (similar to constructing an underground parking garage) to minimize disturbance of the trees. Additionally, staff will require that the limits of disturbance be cited by a surveyor and maintained through the course of construction to ensure the preservation of the existing vegetation.

### **E. Mass, Scale and Compatibility**

The proposed development is being built at a low density for the RA zone. It’s 10 units per acre density reflects its position between R-20 single family homes to the south and east, and the moderately dense apartment buildings to the north and west. In addition to density, staff reviewed the project to ensure that the size and height of the building would not detract from surrounding areas. The development will not be visible from Pegram Street or from much of Polk Avenue because of the extensive treed area along the street frontage.

However, the buildings will be visible from the north and west. Because of the internal street and retaining walls, the top of the site has been “cut” or lowered by approximately 40 feet, which creates a shelf on the top of the site. While the creation of the shelf does result in grading and retaining walls, it also acts to reduce the perceived height of the proposed buildings as viewed from the adjoining sites. In addition, the grade level of the Parkside Condominiums to the north is approximately 11 feet taller than the shelf.

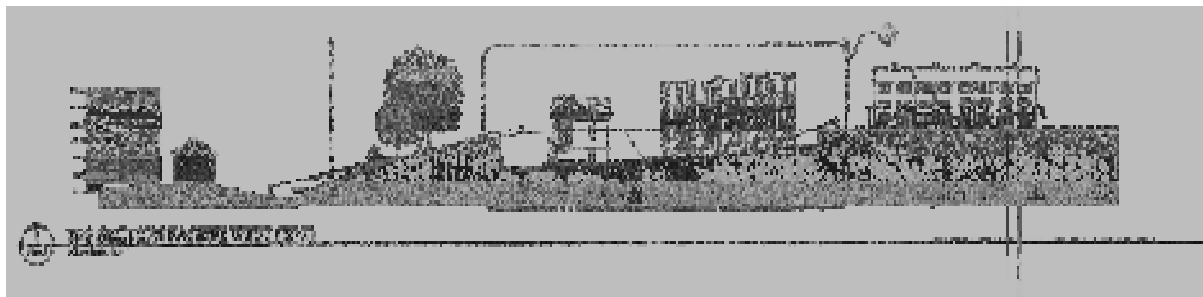


Figure 25: Section Demonstrating Compatible Building Height





Figure 26: Building Elevation

Overall, the buildings are generally well designed. Nevertheless, staff is recommending a series of conditions to ensure that they are compatible with and appropriately buffered from their neighbors. For example, staff is recommending that the upper floor of the units on the western portion of the site be built with a combination of gabled and flat roofs to reduce the perceived scale and add variety to the roofline. Staff is also recommending additional landscaping on the western and northern portion of the site. Finally, staff is recommending that the applicant plant up to 40 additional trees, if permitted by the property owner, on the adjoining property. With these conditions, the proposal should be more compatible with surrounding uses.

**F. Modifications**

<b>POLK TOWNHOUSES</b>			
RA Zone Setbacks			
Front:		20'	
Side:		½ height	
		½ height	
Rear:		full height	
		Proposed	Required
Front:	Bldg #1	185'	20'
	Bldg #2	265'	20'
	Bldg #3	182'	20'
Side:	½ height Bldg #1 (42.59')	33'	21.3'
	½ height Bldg #2 (44.95')	22'	22.5'
	½ height Bldg #3 (39.04')	75'	19.5'
Rear:	full height or 42.59' (Bldg #1)	25'	42.59'
	full height or 44.95' (Bldg #2)	167'	44.95'
	full height or 39.04' (Bldg #3)	25'	39.04'
HEIGHT:	45'	39.04' / 44.95'	
<b>* Modifications Requested</b>			

Two site plan modifications for yards are required in this case, and staff supports them both because they allow the development to occupy a limited land area, enlarging the area that can be devoted to open space and the nature resources. Neither of the modifications, each of which staff considers to be minor, negatively impacts adjoining properties.

The RA zone requires a rear yard set back equal to the height of the building. Building #1 is 42.59 feet tall but the site plan includes a setback for this building of only 25 feet. Staff supports this request for 17 foot modification, because it allows the building to be shifted closer to the adjacent multi-family development and further away from the townhomes and the single families along Polk Avenue. There remains 45 feet of land between the buildings adjacent to Building #1.

The RA zone requires a side setback of half the dimension of the height of the building. In this case, Building #2 is 44.95 foot tall, but is only setback 22 foot from the western property line. First, staff notes that if the building were moved an additional six inches, no modification would be required. However, staff is requesting that the building be moved closer to the side property line, and that the resulting side yard deficiency be approved as a site plan modification. Building #2's location requires a jog in the private street, and end unit in Building #2 is very

close to the intersection of the internal drive aisles. Staff is therefore recommending that the three unit building be shifted 9 feet to the west, aligning the eastern side of Unit 8 with the front façade of Unit 6 in Building #1. Relocating the building in this way will necessitate a nine foot modification, allowing a 13 foot side yard for Building #2, instead of the 22.5 feet required. Given that the closest adjacent residential development is 95 feet away, the additional 9 feet encroachment into the side yard appears to be warranted. Staff supports reducing the side yard setback to 13 feet for Building #2.

### **G. Visitor Parking:**

One of the issues important to the surrounding community is the desire to ensure that sufficient visitor parking is provided so that spillover parking does not occur on Polk Avenue or N. Pelham Street. The neighborhood has experienced parking problems at times in the past, because some of the older developments in the neighborhood were built without any on-site parking and rely solely on the public streets for their parking needs. Additionally there is concern that the townhome garages will be used for storage instead of parking and that parties and gatherings at the new townhouses will bring additional visitors who will need to park on neighborhood streets.

In response to these concerns, staff has worked with the applicant to provide as much parking on site as feasible. The 15 townhomes will have two car garages within each of their buildings' footprint. In addition, six of the townhomes will have two additional parking spaces in their front driveways. Finally, the applicant is providing eight additional spaces (24%) for shared visitor spaces. The total number of parking spaces on site is more than required by zoning.

In addition, staff notes that the new townhomes will be approximately 180 feet from Polk Avenue, which is farther than most people are willing to walk to park, and that the private drive is sloped with a 16 to 30 ft change in grade from Polk Avenue. These factors should minimize any spillover parking problem.



Figure 27: 8 Visitor Parking Spaces

## **H. Stormwater Requirements:**

Another concern expressed by the community is whether the proposed changes to the grade of the site and the construction of the new street will negatively impact them in terms of stormwater runoff. The zoning ordinance addresses this concern by requiring that each new development retain runoff water at least to the extent of the condition that existed prior to development, and the calculation is based on both a two-year and a ten-year storm. Engineering calculations and drawings are required as part of the site plan review process to ensure that the zoning requirement is met.

In this case, underground storage tanks are proposed within the proposed private road to detain stormwater sufficiently to meet the City's requirement. A long term schedule for inspection and maintenance of the detention and BMP facilities, that meets the satisfaction of the Director of T&ES, is also required. Thus, the stormwater runoff from the Polk Avenue development site will not be released at a rate higher than the current storm water flow, will not create a flooding situation downstream and will not create a nuisance to the adjacent property owners.

## **I. Sewage Capacity:**

The sanitary flow from the proposed development site will be discharged into the sanitary sewer located in the North Pelham to Richenbacher Street right of way, eventually discharging into Paxton Street. By most conservative estimates, the flow carrying capacity of the Paxton sanitary sewer is 1.3 cfs., or 618 residential units. It is estimated that this sanitary sewer line is currently serving approximately 162 single family residential units and 10 multifamily units. The Polk Street development is projected to use only 0.03 cfs of the capacity. The sanitary flow from the adjacent four house Syme property is 0.01 cfs or 3.9 gpm and is also discharged into the North. Pegram Street. sanitary sewer. Even with both of these new developments, there is sufficient capacity in the Paxton Street sewer line.

Staff notes that the above analysis does not include the problem that occurs when infiltration and inflow (I&I) reduces the carrying capacity of the sanitary sewer during wet weather. The exact effect of I&I on the subject sewer has not been determined though the City of Alexandria is considering a study to quantify and eliminate or reduce the effect of I&I to this sanitary sewer in future.

Staff also notes that the applicant is responsible as part of the final site plan review for completing an adequate sanitary sewer outfall analysis.

## **J. Affordable Housing:**

The developer has offered a voluntary contribution of \$2.00 per gross square foot on the project's 51,932 gross square feet for a total voluntary contribution of \$103,864.00. This dollar



amount is consistent with the conclusions of the “Developer Housing Contribution Work Group Report” dated May 2005 and accepted by the City Of Alexandria City Council on June 14, 2005. This contribution to the Housing Trust Fund should aid the City, working with its housing partners, to maintain existing affordable housing citywide.

### **K. Community:**

Staff and the applicant have met with the Brookville Seminary Valley and Seminary Hills communities on two separate occasions to discuss community concerns. In addition, the applicant met separately with the Board of Seminary Hills. The topics of discussion included:

- Conservation of trees
- The extensive use of tall, lengthy retaining walls
- Marine clay soils and their suitability for development
- Parking
- Vehicular circulation
- Stormwater management and drainage impacts to residences downhill from the proposed development
- Capacity of the existing sewer and stormwater system
- The impact of last summer’s flooding

The meetings consisted of questions from the community with respect the above issues, and responses from staff and the applicant. City engineers specifically verified the sewer and stormwater lines that would serve the proposed development, explained that the existing sewer line now serves only 180 units and has capacity for 618 units, and that the proposed stormwater management system would detain the site’s runoff and release the discharge at a slow rate into the City’s stormwater system, which is capable of handling the site’s runoff.

Further detailed discussion focused on the City’s review process as it relates to the construction of the retaining walls. Although the walls are tall, they will be required to be designed by a professional engineer and submitted to the City. The City’s engineers and an independent third party engineer will review the walls to ensure a safe and sustainable design. In an effort to address the community’s concerns, staff has included additional stringent conditions;

- The limits of disturbance will be surveyed to ensure accuracy;
- The applicant will hire an arborist to monitor the site during construction and serve as a neighborhood liaison;
- A requirement for the use of sheet piles when installing the retaining wall is included;
- The retaining walls will be subject to a third party review; and
- Garages will not be allowed to be used for storage;

## V. CONCLUSION

Staff recommends approval of the proposed development site plan for 15 townhomes, with modifications to the setback requirements. Staff's recommendation is contingent on the recommended conditions in the following section.

**STAFF:** Faroll Hamer, Director, Department of Planning and Zoning,  
Jeffrey Farner, Chief, Development and  
Patricia Haefeli, Principal Planner.

## VII. STAFF RECOMMENDED CONDITIONS

Staff recommends *approval* subject to compliance with all applicable codes and ordinances and the following conditions:

### PEDESTRIAN AND STREETScape:

1. The applicant shall provide pedestrian and streetscape improvements that shall at a minimum provide the level of improvements depicted on the preliminary site plan and shall also provide the following to the satisfaction of the Director of P&Z:
  - a. The drive aisle entryway shall be reconfigured as generally depicted in *Attachment #1* to provide the following, which does not include moving the location of the eastern retaining wall as shown on the Preliminary Site Plan dated February 12, 2007:
    - i. The drive aisle shall be realigned to provide a continual sidewalk connection on the western portion of the drive aisle.
    - ii. The sidewalk on the western portion of the drive aisle shall consist of a 4ft landscape strip adjacent to the curb a 5 ft. wide continual concrete sidewalk and a 6 ft. planting area.
    - iii. The eastern portion of the drive aisle shall consist of a 10 ft. planting area adjacent to the proposed retaining walls.
  - b. The sidewalks adjacent to Building #2 and building #3 shall be revised to provide the following:
    - i. Building # 2 shall be shifted approximately 8 ft to the west as generally depicted in *Attachment #1* to provide a 4 ft. landscape strip adjacent to the curb, continual 5 ft sidewalk, and planting area adjacent to the units.
    - ii. Building # 1 shall be shifted approximately 2-3 feet to the west to provide a continual 5 ft. wide unobstructed sidewalk and continual 4 ft. wide planting strip adjacent to the curb.
    - iii. The sidewalk crossing for the proposed alley shall be stamped and colored asphalt.
  - c. Where sidewalks are proposed in front of units the sidewalk materials, color or texture shall be distinguishable from the driveway through the use of materials, color and/or texture. The sidewalks shall be flush with driveway and at each landscape strip for each unit to provide a continual uninterrupted sidewalk.
  - d. Decorative pedestrian-scale black Virginia Power colonial light poles shall be provided for the internal street-drive aisle.
  - e. The proposed sidewalk on Polk Avenue shall align and connect with the existing or proposed sidewalks. The applicant shall be responsible for obtaining all necessary easements of other applicable approvals to connect to the existing sidewalk to the west of the proposed entrance.
  - f. The concrete sidewalk on Polk Avenue shall continue over the proposed curb cut to provide an uninterrupted sidewalk.

- g. All pedestrian improvements shall be constructed prior to the issuance of the last certificate of occupancy permit. (P&Z)
  2. Provide all pedestrian and traffic signage in accordance with the *Manual of Uniform Traffic Control Devices* (MUTCD), latest edition to the satisfaction of the Director of T&ES. Provide ADA ramps and stamped asphalt crosswalk on internal street near units 8 and 9. Provide ADA ramps closer to the intersection at Polk Avenue and Service Road. (T&ES)

**TREE PROTECTION:**

3. The applicant shall implement the following tree protection measures to ensure the retention of the proposed trees to be saved as depicted on the Tree Preservation Plan dated February 12, 2007. All proposed tree protection details shall be depicted on the final site plan and be provided throughout the construction process. The applicant shall employ an ISA certified Arborist to establish, develop and continually monitor a Preservation and Protection Plan as approved by the City Arborist. The Arborist shall serve as liaison to the community throughout the duration of construction. The Arborist shall be present when excavation is taking place near the tree preservation area. The Plan shall be developed to the satisfaction of the Directors of RP&CA, P& Z and T&ES prior to release of the Final Site Plan and shall comply with the following:
    - a. Clearly identify project phasing and construction access. Provide clear delineation of proposed phased development, including a narrative with timeline.
    - b. Indicate the location and method for protection and preservation of existing vegetation on all plan sheets including demolition, sediment and erosion control, site plan and landscape plan.
    - c. Tree protection area will be sited by a licensed surveyor and will remain in place through the course of construction.
    - d. When excavating within the proximity to the trees the initial method of excavation shall be by the Arborist approved method.
    - e. Demonstrate the location and method of tree protection fencing for each tree or stand of vegetation to be preserved.
    - f. Provide documentation that the applicant has notified all adjacent property owners of potential construction impact and loss of existing vegetation, and any remedial measures to be taken.
    - g. Identify vegetation to be removed and vegetation to remain. All vegetation outside the limits of disturbance, as generally depicted on the preliminary plan dated February 12, 2007 shall be retained, except as may be necessary for the prevention or treatment of disease, the removal of dead or damaged trees or other good husbandry practices.
    - h. Vegetation outside of the limits of disturbance shall not be removed without prior consultation and approval with the City Arborist. Any variation or alteration of the limits of disturbance as depicted on the preliminary plan dated February 12,



- 2007 shall be approved by the City Arborist.
- i. Provide a protection plan, including methods and procedures for the existing vegetation outside of the approved limits of disturbance depicted on the preliminary plan dated February 12, 2007.
  - j. The applicant shall submit a revised tree preservation plan, based upon alternative methods of retaining walls construction, indicating additional trees to be saved.
  - k. The applicant shall follow recommended horticultural practices to insure the health and vitality of the trees designated for protection prior to, during and after construction of the proposed buildings. In the event that trees (<12 inches in caliper) which are to be protected, are damaged or die, other than as the result of disease or acts of God, replacement trees measuring a minimum of 2½" in caliper shall be planted for each inch of caliper that is lost, consistent with the City of Alexandria Landscape Guidelines.
  - l. All proposed tree protection details shall be depicted on the final site plan in coordination with the Protection and Preservation Plan and be provided throughout the construction process. If any of the larger caliper trees (>12 inches in caliper) are damaged or destroyed during the construction process the applicant shall replace the tree(s) with the largest caliper trees(s) of comparable species that are available or can be transplanted to the satisfaction of the City Arborist and Director of Planning & Zoning; the remaining tree caliper shall be planted on-site or adjacent to the site. At determination of the City Arborist, if a suitable on or off-site location cannot be found, a fee in lieu based on market costs for installed and warrantied plantings will be applied. In addition, a fine will be paid by the applicant in an amount not to exceed \$10,000 for each tree that is destroyed if the approved tree protection methods have not been followed. Replacement trees shall be installed and if applicable, the fine shall be paid prior to the issuance of the final certificate of occupancy permit.
  - m. No construction materials or equipment shall be stored or staged beyond the limits of disturbance.
  - n. A note identifying these restrictions shall be provided on the Site Plan Cover, Erosion Sediment Control and Landscape Plan sheets. All underground utilities shall be located so as to avoid disturbance for grading beyond the limits of disturbance. (P&Z) (RP&CA)
4. The Homeowners/Condominium Association shall incorporate language that requires the following elements and other restrictions deemed necessary by the City to ensure that the trees proposed to be saved, as shown on the Tree Preservation Plan dated February 12, 2007, are retained including:
- a. The trees to be protected as depicted on the approved site plan shall be required to be retained unless otherwise permitted to be removed by the City Arborist due to the health and safety of the tree.
  - b. Applicant shall provide an escrow account for remedial work on existing vegetation to be preserved/protected, that includes a minimum contribution of

\$2,500 per project unit/household. The amount shall be provided in full to the Homeowners/Condominium Association upon acceptance of site for maintenance by the Association, and shall be reflected in the Association documents to be approved by the City.

- c. The Association will be responsible to maintain the trees in good health. (P&Z) (RP&CA)

#### **RETAINING WALLS:**

5. The proposed retaining walls for the site shall be limited to the areas as generally depicted on the preliminary plan dated February 12, 2007 unless required herein. The retaining walls at a minimum shall be subject to the following to the satisfaction of the Directors of Code Enforcement, RP&CA and P&Z.
  - a. Any protective fencing or railing on top of retaining walls shall be visually unobtrusive and of a decorative black metal or comparable material to the satisfaction of the Director of P&Z.
  - b. Additional retaining walls other than those shown on the preliminary site plan shall be permitted only if they are required to protect existing trees or to prevent additional extensive grading, or tree loss. Location and construction method shall be field verified prior to installation by the City Arborist and project consulting arborist.
  - c. The design of the retaining walls shall be subject to a “third party” structural engineer selected by the City. The cost of the third party review/inspection shall be the responsibility of the applicant.
  - d. The design and structure of the retaining walls shall be reviewed and approved by the City prior to release of the final site plan.
  - e. As part of the pre-construction meeting as required herein, the applicant shall be required to discuss the proposed retaining walls.
  - f. The applicant shall be responsible for a warranty for the retaining walls which shall be maintained for a period of five (5) years from the last certificate of occupancy permit.
  - g. The area of the limits of disturbance and clearing for the site shall be limited to the areas as generally depicted on the preliminary site plan dated February 12, 2007 and reduced if possible to retain existing trees and grades. The applicant will investigate the feasibility of using sheet piles for portions of the retaining walls, if this method will preserve additional trees and submit a revised plan at the first site plan submission.(P&Z)
  - h. If activity occurs in preservation areas or outside of limits of disturbance, the applicant may be required to employ alternative construction methods such as hand excavation or trenchless lateral construction to install utilities, public improvements and infrastructure to ensure the protection of vegetation that is to be preserved. Any alternative methods shall be approved by the Directors of Recreation, Parks & Cultural Activities, Planning & Zoning and Transportation &

- Environmental Services prior to site disturbance.
- i. All retaining walls shall be of high quality material with exterior finish that is natural stone veneer, or dry stacked stone to the satisfaction of the Director of P&Z. The terraced walls in the rear of units 9-15 (Building 3) maybe a material other than natural stone to the satisfaction of the Director of P&Z.
  - j. Retaining wall weeps and/or associated drainage shall not drain onto pedestrian areas. All walls shall incorporate sufficient waterproofing and drainage systems suitable for long term maintenance of construction adjacent to trees, tree roots and in potential hydrologic conditions.
  - k. Provide a full front elevation and typical detail for the stone wall sand dry laid walls. Provide sections of each retaining wall that depict the walls at the greatest height and average height, excavation and backfill and construction access. Information shall include material, finishes and architectural details such as masonry coursing, top of wall and bottom of wall elevations, methods for grade transitions, handrails-if required by code, directional changes, above and below grade conditions in coordination with site grading and existing vegetation. Submission of material samples for approval is required as a part of elevation and section drawings. (RP&CA) (P&Z)

#### **LANDSCAPING:**

6. A landscape plan shall be provided with the final site plan to the satisfaction of the Directors of P&Z and RP&CA. At a minimum the plan shall provide the amount of landscaping depicted on the preliminary landscape plan and the following:
  - a. Street trees such as *Ulmus parvifolia* (Chinese Elm) shall be planted 30 ft. on-center for the internal entrance drive aisle as generally depicted in *Attachment #1*. The street trees shall be a minimum 3.5 to 4 inch caliper at the time of installation. Evergreen shrubs and/or groundcover such as *pachysandra* shall be provided on the both sides of the proposed drive aisle.
  - b. Trees in front of Building 1 shall be planted 25 on center.
  - c. In addition to the approximately 60 new trees shown on the Landscape Plan dated February 12, 2007, the applicant shall provide an up to an additional 60 trees, for a total up to 120 new trees. The 60 new trees shall be interspersed around the property or on the adjacent property to the north and west with the permission of the adjacent property owner. The size at installation shall comply with City of Alexandria Landscape Guidelines. Locations shall be approved by the City Arborist in-field prior to installation. Recommended evergreen trees to be planted within the tree preservation area may include *Pinus strobus*, *Juniperus virginiana* and *Cedrus sp.*. Trees to be planted elsewhere on the site may include *Ilex opaca* or *Ilex x Nellie R. Stevens*.
  - d. The applicant shall also plant 50 one-inch caliper trees as replacement plantings for all the six to eight inch caliper trees lost due to site disturbance. Trees shall be a large shade tree specie as listed in the City's Landscape Guidelines. Trees shall

be planted either on site or at another location to the satisfaction of the Directors of P&Z and RP&CA.

- e. The applicant shall provide up to 100 native evergreen shrubs (excluding *ilex glabra*) to the west of building 1 and 2 to provide screening for the adjacent residential use.
- f. Provide Bufford Holly plantings of a sufficient size to screen the proposed transformer.
- g. The applicant shall be responsible for replacing the existing chain link fence on the northern side of the property, if agreed upon by the adjoining property owner.
- h. Provide an enlarged typical foundation and front yard planting for each unit. All utilities and associated valves, meters and appurtenances shall be placed within pavement and enclosed units.
- i. Provide Street Trees along Polk Avenue in compliance with City of Alexandria Landscape Guidelines. Coordinate species and quantity with City Arborist. If unable to accommodate along the frontage of the property, they may be located elsewhere on site.
- j. Maintain tree canopies at least 6-feet, except the proposed screening on the northern and western portion of the site and within the tree preservation area shown in the Tree Preservation Plan dated February 12, 2007 above grade level as they mature to allow for natural surveillance.
- k. No shrubs higher than 3 feet should be planted within 6 feet of walkways.
- l. The trees planted within the preservation area shall be non-invasive, native species that thrive in clay soils.

General:

All landscaping shall be maintained in good condition and replaced as needed.

- m. All plant materials and specifications shall be in accordance with the current and most up to date edition of the American Standard For Nursery Stock (ANSI Z60.1) as produced by the American Association for Nurserymen; Washington, D.C.
- n. A bond for all existing trees and landscaping designated to be retained, in an amount determined by the Director of Parks, Recreation and Cultural Activities, and for 100% of the cost of trees and landscaping required to be installed, shall be provide and maintained for a period of two years.
- o. The applicant shall be permitted to make minor modifications, if the modifications enhance the tree protection measures to the satisfaction of the City Arborist.
  - i. Provide enlarged and detailed planting plans for individual units and other site areas requiring enhanced study. Locate all site utilities and site lighting on plans.
  - ii. Ensure positive drainage in all planted areas.
  - iii. Eliminate conflicts in drawings between site utilities and proposed plantings such as adjacent to the proposed transformer and along the east property boundary.
  - iv. Clearly identify limits of grass, plantings and mulch areas.

- v. Indicate that all grass areas within the limits of disturbance shall be sodded.
  - vi. Provide crown area coverage calculations in compliance with City of Alexandria Landscape Guidelines. Indicate tabulations for existing trees, existing trees to be removed and trees to be provided.
  - vii. Provide substitution for Ilex glabra with another species of similar character that is horticulturally appropriate for on-site soil conditions.
- p. Plant List: Provide the following information:
- i. Cultivar for proposed Lagerstroemia indica.
  - ii. Clarification of specification for proposed Lagerstroemia indica as single or multi-trunk ornamental tree.
  - iii. Change specification for Pachysandra terminalis to four inch pots at 12 inches on center. One inch pot for this species is not an industry specification.
  - iv. Acer rubrum ‘Armstrong’ shall be 2.5 inches in caliper with corresponding ANSI-Z60.1 height and spread in compliance with City of Alexandria Landscape Guidelines.
- q. Proposed Planting Details: Provide the following modifications:
- i. Provide Street Tree Planting Detail as depicted in City of Alexandria Landscape Guidelines.
  - ii. Provide Shade Tree Planting Detail that is relevant to this project.
  - iii. If multi-trunk trees are to be specified, provide detail.
  - iv. Delete references to Baltic Ivy and Euonymus on Groundcover spacing chart. These plants are not proposed as a part of this project.
  - v. Provide planting details for all installations in slope conditions.
  - vi. Provide details for grassing operations, including sod installation in slope conditions.
- r. Proposed Planting Notes: Provide the following modifications:
- i. Remove all extraneous notes that do not apply to this project. For example; Item 4.8-Proffer Plants, Item 4.9-Hanging Baskets and Item 4.10-State Department of Transportation.
  - ii. Eliminate conflicts between Items 1.5-Applicable Standards, Item 4.1-Specifications, Item 1.9-Planting Seasons, and Item 4.18.
  - iii. Delete Item 1.12-Plant Material Removal.
  - iv. Delete Item 4.17-Warranty and Transfer.
  - v. Delete Item 3.20. Information conflicts with proposed planting plan.
- s. Provide the following notes on Landscape drawings:



- i. “Specifications for plantings shall be in accordance with the current and most up to date edition of ANSI-Z60.1, The American Standard for Nursery Stock as produced by the American Association of Nurserymen; Washington, DC.”
  - ii. “In lieu of more strenuous specifications, all landscape related work shall be installed and maintained in accordance with the current and most up-to-date edition (at time of construction) of Landscape Specification Guidelines as produced by the Landscape Contractors Association of Maryland, District of Columbia and Virginia; Gaithersburg, Maryland.”
  - iii. “Prior to commencement of landscape installation/planting operations, a pre-installation/construction meeting will be scheduled and held with the City’s Arborist and Landscape Architects to review plant installation procedures and processes.”
  - iv. “As-built drawings for this landscape and irrigation/water management system will be provided in compliance with City of Alexandria Landscape Guidelines. As built drawings shall include clear identification of all variation(s) and changes from approved drawings including location, quantity and specification of project elements.”(P&Z)(RP&CA)(Police)
7. Provide a site irrigation & water management system for the site which shall be developed, installed and maintained to the satisfaction of the Directors of RP&CA, which shall at a minimum consist of the following:
  - a. Location and type of heads/emitters, water delivery systems, sleeving beneath pavement/roads/sidewalks, controller(s), backflow preventer(s) and all system monitoring devices.
  - b. Irrigation plan shall be prepared and sealed by an Irrigator with certification at a level commensurate to this project and licensed to practice in the Commonwealth of Virginia.
  - c. Provide one hose bib on each external wall of each unit. Provide ground mounted water hose bibs in all areas to be maintained by an HOA or similar organization at a maximum spacing of 90 feet apart.
  - d. Provide an exhibit that demonstrates full coverage of maintained areas for all areas within final limits of site disturbance. (RP&CA)
8. As depicted on the February 12, 2007 submittal, limits of disturbance do not appear to account for removal of vegetation or other ground disturbing activity on property adjacent to the western property boundary. Modify limits of disturbance to indicate actual construction limits and site access. (RP&CA)

9. Locate domestic utility service lines under paved areas. Do not locate in planting areas. Proposed locations for all such utilities shall be shown on the plans prior to installation to the satisfaction of the Directors of Recreation, Parks & Cultural Activities, Planning & Zoning and Transportation & Environmental Services. (RP&CA)
10. Relocate the proposed storm sewer line along the western property boundary so that it is beneath the roadway, and allows for greater planting space. (RP&CA)
11. Show the location and direction of service openings and required clearances for above grade utilities such as transformers, telephone, HVAC units and cable boxes. Minimize conflicts with plantings, pedestrian areas and major view sheds. Do not locate above grade utilities in open space. (RP&CA)

## **BUILDING**

12. The building shall incorporate the use of green building and sustainable techniques for the site and building systems. The architect shall provide a checklist, specific examples and guarantee the implementation of such measures prior to the release of a building permit, to the satisfaction of the Directors of P&Z and T&ES. The applicant shall also work with the City for reuse of the existing building materials as part of the demolition process, leftover, unused, and/or discarded building materials. (P&Z) (T&ES)
13. The final architectural elevations shall be consistent with the level of quality and detail provided in the preliminary architectural elevations dated May 18, 2007. In addition, the applicant shall provide additional refinements to the satisfaction of the Director of P&Z that shall at a minimum include:
  - a. The height of the front stoops for Building #1 and Building # 2 shall be limited to a maximum height of four (4) feet and the materials of the stoops shall be limited to brick or metal to the satisfaction of the Director of P&Z.
  - b. For Building # 1 and Building # 2 the roof forms (front and back) shall be a mansard roof, for the end units, the mansard roof shall return on the side of each unit to reduce the perceived height of the units.
  - c. The front, rear and sides of Building # 1 and Building # 2 shall be either completely brick and or high quality siding. The applicant shall provide painted brick to provide variety for each of the units.
  - d. Building # 1 and Building # 2 may have rear balconies, as long as they do not encroach into the EVE and/or adjoining alleys.
  - e. The units for Building # 3 shall be revised to include dormers (type 2b) for the end and middle units.
  - f. The garage doors for Building # 3 and Building # 2 shall be high quality with windows as generally represented.
  - g. The roof materials for each building shall be units shall be faux slate, or metal.

- h. The applicant shall provide high quality windows for each of the buildings to the satisfaction of the Director of P&Z and provide samples for approval.
- i. The applicant shall provide detailed design drawings (enlarged plan, section, and elevation studies) to evaluate the entrance canopies, and window treatment, including the final detailing, finish and color of these elements, during final site plan review. The applicant shall provide these detailed design drawings at a scale sufficient to fully explain the detailing and depth of façade treatment.
- j. Color architectural elevations shall be submitted during final site plan review.
- k. The applicant shall provide detailed design drawings showing all architectural metalwork (transformer/dumpster enclosures) calling out color and materials for each.
- l. There shall be no visible wall penetrations or louvers for HVAC equipment: all such equipment shall be rooftop-mounted. The kitchen vents shall be integrated into the design of the façade of the building, and painted to match the exterior of the building so that they are visually minimized from the public right-of-way. Dryer and bathroom vents shall be painted to match the building, and the portion visible on the exterior wall shall be subject to review and approval by the Director of Planning and Zoning.
- m. The final materials, details, and color selection shall be reviewed and approved as part of the final site plan review. (P&Z)

## **PARKING**

- 14. A minimum of 50 parking spaces, as represented on the preliminary plan, shall be located on site. All visitor spaces shall be reserved for visitor use and shall be located as generally depicted on the preliminary site plan. The applicant shall install “Visitor Parking Only” markings and/or signs for all visitor spaces. (P&Z)
- 15. The stacked townhouse garages shall contain a minimum unobstructed interior dimension of 18 ft. x 18.5 ft. to enable two adjacent parking spaces, excluding units with tandem parking which may have a dimension of 10 ft. x 18.5 ft in the garage space and 9 x 18.5 ft. for the driveway parking spaces. Each of the townhouse garages shall also provide a sufficient area for a City standard trash can and recycling bins exclusive of the area required for the parking space. The parking space dimensions shall not include columns, walls or obstructions. Provide dimension lines for interior garages for each of the unit types. (P&Z, T&ES)
- 16. The applicant shall provide off-street parking for all construction workers without charge. For the construction workers who use Metro, DASH, or another form of mass transit to the site, the applicant shall subsidize a minimum of 50% of the fees for mass transit. Compliance with this condition shall be based on a plan, which shall be submitted to the Department of P&Z and T&ES prior to the issuance of the Excavation/Sheeting, and Shoring Permit. This plan shall set forth the location of the parking to be provided at various stages of construction, how many spaces will be provided, how many construction workers will be assigned to the work site, and mechanisms which will be

used to encourage the use of mass transit. The plan shall also provide for the location on the construction site at which information will be posted regarding Metro schedules and routes, bus schedules and routes. If the plan is und to be violated during the course of construction, a correction notice will be issued to the developer. If the violation is not corrected within ten (10) days, a "stop work order" will be issued, with construction halted until the violation has been corrected. (P&Z)

**AFFORDABLE HOUSING:**

17. The developer will make a voluntary contribution of \$2.00 per gross square foot on the gross square footage of 51,932 square feet for a total voluntary contribution of \$ 103,864.00 consistent with the conclusions of the "Developer Housing Contribution Work Group Report dated May 2005 and accepted by the City Of Alexandria City Council on June 14, 2005. The payment shall be made on the issuance of the first Certificate of Occupancy. (Housing)

**SITE PLAN:**

18. Before approval of the final site plan, the applicant shall hold a meeting with adjoining civic association(s) and adjacent home/property owners to review the status and implementation of the conditions contained herein. In addition, before commencing any clearing or grading of the site, the applicant shall hold a meeting with adjoining representatives, civic associations and adjacent home owners to review the hauling routes, location of construction worker parking, plan for temporary pedestrian and vehicular circulation, and hours and overall schedule for construction. The Departments of P&Z and T&ES shall be notified of the date of the meeting before final site plan is released.
19. Show all utility structures, including transformers, on the final development plan. All utility structures (except fire hydrants) shall be clustered where possible and located so as not to be visible from a public right-of-way or private street. When such a location is not feasible, such structures shall be located and screened to the satisfaction of the Director of P&Z. (P&Z)
20. A perpetual public access easement and vehicle ingress/egress easement shall be recorded by the applicant for the entire portion of the internal private street including the internal sidewalk(s). The easement shall provide public vehicular and pedestrian access. A plat showing the easement and all required documentation shall be submitted to the City Attorney, Department of P&Z and T&ES with the final site plan submission. The easement shall be approved by the City and recorded among the land records prior to the release of the final site plan. (P&Z)

21. The Condominium Association shall disclose to all prospective buyer(s) through the sales literature and documents, sales contacts etc. that the areas outside the limits of disturbance, shall be owned and maintained by the COA. All condominium association covenants shall be reviewed by the Director of P&Z and the City Attorney to ensure inclusion of all the conditions of this DSP prior to applying for the first certificate of occupancy permit for the project. The association covenants shall include the conditions listed below, which shall be clearly expressed in a separate section of the covenants. The language shall establish and clearly explain that these conditions cannot be changed except by an amendment to this development site plan approved by Planning Commission.
  - a. The principal use of the garages shall be for passenger vehicle parking only; storage which interferes with the use of a parking space for a motor vehicle is prohibited.
  - b. The designated visitor parking spaces shall be solely reserved for the use of the condominium guests - visitors.
  - c. All landscaping shall be maintained by the Homeowners and Condominium Association.
  - d. The streets and stormwater management facilities are private and will be maintained by the Condominium Association.
  - e. Exterior building improvements or changes by future residents shall require the approval of the Planning Commission, as determined by the Director of P&Z.
  - f. The applicant shall notify prospective buyers, in its marketing materials and homeowner documents that the internal street is private and that storm sewers located within the site are private and will be privately maintained. (P&Z)(T&ES)
22. The applicant shall submit a wall check to the Department of Planning & Zoning prior to the commencement of framing for the building(s). The building footprint depicted on the wall check shall comply with the approved final site plan. The wall check shall also provide the top-of-slab and first floor elevation as part of the wall check. The wall check shall be prepared and sealed by a registered engineer or surveyor, and shall be approved by the City prior to commencement of framing. (P&Z)
23. As part of the request for a certificate of occupancy permit, the applicant shall submit a building and site location survey to the Department of P&Z for all site improvements, including the below grade garage. The applicant shall also submit a certification of height for the building as part of the certificate of occupancy for each building(s). The certification shall be prepared and sealed by a registered architect or surveyor and shall state that the height of the building complies with the height permitted pursuant to the approved development site plan and that the height was calculated based on all applicable provisions of the Zoning Ordinance. (P&Z)
24. A freestanding subdivision or development sign shall be prohibited. (P&Z)

25. Provide a lighting plan with the final site plan to verify that lighting meets City standards. The plan shall be to the satisfaction of the Directors of T&ES & P&Z, in consultation with the Chief of Police and shall include the following:
- a. Clearly show location of all existing and proposed street lights and site lights, shading back less relevant information;
  - b. A lighting schedule that identifies each type and number of fixtures, mounting height, and strength of fixture in Lumens or Watts;
  - c. Manufacturer's specifications and details for all proposed fixtures; and
  - d. A photometric plan with lighting calculations that include all existing and proposed light fixtures, including any existing street lights located on the opposite side(s) of all adjacent streets. Photometric calculations must extend from proposed building face(s) to property line and from property line to the opposite side(s) of all adjacent streets and/or 20 feet beyond the property line on all adjacent properties. Show existing and proposed street lights and site lights. Indicate the type of fixture, and show mounting height, and strength of fixture in lumens or watts. Provide manufacturer's specifications for and installation schedule indicating the number of each fixture to be installed. Provide lighting calculations and photometric plan to verify that lighting meets City Standards. Lighting plan should cover site, adjacent right-of-way and properties.
  - e. Specifications and details for all site lighting, including landscape lighting, pedestrian area, sign(s) and security lighting.
  - f. Photometric site lighting plan that is coordinated with architectural/building mounted lights, site lighting, street trees and street lights and minimize light spill into adjacent residential areas.
  - g. Provide location of conduit routing between site lighting fixtures. Locate to avoid conflicts with street trees.
  - h. Detail information indicating proposed light pole and footing in relationship to adjacent grade or pavement. All light pole foundations shall be concealed from view. (RPC&A) (T&ES)(P&Z) (Police)
26. The applicant shall prepare and submit a plan that delineates a detailed construction management plan for the entire project for review and approval by the Directors of P&Z, T&ES, and Code Enforcement prior to the release the final site plan. The plan shall designate a location(s) for off-site and off-street parking for all construction employees during all stages of construction which shall be provided at no cost for the employee parking and may include applicable provisions such as shuttles or other methods deemed necessary by the City. Before commencing any clearing or grading of the site, the applicant shall hold a meeting with notice to all adjoining property owners and civic associations to review the location of construction worker parking, plan for temporary pedestrian and vehicular circulation, and hours and overall schedule for construction. The Departments of P&Z and T&ES shall be notified of the date of the meeting before the permit is issued. Copies of plans showing the hauling route, construction worker parking, and temporary pedestrian and vehicular circulation shall be posted in the construction



trailer and given to each subcontractor before they commence work. If the plan is found to be violated during the course of construction, citations will be issued for each infraction and a correction notice will be forwarded to the applicant. If the violation is not corrected within five (5) calendar days, a "stop work order" will be issued, with construction halted until the violation has been corrected. (P&Z) (T&ES)

27. The applicant shall identify a person who will serve as a liaison to the community throughout the duration of construction. The name and telephone number of this individual shall be provided in writing to residents, property managers, and business owners whose property abuts the site, and to the Directors of P&Z and T&ES. (P&Z)
28. A temporary informational sign shall be installed on the site prior to the approval of the final site plan for the project and shall be displayed until construction is complete or replaced with a marketing sign incorporating the required information; the sign shall notify the public of the nature of the upcoming project and shall provide a phone number for public questions regarding the project. (P&Z)(T&ES)
29. The subdivision plats, easements and/or dedication shall be submitted as part of the submission for first final site plan and shall be approved and recorded prior to the release of the final site plan.(P&Z)
30. The setback between the private street and the garage doors shall be greater than or equal to 2' and less than or equal to 5' (for instances in which driveway parking is not provided) or greater than or equal to 18' (for instances in which driveway parking is provided). The minimum 18' setback shall be in addition to the 5' sidewalk, where applicable. (T&ES)
31. All fences visible from the internal street or adjacent residential properties shall be decorative painted wood or metal to the satisfaction of the Director of P&Z. (P&Z)
32. The applicant shall attempt to secure mail delivery to individual homes from the USPS. If such delivery cannot be secured, decorative ganged mailbox(es) shall be permitted within the development in a location to the satisfaction of the Director of P&Z. (P&Z)
33. Show all utility structures, including transformers, on the final development plan. All utility structures (except fire hydrants) shall be clustered and located so as not to be visible from a public right-of-way or private street where possible. When such a location is not feasible, such structures shall be located and screened to the satisfaction of the Director of P&Z. (P&Z)
34. The applicant shall contact the Crime Prevention Unit of the Alexandria Police Department at 703-838-4520 regarding locking hardware and alarms for the homes. This shall be completed prior to the commencement of construction. (Police)

35. Any inconsistencies between the various drawings submitted by the applicant shall be reconciled to the satisfaction of the Directors of Planning and Zoning and Transportation and Environmental Services. (P&Z)
36. Temporary construction trailer(s) shall be permitted and be subject to the approval of the Director of P&Z. The trailer(s) shall be removed prior to the issuance of the last certificate of occupancy permit. A separate sales trailer will require approval of a special use permit approved by City Council. (P&Z)
37. Provide proposed elevations (contours and spot shots) in sufficient details on grading plan to clearly show the drainage patterns. (T&ES)
38. All private streets and alleys must comply with the City's Minimum Standards for Private Streets and Alleys. (T&ES)
39. Provide City standard pavement for emergency vehicle easements. (T&ES)
40. No overhangs (decks, bays, columns, post or other obstructions) shall protrude into public easements, pedestrian or vehicular travelways. (T&ES)
41. All driveway entrances, sidewalks, curbing, etc. in public ROW or abutting public ROW shall meet City design standards. (T&ES)
42. Provide turning movements to demonstrate that solid waste vehicles can access and maneuver through the site. (T&ES)
43. The applicant shall maintain a turning radius of 22' into the garages as currently shown on the plans. (T&ES)
44. Replace existing curb and gutter, sidewalks, and handicap ramps that are in disrepair or broken. (T&ES)
45. Prior to the release of the final site plan, provide a Traffic Control Plan for construction detailing proposed controls to traffic movement, lane closures, construction entrances, haul routes, and storage and staging. (T&ES)
46. All private street signs that intersect a public street shall be marked with a fluorescent green strip to notify the plowing crews, both City and contractor, that they are not to plow those streets. (T&ES))
47. All Traffic Control Device design plans, Work Zone Traffic Control plans, and Traffic Studies shall be signed and sealed by a professional engineer, registered in the Commonwealth of Virginia. (T&ES)

48. The minimum diameter for public storm sewers is 18-inches. The minimum diameter for public sanitary sewer is 10-inches. (T&ES)
49. All private utilities are to be located outside of public right-of-way and public utility easements.(T&ES)
50. Show all existing and proposed easements, both public and private. (T&ES)
51. Applicant shall underground all the utilities servicing the property. (T&ES)
52. The sanitary and storm water computations will be reviewed at the time of first final submission. (T&ES)
53. Show sanitary sewer, stormwater and waterlines in plan and profiles in the first final submission and cross reference the sheets on which the plan and profiles are shown, if plan and profiles are not shown on the same sheet. Clearly label the sanitary sewer plan and profiles. (T&ES)
54. Show storm sewer in plan and profiles in the first final submission and cross reference the sheets on which the plan and profiles are shown, if plan and profiles are not shown on the same sheet. Clearly label the storm sewer plan and profiles. (T&ES)
55. Provide existing and proposed grade elevations along with the rim and invert elevations in the first final submission of all existing and proposed sanitary and storm sewer piping on the respective profiles. (T&ES)
56. Provide existing and proposed grade elevations along with the invert elevations in the first final submission of all existing and proposed water line piping on profiles. Provide rim elevations of gate wells, where applicable. (T&ES)
57. Use distinctive stationing for various sanitary and storm sewers and water lines in plan and use the corresponding stationing in respective profiles. (T&ES)
58. No accessory structures, as defined in the Alexandria Zoning Ordinance, including but not limited to, buildings, structures, and fencing, shall not be permitted outside the limits of disturbance as generally depicted on the preliminary plan dated February 12, 2007.(T&ES)

59. The site plan (sheet C5.00) shows an existing water main on Polk Ave. between N. Pelham St. and Palmer Pl., this is incorrect. The existing 8" water main on Polk Ave dead ends 154' east of the existing fire hydrant (# 6164) on N. Pelham St. There is no water main between that point and Palmer Pl. on Polk Ave. A water main extension on Polk Ave. may be required for this project. (VAWC)
60. Hydraulic calculations (computer modeling) will be completed to verify main sizes upon final submittal of the site plan. Profiles will be required for hydraulic calculations. (VAWC)
61. VAWC will require a copy of the Code Enforcement approved needed fire flow calculations for this project. (VAWC)
62. A double detector check backflow prevention device is required on all fire services. If located inside the premise, it must have a remote reading meter in a separate accessible room. No fire services are shown to the buildings, yet there are FDC's on the buildings and the fire service plan indicates that the buildings are to be fully sprinklered. (VAWC)
63. Show an 8"x 6" reducer on the 8" water main before the 6" valve on the fire hydrant lateral by units 1 and 15. (VAWC)
64. Maintain a 10' horizontal separation between water and sewer mains. Condition not met. (VAWC)
65. Provide a 10' water line easement for mains and hydrants out of the public right-of-way. (VAWC)
66. Please add the following note to the site plan and utility plan sheets, "All water facility construction shall conform to Virginia American Water Standards and Specifications". (VAWC)

#### **ENVIRONMENTAL - STORMWATER**

67. The applicant shall comply with the peak flow requirements of Article XIII of the Alexandria Zoning Ordinance. (T&ES)
68. The applicant shall provide an estimate of the average day and peak hour wastewater flow discharged upstream of the development site under existing conditions and the current contribution of sanitary flow from the development site to the Trunk Sewer to the satisfaction of the Director of T&ES using the factors described below:
  - a. The sewer connection shall be designed for the ultimate build-out conditions.
  - b. Recommended average design flows:
    - i. Residence general 100 gpcd

- |      |                       |                      |
|------|-----------------------|----------------------|
| ii.  | Single Family Home    | 350 gpd/unit         |
| iii. | Townhouse             | 350 gpd/unit         |
| iv.  | Garden Apartment      | 300 gpd/unit         |
| v.   | High Rise Residential | 300 gpd/unit         |
| vi.  | Office / Commercial   | 200 gpd/1000 sq. ft. |
- b. For any other type of development not covered above; the applicant may obtain contributing sanitary flow from the Commonwealth of Virginia, State Water Control Board, Sewage Collection and Treatment (SCAT) Regulations or propose the criteria to be used for estimation of sanitary flows to the satisfaction of the Director of T&ES.
- c. The sanitary sewers shall be designed for maximum hour flow.
- d. A peak factor of 4.0 shall be used for laterals and sub-mains. A peak factor of 3.0 may be used for mains. (T&ES)
69. The applicant shall estimate additional average day and peak hour wastewater flow to be discharged into the trunk sewer from the proposed development site under proposed conditions to the satisfaction of the Director of T&ES using the factors described above. The applicant shall provide adequate sanitary outfall analysis sufficient to determine existing and future flows in the sewers to be used by the applicant that are tributary to the City of Alexandria's sanitary interceptor sewer system. (T&ES)
70. The applicant is advised that all storm water designs that require analysis of pressure hydraulic systems and/or inclusion and design of flow control structures must be signed and sealed by a professional engineer, registered in the Commonwealth of Virginia. If applicable, the Director of T&ES may require re-submission of all plans that do not meet this standard. (T&ES)
71. Plan must demonstrate to the satisfaction of the Director of T&ES that adequate storm water outfall is available to the site or the applicant is to design and build on-site or off-site improvements to discharge to an adequate outfall. The major and minor stormwater flow systems (ie, overland stormwater flow and underground/pipe flow) shall be designed to the satisfaction of the Director of T&ES> (T&ES)
72. If combined uncontrolled and controlled storm water outfall is proposed, the peak flow requirements of Article XIII of AZO shall be met. (T&ES)
73. In the event that Section 5-1-2(12b) of the City Code is amended to designate multi-family dwellings in general, or multi-family dwellings when so provided by SUP, as required user property, then refuse collection shall be provided by the City for the condominium portion of this plan. (T&ES)
74. Provide a geotechnical report, including recommendations from a geotechnical engineer for proposed cut slopes and embankments. (T&ES)

75. The applicant shall prepare and submit a plan that delineates a detailed construction management plan for the entire project for review and approval by the Directors of P&Z, T&ES and Code Enforcement prior to the release of the final site plan. (T&ES)
76. The storm water collection system is located within the Holmes Run watershed. All on-site storm water curb inlets and public curb inlets within 50 feet of the property line shall be duly marked using standard City markers, or to the satisfaction of the Director of T&ES. (T&ES) Detail shall be placed on the plan (T&ES)
77. Project lies entirely within an area described on historical maps as containing marine clays. Construction methodology and erosion and sediment control measures must account for the presence of marine clay or highly erodible soils. (T&ES)
78. The City of Alexandria's storm water management regulations regarding water quality are two-fold: first, phosphorus removal requirement and second, water quality volume default. Compliance with the phosphorus requirement does not relieve the applicant from the water quality default requirement. The water quality volume determined by the site's proposed impervious area shall be treated in a Best Management Practice (BMP) facility. (T&ES)
79. Provide BMP narrative and complete pre and post development drainage maps that include areas outside that contribute surface runoff from beyond project boundaries to include adequate topographic information, locations of existing and proposed storm drainage systems affected by the development, all proposed BMP's and a completed Worksheet A or B and Worksheet C, as applicable. (T&ES)
80. The storm water Best Management Practices (BMPs) required for this project shall be constructed and installed under the direct supervision of the design professional or his designated representative. Prior to release of the performance bond, the design professional shall submit a written certification to the Director of T&ES that the BMPs are:
  - a. Constructed and installed as designed and in accordance with the approved Final Site Plan.
  - b. Clean and free of debris, soil, and litter by either having been installed or brought into service after the site was stabilized. (T&ES)
81. The Applicant shall submit a storm water quality BMP Maintenance Agreement with the City to be reviewed as part of the Final #2 Plan. It must be executed and recorded with the Land Records Division of Alexandria Circuit Court prior to approval of the final site plan. (T&ES)



82. The Applicant shall be responsible for maintaining storm water Best Management Practices (BMPs) until activation of the homeowner's association (HOA), if applicable, or until sale to a private owner. Prior to transferring maintenance responsibility for the BMPs to the HOA or owner, the Applicant shall execute a maintenance service contract with a qualified private contractor for a minimum of three years, and transfer the contract to the HOA or owner. A copy of the contract shall also be placed in the BMP Operation and Maintenance Manual. Prior to release of the performance bond, a copy of the maintenance contract shall be submitted to the City. (T&ES)
83. If units will be sold as individual units and a homeowner's association (HOA) established the following two conditions shall apply:
- a. **The Applicant shall furnish the Homeowner's Association with an Owners Operation and Maintenance Manual** for all Best Management Practices (BMPs) used on site. The manual shall include at a minimum:
    - i. an explanation of the functions and operations of the BMP(s);
    - ii. drawings and diagrams of the BMP(s) and any supporting utilities;
    - iii. catalog cuts on maintenance requirements including any mechanical or electrical equipment;
    - iv. manufacturer contact names and phone numbers;
    - v. a copy of the executed maintenance service contract;
    - vi. and a copy of the maintenance agreement with the City.
  - b. **The Developer shall furnish each home purchaser** with a brochure describing the storm water BMP(s) installed on the site, outlining the responsibilities of the homeowners and the Homeowners Association (HOA) with respect to maintenance requirements. Upon activation of the HOA, the Developer shall furnish five copies of the brochure per unit to the HOA for distribution to subsequent homeowners. Otherwise the following condition applies:
  - c. **The Developer shall furnish the owners with an Owner's Operation and Maintenance Manual** for all Best Management Practices (BMPs) on the project. The manual shall include at a minimum:
    - i. an explanation of the functions and operations of the BMP(s);
    - ii. drawings and diagrams of the BMP(s) and any supporting utilities;
    - iii. catalog cuts on maintenance requirements including mechanical or electrical equipment;
    - iv. manufacturer contact names and phone numbers;
    - v. a copy of the executed maintenance service contract;
    - vi. and a copy of the maintenance agreement with the City. (T&ES)
84. Prior to release of the performance bond, a copy of the Operation and Maintenance Manual shall be submitted to the Division of Environmental Quality on digital media. (T&ES)

85. Prior to release of the performance bond, the Applicant is required to submit a certification by a qualified professional to the satisfaction of the Director of T&ES that any existing storm water management facilities adjacent to the project and associated conveyance systems were not adversely affected by construction operations and that they are functioning as designed and are unaffected by construction activities. If maintenance of the facility or systems were required in order to make this certification, provide a description of the maintenance measures performed. (T&ES)
86. If fireplaces are utilized in the development, the Applicant is required to install gas fireplaces to reduce air pollution and odors. Animal screens must be installed on chimneys. (T&ES)
87. Contractors shall not cause or permit vehicles to idle for more than 10 minutes when parked. (T&ES)
88. A "Certified Land Disturber" (CLD) shall be named in a letter to the Division Chief of C&I prior to any land disturbing activities. If the CLD changes during the project, that change must be noted in a letter to the Division Chief. A note to this effect shall be placed on the Phase I Erosion and Sediment Control sheets on the site plan. (T&ES)
89. During the construction phase of this development, the site developer, their contractor, certified land disturber, or owner's other agent shall implement a waste and refuse control program. This program shall control wastes such as discarded building materials, concrete truck washout, chemicals, litter or trash, trash generated by construction workers or mobile food vendor businesses serving them, and all sanitary waste at the construction site and prevent offsite migration that may cause adverse impacts to neighboring properties or to the environment to the satisfaction of Directors of Transportation and Environmental Services and Code Enforcement. All wastes shall be properly disposed offsite in accordance with all applicable federal, state and local laws. (T&ES)

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Staff Note: In accordance with section 11-418 (a) of the zoning ordinance, construction or operation shall be commenced and diligently and substantially pursued within 18 months of the date of granting of initial planning commission approval of the plan or the development site plan shall become void.

**CITY DEPARTMENT CODE COMMENTS**

Legend: C – Code Requirement    R- Recommendation    S – Suggestion    F-Findings

Code Enforcement:

- C-1 All drainage facilities must be designed to the satisfaction of T&ES. Drainage divide maps and computations must be provided for approval.
- C-2 The applicant shall comply with the City of Alexandria’s Noise Control Code, Title 11, Chapter 5, which sets the maximum permissible noise level as measured at the property line.
- C-3 The applicant must comply with the Article XIII of the City of Alexandria Zoning Ordinance, which includes requirements for storm water pollutant load reduction, treatment of the water quality volume default, and storm water quantity management.
- C-4 The applicant must comply with the City of Alexandria, Erosion and Sediment Control Code, Section 5, Chapter 4. This includes naming a Responsible Land Disturber on the
- C-5 Erosion and Sediment Control sheets prior to engaging in land disturbing activities in accordance with Virginia Erosion and Sediment Control Law.
- C-6 All required permits from Virginia Department of Environmental Quality, Environmental Protection Agency, Army Corps of Engineers, Virginia Marine Resources must be in place for all project construction and mitigation work prior to release of the final site plan. This includes the state requirement for a VSMP permit for land disturbing activities greater than 2500 SF.
- C-7 Bond for the public improvements must be posted prior to release of the plan.
- C-8 All downspouts must be connected to a storm sewer by continuous underground pipe.
- C-9 The sewer tap fee must be paid prior to release of the plan.
- C-10 All easements and/or dedications must be recorded prior to release of the plan.
- C-11 Plans and profiles of utilities and roads in public easements and/or public right-of-way must be approved prior to release of the plan.
- C-12 All drainage facilities must be designed to the satisfaction of T&ES. Drainage divide maps and computations must be provided for approval.

- C-13 All utilities serving this site to be underground.
- C-14 Provide site lighting plan.
- C-15 Plan shall comply with the Chesapeake Bay Preservation Act in accordance with Article XIII of the City's zoning ordinance for storm water quality control.
- C-16 Provide a phased erosion and sediment control plan consistent with grading and construction
- C-17 Per the Memorandum To Industry, dated July 20, 2005, the applicant is advised regarding a requirement that applicants provide as-built sewer data as part of the final as-built process. Upon consultation with engineering firms, it has been determined that initial site survey work and plans will need to be prepared using Virginia State Plane (North Zone) coordinates based on NAD 83 and NAVD 88. Control points/Benchmarks which were used to establish these coordinates should be referenced on the plans. To insure that this requirement is achieved, the applicant is requested to prepare plans in this format including initial site survey work if necessary. (Site Plans)

Recreation:

- R-1 The Final Site Plan shall comply with City of Alexandria Landscape Guidelines as updated April, 2007."

Police Department: (R-3, R-4, R-5 have been incorporated into landscape section of conditions)

- R-1 A security survey is to be completed for any sales and/or construction trailers that are placed on the site. This is to be completed as soon as the trailers are placed on site by calling the Community Relations Unit at 703- 838-4520.
- R-2 The house numbers are to be placed on the front of each home (at least 3 inches high and reflective at night). This aids in a timely response from emergency personnel should they be needed.
- F-1 The Police Department is unable to make comments on lighting because no lighting plan was submitted

Transportation & Environmental Services

- F-1 Water quality volume is generated by the impervious surface on the site. Applicant's BMP is treating 0.69 acres of the water quality volume being generated. There remains 0.81 acres of impervious surface, from which the water quality volume is not being

treated. Applicant is encouraged to carefully explore mechanisms to treat this volume. Should this be impossible applicant is referred to City of Alexandria, Article XIII, Environmental Management Ordinance, Section 13-110(A), *Alternate stormwater management equivalency options and establishment of the Alexandria Water Quality Improvement Fund*. To employ either option, applicant shall follow the guidance provided in Section 13-110(D) and submit a letter to Claudia Hamblin-Katnik, Watershed Program Administrator, 301 King Street, Room 3900, Alexandria, VA 22314 outlining his intent.(DEQ)

Code Enforcement:

The following are repeat comments. Updated comments are in **BOLD**.

- F-1 The access road off Polk Avenue shall meet grade requirements for fire apparatus. The grade shall not exceed 10% with a maximum of a 6% transition grade. Grades meet criteria. Finding resolved.
- F-2 Fire apparatus turnaround shall remain level and pockets for turn around of apparatus shall be at least 60 feet deep as measured from the centerline of the intersecting roadway. Turnaround complies, Finding resolved.
- F-3 Roadways within the site shall be designated emergency vehicle easements with a minimum turning radii of R-25 and a minimum width of 22 feet. EVEs provided, Finding resolved.
- F-4 The height and length of the retaining walls proposed will require further discussion with Code Enforcement Engineering in order to address construction and drainage issues as well as fall protection requirements. Acknowledged by applicant.
- F-5 Building height over 30 feet will require a sprinkler system depending on design of habitable spaces. Sprinkler system provided. Identify design standard in Building Code Analysis. Finding not resolved, identify design standard. **Applicant shall indicate applicable design standard for fire sprinkler system.**
- F-6 Fire Department Connection for Unit 1 is located too close to hydrant. FDCs shall be located no closer than 40 feet and no greater than 100 feet from hydrant serving each FDC. Finding resolved.
- F-7 Show fire lines on plans. Finding resolved.



- R-1 Based on a history of sound transmission complaints, it is recommended that all dwelling units have a STC rating of at least 60. Alternatives that demonstrate equivalency to this requirement will be considered on a case by case basis and are subject to the approval of the Director of Code Enforcement. Acknowledged by applicant.
- C-1 The developer shall provide a separate Fire Service Plan which illustrates: a) emergency ingress/egress routes to the site; b) two fire department connections (FDC) to the building, one on each side/end of the building; c) fire hydrants located within on hundred (100) feet of each FDC; d) on site fire hydrants spaced with a maximum distance of three hundred (300) feet between hydrants and the most remote point of vehicular access on site; e) emergency vehicle easements (EVE) around the building with a twenty-two (22) foot minimum width; f) all Fire Service Plan elements are subject to the approval of the Director of Code Enforcement. Plan provided, condition met.
- C-2 The developer shall provide a building code analysis with the following building code data on the plan: a) use group; b) number of stories; c) type of construction; d) floor area per floor ; e) fire protection plan. Code analysis is incomplete. Clarify occupancy type in accordance with USBC terminology. Condition not met, identify sprinkler design standard, see F-5 above. Occupancy type provided on Sheet C1.00. Sprinkler design standard not provided.  
**Applicant shall indicate applicable design standard for fire sprinkler system.**
- C-3 The final site plans shall show placement of fire easement signs. Signs provided.
- C-4 Prior to the issuance of a demolition permit or land disturbance permit, a rodent abatement plan shall be submitted to Code Enforcement that will outline the steps that will taken to prevent the spread of rodents from the construction site to the surrounding community and sewers. Acknowledged by applicant, Sheet C2.00.
- C-5 Roof drainage systems must be installed so as neither to impact upon, nor cause erosion/damage to adjacent property. Acknowledged by applicant, Sheet C2.00.
- C-6 A soils report must be submitted with the building permit application. Acknowledged by applicant, Sheet C2.00.
- C-7 New construction must comply with the current edition of the Uniform Statewide Building Code (USBC). Acknowledged by applicant, Sheet C2.00.
- C-8 Construction permits are required for this project. Plans shall accompany the permit application that fully details the construction as well as layouts and schematics of the mechanical, electrical, and plumbing systems. Acknowledged by applicant, Sheet C2.00.

- C-9 Permission from adjacent property owners is required if access to the adjacent properties is required to complete the proposed construction. Otherwise, a plan shall be submitted to demonstrate the construction techniques utilized to keep construction solely on the referenced property. Acknowledged by applicant, Sheet C2.00.
- C-10 A wall location plat prepared by a land surveyor is required to be submitted to this office prior to requesting any framing inspection.
- C-11 The applicant must obtain a Certificate of Occupancy prior to occupancy (use) of the structure (USBC 119.1). Acknowledged by applicant, Sheet C2.00.

**Planning:**

- 1) Revise SH C8.00 to reflect the correct number of residential units. (P&Z)

DSP #2005-0012  
Polk Townhouses

**REPORT ATTACHMENTS AVAILABLE IN THE PLANNING AND ZONING OFFICE**