

Docket Item #22-C  
DEVELOPMENT SPECIAL USE PERMIT #2002-0048  
QUAKER RIDGE

Planning Commission Meeting  
October 7, 2003

**ISSUE:** Consideration of a request for a development special use permit, with site plan to construct a 28 unit townhouse cluster development with tandem parking and modifications.

**APPLICANT:** Carr Homes, LLC  
by J. Howard Middleton, Jr., attorney

**LOCATION:** 3517-3551 Duke Street

**ZONE:** R-8/Residential

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## SUMMARY

### *A. Overview*

The applicant, Carr Homes, is requesting approval of a development special use permit, a rezoning from R-8 to RB, and a Master Plan amendment to construct a 28-unit cluster townhouse development on the 2.49-acre site at 3517-3551 Duke Street. Staff recommends approval of the development special use permit and the associated rezoning and Master Plan amendment (MPA #2003-004, REZ# 2002-0005), subject to the staff conditions.



The site fronts Duke Street and is surrounded on three sides with multi-family/townhouse development, and the proposed townhouse use is appropriate for the site. However, the site includes a considerable change in topography and open space areas that are wooded with a number of mature trees; therefore, the number of townhouse units is more appropriately determined through an analysis of the site and the preparation of an appropriate site plan that responds carefully to the site, rather than through a numeric calculation based on a proposed new zoning classification. The approved plan must ensure a new residential community that is appropriate to the site, considers conservation of the site environment, is compatible with the adjoining townhouse developments and buffered from the adjacent townhomes.

The City has held several meetings with the adjoining residents. Through this process, the applicant has worked with staff to address many of these concerns, which include:

- Density;
- Amount, Quality and Location of Usable Open Space;
- Tree Preservation;
- Landscape Buffers on the Perimeter of the Site;
- Streetscape/Pedestrian Environment;
- Landscaping/Street Trees;
- Parking;

- Traffic and Circulation; and
- Building Design/Materials.

However, staff does not believe that the proposal fully addresses the following issues:

- Overall number of units given the topography and wooded nature of the site;
- Adequate landscape buffers for adjacent residences; and
- Tree preservation.

***B. Remaining Issues***

*Compatibility/Density*

In the initial reviews of this application, staff agreed that, from a planning perspective, the townhouse use was appropriate given the adjacent townhouse development and the frontage on Duke Street. The major concern is that any redevelopment be similar in density to the adjoining townhouse developments. Since the site has a considerable topography and is heavily wooded, the primary concern is the preservation of the character of the site, maintaining the existing landscaping and provision of adequate separation or buffering from the adjacent townhouse uses. Therefore, the discussions with the applicant have focused on the need to resolve site plan concerns, including the provision of appropriate amounts of public and private open space, landscape buffers from adjacent developments, tree preservation, and setbacks.

The following table compares the existing and the applicant’s proposed density, zoning, and open space of the townhouse developments adjoining the proposed development:

	<b>Colonial Heights</b>	<b>Quaker Village</b>	<b>Quaker Ridge (Proposed)</b>
<b>Zone</b>	RT Cluster	RB Cluster	RB Cluster
<b>Site Area</b>	4.44 Acres	4.93 Acres	2.49 Acres
<b>Number of Units</b>	44	55	28
<b>Density</b>	9.90 Units/Acre	11.15 Units/Acre	11.24 Units/Acre
<b>Approval Date</b>	1984	1988	NA

The analysis indicates that the applicant's proposed density is slightly higher than Colonial Heights (11.24 units per acre versus 10 units per acre), and it is essentially the same density as Quaker Village, located to the north and east of the site.

*Tree Preservation and Buffering For Adjacent Residences*

At the request of staff, the applicant has retained several mature trees located in the central portion of the site and in a landscape buffer on the northern and eastern portion of the site, which provide a canopy and coverage for the adjoining residents. However, with eleven units proposed on the northern portion of the site, several of the larger trees would be eliminated. To create a larger landscape buffer and retain groupings of the existing tree canopy adjacent to Quaker Village, staff is recommending the elimination of lots 18, 19 and 24. With the elimination of these units, a grouping of large trees can be retained on lots 18 and 19, which will augment the landscape buffer on the perimeter of the site and maintain the character of the site, while providing considerable visual relief and screening for the adjoining residents. Further, staff is recommending the elimination of lot 24 in order to relocate the internal street and thereby provide a larger buffer along the northern property line adjacent to Quaker Village.

Proposed Site Plan



Staff Proposal



In summary, to maintain the character of the site and provide adequate buffering for adjacent residents, staff is recommending that three of the proposed units be eliminated. While there may be alternative lot arrangements to provide buffering and retain the mature trees, this approach provides an effective retention of trees, open space, and wooded buffer.

**C. Community Concerns**

Neighboring residents have expressed concerns about the proposed density, rezoning, traffic and parking, and the need for a landscape buffer on the perimeter of the property. The staff recommendation, which will result in a reduction in density to approximately 10 du/ac, is now comparable to Colonial Heights.

The community expressed concern about an increase in traffic. The traffic impact study indicates that the increase in traffic volume from the proposed development represents less than a one-half percent increase in the existing Duke Street peak-hour volumes, and will not result in a measurable degradation of existing traffic conditions on Duke Street.

A further concern was raised about an initial staff condition that would restrict access to a right-in-right-out movement, which may have potential impacts on the Colonial Heights neighborhood to the west. Based on that concern, staff agreed to allow full-movement access at the proposed project driveway until such time as an access management plan is implemented in this section of the Duke Street corridor. In recognition of the need for access management in this arterial corridor, the applicant has agreed to proffer additional right-of-way necessary for future implementation.

The community expressed concerns about on-site parking. The proposed development meets current zoning requirements for resident and guest parking.

#### **D. Conclusion**

Staff recommends approval of the development special use permit request, with site plan modifications and tandem parking, on the condition of elimination of three units on the site, for a total of 25. With 25 units, the proposed development is compatible in density with surrounding development; maintains many of the mature trees, which retains the character of the neighborhood; reduces the grading; and retains additional open space and a buffer to the adjacent townhouse developments.

The staff recommendation of approval is predicated upon addressing the site issues of: increasing the buffer on the northern portion of the site, the use of high-quality building materials, preservation of trees and open space, and a reduction in the number of units through the conditions outlined within this report. These recommendations will ensure that the proposed development is compatible with the existing context of the townhouse neighborhoods surrounding the subject properties.

The proposed development with the staff recommendations will provide public benefit by relocating utilities below grade on Duke Street, providing a 12,000-square-foot open space area that will be publically accessible, and preserving several existing large trees of 23 to 30" in caliper, reducing the number of curb cuts on Duke Street, while creating well-designed buildings and a frontage along Duke Street with visible open space, wider sidewalks, and new street trees.

**STAFF RECOMMENDATION**

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

1. The applicant shall eliminate two units from lots 13 to lot 23 to retain a grouping trees on the northern portion of the site and eliminate a unit from lots 24-28 to increase the setback from 30" gum trees, that will result in the elimination of three units to the satisfaction of the Director of Planning & Zoning. The applicant shall eliminate the two surface parking spaces on the eastern portion of the site to retain the 23" caliper tree along the property line on the eastern portion of the site. (P&Z)
2. The applicant shall revise the site plan to provide the following revisions to the satisfaction of the Director of P&Z, that at a minimum shall include:
  - a. Provide a side loaded garage for lot # 6, the area now occupied by the driveway shall be converted to open space and landscaping.
  - b. Lot # 1- 3 shall be setback a minimum of 24 ft. and lot # 4-5 shall be setback a minimum of 27 ft. The setbacks shall be from the new property line after the dedication of right-of-way on Duke Street.
  - c. Alternate stoop and driveway for lot 2 to provide adequate area for a continuous row of street trees.
  - d. Within a row of connected units, the front facades shall be aligned in groupings of 3-4 units to create a more uniform street wall. (P&Z)
3. The central open space area "Parcel-A" as generally represented on the preliminary plan shall be accessible to the general public. The applicant shall provide a minimum 10 ft. wide tree preservation area-landscape buffer on the western and northern portion of the property, which shall be a separate parcel and shall be owned and maintained by the Homeowners Association. (P&Z)
4. A public ingress/egress easement shall be recorded by the applicant for the entire portion of the internal private street and adjoining sidewalks. The easement shall provide public vehicular and pedestrian access. A plat depicting the easement(s) and all required documentation shall be submitted to the City Attorney with the final site plan submission. The easement shall be approved by the City Attorney and recorded among the land records prior to the release of the final site plan. (P&Z)
5. The applicant shall extend the proposed 5 ft. sidewalk to the north adjacent to lot 13 to provide a continuous 5 ft. wide sidewalk from Duke Street into the site along the east side of the entrance road to the satisfaction of the Director of P&Z. A continuous 5 ft. wide sidewalk shall be provided on the southern portion of the east-west internal drive aisle to the

eastern property line to the satisfaction of the Director of P&Z. Stamped asphalt crosswalks shall be provided at the internal sidewalk crosswalk and at the intersection of the internal drive aisle and Duke Street. Where sidewalks are proposed in front of units (lots # 24-28) the driveway materials, color or texture will be distinguishable from the sidewalk materials, color and/or texture. (P&Z)

6. All private driveways serving individual garages shall have a minimum length of 16.0 feet or less than 10 ft. (measured from garage door to edge of sidewalk in front of unit or the inside edge of curb if no sidewalk is planned in front of unit), the driveways for lots 24-28 shall be designed to minimize encroachment of parked cars onto the adjoining sidewalk. Vehicles shall not be permitted to park in driveways with a length less than 16 ft., and in no case will cars parked in driveways be permitted to encroach onto sidewalks or into the private streets. No portion of any vehicle shall extend into the EVE. These prohibitions shall be clearly noted in the Homeowner's Agreement (HOA), and the HOA will also provide for enforcement of this condition. (P&Z)
7. The townhouse garages shall contain a minimum unobstructed dimension of 18 ft. x 18.5 ft. for the two standard size spaces. In addition to the parking required by the zoning ordinance for residents, 15 % additional parking(excluding driveway parking spaces) shall be provided for visitors.(P&Z)
8. All visitor parking spaces shall require all applicable signage as required by the zoning ordinance and shall be installed by the applicant. All appropriate on-street parking signage and any other signage for control of pedestrians and vehicles shall be installed by the developer to the satisfaction of the Director of T&ES. (P&Z) (T&ES)
9. The final architectural elevations shall be consistent with the level of quality and detail provided in the preliminary architectural elevations dated August 13, 2003. In addition, the applicant shall provide additional refinements to the satisfaction of the Director of Planning and Zoning that shall at a minimum include:
  - a. On the side elevations, reduce the width of the window to 4'3" and eliminate the trim or brick detail around the arch used in the vertical portions of the window.
  - b. The window locations on the end units shall be coordinated with the floor plans, shall align vertically, and shall not be more than a distance of 10 feet on center from the rear-most windows.
  - c. The materials of the units shall be limited to brick, stone or cementitious siding.
  - d. Brick and cementitious siding shall be provided for the front facades as generally represented on the preliminary elevations. The front side and rear facades for lots 1-5 and lots 24-28, shall be brick, unless cementitious siding

- and stone are provided on the front of the unit, then cementitious siding and stone shall also be provided on the rear facade. For the remaining units brick shall be provided for the side facades.
- e. Decks for lots 1-5 and 24-28 shall be prohibited other than as represented on the preliminary elevations.
  - f. For all of the units the width of shutters needs to equal half the width of the adjacent window.
  - g. The units shall provide varying roof pitches and high quality composite shingles.
  - h. Color elevations shall be submitted with the final site plan.
  - i. Architectural elevations (front, side and rear) shall be submitted with the final site plan. Each elevation shall indicate average finished grade. (P&Z)
10. Rear fences for lots adjacent to Duke Street shall be limited to a maximum height of 3.5 ft. and shall be limited to a decorative open style metal fence to the satisfaction of the Director of P&Z. Fences shall be prohibited within the 10 ft. tree conservation area on the northern portion of the property. A detail of all fences shall be provided on the final site plan. (P&Z)
  11. The applicant shall reduce the height of the proposed retaining wall on Duke Street to a maximum height of 4-5 ft. The material of the retaining walls shall be stone similar to the existing stone retaining walls within Quaker Village. (P&Z)
  12. In the event any trees designated to be saved are damaged or destroyed during the development process, the applicant shall replace such tree with additional trees of significant caliper equal, cumulatively, to the tree destroyed. In addition, the applicant shall pay the City \$15,000 each if any of the 30" Gum trees, along the eastern property line are damaged or destroyed during the construction process by the applicant or contractor as determined by the City Arborist. The landscape bond shall be for a period of 28 months. (P&Z)
  13. A revised 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 level and quality of landscaping depicted on the preliminary landscape plan and the plan shall also provide:
    - a. Provide streetscape and site furnishings for the internal open space such as benches to encourage its use.
    - b. Provide a significant amount of shrubs, landscaping and groundcover for the yards of the units that are adjacent to Duke Street.
    - c. Each lot shall provide an ornamental or columnar street tree adjacent to the internal private streets. The lots shall be revised to exclude the street trees adjacent to the internal private streets.
    - d. A continuous row of shade trees such as London Plane shall be provided on east side of the entrance street and to the extent possible on the west side of



- the street. The spacing of the trees shall be 25-30 ft. on-center.
- e. Evergreen and deciduous landscaping shall be provided in the buffer area between the development and Colonial Heights in consultation with Colonial Heights residents and to the satisfaction of the Directors of P&Z and RP&CA. The evergreen plantings shall be a minimum of 10-12' at the time of planting and the trees shall be a minimum of 4" caliper at the time of planting.
  - f. The tree preservation methods shall be installed and inspected by the City Arborist prior to any construction, demolition, grading or utility work for the site.
  - g. Utility lines such as water, storm sewer and electric lines shall be located to minimize impacts on proposed street trees and open space.
  - h. The location of all light poles shall be coordinated with the street trees.
  - i. Depict horizontal sight distance on the landscape plan.
  - j. All landscaping shall be maintained by the HOA in good condition and replaced as needed.
  - k. 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.
  - l. Landscaping shall be installed at a time to be determined in consultation with the City Arborist and Planning & Zoning so the survival of the landscaping will not be jeopardized by planting during a season that will not support its survival.
  - m. A tree preservation plan for all trees that are required to be preserved on the site plan. The tree preservation plan shall be prepared by a certified arborist or other horticultural professional with a demonstrated expertise in tree preservation. The tree preservation plan shall be submitted to the City Arborist with the submission of the final site plan. The applicant shall perform all necessary enhancements for the street trees such as watering/fertilizer, etc., that are required by the tree preservation plan prior to construction/grading of the site. (P&Z) (Police) (RP&CA)
14. Before commencing any clearing or grading of the site, the applicant shall hold a meeting with homeowners association representatives and adjacent single family 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 the permit is issued. (P&Z)
15. The applicant shall identify a person who will serve as 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)(T&ES)

16. Prior to the release of the first certificate of occupancy for the project, the City Attorney shall review and approve the language of the Homeowner's Agreement to ensure that it conveys to future homeowners the requirements of this development special use permit, including the restrictions listed below. The HOA language shall establish and clearly explain that these conditions cannot be changed except by an amendment to this special use permit approved by City Council.
- a. Individual townhouse garages and spaces may be utilized only for parking; storage which interferes with the use of the garages for vehicle parking is prohibited.
  - b. Vehicles shall not be permitted to park on sidewalks, in driveways which obstruct sidewalks, on any emergency vehicle easement. The Homeowner's Association shall maintain a contract with a private towing company to immediately remove any vehicles violating this condition.
  - c. For units adjacent to Duke Street decks shall not be permitted, outdoor storage and sheds are prohibited. The fencing for the yards adjacent to Duke Street shall be limited to a 3 -3.5 ft. tall open metal fence.
  - d. Exterior changes or additions to units shall not be permitted without approval of City Council or the Director of Planning and Zoning, as determined by the Director.
  - e. No balconies, bay windows, or any other improvements shall be allowed to encroach into the space above an emergency vehicle easement.
  - f. All landscaping and screening shown on the final landscaping plan shall be maintained in good condition and may not be reduced without approval of City Council or the Director of Planning and Zoning, as determined by the Director of Planning and Zoning.
  - g. The applicant shall notify prospective purchasers, including language in sales and marketing brochures, that visitor parking is limited to driveway parking spaces on each individual lot and on-site visitor parking.
  - h. The Homeowners Association documents shall disclose to all prospective buyer(s) through the sales literature and documents, sales contracts etc. that the internal public access easement for the streets and sidewalks will be for general public use and the potential liability. The central open space will be accessible to the public.
  - i. The developer shall notify prospective buyers, in its marketing materials, that the proposed streets and on-site storm sewers are privately maintained.
  - j. The proposed entrance on Duke Street shall be designed to the satisfaction of the Director of T&ES. The future condition will be right-in, right-out at such

time deemed necessary by the Director of T&ES or current operation deemed unsafe. Notification will need to be provided in all applicable homeowners documentation disclaimers and literature. (T&ES) (P&Z)

17. Freestanding subdivision or development sign(s) shall be prohibited. (P&Z)
18. 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)
19. A plat of consolidation and final subdivision plan shall be consistent with the final site plan, and shall be approved and recorded prior to the release of the final site plan. The subdivision plan and all easements shall be submitted as part of the first final site plan submission. (P&Z)
20. The applicant shall attempt to secure mail delivery to individual homes from the USPS. If such delivery cannot be secured, two ganged mailboxes per block shall be permitted within the development in a location to the satisfaction of the Director of P&Z. (P&Z)
21. The applicant shall be allowed to make minor adjustments to the building locations if the changes do not result in the loss of required or visitor parking, open space, existing trees to be protected or an increase in the building height or building footprint. (P&Z)
22. 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)
23. Submit a building location survey to the Planning and Zoning staff prior to applying for a certificate of occupancy permit for each unit. (P&Z)
24. Temporary construction trailer(s) shall be permitted and be subject to the approval of the Director of P&Z. (P&Z)
25. Temporary structures for sales personnel, as well as sales/marketing signs, shall be permitted, with the size and site design for such temporary structures, including signs, subject to approval by the Director of Planning and Zoning. (P&Z)
26. The applicant shall attach a copy of the final released site plan to each building permit document application and be responsible for insuring that the building permit drawings are

consistent and in compliance with the final released site plan prior to review and approval of the building permit by the Departments of Planning and Zoning and Transportation and Environmental Services. (P&Z)

27. All utility structures (except fire hydrants) shall be located out of view of public property and rights-of-ways and shall be screened to the satisfaction of the Director of Planning and Zoning. (P&Z)
28. Developer to comply with the peak flow requirements of Article XIII of AZO. (T&ES)
29. Solid waste services shall be provided by the City. The developer must provide adequate space within each unit to accommodate a City Standard super can and recycling container. The containers must be placed inside the units or within an enclosure that completely screens them from view. The developer must purchase the standard containers from the City or provide containers that are compatible with City collection system and approved by the Director of T&ES. The development must meet all minimum standard requirements for solid waste access. (T&ES)
30. Applicant shall provide \$850/ea to the Director of T&ES for the purchase and installation of two (2) City standard street cans along Duke Street. (T&ES)
31. The applicant shall dedicate additional 7 feet of right-of-way on Duke Street , except for the area of the retaining wall as depicted on the preliminary plan for 2 ft. of additional landscaping, 1 foot additional sidewalk and 4 feet for future access management improvements on Duke Street. Relocate private utilities outside of proposed right-of-way. (T&ES)
32. The applicant shall provide a site lighting plan to the satisfaction of the Director of T&ES in consultation with the Chief of Police. The plan shall show the 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 the fixtures. Provide lighting calculations to verify that lighting meets City Standards and are located to prevent excessive spillover lighting and glare from adjacent properties. (T&ES)
33. Plan must demonstrate to the satisfaction of the Director of T&ES that an adequate non-erosive stormwater outfall is available to the site. (T&ES)
34. Show all existing and proposed easements, both public and private. (T&ES)

35. Replace existing curb and gutter, sidewalks, and handicap ramps that are in disrepair or broken along the site frontage to the satisfaction of the Director of T&ES. (T&ES)
36. Provide City Standard pavement for emergency vehicle easements.(T&ES)
37. Provide proposed elevations (contours and spot shots) in sufficient detail on grading plan to clearly show the drainage patterns.(T&ES)
38. Any inconsistencies in the drawings shall be reconciled to the satisfaction of the directors of P&Z and T&ES.(T&ES)
39. The site is located on marine clay areas as delineated on City map of marine clay areas. Prior to the release of the final site plan, provide geotechnical report with recommendations from a geotechnical professional for the pavement design, cut slopes and embankments, and retaining walls, to the satisfaction of the Director of T&ES. (T&ES)
40. Provide and install underground conduit with nylon pull cord and junction boxes at 300 feet centers and terminals for City traffic signal interconnection wiring along Duke Street. (T&ES)
41. Underground existing overhead utility lines along the frontage of the property on Duke Street, to the satisfaction of the Director of T&ES. (T&ES)
42. The developer shall notify prospective buyers, in its marketing materials, that the proposed streets and on-site storm sewers are private. (T&ES)
43. 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)
44. 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)
45. All Traffic Control Device design plans, Work Zone Traffic Control plans, and Traffic Studies shall be sealed by a professional engineer, registered in the Commonwealth of Virginia. (T&ES)
46. Prior to release of final site plan show vehicle sight distance (horizontal and vertical) at project entrance, per AASHTO guidelines and adjust any obstructions to the satisfaction of the Director of T&ES and P&Z. (T&ES) (P&Z)

47. Provide all pedestrian and traffic signage to the satisfaction of the Director of T&ES. (T&ES)
48. Provide a narrative describing how the project will comply with the stormwater quantity and quality requirements of Article XIII of the Zoning Ordinance. (T&ES)
49. Provide pre and post development, two and ten year storm water computations for the entire site. (T&ES)
50. The applicant is advised that all stormwater designs that require analysis of pressure hydraulic systems and/or inclusion and design of flow control structures must be sealed by a professional engineer, registered in the Commonwealth of Virginia. If applicable, the Director of T&ES may require resubmission of all plans that do not meet this standard. (T&ES)
51. Revise proposed rear yard stormwater drainage for Lots 6-23 to minimize overland runoff across individual lots. Provide area drains in the back yards and pipe runoff to a closed stormwater collection system. Provide easements to ensure that overland relief is protected from future rear yard improvements by homeowners. Connect all downspouts to the stormwater collection system, to the satisfaction of the Director of T&ES. (T&ES)
52. Easements are required for both sanitary sewer and water mains located within the private streets and plan shows overlapping easements for the water lines (Virginia American Water Company) and the sanitary sewers (City of Alexandria). Revise alignment of proposed sanitary sewers and water lines to provide minimum 10' horizontal separation to adequately accommodate the required easements per City standards. (T&ES)
53. Provide a City standard bus shelter on Duke Street, designed to the satisfaction of the Director of T&ES. (T&ES)
54. If fireplaces are to be included 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)
55. Due to the close proximity of the site to the Duke Street the following conditions be included:
  - 1) The applicant shall prepare a noise study identifying the interior levels of noise residents at the site will be exposed to at the present time and 10 years into

- the future in a manner consistent with the Noise Guidance Book used by the Department of Housing and Urban Development (HUD).
- 2) Identify options to minimize noise exposure to future residents at the site, particularly in those units closest to Duke Street, including special construction methods to reduce noise transmission, including:
    - a. Triple-pane glazing for windows
    - b. Additional wall and roofing insulation.
    - c. Installation of resilient channels between the interior gypsum board leaf and the wall studs.
    - d. Others as identified by the applicant.
  - 3) If needed, install some combination of the above-mentioned noise mitigation measures or others to the satisfaction of the Directors of Planning & Zoning, T&ES, and Code Enforcement.(T&ES)
56. The stormwater collection system is part of the Cameron Run watershed. All on-site stormwater curb inlets and public curb inlets within 50 feet of the property line shall be duly marked to the satisfaction of the Director of T&ES.(T&ES)
57. Provide a drainage map for the area flowing to the chosen BMPs, including topographic information and storm drains.(T&ES)
58. The stormwater 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. The design professional shall make a written certification to the City that the BMP(s) are constructed and installed as designed and in accordance with the approved Final Site Plan.(T&ES)
59. The surface appurtenances associated with the on-site structural BMPs shall be marked to the satisfaction of the Director of T&ES to identify them as part of the structural BMP system.(T&ES)
60. For any surface-installed Best Management Practices, i.e. Bio-Retention Filters, Vegetated Swales, etc. that are employed for this site, descriptive signage for the BMPs is required to be installed to the satisfaction of the Director of Transportation and Environmental Services.(T&ES)
61. The applicant shall furnish the Homeowner Association with an Owner's Operation and Maintenance Manual for all the Best Management Practices (BMP's) used on site. The manual shall include at a minimum: an explanation of the functions and operations of the BMP(s), drawings and diagrams of the BMP(s) and any supporting utilities, catalog cuts on

- maintenance requirements and a copy of the maintenance agreement with the City. (T&ES)
62. The applicant shall furnish each home purchaser with a brochure describing the stormwater BMP(s) installed on the site, outlining the responsibilities of the homeowners and the Homeowner's 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. (T&ES)
  63. The applicant is encouraged to participate in the City's "Adopt-a-Street" program.(T&ES)
  64. During the construction phase of this development, the site developer, its contractor, certified land disturber, or owner's other agents 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 sanitary waste at the construction site and prevent its off site migration that may cause adverse impacts to the neighboring properties or the environment to the satisfaction of Directors of Transportation and Environmental Services and Code Enforcement. All wastes shall be disposed off site properly in accordance with all applicable federal, state and local laws.(T&ES)
  65. New construction must comply with the current edition of the Uniform Statewide Building Code (USBC). Shown as Note 3 on Sheet 2. (T&ES)
  66. The final site plans shall show placement of fire easement signs.(T&ES)
  67. A soils report must be submitted with the building permit application. (Code)
  68. Prior to submission of the Final Site Plan, the developer shall provide a fire flow analysis by a certified licensed fire protection engineer to assure adequate water supply for the structure being considered. (Code)
  69. All exterior walls within 3 feet from an interior property line shall have a fire resistance rating of 1 hour, from both sides, with no openings permitted within the wall. An alternative, a 2 hour fire wall may be provided. (Code)
  70. 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. (Code)



71. Roof drainage systems must be installed so as neither to impact upon, nor cause erosion/damage to adjacent property. (Code)
72. The proposed dead end emergency vehicle easement shall have provisions for fire apparatus turnaround. The proposed turnaround by lots 23 and 24 does not meet the required length for fire apparatus to maneuver. Each arm of the turnaround should measure at least 60 feet deep from the midpoint of the main EVE roadway. The emergency vehicle turnaround may include Grasscrete to the satisfaction of the Directors of P&Z, T&ES and Code Enforcement. (Code Enforcement) (P&Z)
73. Fifteen foot turning radii across from Lot 13 is inadequate. A minimum of 25 foot turning is required for emergency vehicle easements. (Code)
74. Add one additional hydrant at street corner by Lot 6. (Code)
75. An automatic sprinkler system shall be provided. (Code)
76. Based on a history of sound transmission complaints, it is recommended that all dwelling units have a STC rating of at least 60. (Code)
77. Hydraulic calculations will be completed to verify main sizes upon final submittal of the site plan. Profiles will be required for hydraulic calculations. (VAWC)
78. Maintain a 10 foot horizontal separation between water and sewer mains, measured edge to edge. This condition is currently not met in front of lots 1-3 and 15-23. (VAWC)
79. Alexandria Archaeology will work with the developer and the archaeological consultant to ensure that cost of the field work to the developer will not exceed \$50,000. (Archaeology)
80. All archaeological work will be carried out in accordance with the City of Alexandria Archaeological Standards and is subject to the approval of the City Archaeologist. (Archaeology)
81. The applicant shall not allow any other metal detection to be conducted on the property, unless authorized by Alexandria Archaeology. (Archaeology)
82. In accordance with the City's Affordable Housing Policy, the applicant shall make a contribution to the City's Housing Trust Fund of \$1.00 per gross square foot of new building area. The applicant shall pay the contribution to the City at the time of sale to the end user in the case of condominium or single family housing, or prior to the issuance of the certificate

of occupancy in the case of rental units or commercial development. (Housing)

**Special use permits and modifications requested by the applicant and recommended by staff:**

1. Development special use permit to construct a 25 unit cluster townhouse development.
2. Special use permit for tandem parking.
3. Modifications of the front, rear and side yard setbacks as depicted on the site plan.
4. Modification of the requirement restricting the amount of impervious surface in a required yard for the front yards.
5. Modification of the 75 foot Duke Street setback requirement.

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**Staff Note:** In accordance with section 11-506(c) of the zoning ordinance, construction or operation shall be commenced and diligently and substantially pursued within 18 months of the date of granting of a special use permit by City Council or the special use permit shall become void.

## **BACKGROUND**

The applicant, Carr Homes, is requesting approval of a development special use permit, with site plan and modifications, to construct 28 fee-simple townhouses in a cluster development on Duke Street west of Quaker Lane. The subject property consists of five lots of record with 412 feet of frontage on Duke Street, 175 feet to 345 feet of depth, and a total lot area of 2.49 acres. The site is currently developed with five single-family homes. Concurrently, the applicant is seeking a rezoning and Master Plan amendment to change the zoning and land use designation of the subject property from R-8 (residential low) to RB (residential medium) and to amend the height designation. For a discussion of those requests, see MPA #2003-0004.

### **A. Project Description**

The applicant's proposed development plan consists of 28 attached townhouse units arranged around an internal east-west private street. The net square footage (nsf) of the units, including the garage ranges from 2,595 to 2,655 nsf on three floors. The proposed height of the units is approximately 42 feet. The two required parking spaces per unit will be provided within the footprint of the unit and will be accessed by front-loaded garages. A total of 62 parking spaces will be provided, with an additional 48 spaces located within the driveways of the townhouses. Eight visitor parking spaces are required and are provided adjacent to the private streets.

Staff has worked with the applicant to ensure that the facades of the 10 units facing Duke Street will appear as the front facades of the homes, rather than the rear or sides, and to ensure that the overall architecture and building materials are of high quality.

Access to the development is provided via a single curb cut on Duke Street. In its original plan, the applicant and the City proposed restricting access to right-in/right-out. However, based upon community concerns, T&ES agreed to allow full-movement access at the proposed project driveway until such time as an access management plan is implemented in this section of the Duke Street corridor. In recognition of the need for access management in this arterial corridor, the applicant is required to proffer additional right-of-way necessary for future implementation.

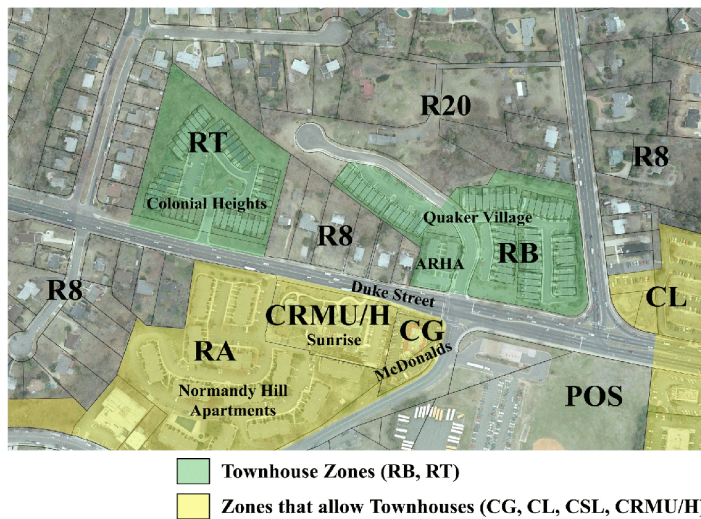
Working with the flexibility allowed under the cluster ordinance provisions related to lot area and yard requirements, the applicant has proposed a centrally-located, roughly 12,000-square-foot open space area within the development. Several mature trees are located in this area and are proposed to be preserved; the applicant proposes to plant new trees in this area, which visually enhances the streetscape. Buffers are proposed between Colonial Heights to the west and Quaker Village to the north. At the request of Colonial Heights residents, the applicant is providing a metal fence on the shared property line. New trees are also proposed in the both buffer areas. The applicant has met with Quaker Village residents to discuss the existing wooded buffer along the northern portion of the subject property.

Streetscape improvements are proposed along the frontage of the property and include the undergrounding of utilities, a wider sidewalk, new street trees, and a bus shelter. The applicant proposes to dedicate approximately 8,300 square feet of property to the City for public street purposes. As a condition of approval, staff have requested that the applicant dedicate an additional seven feet of right-of-way, in order to provide four feet for future access management; two feet for additional landscaping; and one foot for additional sidewalk.

***B. Zoning***

The current zoning of the site is R-8, Single-family zone. The site is adjacent to CL, CG, and RA zones on the south, RT/Townhouse zone to the west, R-12 to the north, and RB/Townhouse to the east and north.

Nearby sites have undergone a change in zoning in recent years. The property at 3750 Duke Street was rezoned from R-8 to RB in 1994 to allow a cluster development. It is now known as Wheaton Grove and consists of 10 townhouse units. The Colonial Heights property was rezoned from R-8 to RT in 1980, with development approval for 44 units granted in 1984. The property located immediately to the north of the subject property was rezoned in 1988 from R-8 and R-20 to RB/Townhouse and R-12. A total of 55 townhouse units were constructed and are known as Quaker Village.



The applicant is seeking a modification of the 75-foot Duke Street setback for the townhouses located adjacent to Duke Street. The proposed setback ranges from 58.54 feet to 66 feet from the center line of Duke Street.

The applicant is also seeking modifications of the front, side, and rear yard setbacks, and for the amount of impervious surface in a required yard. A discussion of these modifications is provided below.

<b>QUAKER RIDGE</b>			
<b>Property Address:</b>	3517, 3517A, 3525, 3535, 3541, 3551 Duke Street		
<b>Total Site Area:</b>	2.49 acres		
<b>Zone:</b>	R-8 (Current zone) RB (Proposed zone)		
<b>Current Use:</b>	Single-family residential		
<b>Proposed Use:</b>	Townhouses		
	<b><u>R-8 (Current Zone)</u></b>	<b><u>RB (Proposed Zone)</u></b>	<b><u>Proposed</u></b>
<b>FAR</b>	.35	.75	.686 without decks .7091 with decks
<b>Yards -Front</b> requested)	30'	20'	3.12 -51' (modification
<i>Side</i>	1:2, min. 8'	1:2, min. 8'	5'-12' (modification requested)
<i>Rear</i> requested)	1:1, min. 8'	1:1, min. 8'	14' - 29' (modification
<b>Highway Setback</b>	75'	75'	58.54' (modification requested)
<b>Height</b>	35'	45'	42.25'
<b>Open Space</b>	none	800 sq.ft./du (22,400 sq. ft)	1554 sq. ft./du (43,512 sq. ft.)
<b>Parking</b> spaces	2 sp/du	2 sp/du + 15%visitor parking	62 spaces + 48 spaces in driveways + 8 visitor

**STAFF ANALYSIS**

***A. Summary***

Staff recommends approval of the proposed development special use permit, with site plan modifications and tandem parking, with a reduction in the number of units, the preservation of specific large trees, and the provision of adequate buffers for adjacent development. Throughout the conceptual review process, the applicant has worked extensively with staff to address fundamental issues such as providing consolidated open space, tree preservation and buffers; grading; undergrounding of utilities; and building design and materials. In addition, the applicant has worked with the adjacent townhouse communities to address concerns related to site access, tree preservation, and buffers.

Upon the resolution of these concerns, staff believes that the development can provide considerable public benefit, including the undergrounding of utilities along Duke Street, enhanced streetscape along Duke Street, preservation of many trees on the site, and consolidated open space that is visually and physically accessible from Duke Street.

***B. Remaining Issues***

Staff has several remaining concerns regarding the project, including density, tree preservation, and buffering from existing adjacent development.

*Density*

The following table depicts the existing and proposed densities of other nearby residential developments:

	<b>Colonial Heights</b>	<b>Quaker Village</b>	<b>Wheaton Grove (Metzger)</b>	<b>Quaker View</b>	<b>Quaker Ridge (Proposed)</b>
Zone	RT Cluster	RB Cluster	RB Cluster	CL	RB Cluster
Site Acreage	4.44 Acres	4.93 Acres	1.20 Acres	0.57 Acres	2.49 Acres
Maximum Number of Allowable Units	44 units	79 Units	22 Units	15 Units	54 units

Number of Units	44	55	10	8	28
Project Density	9.90 Units/Acre	11.15 Units/Acre	8.3 Units/Acre	14 Units/Acre	11.24 Units/Acre
Average FAR Per Lot	1.24	1.40	.92	NA	1.18
Site FAR	0.42	0.59	0.55	0.75	0.69
Average Lot Size	1,467 sf	1,655 sf	2,823 sf	NA	3,002 sf
Approval Date	1984	1988	2000	NA	NA

The analysis indicates that, as proposed, the density is slightly higher than Colonial Heights (9.9 units per acre versus 11.24 units per acre), but is essentially the same density as Quaker Village located to the north of the site (11.15 units per acre v. 11.24 units per acre).

Staff is concerned about the proposed density of the development not because it is more dense than the zoning ordinance allows, or because the proposed density significantly exceeds the density of adjacent townhouse developments. Rather, staff's density concern stems from the unique characteristics of the site itself. The site contains a significant amount of wooded open space between and around the existing single family dwellings, providing a natural buffer between the Quaker Village development to the north and Duke Street. In addition, the site contains a significant amount of topography.

Colonial Heights



Quaker Village



These site conditions require creative, balanced solutions that allow for an appropriate level of development while ensuring the protection of trees, provision of quality open space, and appropriate buffering of adjacent residential communities.

Seeking that balance, staff recommends that the total number of units be limited to 25, or three units less than proposed by the applicant, in order to provide a greater buffer between the proposed development and its neighbors, to preserve large trees, and to provide larger, more visually connected open spaces within the proposed development. Staff has prepared an alternative site layout that eliminates two units located along the northern property line and shifts the units to the south, providing a 10-foot buffer of screening for the adjacent Quaker Village development immediately to the north of the subject property. The shift results in the loss of two units (Lots #18 and #19), but in exchange will protect a grouping of large trees that are currently proposed to be removed by the applicant, and will create another smaller open space area that is visually connected to the larger open space within the development and adjacent to Duke Street. Staff also recommends elimination lot #24 along Duke Street, in order to provide more open space adjacent to Duke Street. The staff proposal will result in the elimination of three units. While there may be alternative lot arrangements to provide buffering and retain the mature trees, this approach provides an effective retention of trees, open space and wooded buffers.

*Proposed Site Plan*



*Staff Proposal*



*Landscape Buffer - Tree Preservation*

The applicant proposes to retain several of the trees on the site, including several large gum trees that are part of the large common open space area. However, as discussed above, there is a grouping of large trees near the north property line that the applicant proposes to remove. Given the height and canopy of these trees, they would significantly augment the proposed buffer. For these reasons, staff recommends retaining these trees and expanding the proposed buffer, and has prepared a revised layout of the site which depicts the elimination of two units in the vicinity of the tree grouping along the northern boundary.



In addition to protecting the grouping of trees and ensuring its survivability during construction, a new open space area is created across from the larger open space area, which visually connects the two spaces and provides a swathe of green space through the site.

Neighboring residents have expressed concern to staff about the existing wooded buffer between their development and the proposed development. To that end, both staff and the applicant have met with adjacent residents to discuss their concerns related to tree preservation and the provision of adequate buffers at the perimeter of the site. The applicant has submitted, as part of the site plan, a landscaping plan which depicts the protection of many trees on the property and the provision of additional trees both on the site and the Quaker Village property to the north. In order to preserve as much of the existing buffer as possible and to ensure that the buffer area and the trees will not be removed by residents of the development at a later date, staff recommends that a 10-foot wide conservation area be provided along the northern and western boundary of the site, to be owned and maintained as common property by the homeowners' association.



Staff recommends several incentives to ensure that the trees that are designated to be retained are protected during construction. First, in the event any tree designated to be retained is damaged or destroyed during the development process, the applicant will be required to replace the tree with additional trees of significant caliper, cumulatively equal to the tree. Second, the applicant will be required to pay the City \$15,000 if any large tree that designated to be retained is damaged or destroyed during the construction process.

### *Architectural Elevations*

Staff has worked with the applicant to revise the architectural elevations in order to create variation in the units, along with providing high-quality building materials, such as brick, this will ensure the overall quality of the development. With regard to the units facing Duke Street, staff worked with the applicant so that the facades of the units appear as the front facade, rather than having the rear or side facade facing Duke Street.

Revised Architectural Elevations (Illustrative)



To ensure the use of high-quality construction materials, which the applicant has represented to staff will be used, staff recommends a condition requiring the applicant to provide brick and cementitious siding for the front facades as generally represented on the preliminary elevations, and that brick be provided for the front side and rear facades for lots 1-5 and lots 24-28. If cementitious siding and stone are provided on the front of the unit, then cementitious siding and stone shall also be provided on the rear facade.

***C. Other issues***

*Traffic*

Access to the consolidated site is provided by a single entrance on Duke Street. Based on a traffic impact study submitted by the applicant, this redevelopment will increase the total number of trips generated by 155 per day. During the a.m. and p.m. peak hours of traffic flow on Duke Street, the projected driveway volumes are expected to increase by 14 vehicles (2 entering and 12 exiting) and 14 vehicles (10 entering and 4 exiting), respectively.

As concluded in the traffic impact study, these increases in traffic volume represent less than a one-half percent increase in the existing Duke Street peak hour volumes and will not result in any measurable degradation of existing traffic conditions on Duke Street or any additional traffic impacts. Daily fluctuations in traffic volumes on roadways such as Duke Street typically range from five to ten percent, well above the projected one-half percent increase for the proposed redevelopment.

A specific concern raised by the community was the possible impact on the Colonial Heights neighborhood to the west by restricting the project entrance on Duke Street to right-in-right-out operation. In particular there was concern that, with this staff-proposed restriction, traffic exiting the site and traveling westbound as required by the right-out restriction would use the entrance to

Colonial Heights as a turn-around in order to travel eastbound on Duke Street. Based on that concern, staff agreed to allow full-movement access at the proposed project driveway until such time as an access management plan is implemented in this section of the Duke Street corridor. In recognition of the need for access management in this arterial corridor, the applicant has agreed to proffer additional right-of-way necessary for future implementation.

*Affordable housing*

The applicant met with the City several months ago to discuss the affordable housing contribution. At that time, the City recommended that the applicant provide a contribution of \$1.00 per gross square foot of floor area rather than provide affordable units on-site. Given the likely asking price for the new homes and the amount of subsidy necessary to buy down the cost of a unit to make it affordable, it was determined that the contribution would not be sufficient to subsidize even one unit. The total gross square footage in the project is estimated at 83,592 sq. ft. which would give a \$83,592 contribution or buy-down amount. In addition, the affordable unit would likely not remain affordable after the initial, heavily discounted sale price.

**D. Zoning Modifications**

*Modification of Front Yard (lots 1-4; 6-11; 13-26), Rear Yard (all lots), and Side Yard (lots 1,5,6,12,13,18,23,24,28) Setbacks*

The applicant has requested modifications of the front, rear, and side yard requirements, as stated above. The requested modifications are typical of cluster development requests. Staff supports the requested modifications and notes that flexibility in the site layout and design is encouraged in the cluster zoning provision, along with the preservation of open space, with adequate protections for the existing and potential developments that adjoin the proposed cluster development. Staff believes the proposed, commonly-owned, landscaped buffer along the northern and western portions of the site adjacent to Quaker Village and Colonial Heights as recommended by staff, as well as the preservation of existing trees and the amount of proposed open space, will adequately protect those developments.

*Impervious Surface in Front Yards (lots 1-27)*

The Zoning Ordinance states that not more than 50% of the required yard may be paved for use as driveways or parking spaces. In this case, the majority of units have driveways to provide access the front-loaded garages which occupy more than 50% of the required front yard, necessitating the modification. Staff recommends approval of the modification.

*Duke Street Setback (lots 1-5; 24-28)*

For properties that abut Duke Street from Quaker Lane west to the City limits, there is a 75-foot setback requirement. The applicant is requesting a reduction of the requirement in order to set back the units between 58.54 feet at the closest point and 66 feet from the center line of Duke Street. The Duke Street setback requirement originated from the requirement for service roads along Duke Street, which is no longer applicable. In fact, service roads on portions of Duke Street have recently been removed. The applicant is proposing a typical townhouse setback on Duke Street and staff is therefore recommending approval.

The applicant is proposing to dedicate 8,326 square feet along Duke Street to the City for public street purposes. The Department of Transportation and Environmental Services staff is requesting that the applicant dedicate an additional seven feet of right-of-way in this area, in order to provide two feet for additional landscaping, one foot for additional sidewalk, and four feet for future access management improvements on Duke Street.

#### **STAFF RECOMMENDATION**

Staff recommends **approval** of the proposed development special use permit, with site plan and modifications, subject to the conditions outlined within the staff report.

**STAFF:** Eileen Fogarty, Director, Department of Planning and Zoning;  
Jeffrey Farner, Chief, Development;  
Kathleen Beeton, Urban Planner;  
Lorrie Pearson, Urban Planner.

CITY DEPARTMENT COMMENTS

Legend: C - code requirement R - recommendation S - suggestion F - finding

Transportation & Environmental Services:

- C- 1 Bond for the public improvements must be posted prior to release of the plan.
- C- 2 All downspouts must be connected to a storm sewer by continuous underground pipe.
- C- 3 The sewer tap fee must be paid prior to release of the plan.
- C- 4 All easements and/or dedications must be recorded prior to release of the plan.
- C- 5 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- 6 All drainage facilities must be designed to the satisfaction of T&ES. Drainage divide maps and computations must be provided for approval.
- C- 7 All utilities serving this site to be underground.
- C- 8 Provide site lighting plan to meet minimum city standards.
- C- 9 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- 10 The applicant must comply with the Chesapeake Bay Preservation Act in accordance with Article XIII of the City's zoning ordinance for storm water quality control which includes requirements for pollutant load reductions and treatment of the Water Quality Volume Default (WQV).
- C- 11 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 Erosion and Sediment Control sheets prior to engaging in land disturbing activities in accordance with Virginia Erosion and Sediment Control Law.
- C- 12 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 new state requirement for a VPDES permit for all construction activities greater than 1 acre.

- F-1 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 this.
- F-2 Plan does not indicate whether or not there are any know soil and groundwater contamination as required with all preliminary submissions. Should any unanticipated contamination or underground storage tanks, drums and containers are encountered at the site the applicant must immediately notify the City of Alexandria Department of Transportation and Environmental Services, Division of Environmental Quality.
- R-1 Developer to comply with the peak flow requirements of Article XIII of AZO.
- R-2 Solid waste services shall be provided by the City. The developer must provide adequate space within each unit to accommodate a City Standard super can and recycling container. The containers must be placed inside the units or within an enclosure that completely screens them from view. The developer must purchase the standard containers from the City or provide containers that are compatible with City collection system and approved by the Director of T&ES. The development must meet all minimum standard requirements for solid waste access.
- R-3 Applicant shall provide \$850/ea to the Director of T&ES for the purchase and installation of two (2) City standard street cans along Duke Street.
- R-4 Dedicate additional 7 feet of right-of-way on Duke Street for 2 feet of additional landscaping, 1 feet additional sidewalk and 4 feet for future access management improvements on Duke Street. Relocate private utilities and retaining walls outside of proposed right-of-way.
- R-5 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 the fixtures. Provide lighting calculations to verify that lighting meets City Standards.
- R-6 Plan must demonstrate to the satisfaction of the Director of T&ES that an adequate non-erosive stormwater outfall is available to the site.
- R-7 Show all existing and proposed easements, both public and private.

- R-8 Replace existing curb and gutter, sidewalks, and handicap ramps that are in disrepair or broken along the site frontage.
- R-9 Provide City Standard pavement for emergency vehicle easements.
- R-10 Provide proposed elevations (contours and spot shots) in sufficient detail on grading plan to clearly show the drainage patterns.
- R-11 Any inconsistencies in the drawings shall be reconciled to the satisfaction of the directors of P&Z and T&ES.
- R-12 The site is located on marine clay areas as delineated on City map of marine clay areas. Prior to the release of the final site plan, provide geotechnical report with recommendations from a geotechnical professional for the pavement design, cut slopes and embankments, and retaining walls, to the satisfaction of the Director of T&ES.
- R-13 Provide and install underground conduit with nylon pull cord and junction boxes at 300 feet centers and terminals for City traffic signal interconnection wiring along Duke Street.
- R-14 Underground existing overhead utility lines along the frontage of the property on Duke Street, to the satisfaction of the Director of T&ES.
- R-15 The developer shall notify prospective buyers, in its marketing materials, that the proposed streets and on-site storm sewers are private.
- R-16 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.
- R-17 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.
- R-18 All Traffic Control Device design plans, Work Zone Traffic Control plans, and Traffic Studies shall be sealed by a professional engineer, registered in the Commonwealth of Virginia.
- R-19 Prior to release of final site plan show vehicle sight distance (horizontal and vertical) at project entrance, per AASHTO guidelines and adjust any obstructions to the satisfaction of the Director of T&ES.
- R-20 Provide all pedestrian and traffic signage to the satisfaction of the Director of T&ES.

- R-21 Provide a narrative describing how the project will comply with the stormwater quantity and quality requirements of Article XIII of the Zoning Ordinance.
- R-22 Provide pre and post development, two and ten year storm water computations for the entire site.
- R-23 The applicant is advised that all stormwater designs that require analysis of pressure hydraulic systems and/or inclusion and design of flow control structures must be sealed by a professional engineer, registered in the Commonwealth of Virginia. If applicable, the Director of T&ES may require resubmission of all plans that do not meet this standard.
- R-24 Revise proposed rear yard stormwater drainage for Lots 6-23 to minimize overland runoff across individual lots. Provide area drains in the back yards and pipe runoff to a closed stormwater collection system. Provide easements to ensure that overland relief is protected from future rear yard improvements by homeowners. Connect all downspouts to the stormwater collection system, to the satisfaction of the Director of T&ES.
- R-25 Easements are required for both sanitary sewer and water mains located within the private streets and plan shows overlapping easements for the water lines (Virginia American Water Company) and the sanitary sewers (City of Alexandria). Revise alignment of proposed sanitary sewers and water lines to provide minimum 10' horizontal separation to adequately accommodate the required easements per City standards.
- R-26 Provide a City standard bus shelter on Duke Street, designed to the satisfaction of the Director of T&ES.
- R-27 Revise the proposed retaining wall along Duke Street such that no portion of the wall extends into the Duke Street right-of-way.
- R-28 If fireplaces are to be included in the development, the applicant is required to install gas fireplaces to reduce air pollution and odors. Animal screens must be installed on chimneys.
- R-29 Due to the close proximity of the site to the Duke Street the following conditions be included in the SUP:
- 1) The applicant shall prepare a noise study identifying the interior levels of noise residents at the site will be exposed to at the present time and 10 years into the future in a manner consistent with the Noise Guidance Book used by the Department of Housing and Urban Development (HUD).
  - 2) Identify options to minimize noise exposure to future residents at the site, particularly in those units closest to Duke Street, including special construction methods to reduce noise transmission, including:



- Triple-pane glazing for windows
  - Additional wall and roofing insulation.
  - Installation of resilient channels between the interior gypsum board leaf and the wall studs.
  - Others as identified by the applicant.
  - Installation of a berm or sound wall.
- 3) If needed, install some combination of the above-mentioned noise mitigation measures or others to the satisfaction of the Directors of Planning & Community Development, T&ES, and Code Enforcement.

R-30 The stormwater collection system is part of the Cameron Run watershed. All on-site stormwater curb inlets and public curb inlets within 50 feet of the property line shall be duly marked to the satisfaction of the Director of T&ES.

R-31 Provide a drainage map for the area flowing to the chosen BMP, including topographic information and storm drains.

R-32 The stormwater 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. The design professional shall make a written certification to the City that the BMP(s) are constructed and installed as designed and in accordance with the approved Final Site Plan.

R-33 The surface appurtenances associated with the on-site structural BMPs shall be marked to the satisfaction of the Director of T&ES to identify them as part of the structural BMP system.

R-34 For any surface-installed Best Management Practices, i.e. Bio-Retention Filters, Vegetated Swales, etc. that are employed for this site, descriptive signage for the BMPs is required to be installed to the satisfaction of the Director of Transportation and Environmental Services.

R-35 If the units will be sold as individual units and a home owner's association established the following two conditions shall apply:

The applicant shall furnish the Homeowner Association with an Owner's Operation and Maintenance Manual for all the Best Management Practices (BMP's) used on site. The manual shall include at a minimum: an explanation of the functions and operations of the BMP(s), drawings and diagrams of the BMP(s) and any supporting utilities, catalog cuts on maintenance requirements and a copy of the maintenance agreement with the City.

The applicant shall furnish each home purchaser with a brochure describing the stormwater BMP(s) installed on the site, outlining the responsibilities of the

homeowners and the Homeowner's 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:

The applicant shall furnish the owners with an Operation and Maintenance Manual for all Best Management Practices (BMPs) on the project. The manual shall include an explanation of the functions and operations of each BMP and any supporting utilities, catalog cuts on any mechanical or electrical equipment, a schedule of routine maintenance for the BMP(s) and supporting equipment, and a copy of the maintenance agreement with the City.(T&ES)

- R-36 The applicant is encouraged to participate in the City's "Adopt-a-Street" program.
- R-37 During the construction phase of this development, the site developer, its contractor, certified land disturber, or owner's other agents 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 sanitary waste at the construction site and prevent its off site migration that may cause adverse impacts to the neighboring properties or the environment to the satisfaction of Directors of Transportation and Environmental Services and Code Enforcement. All wastes shall be disposed off site properly in accordance with all applicable federal, state and local laws.
- R-38 The proposed entrance on Duke Street shall be designed to the satisfaction of the Director of T&ES. The future condition will be right-in, right-out at such time deemed necessary by the Director of T&ES or current operation is deemed unsafe. Notification will need to be provided in all applicable homeowners documentation disclaimers and literature.
- R-39 New construction must comply with the current edition of the Uniform Statewide Building Code (USBC). Shown as Note 3 on Sheet 2.
- R-40 The final site plans shall show placement of fire easement signs.

Code Enforcement:

- C-1 A Certificate of occupancy shall be obtained prior to any occupancy of the building or portion thereof, in accordance with USBC 118.0.
- C-2 Construction permits are required for this project. Plans shall accompany the permit application that fully detail the construction as well as layouts and schematics of the mechanical, electrical, and plumbing systems.
- C-3 New construction must comply with the current edition of the Uniform Statewide Building Code (USBC). Shown as Note 3 on Sheet 2.
- C-4 The final site plans shall show placement of fire easement signs. See attached guidelines for sign details and placement requirements.
- C-5 A soils report must be submitted with the building permit application.
- C-6 Prior to submission of the Final Site Plan, the developer shall provide a fire flow analysis by a certified licensed fire protection engineer to assure adequate water supply for the structure being considered.
- C-7 A Certificate of occupancy shall be obtained prior to any occupancy of the building or portion thereof, in accordance with USBC 118.0.
- C-8 All exterior walls within 3 feet from an interior property line shall have a fire resistance rating of 1 hour, from both sides, with no openings permitted within the wall. As alternative, a 2 hour fire wall may be provided.
- C-9 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.
- C-10 Roof drainage systems must be installed so as neither to impact upon, nor cause erosion/damage to adjacent property.
- C-11 Construction permits are required for this project. Plans shall accompany the permit application that fully detail the construction as well as layouts and schematics of the mechanical, electrical, and plumbing systems.
- C-12 The proposed dead end emergency vehicle easement shall have provisions for fire apparatus turnaround. The proposed turnaround by lots 23 and 24 does not meet the required length

for fire apparatus to maneuver. Each arm of the turnaround should measure at least 60 feet deep from the midpoint of the main EVE roadway.

- C-13 15 foot turning radii across from Lot 13 is inadequate. A minimum of 25 foot turning is required for emergency vehicle easements. See Notes F-1 to F-3
- C-14 Add one additional hydrant at street corner by Lot 6.
- F-1 Turning movement exhibit does not account for ladder truck movement.
- F-2 15 foot turning radii are unacceptable for fire apparatus movement and causes apparatus to cross opposing lanes of traffic to negotiate turns.
- F-3 Inadequate turn around provisions for ladder truck by Lots 23 and 24. Ladder truck length is 56'6".
- R-1 An automatic sprinkler system is recommended.
- R-2 Based on a history of sound transmission complaints, it is recommended that all dwelling units have a STC rating of at least 60.

Health Department:

No comments were received from this agency.

Police Department:

- F-1 No lighting plan submitted.
- R-1 All trees to be limbed up to a minimum of 6 feet as they mature to allow for natural surveillance. Several trees planned for this project can not be limbed to six feet because of their height. Two examples are Eastern Red Cedar and Leland Cypress. The growth of these trees near walkways allows persons to conceal themselves from the residents and guests. Recommended that these trees be replaced. (Police)

**Planning and Zoning staff does not support this recommendation as the tree species and location proposed is intended to provide landscape screening and buffer. Limbing all trees and/or the elimination of the proposed species would contradict that intention.**

- R-2 The applicant is contact the Crime Prevention Unit of the Alexandria Police Department at

703-838-4520 regarding a security survey for the business.

- R-3 The applicant is to contact the Crime Prevention Unit of the Alexandria Police Department at 703-838-4520 regarding a robbery awareness program for all employees.

**Planning and Zoning staff does not support these recommendations as neither recommendation is applicable to a townhouse development.**

- R-4 Trees are not to be planted under or near light poles.

- R-5 No shrubs higher than 3 feet to be planted within 6 feet of walkways.

- R-6 The proposed shrubbery is to have a maximum height of 36 inches when it matures.

Historic Alexandria (Archaeology):

- F-1 This property has the potential to yield significant archaeological resources which could provide insight into military activities in Alexandria during the Civil War. Fort Williams and a battery and rifle trenches were situated just north of these lots. There have been reports that Civil War period artifacts have been recovered from the area. Other potential archaeological resources on the property include remains associated with a 19<sup>th</sup> century residence which was located on the development site or adjacent to it, according to the 1878 and 1894 maps. In addition, previous archaeological work on an adjacent lot (Quaker Village) has yielded evidence of prehistoric use of the area by Native Americans. However, the prehistoric artifacts on that site were found in disturbed contexts, and it is likely that a similar situation would be present on this development property, since the extant houses on the lots were probably constructed in the mid-20<sup>th</sup> century.
- C-1 To insure that significant information is not lost as a result of the current development project, the applicant must hire an archaeological consultant to conduct a walkover and metal detection survey for an Archaeological Evaluation. Upon request, Alexandria Archaeology will prepare a scope of work for this investigation. If significant resources are discovered, the consultant must complete a Resource Management Plan, as outlined in the *City of Alexandria Archaeology Standards*. Preservation measures presented in the Resource Management Plan, as approved by the City Archaeologist, will be implemented. Alexandria Archaeology will work with the developer and the archaeological consultant to ensure that cost of the field work to the developer will not exceed \$50,000.
- C-2 All archaeological preservation measures must be completed prior to ground-disturbing

activities (such as coring, grading, filling, vegetation removal, undergrounding utilities, pile driving, landscaping and other excavations as defined in Section 2-151 of the Zoning Ordinance. To confirm, call Alexandria Archaeology at (703)838-4399.

- C-3 Call Alexandria Archaeology immediately (703-838-4399) if any buried structural remains (walls, foundations, wells, privies, cisterns, etc) or concentrations of artifacts are discovered during development. Work must cease in the area of the discovery until a City archaeologist comes to the site and records the finds.
- C-4 The General Notes of the Preliminary and Final Site Plans must include the statements in C-2 and C-3 above so that on-site contractors are aware of the requirements. Additional statements to be included on the Final Site Plan will be determined in consultation with Alexandria Archaeology.
- C-5 Certificates of occupancy will not be issued for this property until the final archaeological report has been received and approved by the City Archaeologist.
- C-6 If warranted by the City Archaeologist, the developer will erect a historic marker on the property according to specifications provided by Alexandria Archaeology. The marker highlight the historical and archaeological significance of the property.
- C-7 If warranted by the City Archaeologist, the developer will produce a booklet for the public on the history and archaeology of the property, according to specifications provided by Alexandria Archaeology.
- R-1 All archaeological work will be carried out in accordance with the City of Alexandria Archaeological Standards and is subject to the approval of the City Archaeologist.
- R-2 The applicant shall not allow any other metal detection to be conducted on the property, unless authorized by Alexandria Archaeology.

Virginia American Water Company:

- R-1 Hydraulic calculations will be completed to verify main sizes upon final submittal of the site plan. Profiles will be required for hydraulic calculations.
- R-2 Maintain a 10' horizontal separation between water and sewer mains, measured edge to edge. This condition is not currently met in front of lots 1-3 and 15-23.

**Attachment 1**

Staff Proposed Site Plan

