EXHIBIT NO. 1

11,12,13

11-15-03

SUMMARY OF PLANNING COMMISSION APPROVALS

FOR CAMERON STATION PHASES VI AND VII

TMP AMENDMENT

Both the staff and Planning Commission recommend approval of Phase VI, Phase VII and the TMP for Cameron Station. At the public hearing there was support for these projects from both the Cameron Station civic and homeowner associations. The City staff worked closely with the community holding four meetings on these specific applications, as well as two community-wide workshops with the developer last year to identify the Cameron Station residents' expectations for Phases VI and VII.

CAMERON STATION PHASE VI TOWNHOUSES:

Phase VI is a proposal for 97 townhouses. The City and the community worked with the applicant to modify the project by providing visual and physical connections to the adjacent linear park and creating more useable areas of open space.

CAMERON STATION PHASE VII CONDOMINUMS:

Phase VII is a 148 unit multi-family condominium building. The primary area of concern identified by both City staff and the community was the mass and scale of the building, as well as the lack of building articulation and building breaks. As a result of working with the staff and community, the applicant significantly revised the condominium building to incorporate large recessed areas breaking both the building mass and the continuous façade of the building. Additionally, architectural features such as towers and high quality materials were incorporated in the final design.

At the Planning Commission hearing, while there was clear support for this application from the community, the citizens requested: (1) elimination of bus shelters from the Transportation Management Plan (TMP), and (2) private refuse collection rather than the City refuse pick up.

AFFORDABLE HOUSING:

The other significant issue relating to the applications has been the provision of on-site affordable housing. The applicant has agreed to the City's condition of requiring seven affordable housing units on-site. This affordable housing requirement equates to a $975,000 contribution, or the equivalent to $2.07 per square foot.

Docket Item # 17
DEVELOPMENT SPECIAL USE PERMIT #2003-0018
CAMERON STATION PHASE VI

Planning Commission Meeting
November 6, 2003

ISSUE: Consideration of a request for a development special use permit, with site plan, for construction of townhouses.

APPLICANT: Cameron Development, L.L.C.
by Duncan W. Blair, Esquire

LOCATION: 500 Cameron Station Boulevard/Ferdinand Day Drive

ZONE: CDD-9/Coordinated Development District

PLANNING COMMISSION ACTION, NOVEMBER 6, 2003: On a motion by Mr Dunn, seconded by Mr. Komoroske, the Planning Commission voted to recommend approval of the request, subject to compliance with all applicable codes, ordinances and staff recommendations and to amend conditions 10 and 51. The motion carried on a vote of 6 to 0.

Reason: The Planning Commission agreed with the staff analysis. Condition amendments were deemed reasonable, however, the Planning Commission asked that the changes be made to the Director of Planning's discretion to ensure that all issues were properly reviewed.

The Phase VI (DSUP#2003-0018) and Phase VII (DSUP#2003-0017) applications and TMP amendment (SUP#2003-0092) were heard together and is reflected in the speakers comments.

Speakers:

Duncan Blair represented the application.

Victoria Hebert, 5019 Waple Lane, spoke in support representing the Cameron Station Homeowners Association as President of the Board of Directors. She expressed Board conflicts with conditions related primarily to trash and transportation conditions. Specifically, the association objected to a condition that may require public city refuse pick-up because they want to be able to provide private refuse collection in phases VI and VII as is the case in Cameron Station phases I through V; they do not desire bus shelters within the development because of the space the shelters would occupy on narrow street frontages and sidewalks, and because it would give them less flexibility to relocate designated bus pick-up locations in the future; and that they do not want to be required to provide discounted rail and bus fares, stating that the association desires to spend TMP funds on other priorities. Other

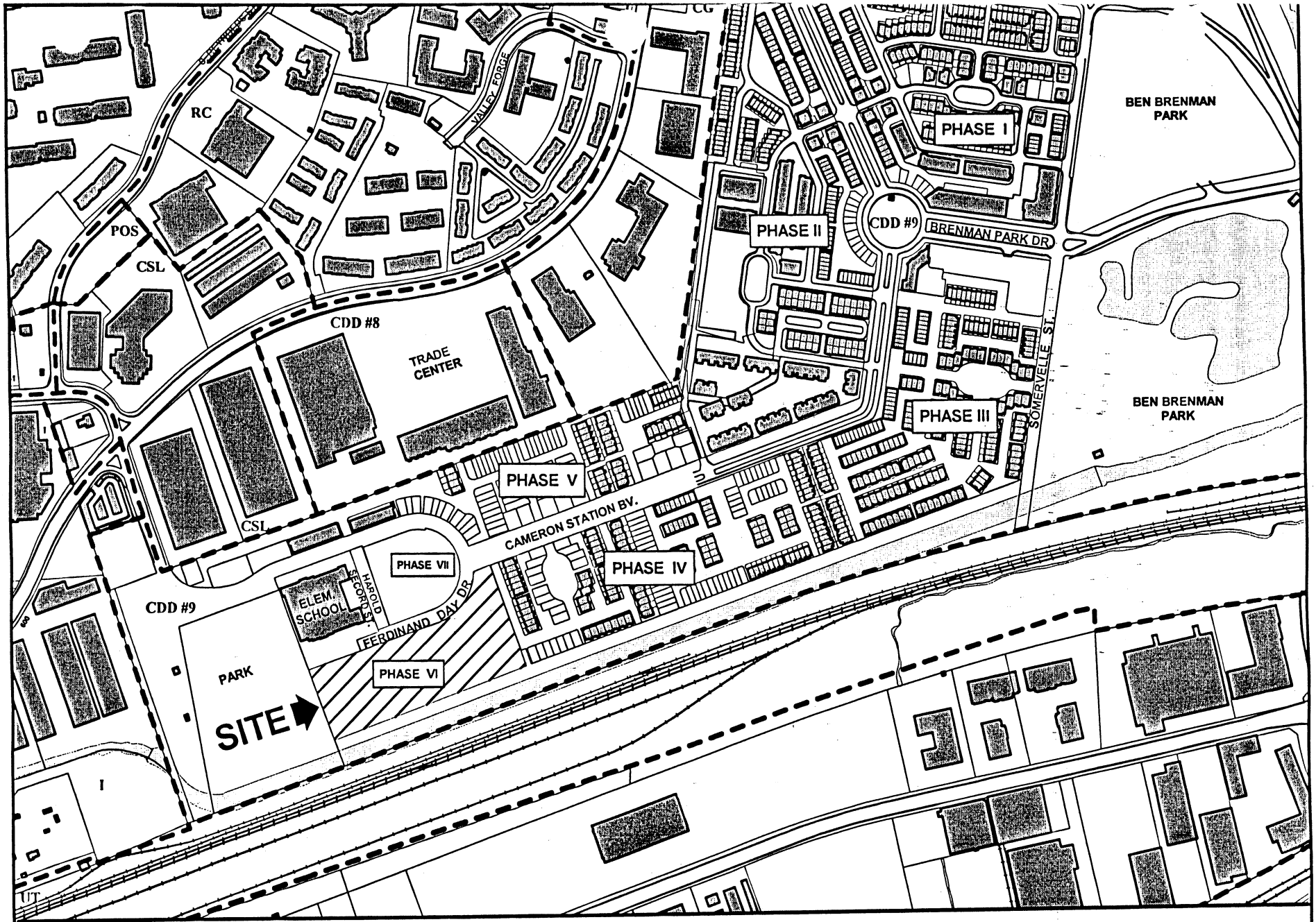
conditions they identified included their desire to install a freestanding sign at the western entrance to the development, and a condition requiring City Attorney review of HOA documents, citing concern that the City Attorney's review may give rise to conflicts with the HOA governing legal instruments.

Mindy Lyle, 5235 Tancreti Lane, Vice President of the Cameron Station Civic Association, spoke in support of the application and the Homeowners Association position, as well as the development review process involving the community.

Karen O'Brien, 361 Cameron Station Boulevard, spoke in support of the application.

Michael O'Brien, 361 Cameron Station Boulevard, Chairman of the Cameron Station Common Area Committee, spoke in support of the application but voiced opposition to bus shelter condition of the TMP SUP amendment.

Roland Gonzales, 4914 Gardner Drive, past president of the Cameron Station Association, spoke in support of the application and the active involvement of the community in the process.



DSUP #2003-0018

11/06/03

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2.a

A. Overview

Staff is recommending approval of the proposed 97 townhouses and the accompanying transportation management plan (SUP#2003-0092). The site is located south of Samuel Tucker Elementary School within Phase VI of Cameron Station. This application is one of the final two phases within the Cameron Station CDD-Coordinated Development District to be developed. The other remaining Phase VII condominium proposal is being processed concurrently.

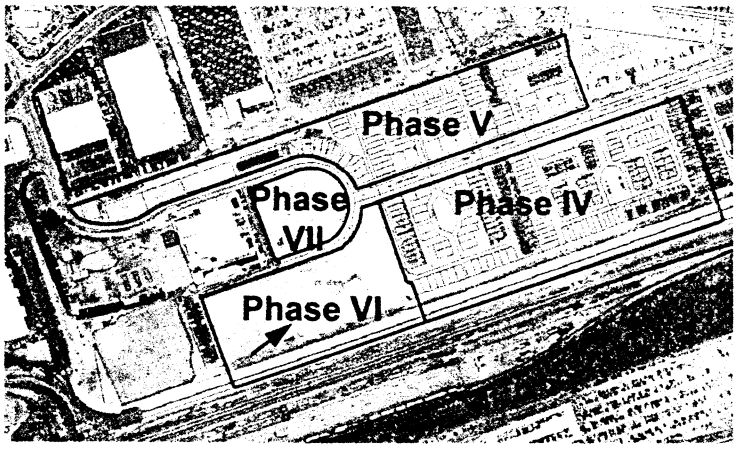
The initial areas of concern with staff and the community regarding the proposed development included:

- Extending the existing street grid pattern;
- Providing usable consolidated areas of open space;
- Providing visual and physical connections to the adjacent linear park:
- Improving the quality and amenities of the open space;
- Parking;
- Linear Park; and
- Providing additional variation in the buildings.

The applicant worked with the City and the community to address many of these issues. The proposed use and scale are appropriate to the context for this portion of Cameron Station, which is primarily townhomes, and will provide an appropriate mass and scale adjacent to the linear park on the southern portion of the site. There remain issues of phasing for the linear park, affordable housing, building design and open space. These issues can be addressed by the recommended conditions of approval.

B. Background/History:

On May 7, 2002, the Planning Commission recommended denial of the 309-unit multi-family rental apartment Archstone proposal. The applicant requested deferral of the application prior to the May 18, 2002 City Council meeting. The community, staff, and Planning Commission expressed concerns with the overall mass and scale of the building. The parking for the proposed facility would have been located in a six-level, above-grade parking structure which added considerable mass to the site.



Phase VI and surrounding area

C. *Project Description:*

Phase VI is a 5.15-acre site located in the southwest portion of Cameron Station, with frontage on Ferdinand Day Drive and Tancreti Lane. Phase VII and Samuel Tucker Elementary School are located to the north of the site; the City's Armistead Boothe Park is located to the west; the linear park is to the south; and townhomes (phase IV), are to the east. The subject property is currently vacant.

The proposed three- to four-story townhouses are rear-loaded garage units accessed from rear alleys, with the exception of those adjacent to the linear park, which are front-loaded units. Each townhouse includes parking for two vehicles, mostly as two-car garages, with six 16-foot wide units that provide two tandem parking spaces. Twenty percent visitor parking is provided and distributed throughout the site. About a third of the units are mews units which do not front onto a street. These units are separated by pedestrian connections that link the linear park to the south to Ferdinand Day Drive to the north.

A total of 30% of the site (1.56 acres) is ground level open space, in the form of common areas adjacent to the pedestrian connections, pocket parks, and private front and rear yards. Part of the development for phase VI also includes continuing the construction of the linear park (along the length of the site), adding to the open space accessible to residents and the public in general. The proposed phase VI and phase VII are the remaining two phases within Cameron Station.

CAMERON STATION DEVELOPMENT SUMMARY								
Phase	Approved					Proposed	Proposed	TOTAL
	I	II	III	IV	V	VI	VII	
Land Area (Acres)	20.52	24.02	14.11	11.52	11.80	5.15	2.44	89.56
Total Number of Units	341	541	317	214	191	97	148	1849
Single Family	15	6	0	0	11	0	0	
Townhouse	169	153	207	178	120	97	0	
B/B Townhouse	4	54	0	36	0	0	0	
Stacked Townhouse	40	52	0	0	60	0	0	
Multifamily	113	276	110	0	0	0	148	
Multifamily/Elderly	0	0	0	0	0	0	0	
Density (Units/Acre)	16.62	22.52	22.47	18.58	16.19	18.84	60.66	20.6
Gross Floor Area (Square Feet)	819,914	910,513	777,817	648,311	451,700	266,304	204,059	4,078,618
Open Space (Acres & Percent)	6.0 (29.2%)	6.98 (29%)	3.94 (27.9%)	2.31 (20%)	3.42 (29.9%)	1.56 (30%)	1.1 (45%)	25.31 (28.3%)

CAMERON STATION DEVELOPMENT BY PHASE AND UNIT TYPE

Type of Unit and Parking		Phase							Total
		I	II	III	IV	V	VI	VII	
A	32' Cottage 2 garage spaces	8				6			14
B	40' Single Family 2 garage spaces	7	6			5			18
C	20' Front Load Townhouse 1 garage/1 driveway space	31		29	78				138
D	22' Front Load Townhouse 1 garage/1 driveway space	28		23	24	46			121
E	24' Front Load Townhouse 2 garage spaces	24		52		27			103
F	20' Rear Load Townhouse 2 garage spaces	37	47	21	16				121
G	24' "Stacked Townhouse" 1 garage/1 surface space	40	52			60			152
H	Condominiums above Retail Underground/surface parking	113		110					223
I	16' Rear Load 2 stacked garage spaces	25	48	40	28		6		147
K	24' Back-To-Back Townhouses 2 garage spaces	4	54		36				94
L	18' Front Load Townhouse 1 garage/1 driveway space	3	58	20		31			112
M	4 story Multifamily "Stacked Townhouse" surface parking		132						132
N	4 story Multifamily 1 garage space/surface space		144						144
P	28' Front Load Townhouse 2 garage spaces	21		22	32		24		99
Z	Radial Townhouse 2 garage spaces					16	7		23
	4 story Condominiums above underground parking							148	148
	20' x 40' Rear Load Townhouses 2 garage spaces						43		43
	20'X50' Rear Load Townhouses 2 garage spaces						11		11
	20' x 64' Rear Load Townhouses 2 garage spaces						6		6
	TOTAL	341	541	317	214	191	97	148	1849

D. Zoning:

The site is zoned Coordinated Development District (CDD). A CDD Concept Plan was approved for Cameron Station by the City in1996. The approved Cameron Station CDD Concept Plan establishes general standards for Cameron Station which, in combination with the CDD zoning and special use permit approvals for each phase form the requirements for development within Cameron Station. The CDD zoning establishes the maximum number of units that may be developed on Cameron Station at roughly 2,445 - 2,510 units (depending on the number of units removed in exchange for elimination of the school site from the CDD). With the phase VI and phase VII proposals, the total number of units within Cameron Station will be 1,849.

PHASE VI - CAMERON STATION		
Property Address:	450 Ferdinand Day Drive	
Total Site Area:	310,186 sq.ft. (7.12 acres)	
Zone:	CDD#9/Coordinated Development District	
Current Use:	Vacant	
Proposed Use:	Townhouse Dwellings	
	Permitted/Required	Proposed
Floor Area	N/A	266,304 sq ft
FAR	N/A	1.19
Height	120 Feet	45 Feet
Open Space	No specific ordinance requirement but 25-30% proposed and required in earlier phases	1.56 acres (30%)
Maximum No. of Dwellings	2,445- 2,510 for Cameron Station	97 townhouse dwelling units (1849 total including phases VI and VII)
Parking	223 Total 2 Spaces for each townhouse Plus 15% visitor parking required by concept plan approval	233 Total 91- 2 Car Garages 6 - 1 Car Garages (w/tandem space in driveway) 39- Visitor Spaces (20% visitor spaces)

E. Staff Analysis:

Staff is recommending approval of the proposed townhouse development due to the desirable urban design and site characteristics, such as access from a rear alley and orientation of the buildings to the street. With the exception of the six new deeper units that are being proposed at the recommendation of staff, the proposed townhouses will be similar to units that have been built throughout Cameron Station. The proposal provides slightly more open space than has been typical in previous five phases of Cameron Station and provides more visitor parking than is required. Staff supports the application subject to the recommendations included in this report. The conditions outlined within the staff report will ensure enhanced architecture, landscaping, and pedestrian connectivity. The proposed use, scale, and height are compatible with the existing context of Cameron Station.

Affordable Housing (Phase VI and Phase VII):

The applicant has agreed to an affordable housing plan that will provide seven on site affordable units within the 148 unit condominium building proposed within phase VII. The seven units will consist of 4 one-bedroom units and 3 two-bedroom units. The one-bedroom units range in size from approximately 900-1,000 sq.ft., the two-bedroom units range in size from approximately 1,000-1,400 sq.ft.. The units will be affordable upon resale for a minimum term of 15 years, with other terms and conditions such as sales agreements, fees to be charges and qualifications for future owners. The current affordable housing proposal by the applicant is significantly more than the standard $1.00 per square foot contribution.

Based upon the gross floor area, the standard contribution for phases VI and VII would be $470,363. Given staff's estimate of the minimum likely purchase price of the units (approximately $325,000 for a one-bedroom and $350,000 for the two-bedroom units) and the price necessary to be considered affordable ($175,000 for the one-bedroom units and $225,000 for the two-bedroom units), the subsidy for each unit is an estimated $150,000 for one-bedroom unit and $125,000 for the two-bedroom units. The maximum income limits for purchasers of these units are $68,700 for a 1-2 person household and $79,500 for a household of 3 or more persons.

The total subsidy ($150,000 x 4) + ($125,000 x 3), the total subsidy by the applicant for the provision of seven affordable units will be approximately $975,000, which equates to an approximately $2.07 per square foot contribution. These values are based upon the estimated market value of the units and while prices have not been established, these prices are comparable to other condominium units in Cameron Station.

The standard $1.00 per square foot contribution would result in $470,363 for phase VI and phase VII, which based upon the market rate of the units would result in 3-4 affordable units within the condominium building, with the remaining 3-4 units proposed by the applicant going beyond the standard contribution with regard to these two phases.

Staff supports the applicants' proposal because it enables "workforce" households to live in close proximity to the adjoining school, City parkland and the Van Dorn Metrorail Station. The additional units will enable much needed affordable housing units within the City and provide a considerable public benefit for the community and the City.

Linear Park

Phases III, IV and VI are adjacent to the Linear Park which is on the southern portion of Cameron Station adjacent to the Backlick Run. In conjunction with the Concept Plan approval for Cameron Station, the applicant agreed to dedicate this land to the City including improvements to the park such as with a meandering 10' wide trail, an exercise course, bermed landscaping and trash receptacles prior to dedication to the city.

A 1.9-acre portion of the 7.55 acre Linear Park is located on the southern portion of the site. Completion of this final portion of the Linear Park and trail will connect Ben Brenman Park on the east to Armistead Boothe Park on the west. Sections of the Linear Park have been developed concurrently with the adjacent phase of residential development.

Problems with development and phasing of the Linear Park have occurred in part because the park was not irrigated and because the park was often developed with landscaping installed while construction activity was still on-going. To prevent these problems in the phase VI portion of the Linear Park, staff is recommending and the applicant has agreed to install irrigation in the Linear Park adjacent to phase VI. A recommendation of approval is that construction of the Linear Park be phased to ensure that the park is completed as early as possible. This will likely involve the construction of the units adjacent to the Linear Park as part of the first phase of development.

Open Space – Landscaping

The proposed open space design provides a combination of open space and pocket parks including the following:

- 3,200 sq. ft. at corner of Ferdinand Day Drive and Tancreti Lane;
- 7,200 sq. ft. for the 30-foot-wide eastern mews connecting Ferdinand Day Drive to the Linear Park;
- 7,670 sq. ft. for the 18 to 45-foot-wide western mews connecting Ferdinand Day Drive to the Linear Park;
- 6,000 sq. ft. for four additional connecting paths between the future extension of Brawner Place and the Linear Park;
- 39,750 as the final addition to the Linear Park; with the remainder scattered throughout Phase VI as sidewalk and adjacent landscape areas and private yards.

A recommendation of approval is that the 3,200-sq.-ft. open space area at the northeast corner of the site (the Ferdinand Day Drive and Tancreti Lane intersection) be designed and landscaped in a manner that will complement the open space across the street within phase V and the proposed open space for phase VII. The proposed northeast open space on phase VI, along with the mews, connecting paths, the new tree-lined frontage on Tancreti Lane and along the Armistead Boothe parking area and the proposed extension of Harold Secord Street will provide high-quality green connecting pathways through the site to the Linear Park.

However, the landscape plan for phase VI requires a significant amount of additional refinement. While the plan proposes an adequate amount of tree canopy coverage, the design of the internal pocket parks spaces do not appear to follow a coherent scheme. Staff is recommending that the landscape design, particularly of the common spaces, be further developed in a coherent scheme to provide open space amenities that are comparable to the existing common space areas and pocket parks in the community. Staff is recommending that the lots adjacent to the pedestrian connections be reduced in size with property lines closer to the building footprint to ensure that the common open spaces and associated pathways are maintained as common areas for the community. Lastly, staff is recommending the applicant switch the townhouses proposed for lot 45 and lot 6 to provide an additional 2,000 square of open space in the eastern mews, and improve the space and the pedestrian connection through this mews.

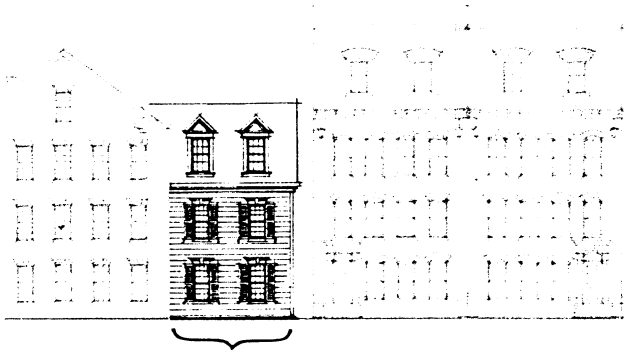
One concern regarding street trees within Cameron Station has been providing adequate space for street trees adjacent to the front loaded units. A recommendation of staff is to provide an additional eight feet of front setback for the units adjacent to the linear park. This will enable the landscape area devoted to the street trees to be increased in sized from approximately 40 to 100 square feet and will also enable additional visitor parking in the front driveway.

Building Design

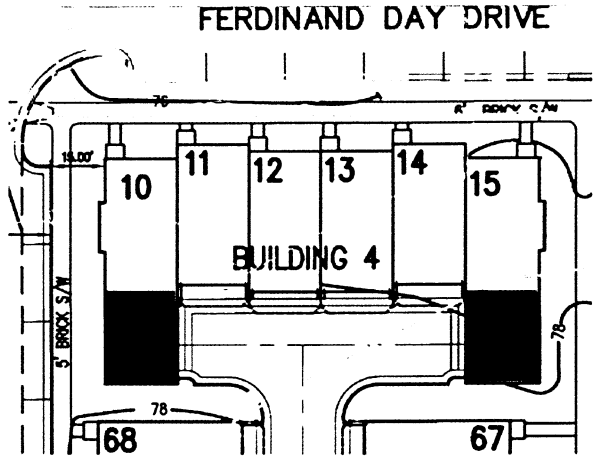
The design, orientation, and scale of the proposed townhouses are consistent with the intent of the CDD Concept Plan and are compatible with the existing development pattern of Cameron Station. A concern of staff is the lack of variation in the roof types and articulation add to the perceived mass of the buildings. A recommendation of approval is to provide more varied roof types roof materials and articulation to reduce the perceived mass of the buildings.

In addition, a recommendation of approval requires additional building articulation for 10 units (lots 1-3, 32-35 and 95-97). This is consistent with the concept for Cameron Station which seeks to provide a variety of unit types, as well as variety in building height and design. This articulation will create a street front that is varied both in elevation and plan that will contribute to a more lively and less monolithic appearance from the streets. These varied and random setbacks create building articulation that creates variety and richness for the street while still maintaining an urban "streetwall." In addition, a recommendation of approval is that the units adjacent to the linear park be painted brick or significantly varied brick colors to provide additional variation for these units.

A concern that has been expressed about Cameron Station is that the alleys and the rears of the units are too visible from the streets. At the request of staff, the applicant has provided visual screening of the rear alleys and provided a more continuous streetscape adjacent to the streets by re-arranging the townhouses and extending the rears of six townhouses, similar to units that have recently been approved in Potomac Greens and Samuel Madden.



Elevation as approved for Potomac Greens



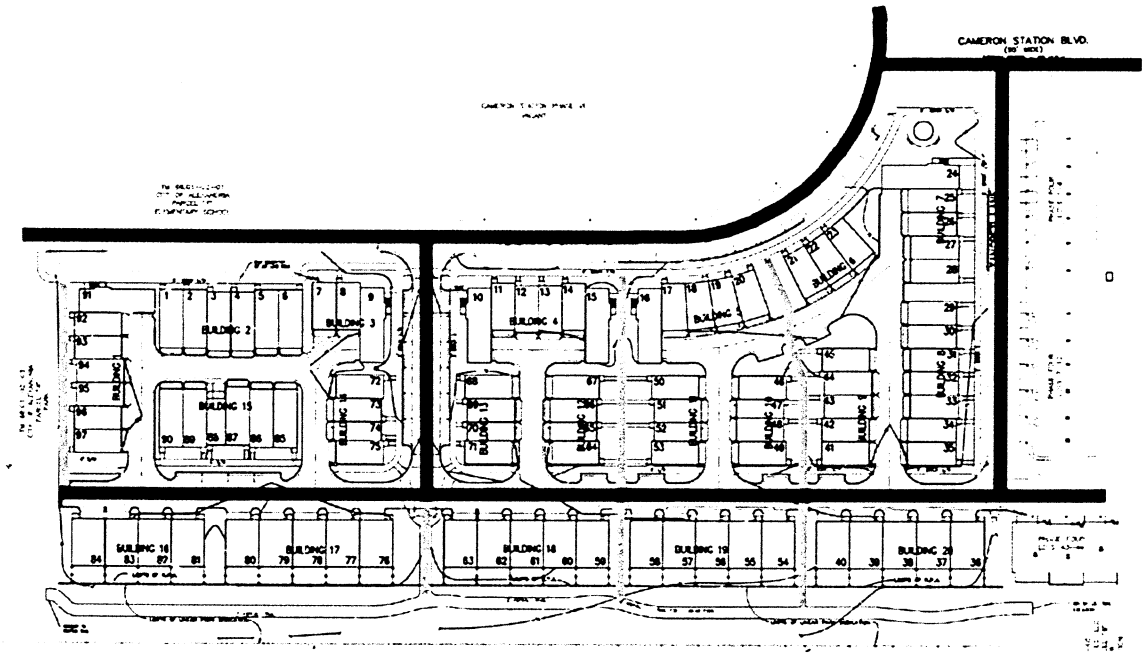
Site Plan showing building extensions to screen alley

A recommendation of approval is that the units be limited to brick, precast concrete, stone, or cementitious siding. Where the rears and sides of units are visible from the streets, such as lots 24 and 34, a recommendation of approval is that the front, side, and rear of the unit be brick

Block Size – Street Grid

A primary concern with the previous proposal for the site was the large, uninterrupted buildings and the fact that the proposed development did not continue the existing modified street grid of Cameron Station. Therefore, from the initial concept meeting, staff has emphasized the importance of continuing the street grid and maintaining internal pedestrian connections to the linear park.

Cameron Station's street system, a modified grid, is a fundamental element establishing the scale and character of Cameron Station. The grid has not been perfectly applied as development on the site has progressed, but as the illustration below shows, the street grid within Cameron Station has fairly successfully broken the project into human-scaled blocks. And where a street has not broken down a block, a pedestrian connection/open space between buildings has generally completed the grid of openings and connections.



Site Plan Connections - Street Grid (Red), Sidewalks (Yellow) and Pedestrian Connections (Orange)

Through the concept review process and at the request of staff, the applicant has revised the plan to provide a street grid, internal open space areas, and pedestrian connections for the adjacent linear park. In addition to providing physical connections to the linear park and throughout Phase VI, these connections also provide visual breaks for the proposal.

The streets and pedestrian connections provide physical connectivity throughout the community for vehicles and pedestrians. The street and pedestrian connections within each block also provide residents with visual links through the community, and provide for a coordinated streetscape, helping to tie different phases of the project together into a unified whole. The smaller blocks benefit the public realm by providing more "openness" and porous circulation for both vehicles and pedestrians, both of which are desirable urban design characteristics.

Alley Access and Site Layout

The site layout provides rear alleys for the units in the project, excluding the units adjacent to the linear park, which all have garages accessed from the front of the units. The internal alleys minimize the number of curb cuts and eliminate garage doors from the adjoining streets – consistent with the neo-traditional design principles and the intent of Cameron Station.

The goal of Cameron Station has been to include streets and streetscapes that emulate the best characteristics of streets in the traditional neighborhoods. The streets and streetscape are important elements of the plan and establish a character in keeping with traditional urban neighborhoods. The sidewalk widths, street trees, brick surfaces, on-street parking, distance between buildings, and minimal curb cuts work together to create an environment that promotes pedestrian activity within this phase. The site plan successfully utilizes the blocks to create a hierarchy of internal open spaces, streetscapes, and a variety of building sizes to create an attractive public realm.

F. Community Concerns

The community has raised concerns regarding the proposal's provision of adequate visitor parking, common open space; and the impact of additional users on the recreational facilities at the Cameron Club. In a letter from the Cameron Station Community Association to the developer, Greenvest LLC, dated October 16, 2003, the Community Association requested that the developer assist the community in performing an evaluation of the size, layout and equipment provided in the existing fitness center, office, meeting space and pool facilities, to be conducted by an independent consultant to assess the adequacy of the facilities to accommodate 245 additional homes. If the results of the evaluation indicate that the facilities have reached capacity, the community association is requesting that Greenvest assist in providing professional advice and financial contributions to address the shortfalls.

Another one of the issues of concern voiced by the Community Association is the disruption anticipated due to construction of phase VI and VII. In addition to the City regulations regarding construction, staff has included recommendations requiring construction phasing, traffic and parking plans for construction vehicles and workers, and temporary measures to accommodate vehicular and pedestrian traffic. The community association will be forming an ad hoc committee to monitor construction and report to their board and residents, Greenvest and City staff, and ask that Greenvest appoint a representative to sit on the ad hoc committee.

To address the parking issues, the applicant has worked to revise the site plan to provide as many visitor parking spaces as possible within the proposed project while providing open space. As with any development there is a fine balance between the merits of providing additional parking spaces and providing more open space. The applicant has worked with staff to provide the maximum number of surfaces parking spaces without diminishing the quantity and quality of landscaped open space. The proposal provides 20% visitor parking spaces distributed throughout this phase of development. This is more than has been provided in other phases and because it is relatively evenly distributed throughout the development, staff is recommending approval of the amount and location of visitor parking.

The letter from the Community Association closes by relating that for the first time the Board of Directors has taken an official stand on a Greenvest proposal and have voted unanimously to support the phase VI and phase VII proposals.

G. Staff Recommendation:

Staff recommends **approval** of the development special use permit with the conditions outlined in the staff report.

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

STAFF RECOMMENDATION

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

1. The final architectural elevations shall be consistent with the level of quality and detail provided in the preliminary architectural elevations dated August 20, 2003. 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 materials for the front of each unit shall be limited to masonry, precast concrete and cementitious siding as generally depicted on the preliminary plans.
   b. The front, side and rear facades of lots 24, 35, 41, 49, 53, 64, 71, 75, and 97 shall be brick.
   c. The front and sides of lots 9, 10, 15, 16, 20, 21, and 23 shall be brick.
   d. The units adjacent to Ferdinand Day Drive (excluding the radial units) shall provide varying materials and colors and varying roof materials of shingle and metal roofs.
   e. Exclusive of the radial units and type P units adjacent to the linear park, units of similar style shall be randomly grouped, including groups of 2 or 3 units, in a manner consistent with traditional development patterns.
   f. Access to the radial units shall be provided on the Ferdinand Day Drive frontage as depicted in the preliminary site plan.
   g. Stoop heights for all units shall not exceed 48".
   h. Lots 97, 75, 71, 64, 53, 49, 41, 35, 10, and 9 shall provide a window treatment on the first floor adjacent to sidewalks or internal pedestrian connections that provides the appearance of habitable space and screens the parked cars.
   i. Paint alternating groupings of front loaded units (adjacent to the linear park) or provide significantly varying brick colors between the groupings of townhomes.
   j. The fenestration and design for the sides of lots 97, 75, 71, 64, 53, 49, 41, and 35 adjacent to the streets shall be designed to appear more as front facades.
   k. The wall between lots 23 and 24 on Ferdinand Day Drive shall be a 3-3.5 ft. tall solid brick screening wall and gate.
   l. The HVAC units and mechanical appurtenances shall be located on the roof-tops or located within the interior alleys, excluding the front loaded units. The air conditioning units for the front loaded units may be permitted in the rear yards. Details on the screening methods shall be indicated on the final site plan. (P&Z)

2. The configuration of the units shall be revised to provide the following:
   a. Relocate the unit for lot 45 to lot 6 and for lot 6 to lot 45.
   b. Units 1-3, 32-35 and 95-97 shall provide a minimum of 2-4 ft. setback from the adjoining units to provide building variation in the rows of the townhomes.
   c. Lots 36-40, 54-58, 59-63, 76-80, and 81-84 shall be setback an additional 8 feet to provide an additional planting area for street trees for the 28' unit types adjacent to the linear park. The rear fences for these units shall be open decorative metal fences. (P&Z)

3. The internal pedestrian connections shall be part of the common area "Parcel A" and the lots adjacent to the internal pedestrian connection shall be revised to exclude these common areas. The common area ("Parcel A") pedestrian connections shall be a minimum of 20-25 ft. wide. The width between the units shall continue to be 30-40 ft. as depicted on the preliminary plan. (P&Z)

4. 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.

5. A subdivision plat for the linear park shall be consistent with the final site plan, and shall be approved and recorded prior to the release of the final site plan. The linear park plan shall be submitted as a separate first final site plan. The linear park shall be a separate final site plan. This plan shall be submitted concurrently with the Phase VI final site plan. (P&Z)

6. The townhouse garages shall contain a minimum unobstructed dimension of 18 ft. x 18.5 ft. for two parking spaces, excluding the six units that shall have two tandem parking spaces. The tandem spaces for these six units shall be full size 9 ft. x 18.5 ft. spaces. Each of the townhouse garages shall also provide a sufficient area for a city standard trash can. (P&Z)

7. All sidewalks for the development shall be brick and shall be a minimum of 6 ft. wide, excluding the sidewalk on the western portion of the development to the satisfaction of the director of P&Z.
   a. Stamped and colored asphalt crosswalks shall be provided for each of the proposed alley curb cuts and the curb cut on Ferdinand Day Drive to provide uninterrupted brick sidewalks.
   b. Provide stamped and colored asphalt crosswalk at the intersection of Ferdinand Day Drive and Harold Secord Street connecting the pedestrian sidewalk adjacent to lot 10 to the walkway on the western portion of Phase VII.
   c. Straighten the pedestrian walkway between lots 44/45 and 46 and provide a stamped asphalt crosswalk across the alley to provide a continuous brick sidewalk.
   d. Continue the brick sidewalk that is proposed along the western edge of the property south of Brawner Place so that the sidewalk connects to the asphalt trail in the Linear Park.
   e. The driveways for the front loaded units adjacent to the linear park shall be decorative pavers or brick. (P&Z)

8. A revised landscape plan shall be provided with the final site plan to the satisfaction of the Directors of P&Z and RC&PA. 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. Willow Oak street trees the entire length of Ferdinand Day Drive and London Plane street trees along Tancreti Lane, that are a minimum of 4" caliper at time of planting at a maximum spacing of 30'-35' on-center.
   b. A continuous row of street trees shall be provide on each side of the internal

streets(excluding alleys) approximately 30-35 ft. on-center. The trees shall consist of shade trees or columnar species as defined with the Landscape Guidelines and shall not include ornamental trees.

c. Provide major street tree along the western edge of the development, rather than the smaller scale shade trees proposed, at a minimum of 4" caliper at time of planting and at a maximum spacing of 30' on-center as depicted on the preliminary site plan.

d. A significant amount and variety of additional landscaping, including shrubs and groundcover and street trees adjacent to Ferdinand Day Drive, Tancreti Lane, the linear park, and the western edge of the development. Provide a detail of the typical foundation planting for each unit.

e. Utility lines such as water, storm sewer and electric lines shall be located to minimize impacts on existing and proposed street trees and open space.

f. Street lights shall be located to minimize conflicts with the street trees.

g. As private trees mature they are to be limbed up by the HOA to a minimum 6 feet. Trees are not to be planted under or near light poles.

h. The maximum height for the shrubs is 36 inches.

i. All landscaping shall be maintained by the HOA in good condition and replaced as needed.

j. Place underground utilities and utility structures under proposed streets or away from proposed landscaped areas to the extent feasible, to minimize any impact on the root systems of the proposed landscaping, to the satisfaction of the Director of T&ES and the City Arborist.

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. The landscape plan shall be designed by a registered landscape architect.

m. Common areas shall be irrigated.

n. Common areas shall be designed in consultation with the Cameron Station Community Association. (P&Z) (RP&CA) (Police)

9. Within the portion of the linear park adjacent to Phase VI provide the following to the satisfaction of the Directors of P&Z and RC&PA:

a. Use a variety of evergreen trees, with less emphasis on white pine.

b. Indicate areas to be sod, grass, groundcover, or planting beds.

c. Indicate areas within the planting beds to be groundcover, perennials, or grasses.

d. Include shrubs, groundcovers, grasses, perennials, benches, and trash receptacles within the linear park landscape design, consistent with the existing linear park and overall character of Cameron Station.

e. Provide lighting consistent with the existing lighting of the linear park. Provide details of the light fixture.

f. Provide a schedule of dedication for the linear park.

g. The linear park trail shall be located over the underground utilities to maximize planting areas for landscaping.

h. The applicant shall design and install irrigation in the linear park adjacent to the property to the satisfaction of the Director of R.P.&C.A. The irrigation system shall be maintained by RP.&CA.

i. The development shall be phased to ensure that all improvements to the linear park (adjacent to phase VI) shall be completed prior to the issuance of the first certificate of occupancy and after completion of all units adjacent to the linear park. (P&Z) (RP&CA)

j. A detailed open space plan shall be approved in conjunction with the final site plan, and any physical elements within the open spaces shall also be shown on the final site plan. The amount of open space and the open space calculations shall not include any portion of the linear park. The dimensions of the interior courtyards shall not decrease from the level generally depicted on the preliminary site plan. The open space, courtyards and linear park shall provide the amenities provided on the preliminary plan. (P&Z)

k. The interior pedestrian connections shall provide streetscape and site furnishings to the satisfaction of the Director of P&Z. Provide information delineating the character, location and type of such site furnishings on the final site plan (including but not limited to: benches, lights, trash receptacles, bike racks) and signs or sign systems. Streetscape and site furnishings shall be consistent with that approved and provided in other phases of Cameron Station. The interior courtyards shall be designed to functions as open space and pocket park areas for the use of the residents. The interior open space areas shall provide amenities such as benches, trellis, sitting areas, trash receptacles and decorative pavers and additional amenities to encourage their use for the interior courtyards. These spaces shall be designed by a landscape architect. (P&Z)

10. **CONDITION REVISED BY PLANNING COMMISSION:** Freestanding signs other than traffic/directional signs shall be prohibited, except for the possibility of one sign at the west entrance from South Pickett Street to Cameron Station at the discretion of the Director of Planning and Zoning. (P&Z)(PC)

11. A 3-3.5 ft. tall decorative open metal fence shall be provided on the western property line (excluding the linear park) to the satisfaction of the Director of P&Z. Fences of then residential units facing the linear park shall be open, decorative metal, no higher than 6 feet and must have a gate or opening to the park to the satisfaction of the Director of P&Z (P&Z)

12. The final location and screening of all above grade utility structures, such as transformers, switch-boxes, cable and telephone pedestals must be approved by the Director of Planning & Zoning prior to the installation of such structures. To the extent feasible, all such structures shall be located out of view of public streets and shall be screened. (P&Z)

13. The applicant shall prepare and submit a plan that delineates a detailed phasing plan and 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 first final site plan for the project. At a minimum, the plan shall include the following:
    a. Phasing for each required public improvement (streets, traffic signals, sidewalks, etc.).
    b. A Traffic Control Plan detailing proposed controls to traffic movement, lane closures, construction entrances, haul routes, and storage and staging.
    c. A plan for temporary pedestrian and vehicular circulation during construction.
    d. A parking plan for construction workers will be prepared that provides on-site parking for workers.
    e. Provisions in the event construction is suspended for 6 months or more for:
        1. temporary streetscape improvements;
        2. removal of debris;
        3. screening and barrier protection of construction areas and interim open space improvements.
    f. Phasing for the construction and completion of the linear park. Units along the linear park shall be completed first to allow for timely completion of the linear park.
    g. All other necessary phasing parameters deemed necessary by the Directors of P&Z, T&ES and Code Enforcement. (P&Z)

14. 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 found 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)

15. Before commencing any clearing or grading of the site, the applicant shall hold a meeting with all adjoining property 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. 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 on the project. (P&Z)

16. 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)

17. 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 market rate homeowners and public housing residents 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 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, or on any portion of the interior alley. The Homeowner's Association shall maintain a contract with a private towing company to immediately remove any vehicles violating this condition.
    c. No decks shall be permitted, except the decks shown on the approved final site plan.
    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 landscape 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.
    g. That heavy industrial uses, including an asphalt facility and a rock crushing facility, the City Waste-To-Energy Plant, the Police Firing Range and Metrorail track and other railway operations are located within the immediate vicinity of the project, are permitted to continue indefinitely, and will generate truck traffic, including empty garbage trucks emanating odors, on the public streets surrounding the project. (P&Z) (T&ES)

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. The applicant shall be allowed to make minor adjustments to the building locations if the changes do not result in the loss of parking, open space, or an increase in the building height or building footprint. (P&Z)

20. 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)

21. 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)

22. Temporary construction trailer(s) shall be permitted and be subject to the approval of the Director of P&Z. A separate sales trailer will require approval of a special use permit approved by City Council. (P&Z)

23. 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)

24. 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)

25. The setbacks of the buildings along the Linear Park shall be increased to 18' from the emergency vehicle easement drive aisle to the building face. For all other buildings, the setback between the buildings and the drive aisles shall be a minimum of 2' to provide adequate turning movements and shall provide a maximum length of 4' or a minimum of 18'. Revise plans to reflect an appropriate setback. (T&ES)(P&Z)

26. The existing sanitary sewer located in Ferdinand Day Drive and the on-site main may be abandoned only after the proposed sanitary sewer main along Harold Secord Drive and Brawner Place (connecting to the existing 10" main) has been completed. (T&ES)

27. Applicant shall provide $850/ea to the Director of T&ES for the purchase and installation of three (3) of City standard street cans along the public streets. (T&ES)

28. Provide $10,000 to City for installation of traffic calming measures.(T&ES)

29. 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)

30. Plan must demonstrate to the satisfaction of the Director of T&ES that adequate stormwater outfall is available to the site or else developer is to design and build any on or off site improvements to discharge to an adequate outfall. (T&ES)

31. Solid waste services shall be provided by the City unless otherwise approved by the Director of T&ES. 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 Transportation and Environmental Services. (T&ES)

32. All public refuse/recycling for buildings 4, 12 and 13 must be placed at the alley entrance for pick up. All public refuse/recycling for units 7, 8, 9, 16, 17, 18, 24, 25, 26, 27, 83, 84, 91, 92, and 93 must be placed at the beginning of the hammerhead for pick up. (T&ES)

33. 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. Note that the lighting fixtures must meet the approved Cameron Station lighting guidelines. (T&ES)

34. All site and building mounted light fixtures shall be shielded to direct light downward and eliminate glare into residential units.(T&ES)

35. Provide all pedestrian and traffic signage to the satisfaction of the Director of T&ES. (T&ES)

36. No overhangs (decks, bays, etc.) shall protrude into the vehicular travelways. (T&ES)

37. All driveway entrances and sidewalks in public ROW or abutting public ROW shall meet City standards. (T&ES)

38. Show all existing and proposed easements, both public and private. (T&ES)

39. Replace existing curb and gutter, sidewalks, and handicap ramps that are in disrepair or broken. (T&ES)

40. The developer shall notify prospective buyers, in its marketing materials, that Harold Secord Street and Brawner Place are private streets and that all on-site storm sewers are private and will be maintained by the Cameron Station Homeowners Association. (T&ES)

41. All private street signs that intersect a public street shall be marked with a flourescent green strip to notify the plowing crews, (both City and contractor), that they are not to plow those streets. (T&ES)

42. 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)

43. 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)

44. Due to the historic uses at the site and the potential for contamination, the following condition is included. The applicant shall design and install a vapor barrier and ventilation system for the buildings and parking areas to prevent the migration or accumulation of methane or other gases under parking areas or into buildings, or conduct a study and provide a report signed by a professional engineer showing that such measures are not needed to the satisfaction of Directors of T&ES and Code Enforcement.(T&ES)

45. The final site plan shall not be released and no construction activity shall take place until the following has been submitted and approved by the Director of T&ES:
   a. Submit a Site Characterization Report/Extent of Contamination Study detailing the location, the contaminants, and the estimated quantity of any contaminated soils and/or groundwater at or in the immediate vicinity of the proposed site.
   b. Submit a Risk Assessment indicating any risks associated with the contamination.
   c. Submit a Remediation Plan detailing how any contaminated soils and/or groundwater will be dealt with, including plans to remediate utility corridors. "Clean" backfill shall be used to fill the utility corridors.
   d. Submit a Health and Safety Plan indicating measures to be taken during any remediation and/or construction to minimize the potential risks to workers, the neighborhood, and the environment. Submit 5 copies of each of the above. The remediation plan must be included in the Final Site Plan.(T&ES)

46. The applicant or its agent shall furnish each prospective buyer with a statement disclosing the prior history of the Cameron Station site, including previous environmental conditions and on-going remediation. These disclosures shall be made to the satisfaction of the Director of Transportation and Environmental Services.(T&ES)

47. Due to the close proximity of the site to heavy industrial uses, the City Waste-To-Energy Plant, the Police Firing Range and Metrorail track and other railway operations the following conditions are included in the SUP:
   a. The applicant shall prepare a noise study identifying the 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).
   b. Identify options to minimize noise exposure to future residents at the site, including: Special construction methods to reduce noise transmission, including:
      i. Triple-pane glazing for windows.
      ii. Additional wall and roofing insulation.
      iii. Installation of resilient channels between the interior gypsum board leaf and the wall studs.

iv. Others as identified by the applicant.
If needed, install some combination of the above-mentioned noise mitigation measures or others to the satisfaction of the Directors of Planning & Zoning and T&ES. (T&ES)

48. Based on a history of sound transmission complaints, the applicant shall construct all dwelling units with a STC rating of at least 60. (Code Enforcement)

49. The proposed homes shall be equipped with an automatic fire suppression system. (Code Enforcement)

50. 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. The analysis that was previously submitted was not adequate. (Code Enforcement)

51. CONDITION REVISED BY PLANNING COMMISSION: ~~Applicant shall provide disclosure statement for prospective property buyers informing them of nearby noise related issues from trains, firing range, waste-to-energy plant, asphalt facility, and rock crushing facility to the satisfaction of the Director of Transportation and Environmental Services. (T&ES)~~
The applicant shall present a disclosure statement to potential buyers disclosing the following to the satisfaction of the Directors of P&Z, T&ES and the City Attorney:
a. That heavy industrial uses including asphalt plant and rock crushing facilities, the City Waste-To-Energy Plant, the Police Firing Range and Metrorail track and other heavy railway operations are located within the immediate vicinity of the project, are permitted to continue indefinitely, and will generate truck traffic, including empty garbage trucks emanating odors, on the public streets in the vicinity of the project. (P&Z)(T&ES)(PC)

52. The stormwater collection system is part of the Cameron Run watershed. All on-site stormwater curb inlets within the limits of disturbance shall be duly marked to the satisfaction of the Director of T&ES. (T&ES)

53. Provide a drainage map for the area flowing to the chosen BMP, including topographic information and storm drains. (T&ES)

54. 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)

55. Show the turning movements for vehicles backing out of driveways at units 8, 11, 14, 17, 25, and 92. If necessary, revise plan to better accommodate turning movements for these units. (T&ES)

56. The final site plans shall show placement of fire easement signs. (Code Enforcement)

57. The developer shall submit for reasonable approval by the City Manager an Affordable Housing Plan, which shall provide a total of seven affordable sales units consisting of four one-bedroom units priced at $175,000 and three two-bedroom units priced at $225,000. (Housing)

58. The seven affordable set-aside sales units shall be made available to households with at least one member who lives or works in the City of Alexandria, and with household incomes which do not exceed the City's income guidelines for discounted sales units, and subject to the following conditions:

a. The sales units provided as affordable shall be identical to the market rate units of the same size and type specified in the approved Affordable Housing Plan, and shall have the same amenities as other similar units in the development.
b. The developer shall have the right to identify the specific units and the related specifications of the units that are to be provided as affordable, which shall be reasonably disbursed throughout the building, and shown on the Affordable Housing Plan.
c. From the time the developer begins to solicit potential buyers until 90 days after the date that the developer begins to write sales contracts at the development, the City, through its Office of Housing, shall have the exclusive right to refer qualified buyers for newly available set-aside sales units, unless the City waives that right.
d. Whatever incentives are offered to set-aside unit buyers will be specified in the Affordable Housing Plan.
e. The long-term affordability of the set-aside units shall be provided through deed restrictions in accordance with the set-aside resale procedures established in the City's Affordable Housing Policy.
f. In the event that the developer offers the market rate units for a price less than the estimated offering price set forth in the approved Affordable Housing Plan by 15% or greater, the developer shall make a proportionate reduction in the price of the equivalent set-aside units, as approved by the City Manager. (Housing)

59. The set-aside units may be sold only to buyers which meet the household income and eligibility conditions in Paragraph 2. In the event that the developer demonstrates that it is unable to secure qualified buyers for all of the set-aside units within a reasonable marketing period acceptable to the City Manager, but in no event later than the date of closing on the last market rate unit to close, the requirement for such sale may be waived with the approval of the City Manager, provided that, for each unit for which a waiver is granted, the developer shall contribute to the Housing Trust Fund the difference between the market rate price for such unit in effect on the effective date of the waiver, and the discounted, set-aside price established under Paragraph 1. (Housing)

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

1. Development special use permit with site plan to construct a residential development under the Cameron Station Coordinated Development District (CDD#9).

2. Modification to provide 100% of 25% required crown coverage off site on the adjacent common open areas.

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.

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.

Code Enforcement:

The following are repeat comments from a review on 6/6/03 & 7/23/03. Updated comments from 8/28/03 review are noted in **BOLD.**

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. Additional fire hydrants are required on the site. Roadways within the development shall be declared emergency vehicle easements. The hammerhead turnaround behind lots 10 to 15 has shallow pockets and cannot accommodate emergency vehicle turnarounds. Pocket depth shall be a minimum of 60 feet. As an alternative, the green space area between lot 15 and 16 shall be H20 rated and equipped with mountable curbs to the satisfaction of the Director of Code Enforcement and Transportation & Environmental Services. This area shall provide a 22 foot EVE connection between the two proposed streets. **Condition not met.** Fire Service Plan shall be submitted as an additional sheet within the set of plans and shall be submitted prior to the final site plan for review. Issues concerning EVE access and hydrant distribution must be addressed prior to final site plan. EVEs are not identified on the submitted plan. EVE access issues for Lots 64-67 has not been addressed. Hydrant spacing and distribution within the complex is inadequate. **Fire Service Plan not submitted. Vehicle turning movement submitted in lieu of Fire Service Plan. Please submit Fire Service plan as described above. EVE is still not shown on plans for lots 64-67, lots 78-84 and lots 92-97. Add 4 additional fire hydrants and relocate one hydrant from lot 85 to lot 75 as previously provided by Code Enforcement.**

C-2 New construction must comply with the current edition of the Uniform Statewide Building Code (USBC). Condition met. Condition listed as General Note 2 on page C1.00.

C-3 A soils report must be submitted with the building permit application Acknowledged by applicant.

C-4 A Certificate of occupancy shall be obtained prior to any occupancy of the building or portion thereof, in accordance with USBC 118.0. Acknowledged by applicant.

C-5 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. Include rodent abatement note as a general note on plans. **Condition Met. Shown as Note 18 on Sheet C1.00.**

Historic Alexandria (Archaeology):

No comments

Development Special Use Permit with Site Plan (DSUP) #2003-0018

APPLICATION for
DEVELOPMENT SPECIAL USE PERMIT with SITE PLAN
DSUP

PROJECT NAME: **Cameron Station Phase VI**

PROPERTY LOCATION: **Ferdinand Day Drive**

TAX MAP REFERENCE: **68.01 02 05** ZONE: **CCD #9**

APPLICANT Name: **Cameron Development, L.L.C., a Virginia limited liability company**
Address: **8614 Westwood Center Drive, Suite 900, Vienna, Virginia 22182**

PROPERTY OWNER
Name: **Cameron Development, L.L.C. a Virginia limited liability company**
Address: **8614 Westwood Center Drive, Suite 900, Vienna, Virginia 22182**

SUMMARY OF PROPOSAL: **Preliminary Development Plan pursuant to approved CDD Concept Plan for Phase VI Cameron Station.**

MODIFICATIONS REQUESTED: **None**

SUP's REQUESTED: **§5-605 CDD Preliminary Development Plan Special Use Permit**

THE UNDERSIGNED hereby applies for Development Site Plan, with Special Use Permit, approval in accordance with the provisions of Title 7, Chapter 5 of the Code of the City of Alexandria, Virginia.

THE UNDERSIGNED, having obtained permission from the property owner, hereby grants permission to the City of Alexandria to post placard notice on the property for which this application is requested, pursuant to Article XI, Section 11-301 (B) of the 1992 Zoning Ordinance of the City of Alexandria, Virginia.

THE UNDERSIGNED also attests that all of the information herein provided and specifically including all surveys, drawings, etc., required of the applicant are true, correct and accurate to the best of their knowledge and belief.

Land, Clark, Carroll, Mendelson & Blair, P.C.
By Duncan W. Blair, Esquire
Print Name of Applicant or Agent

Signature

524 King Street — *Mailing/Street Address*
(703) 836-1000 — *Telephone #*
(703) 549-3335 — *Fax #*
dblair@landclark.com — *E-mail*

Alexandria, Virginia 22313 — *City and State* *Zip Code*
June 17, 2003 — *Date*

========== *DO NOT WRITE BELOW THIS LINE - OFFICE USE ONLY* ==========

Application Received: _____
Fee Paid & Date: $_____ _____
Legal Advertisement: _____
Received Plans for Completeness: _____
Received Plans for Preliminary: _____
Property Placard: _____

ACTION - PLANNING COMMISSION: _____

ACTION - CITY COUNCIL: _____

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Development Special Use Permit with Site Plan (DSUP) #2003-0018

All applicants must complete this form. Supplemental forms are required for child care facilities, restaurants, automobile oriented uses and freestanding signs requiring special use permit approval.

1. The applicant is the (check one) [X] Owner [ ] Contract Purchaser

   [ ] Lessee or [ ] Other:

State the name, address and percent of ownership of any person or entity owning an interest in the applicant, unless the entity is a corporation or partnership in which case identify each owner of more than ten percent.

Cameron Development, LLC, is a Virginia limited liability company, the individuals owning in excess of a ten percent (10%) interest are Ahmad Abdul-Baki and Jeffrey Sneider; their mailing address is c/o Greenvest Associates, 8614 Westwood Center Drive, Suite 900, Vienna, Virginia 22182. Mr. Abdul-Baki and Mr. Sneider are also the co-manger of the limited liability company.

If property owner or applicant is being represented by an authorized agent such as an attorney, realtor, or other person for which there is some form of compensation, does this agent or the business in which the agent is employed have a business license to operate in the City of Alexandria, Virginia?

[X] Yes. Provide proof of current City business license

[ ] No. The agent shall obtain a business license prior to filing application, if required by the City Code.

NARRATIVE DESCRIPTION

2. The applicant shall describe below the nature of the request in detail so that the Planning Commission and City Council can understand the nature of the operation and the use, including such items as the nature of the activity, the number and type of patrons, the number of employees, the hours, how parking is to be provided for employees and patrons, and whether the use will generate any noise. (Attach additional sheets if necessary)

Cameron Development, L.L.C., a Virginia limited liability company (the "Applicant"), is requesting approval of a Preliminary Development Plan to permit construction of one hundred (100) townhouses on Phase VI Cameron Station. The proposed townhouses are consistent with the quality, architecture and character of the existing Cameron Station community. The Preliminary Development Plan is consistent with the approved CCD Concept Plan.

3. How many patrons, clients, pupils and other such users do you expect? Specify time period (i.e., day, hour, or shift).

   Not applicable.

4. How many employees, staff and other personnel do you expect? Specify time period (i.e. day, hour, or shift).

Not applicable.

5. Describe the proposed hours and days of operation of the proposed use:

Day Hours Day Hours

Not applicable.

6. Describe any potential noise emanating from the proposed use:

A. Describe the noise levels anticipated from all mechanical equipment and patrons.

Not applicable.

B. How will the noise from patrons be controlled?

Not applicable.

7. Describe any potential odors emanating from the proposed use and plans to control them:

Not applicable.

8. Provide information regarding trash and litter generated by the use:

A. What type of trash and garbage will be generated by the use?

Not applicable.

B. How much trash and garbage will be generated by the use?

Not applicable.

C. How often will trash be collected?

Not applicable.

D. How will you prevent littering on the property, streets and nearby properties?

Not applicable.

9. Will any hazardous materials, as defined by the state or federal government, be handled, stored, or generated on the property?

☐ Yes. ☐ No.

Not applicable.

If yes, provide the name, monthly quantity, and specific disposal method below:

10. Will any organic compounds, for example paint, ink, lacquer thinner, or cleaning or degreasing solvent, be handled, stored, or generated on the property?

☐ Yes. ☐ No.
Not applicable.

If yes, provide the name, monthly quantity, and specific disposal method below:

11. What methods are proposed to ensure the safety of residents, employees and patrons?

Not applicable.

ALCOHOL SALES

12. Will the proposed use include the sale of beer, wine, or mixed drinks?

☐ Yes. ☒ No.

If yes, describe alcohol sales below, including if the ABC license will include on-premises and/or off-premises sales. Existing uses must describe their existing alcohol sales and/or service and identify any proposed changes in that aspect of the operation.

PARKING AND ACCESS REQUIREMENTS

13. Provide information regarding the availability of off-street parking:

A. How many parking spaces are required for the proposed use pursuant to section 8-200 (A) of the zoning ordinance?
220 parking spaces (includes 15% visitor parking spaces)

B. How many parking spaces of each type are provided for the proposed use:

184 Standard spaces (Garage)

_____ Compact spaces (Garage)

_____ Handicapped accessible spaces (Garage)

40 Other (Surface parking around building)

Total 224

C. Where is required parking located? (*check one*) [X] on-site [ ] off-site.

If the required parking will be located off-site, where will it be located:

Pursuant to section 8-200 (C) of the zoning ordinance, commercial and industrial uses may provide off-site parking within 500 feet of the proposed use, provided that the off-site parking is located on land zoned for commercial or industrial uses. All other uses must provide parking on-site, except that off-street parking may be provided within 300 feet of the use with a special use permit.

D. If a reduction in the required parking is requested, pursuant to section 8-100 (A) (4) or (5) of the zoning ordinance, complete the PARKING REDUCTION SUPPLEMENTAL APPLICATION.

14. Provide information regarding loading and unloading facilities for the use:

A. How many loading spaces are required for the use, per section 8-200 (B) of the zoning ordinance? _____

None.

B. How many loading spaces are available for the use?

None

C. Where are off-street loading facilities located?

N/A

D. During what hours of the day do you expect loading/unloading operations to occur?

Not applicable.

E. How frequently are loading/unloading operations expected to occur, per day or per week, as appropriate?

Not applicable.

15. Is street access to the subject property adequate or are any street improvements, such as a new turning lane, necessary to minimize impacts on traffic flow?

Yes.

DSUP 2003-00017
DSUP 2003-00018

CAMERON STATION

A NEW COMMUNITY IN AN OLD TOWN, ALEXANDRIA.

October 16, 2003

Mr. Jim Duszynski
CEO
Greenvest LC
8614 Westwood Center Drive, Suite 900
Vienna, VA 22182

Dear Jim,

On behalf of the Board of Directors at Cameron Station, I thank you for initiating the briefings regarding the development of Phases VI & VII, as well as the follow-up meetings with our ad hoc committee consisting of members of the Cameron Club Committee, the Civic Association, residents and the Board to hear the concerns of our community. The plan to develop townhomes and condominiums within Phases VI & VIII has been well received by the vast majority of the community, including the Board. We believe this plan is the desired option and will be a valuable addition to Cameron Station.

However, as you know, both residents and the Board have ongoing concerns in two areas: (1) the impact that the additional homes will have on the capacity of our current club facility; and (2) potential problems that may arise during the actual construction phase. Our concerns are described below.

1. **Impact on the Cameron Club.** We do not know whether the existing facilities within the Cameron Club will be sufficient to address the anticipated increased usage of the facility after the completion of Phases VI & VII. The addition of 250 homes in Phases VI & VII requires us to evaluate whether our existing facilities have the necessary capacity to absorb the increased usage by the residents of these new homes. Our desire is to have a professional evaluation of the current facility to study existing usage and efficiency, as well as an estimation of the impact that the additional 250 homes will have on the usage of the fitness center, office and meeting space, and pool. We would like your assistance in this evaluation, which we would like to be performed by an independent consultant.

   If it is determined that the current facility has reached its maximum capacity or is inefficient in its use of space, we would like Greenvest's assistance in addressing the issue through both professional advice and, if necessary, financial contribution

Cameron Station Community Association, Inc. • 200 Cameron Station Boulevard • Alexandria, VA 22304
Phone (703) 567-4881 • Fax (703) 567-4883 • E-mail: communitymanager@cameronstation.org

to address any shortfalls in the capacity of the Cameron Club. Specifically, in any evaluation performed, we would like the following issues addressed: (1) whether the current size and space of the fitness center is and will continue to be sufficient to meet the needs of the community; (2) whether the current equipment is sufficient for the existing usage, as well as the anticipated increased usage after the 250 homes are added to Cameron Station; (3) whether the current office and meeting space is laid out efficiently to conduct HOA business and whether it will continue to be sufficient to meet our future needs; (4) whether the increase in homeowners will require us to expand the pool deck; (5) the necessary addition of a trash enclosure (an obvious omission from the original plans of the Club); and (6) the need to create additional storage space within or adjacent to the Club.

2. **Construction.** As actual construction approaches, we have and continue to be approached by residents who are extremely concerned over issues that may arise during the construction of Phases VI & VII. Specific concerns that have been brought to the Board's attention include: the anticipated volume and noise of construction traffic; the need to limit hours of construction to minimize the disruption to the residents of Cameron Station; whether the builders will dispose of construction trash on a regular basis; public health safety issues arising out of the construction (i.e. garbage, rodents, standing water, etc.); and whether the builders will secure the construction site to minimize the risk of injury to residents and children.

We appreciate your assistance in addressing these issues prior to construction and on an on-going basis during construction. We hope to maintain a constant dialogue with Greenvest, the City of Alexandria, and builders to ensure that the construction issues will be addressed and the builders comply in all respects with all applicable code provisions regulating their construction of homes within Cameron Station.

Internally, we will be forming an ad hoc committee to monitor and report on construction issues in Phases VI & VII that will be reporting to the Board, residents, Greenvest and the City regularly. We would ask you to appoint someone from Greenvest to serve on this committee. We would also like you to arrange for a representative from each builder to serve on the ad hoc committee. We will ask several residents, a Board member, and a representative from the school system to also serve on the committee. We anticipate that the ad hoc committee will address issues arising out of construction in an effort to prevent problems from occurring before they begin to avoid any escalation of issues that might endanger the health or safety and quality of life for Cameron Station residents.

In closing, we would like to emphasize the significance of this letter. In the past, the Board of Directors has not taken an official stand for or against any project undertaken by Greenvest. With that being said, we would like to advise you that the Board of Directors of Cameron Station, by unanimous vote, agreed to support the current

plan of development in Phases VI & VII. In providing this statement of support, we are also assuring our residents that we will stand with them to ensure that any current or future problems that might arise during or as a result of the construction of Phases VI & VII will be promptly addressed and that there will be a professional evaluation of the impact that the construction and development of Phases VI & VII will have on our club facility. We intend, through our ad hoc committee and through Board oversight, to monitor construction issues very closely to minimize the disruption caused by construction activity.

We look forward to working with you during the construction of Phases VI & VII. If you would like to discuss any of these issues further, please do not hesitate to contact me.

Sincerely,

Victoria

Victoria Hebert
President
Cameron Station Community Association

DSUP 2003-00017
DSUP 2003-0018

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ALEXANDRIA, VIRGINIA 22320-0888

October 16, 2003

John D. Johnson, III
Assistant Superintendent
Alexandria City Public Schools
Financial and Administrative Services
2000 N. Beauregard Street
Alexandria, 22311

In Re: Cameron Station Development Parking garage

Dear Mr. Johnson:

I am writing on behalf of our client Cameron Development, LLC to respond to your letter dated September 22, 2003. As you are aware on September 16, 2003 Linda Erbs of Cameron Associates, Abed Benzina and Valerie Miller the project architects, and I met with members of the School Board Facilities Committee to discuss the last two phases of the Cameron Station Development known as Phase VI and Phase VII. The aggregate number of units in both projects, reflecting 97 townhomes in Phase VI and 148 condominiums in Phase VII, is a substantial reduction from the number of units authorized under the CDD Zoning Concept Approval and a substantial reduction of the number of units that have been approved or submitted for approval on these phases over the last several years.

Your September 22, 2003 letter requests that the architects look into the possibility of relocating the entrance to the parking garage from its proposed location to another location in the building. The south side of the building along Ferdinand Day Drive was suggested during the meeting. Subsequent to our meeting the architects reviewed the plans to determine if it is feasible to relocate the garage entrance. Due to the shape of the property and the design of the parking garage, it is not feasible to relocate the entrance to the garage without a substantial redesign of the project and a loss of units. In addition the garage entrance/exit was located on Harold Secord Street as a result of a number of City, community, and urban design issues. Harold Secord Street is intended to be a minor thoroughfare handling traffic only for Phases VI and VII of Cameron Station as well as access to the front of the school; it is for this reason that the school was allowed to have perpendicular parking along Harold Secord Street.

Enclosed is a copy of a traffic study prepared by Wahl and Associates addressing the traffic generated by the two phases. As you can see from the study, it is not

anticipated that a substantial increase in traffic in the peak a.m. and p.m. hours will be generated by the proposed development. As such, the potential for conflicts and intrusions upon access to the school is limited. The current location of the garage should not interfere or impact pedestrian access to and from the school. If the garage were located on either the north or south side of the building, cars would egress over the pedestrian sidewalks which are the pathways to and from the school. As currently located any interface between pedestrians and cars leaving the garage are at signed intersections where the traffic can be controlled to ensure pedestrian safety. For these reasons, Cameron Development has determined that it is not feasible to move the location of the garage entrance.

Notwithstanding this determination, Cameron Development looks forward to working with the administration and staff of Samuel Tucker Elementary School to address traffic and safety concerns as the projects are completed and as the Cameron Station community and the traffic pattern become more defined. If you require further information concerning this, please do not hesitate to call.

Very truly yours,

Duncan W. Blair

cc: Linda Erbs

PC Docket Item # 17 DSUP2003-0018
#18 DSUP2003-0017
#19 TMP SUP 2003-0092

J Bennett
<jb900@yahoo.com>
11/03/2003 01:15 PM

To: "H. Stewart Dunn, Jr." <hsdunn@ipbtax.com>, Donna Fossum <fossum@rand.org>, Jesse Jennings <jssjennings@aol.com>, John Komoroske <komorosj@nasd.com>, Richard Leibach <richleibach@aol.com>, "J. Lawrence Robinson" <jlr@cpma.com>, Eric Wagner <erwagner@comcast.net>
cc: Jim Duszynski <jimd@greenvest.com>, Linda Erbs <lerbs@greenvest.com>, Duncan Blair <dblair@landclark.com>, Barbara Ross <barbara.ross@ci.alexandria.va.us>, Jeffrey Farner <jeffrey.farner@ci.alexandria.va.us>, Eileen Fogarty <eileen.fogarty@ci.alexandria.va.us>, Bill Euille <alexvamayor@aol.com>, Ludwig Gaines <ludwig@gainwithgaines.com>, Rob Krupicka <rob@krupicka.com>, Andrew Macdonald <macdonaldcouncil@msn.com>, Del Pepper <delpepper@aol.com>, Paul Smedberg <smedbergpc@aol.com>, Joyce Woodson <council@joycewoodson.net>
Subject: CAMERON STATION PHASES VI AND VII AND TMP - DOCKET ITEMS #17, 18 AND 19

Dear Planning Commissioners,

The Board of Directors of the Cameron Station Civic Association, Inc. supports these two developments for the remaining phases of Cameron Station. These developments are compatible with the existing community and will be pleasing additions.

The condo building, which comprises Phase VII, sets an important example of urban design with its parking under the building. One level of parking is under ground, the other level, while at ground level, is masked by residential units surrounding it. Also two garage parking spaces will be included in the sales price of each two and three bedroom condo, rather than making the second one a priced option. We believe this provision will reduce the impact of residents using visitor parking on the street.

We believe both projects provide adequate parking for visitors and residents and traffic generation will not adversely affect the community.

We support the conditions staff recommends regarding architectural treatment of both phases and believe they will assure buildings of high quality design and finish. We also support the affordable housing provision.

We call your attention to identical conditions #17.g. for Phase VI and #8.f. in VII. We believe the conditions should clearly indicate that the disclosure of nearby uses, such as the waste-to-energy, asphalt, and rock crushing plants, be revealed in the marketing process, much as #8.e. for phase VII requires regarding the private nature of Harold Secord Street, the street to the west of the phase. As it is stated, it is unclear when this disclosure would occur.

We believe community concerns regarding impact on the Cameron Club and on construction disruptions can be satisfactorily resolved with Greenvest's continued commitment and involvement in resolving them.

Mindy Lyle, our First Vice President, will speak on behalf of our Board at the Planning Commission meeting.

Thank you very much for your consideration.

Sincerely,

Joseph S. Bennett, President
Cameron Station Civic Association, Inc

Docket Item #18
DEVELOPMENT SPECIAL USE PERMIT #2003-0017
CAMERON STATION PHASE VII

Planning Commission Meeting
November 6, 2003

ISSUE: Consideration of a request for a development special use permit, with site plan, for construction of a multi-family residential project.

APPLICANT: Cameron Development, LLC
by Duncan W. Blair, Esquire

LOCATION: 400 Cameron Station Boulevard

ZONE: CDD-9/Coordinated Development District

PLANNING COMMISSION ACTION, NOVEMBER 6, 2003: On a motion by Mr Dunn, seconded by Mr. Komoroske, the Planning Commission voted to recommend approval of the request, subject to compliance with all applicable codes, ordinances and staff recommendations and to amend condition 9. The motion carried on a vote of 6 to 0.

Reason: The Planning Commission agreed with the staff analysis. Condition amendments were deemed reasonable, however, the Planning Commission asked that the changes be made to the Director of Planning's discretion to ensure that all issues were properly reviewed.

The Phase VI (DSUP#2003-0018) and Phase VII (DSUP#2003-0017) applications and TMP amendment (SUP#2003-0092) were heard together and is reflected in the speakers comments.

Speakers:

Duncan Blair represented the application.

Victoria Hebert, 5019 Waple Lane, spoke in support representing the Cameron Station Homeowners Association as President of the Board of Directors. She expressed Board conflicts with conditions related primarily to trash and transportation conditions. Specifically, the association objected to a condition that may require public city refuse pick-up because they want to be able to provide private refuse collection in phases VI and VII as is the case in Cameron Station phases I through V; they do not desire bus shelters within the development because of the space the shelters would occupy on narrow street frontages and sidewalks, and because it would give them less flexibility to relocate designated bus pick-up locations in the future; and that they do not want to be required to provide discounted rail and bus fares, stating that the association desires to spend TMP funds on other priorities. Other

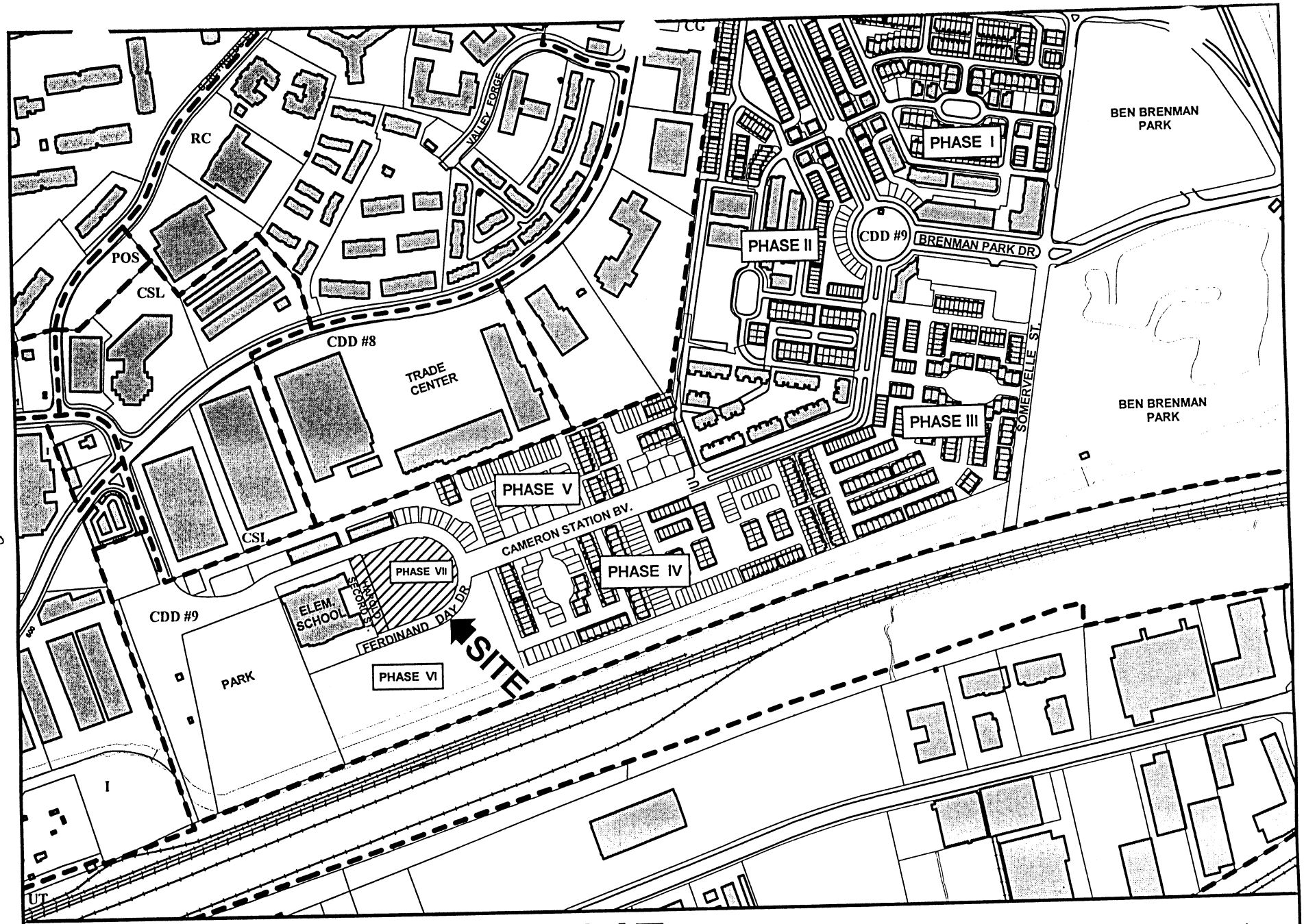
conditions they identified included their desire to install a freestanding sign at the western entrance to the development, and a condition requiring City Attorney review of HOA documents, citing concern that the City Attorney's review may give rise to conflicts with the HOA governing legal instruments.

Mindy Lyle, 5235 Tancreti Lane, Vice President of the Cameron Station Civic Association, spoke in support of the application and the Homeowners Association position, as well as the development review process involving the community.

Karen O'Brien, 361 Cameron Station Boulevard, spoke in support of the application.

Michael O'Brien, 361 Cameron Station Boulevard, Chairman of the Cameron Station Common Area Committee, spoke in support of the application but voiced opposition to bus shelter condition of the TMP SUP amendment.

Roland Gonzales, 4914 Gardner Drive, past president of the Cameron Station Association, spoke in support of the application and the active involvement of the community in the process.



DSUP #2003-0017

11/06/03

N

2.a

A. Overview

Staff is recommending approval of the development special use permit to construct a 148-unit multi-family condominium building on the horseshoe-shaped phase VII site, and the accompanying transportation management plan (SUP#2003-0092). The recommendation of approval is predicated upon the staff recommendations of approval including the provision of 7 units or approximately 5 % on-site affordable units.

The initial areas of concern with staff and the community regarding the proposed development included:

- Mass and scale of the building;
- Building design;
- Open space;
- Affordable housing;
- Parking;
- Traffic/Circulation;
- Impact of the Cameron Club; and
- Construction phasing.

The applicant worked with the City and the community to address many of these issues. The design and massing of the proposed building have been revised to create a structure that will appear as several buildings and provide a well-designed structure built with high-quality materials, useable ground level open space, and adequate resident and visitor parking. The mass, scale, height and floor area ratio of the proposed building, while slightly larger, are generally consistent with the townhouse scale buildings within the neighborhood and the adjoining elementary school.

There remain issues of site design, open space, building design and affordable housing that must be resolved to ensure that the proposal is compatible with this visually prominent location, that high-quality ground-level open space is provided, and on-site affordable dwelling units are provided. These issues can be addressed by the recommended conditions of approval.

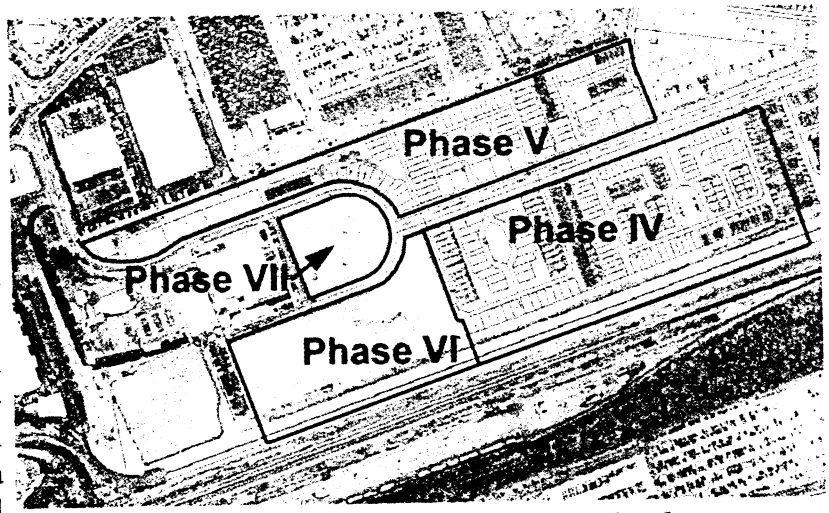
B. Background/History:

There had been considerable concern expressed by the community regarding the previously proposed 120-ft. height of the senior housing facility (Brookdale) within phase VII; the compatibility of the proposal with the mass and scale of the existing townhomes; and general issues such as density, traffic and parking. At the March 15, 2003, public hearing, City Council denied re-approval of the proposed senior housing facility, due to concerns regarding parking, traffic and density. Another comment with the previous phase VI and phase VII proposals was that the last two phases be

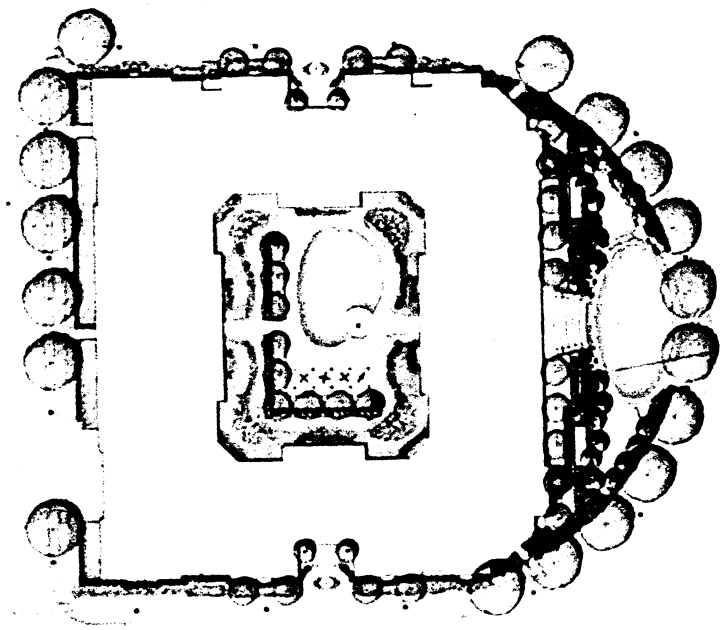
reviewed simultaneously to more comprehensively evaluate issues such as parking, traffic and open space. The applicant has addressed that concern by submitting applications for both Phase VI and VII concurrently.

C. ***Project Description:***

In response to concerns raised about the height and density regarding the previous Brookdale proposal, the current proposal is a 5-story (60 ft. tall) condominium building. The building is significantly shorter and less dense than the previously proposed senior housing facility. The proposed condominium development consists of a four-level, 148 unit residential condominium building with a two-level garage with one level partially above grade.



Phase VII project site and surrounding development



Phase VII site layout and open space plan

The site is at the intersection of Cameron Station Boulevard, Ferdinand Day Drive and Harold Secord Street. The condominium units include 31 one-bedroom units, 98 two-bedroom units and 19 three-bedroom units ranging in size from 670 to 1580 sq. ft. The main pedestrian entrances to the building are on Cameron Station Boulevard on the north facade and Ferdinand Day Drive on the south facade. Elevators located within the residential lobby provide access to the underground parking.

The proposed two-level partially-below grade parking garage will accommodate all the required 254 spaces for residents, in addition to 47 visitor spaces. An additional 19 spaces are provided along the public streets of Cameron Station Boulevard and Ferdinand Day Drive. There will be 8 on-street parallel parking spaces on Ferdinand Day Drive and 11 on Cameron Station Boulevard, along with a loading area on the western portion of the building. The applicant is proposing a total of 320 parking spaces and 26% visitor parking (66 spaces). Vehicular access to the parking garage is from Harold Secord Drive, which connects Cameron Station Boulevard and Ferdinand Day Drive. The parking for the condominiums will have controlled access.

A large (12,000 sq. ft.) landscape area of visually accessible ground level open space is proposed on the eastern portion of the site. The center of the site contains an open space interior courtyard partially above-grade (on top of a level of parking), which will be approximately 15,000 sq. ft. This courtyard is to be treated with pavers, ground cover, landscaping, trees, and other amenities to provide useable private open space for the residents.

The site is surrounded by primarily residential townhomes and the elementary school. Uses to the north of the site include townhouses, stacked (2/2) townhomes, and the Trade Center commercial development. To the east are townhomes and single-family uses (phase V) and townhomes (Phase IV). To the south is the vacant phase VI parcel and the Linear Park. To the west is the Samuel Tucker elementary school and the Armistead Boothe Park. The proposed phase VI and phase VII are the remaining two phases within Cameron Station.

CAMERON STATION DEVELOPMENT SUMMARY

Phase	Approved					Proposed	Proposed	TOTAL
	I	II	III	IV	V	VI	VII	
Land Area (Acres)	20.52	24.02	14.11	11.52	11.80	5.15	2.44	89.56
Total Number of Units	341	541	317	214	191	97	148	1849
Single Family	15	6	0	0	11	0	0	
Townhouse	169	153	207	178	120	97	0	
B/B Townhouse	4	54	0	36	0	0	0	
Stacked Townhouse	40	52	0	0	60	0	0	
Multifamily	113	276	110	0	0	0	148	
Multifamily/Elderly	0	0	0	0	0	0	0	
Density (Units/Acre)	16.62	22.52	22.47	18.58	16.19	18.84	60.66	20.6
Gross Floor Area (Square Feet)	819,914	910,513	777,817	648,311	451,700	266,304	204,059	4,078,618
Open Space (Acres & Percent)	6.0 (29.2%)	6.98 (29%)	3.94 (27.9%)	2.31 (20%)	3.42 (29.9%)	1.56 (30%)	1.1 (45%)	25.31 (28.3%)

D. Zoning:

The site is zoned Coordinated Development District (CDD). A CDD Concept Plan was approved for Cameron Station by the City in1996, with revisions/updates through 1998. The approved Cameron Station CDD Concept Plan establishes general standards for Cameron Station which, in combination with the CDD zoning and special use permit conditions form the requirements for development within Cameron Station. The CDD concept plan set the maximum number of units that may be developed on Cameron Station at roughly 2,445 - 2,510 units (depending on the number of units removed in exchange for elimination of the school site from the CDD). With the phase VI and phase VII proposals, the total number of units within Cameron Station will be 1,849.

PHASE VII - CAMERON STATION		
Property Address:	400 Cameron Station Boulevard	
Total Site Area:	106,165 sq. ft/ (2.44 acres)	
Zone:	CDD#9/Coordinated Development District	
Current Use:	Vacant	
Proposed Use:	Multi-family Residential Condominium	
	Permitted/Required	Proposed
Floor Area	N/A	206,574 sq ft
FAR	N/A	1.94
Height	120 Feet	65 Feet
Open Space	No specific ordinance requirement but 25-30% proposed and approved in earlier phases	1.1 acres (45%)
Maximum No. of Dwellings	2,445 - 2,510	148 multi-family dwelling units 31 - 1 BR units 98 - 2 BR units 19 - 3 BR units
Parking	292 Total 1.3 Spaces for each 1 BR unit 1.75 Spaces for each 2 BR unit 2.20 Spaces for each 3 BR unit Plus 15% visitor parking required by concept plan approval	301 (Garage) 19 (Street) 320 Total

E. Staff Analysis:

Staff is recommending approval of the proposed condominium building. The applicant has worked with staff and the community to revise the site plan and building issues raised by the proposal. The applicant has agreed to provide streetscape, landscape and pedestrian improvements, which will significantly improve the pedestrian environment surrounding the site. While staff recommends approval, the recommendation is contingent upon the additional landscaping and refinements to the design of the building and the provision of 7 on-site affordable units.

Affordable Housing (Phase VI and Phase VII)

The applicant has agreed to an affordable housing plan that will provide seven on-site affordable units within the 148 unit condominium building proposed within phase VII. The seven units will consist of 4 one-bedroom units and 3 two-bedroom units. The one-bedroom units range in size from approximately 900-1,000 sq.ft., the two-bedroom units range in size from approximately 1,000-1,400 sq.ft.. The units will be affordable upon resale for a minimum term of 15 years, with other terms and conditions such as sales agreements, fees to be charges and qualifications for future owners. The current affordable housing proposal by the applicant is significantly more than the standard $1.00 per square foot contribution.

Based upon the gross floor area, the standard contribution for phases VI and VII would be $470,363. Given staff's estimate of the minimum likely purchase price of the units (approximately $325,000 for a one-bedroom and $350,000 for the two-bedroom units) and the price necessary to be considered affordable ($175,000 for the one-bedroom units and $225,000 for the two-bedroom units), the subsidy for each unit is an estimated $150,000 for one-bedroom unit and $125,000 for the two-bedroom units. The maximum income limits for purchasers of these units are $68,700 for a 1-2 person household and $79,500 for a household of 3 or more persons.

The total subsidy ($150,000 x 4) + ($125,000 x 3), the total subsidy by the applicant for the provision of seven affordable units will be approximately $975,000, which equates to an approximately $2.07 per square foot contribution. These values are based upon the estimated market value of the units and while prices have not been established, these prices are comparable to other condominium units in Cameron Station.

The standard $1.00 per square foot contribution would result in $470,363 for phase VI and phase VII, which based upon the market rate of the units would result in 3-4 affordable units within the condominium building, with the remaining 3-4 units proposed by the applicant going beyond the standard contribution with regard to these two phases.

Staff supports the applicants' proposal because it enables "workforce" households to live in close proximity to the adjoining school, City parkland and the Van Dorn Metrorail Station. The additional units will enable much needed affordable housing units within the City and provide a considerable public benefit for the community and the City.

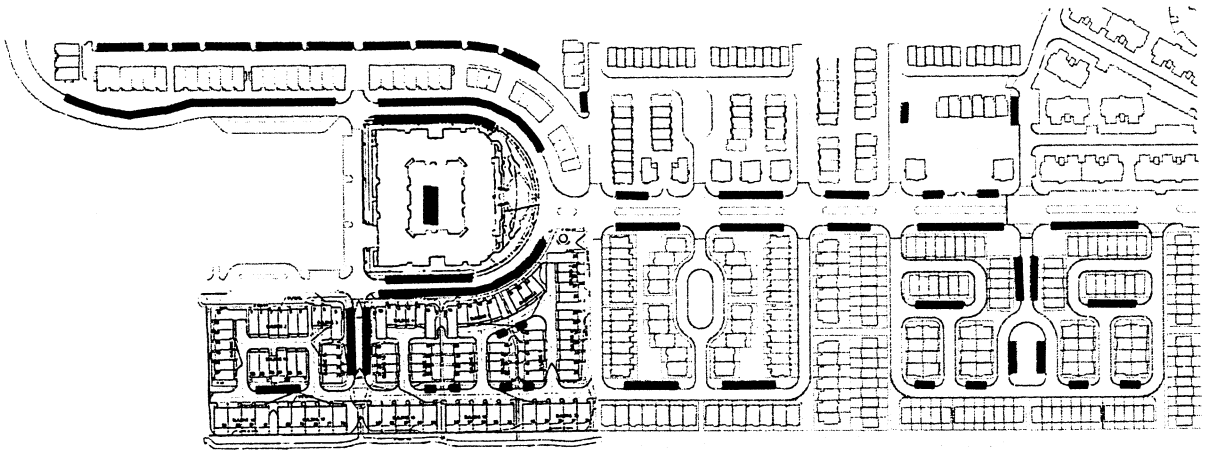
Traffic

In September 2003, a traffic study was conducted by Wells & Associates at Cameron Station to update the one prepared in 1995 and take into account new proposals for phases VI and VII. The study finds that because the current proposals for phases VI and VII consist of 731 fewer units originally proposed in 1995, 20-42% fewer peak hour trips would be produced than under the approved plan. On a daily basis, the current proposals would generate almost 3,400 fewer trips, a 35% reduction.

The study indicates that the signalized intersections of Cameron Station Boulevard at Duke Street and at South Pickett Street currently "operate at overall acceptable levels of service" (Level D or better) during morning and evening peak hours and are forecasted to operate at acceptable levels (Level D or better) upon completion of the projects. The internal intersections of Cameron Station were also found to operate at acceptable levels. The study forecasted that phases VI and VII would not degrade existing traffic service or require roadway modifications or geometric improvements.

Parking

The CDD concept plan requires the minimum number of spaces required by the Zoning Ordinance plus 15% visitor parking spaces (a portion of which may be permitted on the adjoining streets). In this case, the applicant is providing the required parking (254 spaces) plus 18.5 % visitor parking in the underground garage. The 19 spaces on the adjoining Cameron Station Boulevard and Ferdinand Day Drive result in a total of 26 % visitor parking spaces.



Public and visitor parking for phases IV, V, VI and VII

The applicant is proposing 320 total parking spaces, with a residential parking ratio (2.2 sp/unit) for the condominiums, including the parking on the adjacent public street. There have been complaints regarding both residential and visitor parking within Cameron Station. A primary issue behind these concerns is that many of the condominium buildings in Cameron Station (Main Street condominium, Carlton Place condominiums, etc.) charge for their underground parking spaces, often at a considerable cost in addition to the purchase price for the unit. Therefore, many of the residents do not purchase a parking space but rather elect to park on the adjoining streets. To avoid residents being forced to pay an additional fee for parking spaces, a recommendation of approval is to include parking spaces (one space for each one-bedroom unit and two spaces for each two- and three-bedroom unit) as part of the purchase price of the units. The provision of parking spaces as part of the purchase price of the units requires the provision of 25 additional spaces in the underground garage will more than adequately address the parking demand from the proposed building. A recommendation of approval also requires that the visitor spaces in the garage be on the first floor to be visible and readily accessible for visitors to the condominium building.

Another issue related to the proposed construction is the construction phasing and staging for this site, including the parking for construction employees. Therefore, a recommendation of approval will require off-site parking for all construction workers without charge to the workers or provide a subsidy for the construction workers that use Metro or DASH, based upon a plan that is submitted by the applicant and approved by the City. The plans will be evaluated during the final site plan process to ensure that construction parking does not spillover onto the adjoining residential streets or elementary school parking areas.

Building Design

The building is located at the visually prominent terminus of Cameron Station Boulevard which, other than the site of the Cameron Club, is the most prominent site within Cameron Station, and therefore, should be treated in an appropriate manner. From an urban design perspective, this building will be a visually important element of the community.

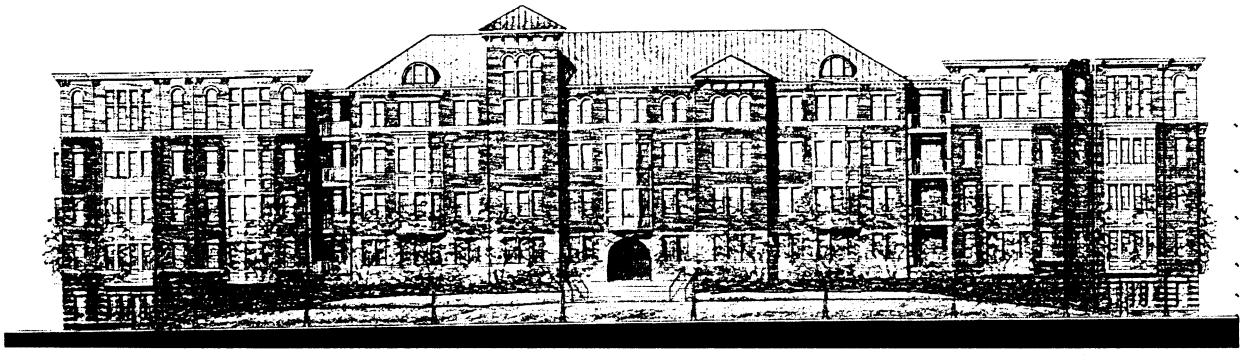
The height of the proposed building is approximately 60 feet, which provides an appropriate transition between the townhouses and elementary school adjacent to the site. However, the overall mass of the building, rather than height, has been a concern. Larger buildings can be designed in a manner that breaks the large mass and long facades into smaller components that will reduce the perceived mass. The original building design did not succeed in accomplishing this goal. To reduce the perceived mass of the building, staff has worked with the applicant to break the building into a series of vertical bays, recessed areas and to provide architectural treatment that will enable the building to appear as a series of smaller buildings, rather than one building.

The modifications recommended by staff included creating large recesses 30 feet wide and 20 feet deep along the north and south faces of the building to create a break in the continuous facade. Further breaks in the building face, recommended by staff and incorporated into the proposal, were in the form of recessed balconies, which provide breaks on all sides of the building.

The prominent location of this building necessitates that its design incorporate high quality materials and detailing. Therefore, a recommendation of staff is that the building be clad in masonry (brick, precast or stone). A recommendation of approval is the provision of variation in the building materials to create the perception of individual building elements through the use of contrasting brick colors and the use of precast concrete cladding in various parts of the bases of the building to make each of the elements appear as separate buildings. The variation in brick colors and the dark color hyphens between the separate "buildings" in addition to providing a strong building base of varying materials (precast and rusticated brick) will also help to visually divide the building into smaller elements.

Applicant's original proposal

Staff Proposal



Staff recommended that the east facade be treated in an asymmetrical manner, using a pair of towers of different heights with the taller marking the axis of Cameron Station Boulevard. The applicant revised the plan to address this urban design issue. Another recommendation for the east facade is the elimination of one of the retaining walls at the base of the building and replace it with a landscaped berm, to reduce the apparent height of the building's principal facade.

Finally, there are various recommendations made by staff to improve the scale and architectural quality of the project and its details which require additional refinement that include revising the arched passage on the east facade of the building to be treated as a full semicircle (instead of the segmental arch as shown), and the base story on the north and south elevations of the building should

be differentiated from the other parts by being clad in rusticated brick instead of precast. The rustication of the central portion of the building's east facade should be increased in height by a story to differentiate it from the corner massing elements.

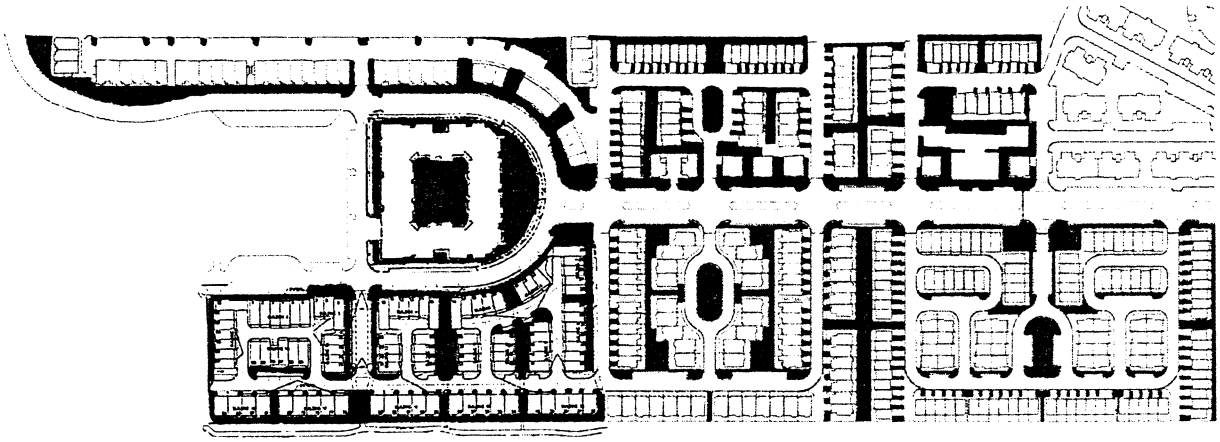
Through the conceptual review process the applicant revised the overall design and roofline to provide the appearance of several smaller buildings which has been successful in reducing the perceived mass of the building.

Open Space

The CDD zoning does not establish a specific requirement for open space for the site; rather, a general guideline is given that approximately 25-30 % ground level open space be provided. The open space being provided within this project is 32,647 sq.ft. (30 %) ground level open space. The open space in the internal courtyard has not been included in the open space calculations because the courtyard is not at grade (it is located on the top of the parking garage), although visually and practically the internal courtyard will function as open space. With the ground level open space and the internal courtyard 1.1 acres (45 %) of the total site area has been provided as open space .

To the extent the goal of providing open space is to provide active and passive recreational facilities for the residents of the project, the courtyard and east open space area will provide quality useable open space. Staff is also recommending additional amenities and landscaping for the interior courtyard. While not visually accessible from the adjoining streets, the interior courtyard will provide useable, private, and defensible open space for the condominium residents.

Open space is intended not only to provide recreational opportunities for the residents, but also to provide a sense of openness and opportunities for landscaping at ground level, that benefits the public. The open space that is proposed adjacent to the streets is generally useable, consolidated areas of open space that will be visually and physically accessible. In addition, a recommendation of approval is that the large (12,000 sq.ft.) area on the eastern portion of the site be publically accessible The space is designed as large amphitheater area for public gatherings and spaces that are designed as more private spaces with benches for more passive open space areas.



Open space for Phases IV, V, VI, and VII

An issue with the proposed development is not only the amount and quality of the open space, but also how the design and location of the space is integrated into the open space areas for phase V and proposed within phase IV. Staff supports the amount of open space, because the percentage exceeds that in other phases of Cameron Station and the open space is useable consolidated ground level open space.

Streetscape

The current plan locates the sidewalk along Cameron Station Boulevard and Ferdinand Day Drive immediately adjacent to the street. A recommendation is that the sidewalk be shifted to accommodate a 7-8 foot planting strip between the sidewalk and the street, where no on-street parking is proposed, to provide buffer between the pedestrian and motor traffic as well as to improve the streetscape. This will allow for a continuous row of street parking along the perimeter of the property. Staff has also recommended larger (4" caliper) street trees which, in combination with the six-foot-wide brick sidewalks and lack of curb cuts on the primary streets, will create a pedestrian-friendly streetscape for the external portion of the development.

Along the north and south side of the site, the current proposal provides a sidewalk immediately adjacent to the on-street parking lane and small columnar trees planted close to the building. Staff is recommending that this sidewalk be relocated closer to the building to provide a four- to five-foot landscape strip with street trees along the parking lane, creating a higher-quality, more pedestrian-friendly streetscape and allowing the a continuous row of street trees on the perimeter of the site.

F. Community Concerns

The community initially raised concerns regarding parking, traffic, circulation adjacent to the elementary school, and the impact upon the recreational facilities at the Cameron Club. As previously discussed, the applicant has agreed to provide parking spaces with each unit at no additional fee. This will provide each one-bedroom unit with an assigned parking space and each two-bedroom and three-bedroom with two assigned spaces. Staff believes the provision of parking with the purchase price of each unit and 26% visitor parking will be adequate for the proposed development.

A concern for the community is the impact that the additional residents will have on the facilities on the Cameron Club exercise area and pool. In the past several weeks the homeowners have discussed this issue. In a letter from the Cameron Station Community Association to the developer, Greenvest LLC, dated October 16, 2003, the Community Association requested that the developer assist the community in performing an evaluation of the size, layout and equipment provided in the existing fitness center, office, meeting space and pool facilities. The evaluation, to be conducted by an independent consultant, would assess the adequacy of the facilities to accommodate 245 additional homes. If the results of the evaluation indicate that the facilities have reached capacity, the Community Association is requesting that Greenvest assist in providing professional advice and financial contributions to address the shortfalls.

Another one of the issues of great concern voiced by the Community Association is the disruption anticipated due to construction of phase VI and VII. In addition to the City regulations regarding construction, staff has included recommendations requiring construction phasing, traffic and parking plans for construction vehicles and workers, and temporary measures to accommodate vehicular and pedestrian traffic. The Community Association will be forming an ad hoc committee to monitor construction and report to their board and residents, Greenvest and City staff, and ask that Greenvest appoint a representative to sit on the ad hoc committee.

The letter from the Community Association closes by relating that for the first time the Board of Directors has taken an official stand on a Greenvest proposal and have voted unanimously to support the phase VI and phase VII proposals.

Another area of concern that has been raised is the proximity of the access to the underground parking and the adjoining school. Locating the garage and access on Harold Secord Street, on the west side of the building, creates the least adverse impact on the existing and future uses. In this area, Harold Secord Street acts as a service road supporting perpendicular on-street parking for the Tucker Elementary School. Harold Secord Street is currently the only access point to the south side of Tucker School and to the parking lot adjacent to the ball field at Armistead Boothe Park, however, much of this traffic will move on Ferdinand Day Drive once phase VI and phase VII are completed. The garage and loading entrance on Harold Secord Street for the new condominium building will be separated from the school lot by approximately 60 feet.

Cameron Station Boulevard is the most intensely used street in the Cameron Station and would be an inappropriate location for any garage or loading entrance. Ferdinand Day Drive provides access for student drop-off by parents at the south-side entrance to the school, and thus would also be an inappropriate location for a vehicular entrance into the building. Any garage entrance on Ferdinand Day Drive would also present a hazardous impediment to children and adults walking to the school and would diminish the quality of the pedestrian streetscape which is proposed for Ferdinand Day Drive. In addition, because of the horseshoe shaped property, the sight lines on Cameron Station Boulevard are worse than the proposed Harold Secord location. For all of these reasons, the location of the entrance to the garage is best served from Harold Secord Street. While there is a play area on the eastern portion of the elementary school, this area is completely enclosed with a fence and is accessed internally from the school. This situation is similar to the existing conditions at other school locations including at Lyles-Crouch Elementary School and George Washington Middle School where the children's play equipment areas are located adjacent to the South Pitt Street and Mount Vernon Avenue.

G. Staff Recommendation:

Staff recommends **approval** of the development special use permit with the conditions outlined in the staff report.

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

STAFF RECOMMENDATION:

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

1. The final architectural elevations shall be consistent with the level of quality and detail provided in the preliminary architectural elevations dated August 19, 2003. 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 facade materials of the entire building, shall be entirely masonry (brick, precast, stone), including lintels and sills.
   b. The applicant shall provide significantly contrasting brick colors to provide the appearance of six buildings with "hyphens" or recesses between them as generally depicted in Attachment # 1.
   c. The base of the building on the central portions of the eastern and western facades shall be precast stone. The height of the base shall be increased as depicted in Attachment #1 for each facade. The base for the northern and southern portion of the building shall be a rusticated brick base.
   d. The balcony "hyphen" portions of the building shall be darker colors and materials to help to give the appearance of several smaller buildings.
   e. The provision of a varied roofline shall continue to be provided as generally depicted in the preliminary building elevations. The material for the pitched roofs shall be standing seam metal.
   f. The height of the tower shall be increased in height by 6 to 8 feet and its roof form, and that of the secondary, shorter tower element shall be disengaged from the main building to enhance the appearance of the tower elements.
   g. The arched passage on the east facade of the building should be consistent with the architectural treatment of the rest of the project and treated as a full semicircle (instead of the segmental arch as shown).
   h. The narrow verticals between paired windows (eight inches or less) should be treated as precast instead of brick.
   i. The cornices on the tower elements should have additional brackets at a spacing based on the window modules, instead of the wide 15-foot spacing as shown.
   j. The grills at the ground-floor openings shall be decorative metal.
   k. The balconies shall be constructed of high quality materials comparable to the materials for the primary building facade. The balconies shall not project beyond the plane of the building. Balcony columns should be divided into a lower element to the height of the handrail and a more slender portion above. Ceiling of the balconies shall be constructed of durable cemetitious material.
   l. The HVAC units and mechanical appurtenances shall be located on the roof-top. Details on the screening methods shall be indicated on the final site plan.
   m. Color building elevations shall be submitted with the final site plan.
   n. All refinements to the design and materials shall be revised prior to the release of the final site plan.

o. The door for the loading facility shall remain closed except when in use. The color of the door shall match the adjacent wall material and be integrated into the surrounding facade to minimize its presence. (P&Z)

2. The applicant shall provide pedestrian streetscape improvements that at a minimum shall provide the level of improvements depicted on the preliminary plan to the satisfaction of the Director of Planning and Zoning and shall also provide the following:
   a. All sidewalks for the development shall be brick including at the northern and southern entry courtyard and in the eastern open space and shall comply with City standards.
   b. A minimum unobstructed sidewalk width of 6 ft. for Ferdinand Day Drive and Cameron Station Boulevard and 6 ft. for Harold Secord Street. The width of the sidewalk for eastern open space shall also be 6ft.
   c. The sidewalk on the eastern portion of the site, where on-street parking is not proposed shall be relocated to provide a 7-8 ft. wide landscape planting strip adjacent to the curb. The street trees shall be relocated to the landscape strip between the sidewalk and the curb.
   d. The applicant shall provide stamped asphalt crosswalks across the northern and southern portion of Harold Secord Street.
   e. The brick sidewalks shall continue over the proposed curb cut for the parking garage and loading area on Harold Secord Street to provide a continuous uninterrupted brick sidewalk.
   f. All streetscape improvements shall be completed prior to the issuance of a certificate of occupancy permit.
   g. The character, location and type of such street furnishings on the final site plan (including but not limited to: benches, lights, trash receptacles, bike racks) and signs or sign systems and other site furnishings shall be consistent with that approved and provided in other phases of Cameron Station. (P&Z)

3. A minimum of 301 parking spaces, as represented on the preliminary plan, shall be located in the underground garage for residents and their visitors. At least 22 of these garage spaces shall be reserved for visitor use and shall be conveniently located adjacent to the elevator on the first level to the satisfaction of the Director of P&Z. The applicant shall install "Visitor Parking Only" markings and/or signs for the garage visitor spaces. A minimum of one space for each one-bedroom and a minimum of two spaces for each two-bedroom unit shall be provided within the garage as part of the purchase price for each unit. The underground parking shall have controlled access. (P&Z)

4. A public ingress/egress easement shall be granted for public vehicular and pedestrian access for Harold Secord Street, the sidewalks surrounding the building, and the eastern open space area. All easements and reservations shall be approved by the City Attorney prior to the release of the final site plan.(P&Z)

5. A final landscape plan shall be provided with the final site plan to the satisfaction of the Director of P&Z and RP&CA. The landscape plan shall be prepared by a landscape architect. The plan shall include the level of landscaping depicted on the preliminary landscape plan and shall at a minimum also provide:
   a. The lower proposed retaining wall on the eastern portion of the building shall be eliminated and replaced with a slope to minimize the height of the remaining retaining wall. The remaining upper retaining wall adjacent to the building shall be constructed of the same material as the base of the building.
   b. Irrigation shall be provided for landscaped and open space areas.
   c. The street trees shall be a minimum 4" caliper at the time of planting.
   d. The street trees for Ferdinand Day Drive and Cameron Station Boulevard shall be Willow Oak.
   e. Provide a 5' landscape strip adjacent to the curb on the southern and northern sides of building to provide a continuous row of willow oak street trees on the perimeter of the property.
   f. Eliminate the retaining wall on western portion of building. Provide a double row of street trees, and appropriate groundcover, on each side of the sidewalk along Harold Secord Street. Provide landscaping beds and foundation plantings against the western facade.
   g. The planting depth on top of the parking deck shall be a minimum of 2' for the shrubs and groundcover and a minimum of 4' of soil depth for trees with adequate drainage to support the trees, as depicted on the preliminary landscape plan.
   h. The street lights and street furniture shall be consistent with the developed portion of Cameron Station Boulevard.
   i. All trees to be limbed up a minimum of 6 feet as they mature to allow for natural surveillance.
   j. Trees are not to be planted under or near light poles.
   k. The proposed shrubbery is to have a maximum height of 36 inches when mature. No shrubs higher than 3 feet to be planted within 6 feet of walkways.
   l. All landscaping shall be maintained in good condition and replaced as needed. All plant 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.
   m. All work shall be performed in accordance with Landscape Specifications Guidelines 4th Edition as produced by the Landscape Contractors Association (LCA) of Maryland, District of Columbia and Virginia; Gaithersburg, Maryland.
   n. Depict 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 property. When such a location is not feasible, such structures shall be located behind the front building line and screened.
   o. All landscaping shall be maintained in good condition and replaced as needed.
   p. All lawn areas shall be sodded. (P&Z)(RP&CA)(Police)

6. The internal courtyards/common areas shall provide the level of detail and amenities depicted on the preliminary plan, and at a minimum the courtyard shall also provide amenities such as special paving surfaces, materials, benches, trash receptacles, landscaping, etc. shall be provided within the courtyard to encourage its use. (P&Z)(RP&CA)

7. The courtyards for the northern and southern entrances shall provide decorative pavers, benches, trash receptacles, landscaping, and a focal element such as a sculpture. (P&Z)

8. Prior to the release of the first certificate of occupancy for the project, the City Attorney shall review and approve the language of the condominium association covenants to ensure that it conveys to residents the requirements of this development special use permit, including the restrictions listed below. The covenant 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. Parking spaces within the parking garage 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 or in driveways which obstruct sidewalks, on any emergency vehicle easement. The Condominium Association shall maintain a contract with a private towing company to immediately remove any vehicles violating this condition.
   c. All landscaping and screening shown on the final approved plans 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.
   d. The Condominium Association documents shall disclose to all prospective buyer(s) through the sales literature and documents, sales contracts etc. that the public access easement including the streets, sidewalks, and eastern open space area will be for general public use and the potential liability.
   e. The developer shall notify prospective buyers, in its marketing materials, that Harold Secord Street is a private street and that all on-site storm sewers are private and will be maintained by the Cameron Station Homeowner's Association.
   f. That heavy industrial uses, including an asphalt facility and a rock crushing facility, the City Waste-To-Energy Plant, the Police Firing Range and Metrorail track and other railway operations are located within the immediate vicinity of the project, are permitted to continue indefinitely, and will generate truck traffic, including empty garbage trucks emanating odors, on the public streets surrounding the project. (P&Z) (T&ES)

9. **CONDITION REVISED BY PLANNING COMMISSION:** Freestanding signs other than traffic/directional signs shall be prohibited, except for the possibility of one sign at the west entrance from South Pickett Street to Cameron Station at the discretion of the Director of Planning and Zoning. (P&Z)(PC)

10. 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)

11. The applicant shall be allowed to make minor adjustments to the building locations if the changes do not result in the loss of parking, open space, or an increase in the building height or building footprint. (P&Z)

12. Before commencing any clearing or grading of the site, the applicant shall hold a meeting with all adjoining property 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. 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 on the project. (P&Z)

13. The applicant shall prepare and submit a plan that delineates a detailed phasing plan and 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 first final site plan for the project. At a minimum, the plan shall include the following:
    a. Phasing and required public improvements (streets, traffic signals, sidewalks, etc.).
    b. A Traffic Control Plan detailing proposed controls to traffic movement, lane closures, construction entrances, haul routes, and storage and staging.
    c. A plan for temporary pedestrian and vehicular circulation during construction.
    d. A parking plan for construction workers that provides parking for workers.
    e. Provisions in the event construction is suspended for 6 months or more for:
        i. temporary streetscape improvements;
        ii. removal of debris;
        iii. screening and barrier protection of construction areas and interim open space improvements.
    f. All other necessary phasing parameters deemed necessary by the Directors of P&Z, T&ES and Code Enforcement. (P&Z)

14. 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 release of the final site plan. 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 found 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)

15. 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)

16. Temporary construction trailer(s) shall be permitted and be subject to the approval of the Director of P&Z. 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)

17. Provide detail for proposed stamped asphalt crosswalks. (T&ES)

18. Provide a note on plans that specifically states that the proposed 10" sanitary sewer along Harold Secord Street shall be privately maintained. (T&ES)

19. 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. Note that the light fixtures must meet the approved Cameron Station lighting guidelines. (T&ES)

20. Proposed light poles shall not be in the sidewalk area whenever alternatives exist. (T&ES)

21. All site and building mounted light fixtures shall be shielded to direct light downward and eliminate glare into residential units. (T&ES)

22. Applicant shall provide $850/ea to the Director of T&ES for the purchase and installation of four (4) of City standard street cans along the public streets. (T&ES)

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. (T&ES)

24. Plan must demonstrate to the satisfaction of the Director of T&ES that adequate stormwater outfall is available to the site or else developer is to design and build any on or off site improvements to discharge to an adequate outfall. (T&ES)

25. 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 a required user property, then refuse collection shall be provided by the City. (T&ES)

26. The developer agrees to deliver all solid waste, as defined by the Code of the City of Alexandria, to a refuse disposal facility designated by the Director of T&ES. The developer further agrees to stipulate in any future lease or property sales agreement that all tenants and/or property owners shall also comply with this requirement. (T&ES)

27. Provide all pedestrian and traffic signage to the satisfaction of the Director of T&ES. (T&ES)

28. Provide and install conduit for future traffic and pedestrian signal at intersection of Cameron Station Boulevard and Harold Secord Drive, to the satisfaction of T&ES. (T&ES)

29. Show all existing and proposed easements, both public and private. (T&ES)

30. Replace existing curb and gutter, sidewalks, and handicap ramps that are in disrepair or broken. (T&ES)

31. All private street signs that intersect a public street shall be marked with a flourescent green strip to notify the plowing crews, (both City and contractor), that they are not to plow those streets. (T&ES)

32. 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)

33. Provide site and garage lighting plans to meet city standards. (T&ES)(Police)

34. The applicant shall provide fifteen (15) resident bicycle parking spaces and three (3) visitor spaces located in the garage and two (2) visitor spaces located near the building entrances to the satisfaction of the Director of T&ES. (T&ES)

35. 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)

36. Due to the historic uses at the site and the potential for contamination, the following condition is included. The applicant shall design and install a vapor barrier and ventilation system for the buildings and parking areas to prevent the migration or accumulation of methane or other gases under parking areas or into buildings, or conduct a study and provide a report signed by a professional engineer showing that such measures are not needed to the satisfaction of Directors of T&ES and Code Enforcement. (T&ES)

37. The final site plan shall not be released and no construction activity shall take place until the following has been submitted and approved by the Director of T&ES:
    a. Submit a Site Characterization Report/Extent of Contamination Study detailing the location, the contaminants, and the estimated quantity of any contaminated soils and/or groundwater at or in the immediate vicinity of the proposed site.
    b. Submit a Risk Assessment indicating any risks associated with the contamination.
    c. Submit a Remediation Plan detailing how any contaminated soils and/or groundwater will be dealt with, including plans to remediate utility corridors. "Clean" backfill shall be used to fill the utility corridors.
    d. Submit a Health and Safety Plan indicating measures to be taken during any remediation and/or construction to minimize the potential risks to workers, the neighborhood, and the environment.

    Submit 5 copies of each of the above. The remediation plan must be included in the Final Site Plan. (T&ES)

38. The applicant or its agent shall furnish each prospective buyer with a statement disclosing the prior history of the Cameron Station site, including previous environmental conditions and on-going remediation. These disclosures shall be made to the satisfaction of the Director of Transportation and Environmental Services. (T&ES)

39. Due to the close proximity of the site to heavy industrial uses, the City Waste-To-Energy Plant, the Police Firing Range and Metrorail track and other railway operations the following conditions are included in the SUP:
    a. The applicant shall prepare a noise study identifying the 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).
    b. Identify options to minimize noise exposure to future residents at the site, including: Special construction methods to reduce noise transmission, including:
        i. Triple-pane glazing for windows.
        ii. Additional wall and roofing insulation.
        iii. Installation of resilient channels between the interior gypsum board leaf and the wall studs.
        iv. Others as identified by the applicant.

    If needed, install some combination of the above-mentioned noise mitigation measures or others to the satisfaction of the Directors of Planning & Zoning and T&ES. (T&ES)

40. The stormwater collection system is part of the Cameron Run watershed. All on-site stormwater curb inlets within the limits of disturbance shall be duly marked to the satisfaction of the Director of T&ES. (T&ES)

41. Provide a drainage map for the area flowing to the chosen BMP, including topographic information and storm drains. (T&ES)

42. 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)

43. The applicant shall present a disclosure statement to potential buyers disclosing the following to the satisfaction of the Directors of P&Z, T&ES and the City Attorney:
    a. That heavy industrial uses including asphalt and rock crushing facilities, the City Waste-To-Energy Plant, the Police Firing Range and Metrorail track and other heavy railway operations are located within the immediate vicinity of the project, are permitted to continue indefinitely, and will generate truck traffic, including empty garbage trucks emanating odors, on the public streets in the vicinity of the project. (P&Z)(T&ES)

44. For firefighting reasons, all stairs must extend through the roof so that door access to the roof is provided as shown on plans. (Code Enforcement)

45. The final site plans shall depict placement of fire easement signs. (Code Enforcement)

46. It appears that trucks at the loading dock may block the sidewalk. Provide more detail of the loading dock design. Revise if necessary to minimize blocking of sidewalk. (T&ES)

47. The applicant is to contact the Crime Prevention Unit of the Alexandria Police Department at 703-838-4520 regarding:
    a. Security surveys for the residence, construction trailer, and sales trailer.
    b. Locking hardware and alarms for the homes.
    c. Robbery awareness program for all residents and employees. (Police)

48. Garage walls and ceilings are to be painted white. (Police)

49. The developer shall submit for reasonable approval by the City Manager an Affordable Housing Plan, which shall provide a total of seven affordable sales units consisting of four one-bedroom units priced at $175,000 and three two-bedroom units priced at $225,000. (Housing)

50. The seven affordable set-aside sales units shall be made available to households with at least one member who lives or works in the City of Alexandria, and with household incomes which do not exceed the City's income guidelines for discounted sales units, and subject to the following conditions:

a. The sales units provided as affordable shall be identical to the market rate units of the same size and type specified in the approved Affordable Housing Plan, and shall have the same amenities as other similar units in the development.

b. The developer shall have the right to identify the specific units and the related specifications of the units that are to be provided as affordable, which shall be reasonably disbursed throughout the building, and shown on the Affordable Housing Plan.

c. From the time the developer begins to solicit potential buyers until 90 days after the date that the developer begins to write sales contracts at the development, the City, through its Office of Housing, shall have the exclusive right to refer qualified buyers for newly available set-aside sales units, unless the City waives that right.

d. Whatever incentives are offered to set-aside unit buyers will be specified in the Affordable Housing Plan.

e. The long-term affordability of the set-aside units shall be provided through deed restrictions in accordance with the set-aside resale procedures established in the City's Affordable Housing Policy.

f. In the event that the developer offers the market rate units for a price less than the estimated offering price set forth in the approved Affordable Housing Plan by 15% or greater, the developer shall make a proportionate reduction in the price of the equivalent set-aside units, as approved by the City Manager. (Housing)

51. The set-aside units may be sold only to buyers which meet the household income and eligibility conditions in Paragraph 2. In the event that the developer demonstrates that it is unable to secure qualified buyers for all of the set-aside units within a reasonable marketing period acceptable to the City Manager, but in no event later than the date of closing on the last market rate unit to close, the requirement for such sale may be waived with the approval of the City Manager, provided that, for each unit for which a waiver is granted, the developer shall contribute to the Housing Trust Fund the difference between the market rate price for such unit in effect on the effective date of the waiver, and the discounted, set-aside price established under Paragraph 1. (Housing)

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

1. Development special use permit with site plan to construct a residential development under the Cameron Station Coordinated Development District (CDD#9).

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.

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 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-10 The applicant must comply with the City of Alexandria, Erosion and Sediment Control Code, Section 5, Chapter 4. This includes naming a "Certified Land Disturber" on the Erosion and Sediment Control sheets prior to release of the final Site Plan in accordance with Virginia Erosion and Sediment Control Law VAC §: lO

C-11 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-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.

Virginia American Water Company

C-1 Hydraulic calculations will be completed to verify main sizes upon final submittal of the site plan. Profiles will be required for hydraulic calculations. (VAWC)

C-2 The existing eight-inch water main (that the proposed fire domestic services are shown as being connected to) does not extend into the site as far as shown on the plans. The existing water main ends 42' from the 12" main in Cameron Station Boulevard. (VAWC)

Code Enforcement:

Most recent review comments are in **bold type**.

C-1 Fire Department ladder truck access is required for two sides/ ends of all buildings over 50 feet in height. This requires a truck to be able to position itself between 15 and 30 feet from the face of the building. All elevated structures used for this purpose shall be designed to AASHTO HS-20 loadings. **Condition met. Parking on the west side of the structure has been eliminated.**

C-2 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. **Condition not met. Submitted Fire Service Plan does not show adequate hydrant placement. Hydrants shall be located on the same side of the street as the FDC and within 100 feet of each FDC. Add two hydrants (one for each FDC) to meet requirement.**

C-3 Existing and proposed hydrants are not shown on plan. Show all existing and proposed hydrants **Condition not met. Hydrants shown do not meet access and availability requirements. See C-2 above.**

C-4 Fire Department Connections (FDC) shall be located within 100 feet of a fire hydrant on the same side of the street as the FDC and shall not be obstructed by parking spaces and landscaping. **Condition not met. FDC on east side of structure is obstructed by landscaping and is located on a higher grade than street level. Reposition FDC to street level by sidewalk for rapid, unobstructed access. Coordinate landscape drawings and site plan to reflect this condition. Inadequate hydrants shown on plans. See note C-2 above.**

C-5 The proposed project shall be equipped with an automatic fire suppression system in both the garage and residential portions of the structure. **Acknowledged by applicant.**

C-6 The public parking garage floor must comply with USBC 609.2.3 and drain through oil separators or traps to avoid accumulation of explosive vapors in building drains or sewers as provided for in the plumbing code (USBC 2800.1: P-1002.0). This parking garage is classified as an S-2, Group 2, public garage. Floors of public garages must be graded to drain through oil separators or traps to avoid accumulation of explosive vapors in building drains or sewers (USBC 609.2.3). Acknowledged by applicant.

C-7 The applicant shall resolve egress stair issues within the structure. The plans show some stairs exiting to the exterior and other which do not. Stairwells shall comply with the provisions of the USBC. Condition met.

C-8 Required exits, parking, and facilities shall be accessible for persons with disabilities. Provisions are not shown on the plans. Acknowledged by applicant.

C-9 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. **Acknowledged but not submitted.**

C-10 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. **Acknowledged and submitted in response letter. Include code submitted code analysis on plans..**

C-11 A separate tap is required for the building fire service connection. **Relocate fire service tap away from deadend main.**

C-12 New construction must comply with the current edition of the Uniform Statewide Building Code (USBC). Condition met. Shown as General Note 2 on Sheet C-1.00.

C-13 A soils report must be submitted with the building permit application Acknowledged by applicant.

C-14 A Certificate of occupancy shall be obtained prior to any occupancy of the building or portion thereof, in accordance with USBC 118.0. Acknowledged by applicant.

C-15 This structure contains mixed use groups [R, Residential; S-2, Low-Hazard Storage (public garage, group 2) and is subject to the mixed use and occupancy requirements of USBC 313.0. Acknowledged by applicant.

C-16 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. **Condition met. Shown as Note 16 on Sheet C-1.00.**

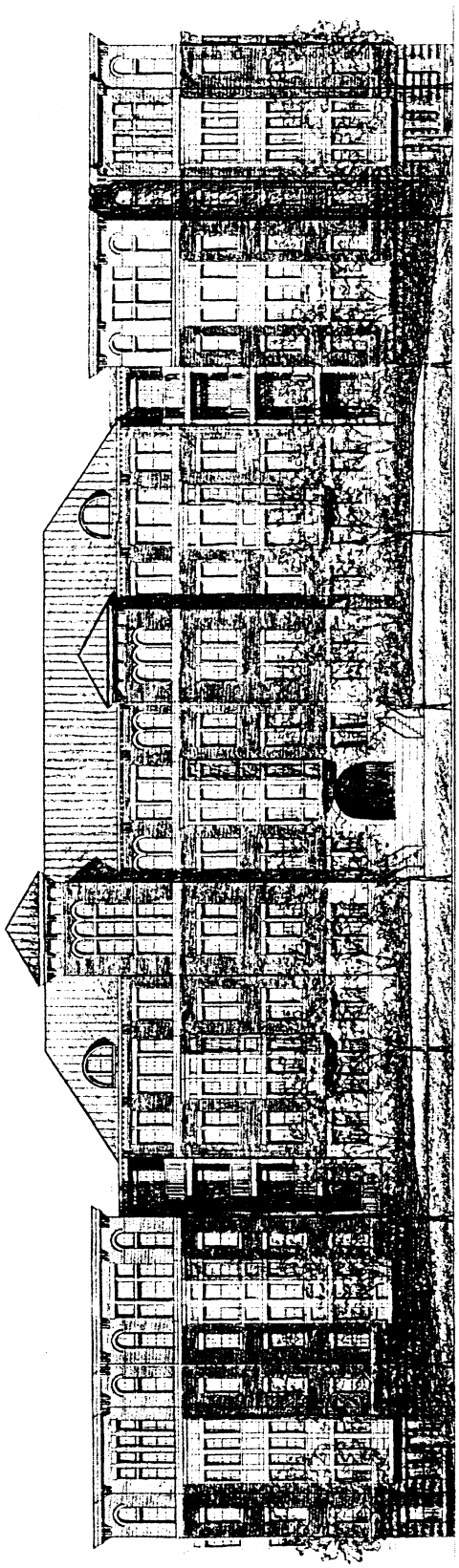
C-17 Sheeting and shoring shall not extend beyond the property line; except when the developer has obtained a written release from adjacent property owners which has been recorded in the land records; or through an approved encroachment process. Acknowledged by applicant.

Historic Alexandria (Archaeology):

No comments

Health Department:

No comments received.



Development Special Use Permit with Site Plan (DSUP) # 2003-0017

APPLICATION for
DEVELOPMENT SPECIAL USE PERMIT with SITE PLAN

DSUP #

PROJECT NAME: Cameron Station Phase VII

PROPERTY LOCATION: **Cameron Station Boulevard and Ferdinand Day Drive**
400 Cameron Blvd.

TAX MAP REFERENCE: **68.01 02 04** ZONE: **CCD #9**

APPLICANT Name: **Cameron Development, L.L.C., a Virginia limited liability company**
Address: **8614 Westwood Center Drive, Suite 900, Vienna, Virginia 22182**

PROPERTY OWNER
Name: **Cameron Development, L.L.C. a Virginia limited liability company**
Address: **8614 Westwood Center Drive, Suite 900, Vienna, Virginia 22182**

SUMMARY OF PROPOSAL: **Preliminary Development Plan pursuant to approved CDD Concept Plan for Phase VII Cameron Station.**

MODIFICATIONS REQUESTED: **Vision clearance setbacks on Harold Secord and Ferdinand Day Drive and Harold Secord and Cameron Station Blvd.**

SUP's REQUESTED: **§5-605 CDD Preliminary Development Plan Special Use Permit**

THE UNDERSIGNED hereby applies for Development Site Plan, with Special Use Permit, approval in accordance with the provisions of Title 7, Chapter 5 of the Code of the City of Alexandria, Virginia.

THE UNDERSIGNED, having obtained permission from the property owner, hereby grants permission to the City of Alexandria to post placard notice on the property for which this application is requested, pursuant to Article XI, Section 11-301 (B) of the 1992 Zoning Ordinance of the City of Alexandria, Virginia.

THE UNDERSIGNED also attests that all of the information herein provided and specifically including all surveys, drawings, etc., required of the applicant are true, correct and accurate to the best of their knowledge and belief.

Land, Clark, Carroll, Mendelson & Blair, P.C.
By Duncan W. Blair, Esquire
Print Name of Applicant or Agent

Signature

524 King Street — *Mailing/Street Address*
(703) 836-1000 — *Telephone #*
(703) 549-3335 — *Fax #*
dblair@landclark.com — *E-mail*

Alexandria, Virginia 22313 — *City and State* *Zip Code*
May 23, 2003 — *Date*

========== *DO NOT WRITE BELOW THIS LINE - OFFICE USE ONLY* ==========

Application Received: _____
Fee Paid & Date: $_____ _____
Legal Advertisement: _____
Received Plans for Completeness: _____
Received Plans for Preliminary: _____
Property Placard: _____

ACTION - PLANNING COMMISSION: _____

ACTION - CITY COUNCIL: _____

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Development Special Use Permit with Site Plan (DSUP) # 2005-0017

All applicants must complete this form. Supplemental forms are required for child care facilities, restaurants, automobile oriented uses and freestanding signs requiring special use permit approval.

1. The applicant is the (check one) [X] Owner [ ] Contract Purchaser

   [ ] Lessee or [ ] Other:

State the name, address and percent of ownership of any person or entity owning an interest in the applicant, unless the entity is a corporation or partnership in which case identify each owner of more than ten percent.

Cameron Development, LLC, is a Virginia limited liability company, the individuals owning in excess of a ten percent (10%) interest are Ahmad Abdul-Baki and Jeffrey Sneider; their mailing address is c/o Greenvest Associates, 8614 Westwood Center Drive, Suite 900, Vienna, Virginia 22182. Mr. Abdul-Baki and Mr. Sneider are also the co-manger of the limited liability company.

If property owner or applicant is being represented by an authorized agent such as an attorney, realtor, or other person for which there is some form of compensation, does this agent or the business in which the agent is employed have a business license to operate in the City of Alexandria, Virginia?

[X] Yes. Provide proof of current City business license

[ ] No. The agent shall obtain a business license prior to filing application, if required by the City Code.

NARRATIVE DESCRIPTION

2. The applicant shall describe below the nature of the request in detail so that the Planning Commission and City Council can understand the nature of the operation and the use, including such items as the nature of the activity, the number and type of patrons, the number of employees, the hours, how parking is to be provided for employees and patrons, and whether the use will generate any noise. (Attach additional sheets if necessary)

Cameron Development, L.L.C., a Virginia limited liability company (the "Applicant"), is requesting approval of a Preliminary Development Plan to permit construction of a sixty foot (60') tall, one hundred forty eight (148) unit condominium building on Phase VII Cameron Station. The Preliminary Development Plan is consistent with the approved CCD Concept Plan.

3. How many patrons, clients, pupils and other such users do you expect? Specify time period (i.e., day, hour, or shift).

Not applicable.

4. How many employees, staff and other personnel do you expect? Specify time period (i.e. day, hour, or shift).

   Not applicable.

5. Describe the proposed hours and days of operation of the proposed use:

   Day Hours Day Hours

   Not applicable.

6. Describe any potential noise emanating from the proposed use:

   A. Describe the noise levels anticipated from all mechanical equipment and patrons.

   Not applicable.

   B. How will the noise from patrons be controlled?

   Not applicable.

7. Describe any potential odors emanating from the proposed use and plans to control them:

   Not applicable.

8. Provide information regarding trash and litter generated by the use:

   A. What type of trash and garbage will be generated by the use?

   Not applicable.

   B. How much trash and garbage will be generated by the use?

   Not applicable.

   C. How often will trash be collected?

   Not applicable.

   D. How will you prevent littering on the property, streets and nearby properties?

   Not applicable.

9. Will any hazardous materials, as defined by the state or federal government, be handled, stored, or generated on the property?

☐ Yes. ☐ No.

Not applicable.

If yes, provide the name, monthly quantity, and specific disposal method below:

10. Will any organic compounds, for example paint, ink, lacquer thinner, or cleaning or degreasing solvent, be handled, stored, or generated on the property?

☐ Yes. ☐ No.

Not applicable.

If yes, provide the name, monthly quantity, and specific disposal method below:

11. What methods are proposed to ensure the safety of residents, employees and patrons?

Not applicable.

ALCOHOL SALES

12. Will the proposed use include the sale of beer, wine, or mixed drinks?

☐ Yes. ☒ No.

If yes, describe alcohol sales below, including if the ABC license will include on-premises and/or off-premises sales. Existing uses must describe their existing alcohol sales and/or service and identify any proposed changes in that aspect of the operation.

PARKING AND ACCESS REQUIREMENTS

13. Provide information regarding the availability of off-street parking:

A. How many parking spaces are required for the proposed use pursuant to section 8-200 (A) of the zoning ordinance?
297 parking spaces (includes 15% visitor parking spaces)

B. How many parking spaces of each type are provided for the proposed use:

121	Standard spaces (Garage)
178	Compact spaces (Garage)
8	Handicapped accessible spaces (Garage)
24	Other (Surface parking around building)
Total 331	

C. Where is required parking located? (*check one*) [X] on-site [ ] off-site.

If the required parking will be located off-site, where will it be located:

Pursuant to section 8-200 (C) of the zoning ordinance, commercial and industrial uses may provide off-site parking within 500 feet of the proposed use, provided that the off-site parking is located on land zoned for commercial or industrial uses. All other uses must provide parking on-site, except that off-street parking may be provided within 300 feet of the use with a special use permit.

D. If a reduction in the required parking is requested, pursuant to section 8-100 (A) (4) or (5) of the zoning ordinance, complete the PARKING REDUCTION SUPPLEMENTAL APPLICATION.

14. Provide information regarding loading and unloading facilities for the use:

A. How many loading spaces are required for the use, per section 8-200 (B) of the zoning ordinance? _____

None.

B. How many loading spaces are available for the use?

One (1) loading entrance off Harold Secord Street.

C. Where are off-street loading facilities located?

On-site

D. During what hours of the day do you expect loading/unloading operations to occur?

Not applicable.

E. How frequently are loading/unloading operations expected to occur, per day or per week, as appropriate?

Not applicable.

15. Is street access to the subject property adequate or are any street improvements, such as a new turning lane, necessary to minimize impacts on traffic flow?

Yes.

DSUP 2003-00017
DSUP 2003-0018

LAND, CLARK, CARROLL, MENDELSON & BLAIR, P.C.
Attorneys & Counsellors at Law
524 KING STREET
ALEXANDRIA, VA 22314

H. CARTER LAND, III
JAMES C. CLARK
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RICHARD S. MENDELSON
DUNCAN W. BLAIR

(703) 836-1000

FACSIMILIE
(703) 549-3335

MAILING ADDRESS:
P.O. Box 19888
ALEXANDRIA, VIRGINIA 22320-0888

October 16, 2003

John D. Johnson, III
Assistant Superintendent
Alexandria City Public Schools
Financial and Administrative Services
2000 N. Beauregard Street
Alexandria, 22311

In Re: Cameron Station Development Parking garage

Dear Mr. Johnson:

I am writing on behalf of our client Cameron Development, LLC to respond to your letter dated September 22, 2003. As you are aware on September 16, 2003 Linda Erbs of Cameron Associates, Abed Benzina and Valerie Miller the project architects, and I met with members of the School Board Facilities Committee to discuss the last two phases of the Cameron Station Development known as Phase VI and Phase VII. The aggregate number of units in both projects, reflecting 97 townhomes in Phase VI and 148 condominiums in Phase VII, is a substantial reduction from the number of units authorized under the CDD Zoning Concept Approval and a substantial reduction of the number of units that have been approved or submitted for approval on these phases over the last several years.

Your September 22, 2003 letter requests that the architects look into the possibility of relocating the entrance to the parking garage from its proposed location to another location in the building. The south side of the building along Ferdinand Day Drive was suggested during the meeting. Subsequent to our meeting the architects reviewed the plans to determine if it is feasible to relocate the garage entrance. Due to the shape of the property and the design of the parking garage, it is not feasible to relocate the entrance to the garage without a substantial redesign of the project and a loss of units. In addition the garage entrance/exit was located on Harold Secord Street as a result of a number of City, community, and urban design issues. Harold Secord Street is intended to be a minor thoroughfare handling traffic only for Phases VI and VII of Cameron Station as well as access to the front of the school; it is for this reason that the school was allowed to have perpendicular parking along Harold Secord Street.

Enclosed is a copy of a traffic study prepared by Wahl and Associates addressing the traffic generated by the two phases. As you can see from the study, it is not

anticipated that a substantial increase in traffic in the peak a.m. and p.m. hours will be generated by the proposed development. As such, the potential for conflicts and intrusions upon access to the school is limited. The current location of the garage should not interfere or impact pedestrian access to and from the school. If the garage were located on either the north or south side of the building, cars would egress over the pedestrian sidewalks which are the pathways to and from the school. As currently located any interface between pedestrians and cars leaving the garage are at signed intersections where the traffic can be controlled to ensure pedestrian safety. For these reasons, Cameron Development has determined that it is not feasible to move the location of the garage entrance.

Notwithstanding this determination, Cameron Development looks forward to working with the administration and staff of Samuel Tucker Elementary School to address traffic and safety concerns as the projects are completed and as the Cameron Station community and the traffic pattern become more defined. If you require further information concerning this, please do not hesitate to call.

Very truly yours,

Duncan W. Blair

cc: Linda Erbs

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DSUP 2003-00017
DSUP 2003-00018

CAMERON STATION

A NEW COMMUNITY IN AN OLD TOWN.
ALEXANDRIA.

October 16, 2003

Mr. Jim Duszynski
CEO
Greenvest LC
8614 Westwood Center Drive, Suite 900
Vienna, VA 22182

Dear Jim,

On behalf of the Board of Directors at Cameron Station, I thank you for initiating the briefings regarding the development of Phases VI & VII, as well as the follow-up meetings with our ad hoc committee consisting of members of the Cameron Club Committee, the Civic Association, residents and the Board to hear the concerns of our community. The plan to develop townhomes and condominiums within Phases VI & VIII has been well received by the vast majority of the community, including the Board. We believe this plan is the desired option and will be a valuable addition to Cameron Station.

However, as you know, both residents and the Board have ongoing concerns in two areas: (1) the impact that the additional homes will have on the capacity of our current club facility; and (2) potential problems that may arise during the actual construction phase. Our concerns are described below.

1. **Impact on the Cameron Club.** We do not know whether the existing facilities within the Cameron Club will be sufficient to address the anticipated increased usage of the facility after the completion of Phases VI & VII. The addition of 250 homes in Phases VI & VII requires us to evaluate whether our existing facilities have the necessary capacity to absorb the increased usage by the residents of these new homes. Our desire is to have a professional evaluation of the current facility to study existing usage and efficiency, as well as an estimation of the impact that the additional 250 homes will have on the usage of the fitness center, office and meeting space, and pool. We would like your assistance in this evaluation, which we would like to be performed by an independent consultant.

   If it is determined that the current facility has reached its maximum capacity or is inefficient in its use of space, we would like Greenvest's assistance in addressing the issue through both professional advice and, if necessary, financial contribution

Cameron Station Community Association, Inc. • 200 Cameron Station Boulevard • Alexandria, VA 22304
Phone (703) 567-4881 • Fax (703) 567-4883 • E-mail: communitymanager@cameronstation.org

to address any shortfalls in the capacity of the Cameron Club. Specifically, in any evaluation performed, we would like the following issues addressed: (1) whether the current size and space of the fitness center is and will continue to be sufficient to meet the needs of the community; (2) whether the current equipment is sufficient for the existing usage, as well as the anticipated increased usage after the 250 homes are added to Cameron Station; (3) whether the current office and meeting space is laid out efficiently to conduct HOA business and whether it will continue to be sufficient to meet our future needs; (4) whether the increase in homeowners will require us to expand the pool deck; (5) the necessary addition of a trash enclosure (an obvious omission from the original plans of the Club); and (6) the need to create additional storage space within or adjacent to the Club.

2. **Construction**. As actual construction approaches, we have and continue to be approached by residents who are extremely concerned over issues that may arise during the construction of Phases VI & VII. Specific concerns that have been brought to the Board's attention include: the anticipated volume and noise of construction traffic; the need to limit hours of construction to minimize the disruption to the residents of Cameron Station; whether the builders will dispose of construction trash on a regular basis; public health safety issues arising out of the construction (i.e. garbage, rodents, standing water, etc.); and whether the builders will secure the construction site to minimize the risk of injury to residents and children.

We appreciate your assistance in addressing these issues prior to construction and on an on-going basis during construction. We hope to maintain a constant dialogue with Greenvest, the City of Alexandria, and builders to ensure that the construction issues will be addressed and the builders comply in all respects with all applicable code provisions regulating their construction of homes within Cameron Station.

Internally, we will be forming an ad hoc committee to monitor and report on construction issues in Phases VI & VII that will be reporting to the Board, residents, Greenvest and the City regularly. We would ask you to appoint someone from Greenvest to serve on this committee. We would also like you to arrange for a representative from each builder to serve on the ad hoc committee. We will ask several residents, a Board member, and a representative from the school system to also serve on the committee. We anticipate that the ad hoc committee will address issues arising out of construction in an effort to prevent problems from occurring before they begin to avoid any escalation of issues that might endanger the health or safety and quality of life for Cameron Station residents.

In closing, we would like to emphasize the significance of this letter. In the past, the Board of Directors has not taken an official stand for or against any project undertaken by Greenvest. With that being said, we would like to advise you that the Board of Directors of Cameron Station, by unanimous vote, agreed to support the current

plan of development in Phases VI & VII. In providing this statement of support, we are also assuring our residents that we will stand with them to ensure that any current or future problems that might arise during or as a result of the construction of Phases VI & VII will be promptly addressed and that there will be a professional evaluation of the impact that the construction and development of Phases VI & VII will have on our club facility. We intend, through our ad hoc committee and through Board oversight, to monitor construction issues very closely to minimize the disruption caused by construction activity.

We look forward to working with you during the construction of Phases VI & VII. If you would like to discuss any of these issues further, please do not hesitate to contact me.

Sincerely,

Victoria Hebert
President
Cameron Station Community Association

PC Docket Item #17 DSUP2003-0018
#18 DSUP2003-0017
#ATMPSUP 2003-0092

J Bennett
<jb900@yahoo.com>
11/03/2003 01:15 PM

To: "H. Stewart Dunn, Jr." <hsdunn@ipbtax.com>, Donna Fossum <fossum@rand.org>, Jesse Jennings <jssjennings@aol.com>, John Komoroske <komorosj@nasd.com>, Richard Leibach <richleibach@aol.com>, "J. Lawrence Robinson" <jlr@cpma.com>, Eric Wagner <erwagner@comcast.net>
cc: Jim Duszynski <jimd@greenvest.com>, Linda Erbs <lerbs@greenvest.com>, Duncan Blair <dblair@landclark.com>, Barbara Ross <barbara.ross@ci.alexandria.va.us>, Jeffrey Farner <jeffrey.farner@ci.alexandria.va.us>, Eileen Fogarty <eileen.fogarty@ci.alexandria.va.us>, Bill Euille <alexvamayor@aol.com>, Ludwig Gaines <ludwig@gainwithgaines.com>, Rob Krupicka <rob@krupicka.com>, Andrew Macdonald <macdonaldcouncil@msn.com>, Del Pepper <delpepper@aol.com>, Paul Smedberg <smedbergpc@aol.com>, Joyce Woodson <council@joycewoodson.net>
Subject: CAMERON STATION PHASES VI AND VII AND TMP - DOCKET ITEMS #17,18 AND 19

Dear Planning Commissioners,

The Board of Directors of the Cameron Station Civic Association, Inc. supports these two developments for the remaining phases of Cameron Station. These developments are compatible with the existing community and will be pleasing additions.

The condo building, which comprises Phase VII, sets an important example of urban design with its parking under the building. One level of parking is under ground, the other level, while at ground level, is masked by residential units surrounding it. Also two garage parking spaces will be included in the sales price of each two and three bedroom condo, rather than making the second one a priced option. We believe this provision will reduce the impact of residents using visitor parking on the street.

We believe both projects provide adequate parking for visitors and residents and traffic generation will not adversely affect the community.

We support the conditions staff recommends regarding architectural treatment of both phases and believe they will assure buildings of high quality design and finish. We also support the affordable housing provision.

We call your attention to identical conditions #17.g. for Phase VI and #8.f. in VII. We believe the conditions should clearly indicate that the disclosure of nearby uses, such as the waste-to-energy, asphalt, and rock crushing plants, be revealed in the marketing process, much as #8.e. for phase VII requires regarding the private nature of Harold Secord Street, the street to the west of the phase. As it is stated, it is unclear when this disclosure would occur.

We believe community concerns regarding impact on the Cameron Club and on construction disruptions can be satisfactorily resolved with Greenvest's continued commitment and involvement in resolving them.

Mindy Lyle, our First Vice President, will speak on behalf of our Board at the Planning Commission meeting.

Thank you very much for your consideration.

Sincerely,

Joseph S. Bennett, President
Cameron Station Civic Association, Inc

Learning to Live • Loving to Learn

ACPS

Alexandria City Public Schools

October 24, 2003

2000 N. Beauregard Street
Alexandria, Virginia 22311

Telephone: (703) 824-6600
Facsimile: (703) 824-6699
TDD: (703) 824-6666
www.acps.k12.va.us

Eileen Fogarty
Director, Planning and Zoning Department
City Hall, Room 2100
301 King Street
Alexandria, VA 22314

Dear Eileen:

On September 16, 2003, the Facilities Committee of the School Board met with representatives from Cameron Development, LLC to review the proposed plans to construct a condominium building adjacent to Samuel Tucker Elementary School.

The committee is very concerned about the location of the proposed condominium parking garage entrance. This location is on Harold Secord Street, directly opposite the east side of Samuel Tucker Elementary School.

At the direction of the Facilities Committee, the administration sent a letter to Cameron Developments' attorney, Duncan Blair, requesting that the entrance to the parking garage be relocated. The Facilities Committee feels that the traffic entering and leaving the condominium garage would be safer for school children, and less likely to affect the air quality of the children playing on the small, adjacent playground, if it were located on Ferdinand Day Drive.

Cameron Development sent a response indicating that they looked into relocation of the garage entrance but it was not feasible.

On October 21, 2003, the Cameron Development response was shared with the School Board Facilities Committee. The Facilities Committee members felt that further consideration should be given to having the garage entrance be on a street that is not adjacent to the school.

Please review this situation and provide the Facilities Committee's comments to the appropriate person.

If you have questions, or need additional information, please feel free to contact me.

Sincerely,

Mark. O. Wilkoff
Chairman
Alexandria School Board

MOW:bc

cc: School Board Members

Docket Item #19
SPECIAL USE PERMIT #2003-0092
CAMERON STATION

Planning Commission Meeting
November 6, 2003

ISSUE: Consideration of a request to amend the special use permit for transportation management plan (TMP) for Cameron Station to include Phase VI and VII.

APPLICANT: Cameron Development, LLC
by Duncan Blair, attorney

LOCATION: 400 and 500 Cameron Station Boulevard / Ferdinand Day Drive

ZONE: CDD-9/Coordinated Development District

PLANNING COMMISSION ACTION, NOVEMBER 6, 2003: On a motion by Mr Dunn, seconded by Mr. Komoroske, the Planning Commission voted to recommend approval of the request, subject to compliance with all applicable codes, ordinances and staff recommendations and to amend condition 15. The motion carried on a vote of 6 to 0.

Reason: The Planning Commission agreed with the staff analysis. Condition amendments were deemed reasonable, however, the Planning Commission asked that the changes be made to the Director of Planning's discretion to ensure that all issues were properly reviewed.

The Phase VI (DSUP#2003-0018) and Phase VII (DSUP#2003-0017) applications and TMP amendment (SUP#2003-0092) were heard together and is reflected in the speakers comments.

Speakers:

Duncan Blair represented the application.

Victoria Hebert, 5019 Waple Lane, spoke in support representing the Cameron Station Homeowners Association as President of the Board of Directors. She expressed Board conflicts with conditions related primarily to trash and transportation conditions. Specifically, the association objected to a condition that may require public city refuse pick-up because they want to be able to provide private refuse collection in phases VI and VII as is the case in Cameron Station phases I through V; they do not desire bus shelters within the development because of the space the shelters would occupy on narrow street frontages and sidewalks, and because it would give them less flexibility to relocate designated bus pick-up locations in the future; and that they do not want to be required to provide discounted rail and bus fares, stating that the association desires to spend TMP funds on other priorities. Other

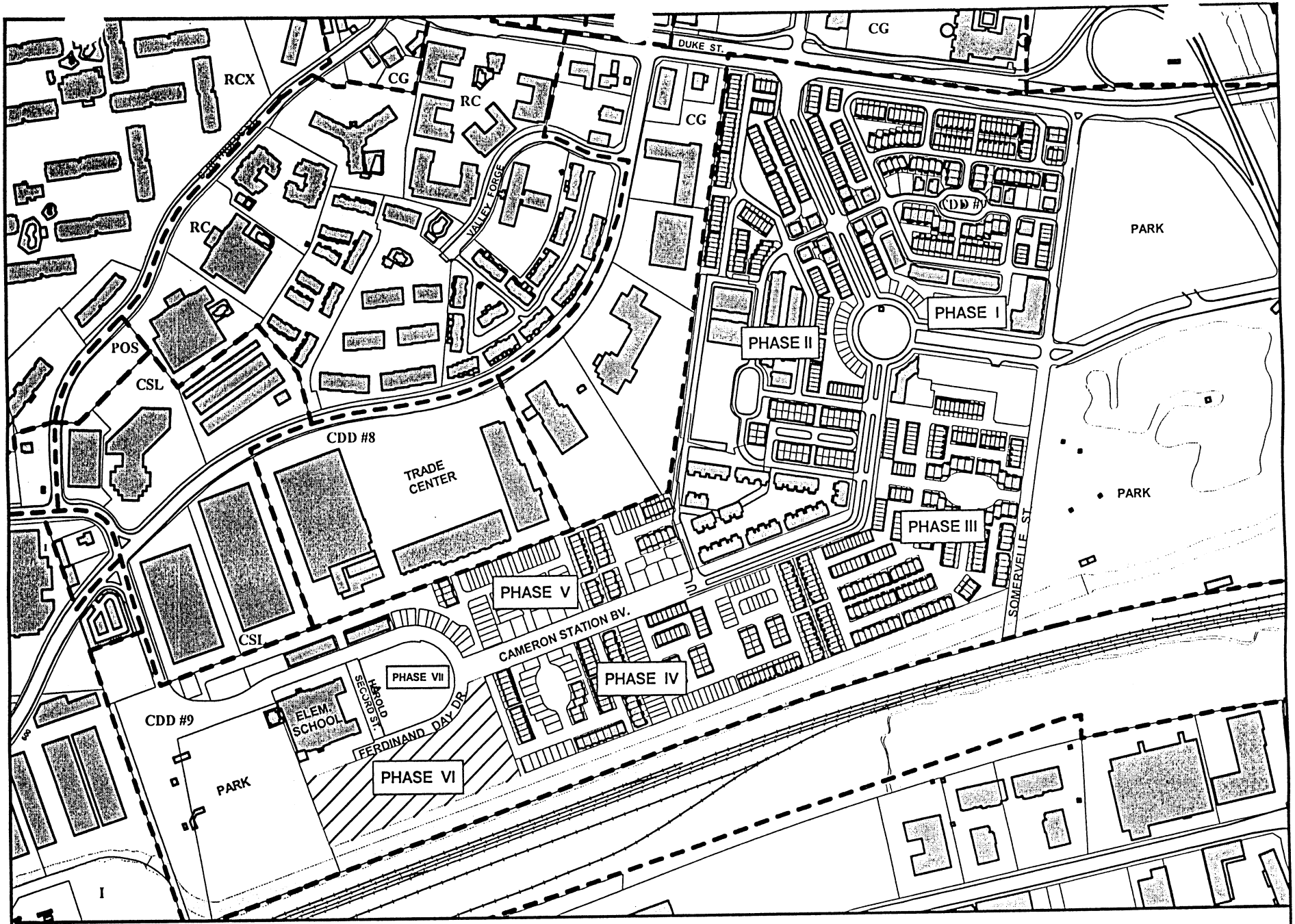
conditions they identified included their desire to install a freestanding sign at the western entrance to the development, and a condition requiring City Attorney review of HOA documents, citing concern that the City Attorney's review may give rise to conflicts with the HOA governing legal instruments.

Mindy Lyle, 5235 Tancreti Lane, Vice President of the Cameron Station Civic Association, spoke in support of the application and the Homeowners Association position, as well as the development review process involving the community.

Karen O'Brien, 361 Cameron Station Boulevard, spoke in support of the application.

Michael O'Brien, 361 Cameron Station Boulevard, Chairman of the Cameron Station Common Area Committee, spoke in support of the application but voiced opposition to bus shelter condition of the TMP SUP amendment.

Roland Gonzales, 4914 Gardner Drive, past president of the Cameron Station Association, spoke in support of the application and the active involvement of the community in the process.



SUP #2003-0092

11/06/03

N

2.a

A. SUMMARY:

The applicant, Cameron Development, LLC has applied for an amendment to the approved Transportation Management Plan (TMP) for Cameron Station to incorporate Phase VI and Phase VII of the development into the existing Transportation Management Plan for the development. The original TMP for Cameron Station was approved by City Council in 1996 (SUP#95-189) and has been amended to incorporate each subsequent phase of development, as required by the original TMP. Staff recommends approval to amend the special use permit for the transportation management plan (TMP) for Cameron Station to include Phase VI and VII subject to all applicable codes and ordinances and the recommended conditions.

B. STAFF ANALYSIS:

The Cameron Station project is subject to a single, unified, TMP program; one of the key elements of the program is the provision of a shuttle to the metro station during peak morning and evening hours. As each phase of the Cameron Station Development has been approved, a TMP amendment has been processed to incorporate that phase into the TMP. This approach was taken so that unique TMP programs could be introduced for phases of Cameron Station which might benefit from special TMP programs.

Shuttle Service

The shuttle service was proposed as part of their initial TMP application, and in the future, the Homeowners Association will be required to maintain the shuttle service for the residents. The shuttle service was provided beginning with the issuance of the 100th certificate of occupancy, and a second shuttle was to be added when the 1,000th CO is issued. At the time the 1,000th certificate of occupancy permit was issued, a survey of the ridership of the shuttle was conducted. The survey indicated that additional capacity was needed. In consultation with the City and the Homeowners Association (HOA), the shuttle capacity was increased from 27 to 35 seats to accommodate the increased ridership to and from the Van Dorn Metrorail Station.

Cameron Station representatives have voiced support for the incorporation of Phase VI (97 townhouses) and Phase VII (148 condominiums) into the master TMP program and have stated that the additional funding that will be contributed by the new homeowners will aid them in evaluating and enhancing bus shuttle service as necessary through the final build-out of the Cameron Station development. In its future annual reports, the community association will be required to evaluate the shuttle operation to determine if it adequately accommodates the users.

Bus Shelters

Staff has added a condition recommending that the applicant provide a comprehensive bus shelter plan for Cameron Station to determine the location and placement of shelters within Cameron Station. The original Cameron Station approvals already require the developer to place shelters at appropriate locations within the development, but no planning or installation has occurred to date, except along Duke Street. The condition is placed within this approval to require the developer to move forward at this time with the planning and installation of shelters. The applicant will be required to pay for the shelters and their installation; the HOA will be responsible for their ongoing maintenance.

C. STAFF RECOMMENDATION:

Staff recommends **approval** of the amendment to incorporate Phase VI and VII within the existing TMP, with the conditions outlined within the staff report.

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

STAFF RECOMMENDATION:

Staff recommends **approval** of an amendment to the Cameron Station Transportation Management Plan special use permit to incorporate Phases VI and VII, subject to all applicable codes and ordinances and the following conditions:

The following conditions have been brought forward from SUP#95-0189:

1. A TMP Coordinator (TMPC) shall be designated for Cameron Station upon application for the initial building permit for the project. The name, address and telephone number of the TMP Coordinator shall be kept on file with the Office of Transit Services and Programs (OTS&P). The Coordinator shall maintain an on-site office in Cameron Station and shall be responsible for establishing and administering a Transportation Management Plan for the entire Cameron Station project, including both residential and retail uses in Phase I, II, III, IV, V, VI and VII.

2. The applicant shall promote the use of transit, carpooling/ vanpooling and other components of the TMP with prospective tenants of the retail space, and prospective residents of the housing during marketing/leasing activities.

3. The applicant shall display and distribute information about transit, carpool/vanpool and other TMP programs and services to tenants, and residents of the project, including maintaining, on site, stocks of appropriate bus schedules and applications to the regional rideshare program.

4. The applicant shall administer a ride-sharing program, including assisting in the formation of two person car pools and car/vanpools of three or more persons, and registering pools of three or more persons with the Office of Transit Services and Programs.

5. Annual surveys shall be conducted to determine the number of employees and their place of residence, the number of residents and their place of employment, modes of transportation, arrival and departure times, willingness and ability to use carpooling and public transit, and such additional information as the City may require.

6. The applicant shall provide annual reports to OTS&P, including an assessment of the effects of TMP activities on carpooling, vanpooling, transit ridership and peak hour traffic, an accounting of receipts and disbursements of the TMP account; and a work program for the following year. The initial report shall be submitted 1 year following approval of a certificates of occupancy (CO) for at least 100 residential units. This report, and each subsequent report, shall identify, as of the end of the reporting period, the number of square feet of commercial floor area and the number of dwelling units occupied, the actual number of employees and residents occupying such space. (PC)

7. Quarterly reports on the receipts and disbursements of the TMP accounts shall be provided using the City's standardized reporting procedures.

8. The applicant shall administer the on-site sale of discounted bus and rail fare media. The fare media to be sold will include, at a minimum, fare media for Metrorail, Metrobus, DASH and other public transportation system fare media requested by employees and/or OTS&P. The availability of these fare media will be prominently advertised. The transit media will be sold at a minimum 20% discount to the residents of the residential units and the employees of the retail and space unless otherwise approved by the Director of T&ES. Upon approval by the Director of T&ES, this requirement may be satisfied by an agreement by another party to sell such transit fare media at a location convenient to the applicant's project.

9. The applicant shall participate with other projects in the vicinity of the site and OTS&P in the mutually agreed upon cooperative planning and implementation of TMP programs and activities, including the provision of enhanced bus service.

10. That the applicant work with the City's Office of Transit Services and Programs and with WMATA and DASH to promote and, as appropriate, to improve bus services to and from the site.

11. The applicant shall fund, at an annual rate of 0.1254 per net occupied square foot of commercial space and at a rate equal to $60.00 per occupied residential unit a transportation account to be used exclusively for the following TMP activities: 1) discounting the cost of transit fare media for on-site employees and residents; 2) operation of a shuttle bus service; 3) marketing and promotional materials to promote the TMP; or any other TMP activities as may be proposed by the applicant and approved by the Director of T&ES. Commencing on January 1, 1996, the annual rate shall be increased a rate equal to the rate of inflation for that year, unless a waiver is obtained from the Director of T&ES. As determined by the Director of T&ES, any unencumbered funds remaining in the TMP account at the end of each reporting year may be either reprogrammed for TMP activities during the ensuing year or paid to the City for use in transit and/or ridesharing programs and activities.

12. That the applicant prepare, as part of its leasing, sales and homeowner's agreements, appropriate language to inform tenants and housing purchasers of the special use permit and conditions therein; such language to be reviewed and approved by the City Attorney's Office.

13. Modifications to approved TMP activities shall be permitted upon approval by the Director of T&ES, provided that any changes are consistent with the goals of the TMP.

14. The applicant shall prepare a revised Transportation Management Plan Summary, which summarizes the measures approved for the Cameron Station TMP, for approval by T&ES and P&Z prior to the release of the final site plan.

15. **CONDITION REVISED BY THE PLANNING COMMISSION:** The developer/Cameron Station Associates, LLC shall submit a comprehensive plan depicting the location, size and type of all shuttle/bus shelters to be located within Cameron Station prior to the release of the final site plan for Phases VI and VII. The design, location and number of bus/shuttle shelters shall be approved to the satisfaction of the Directors of T&ES and P&Z. The developer/Cameron Station Associates, LLC. shall be responsible for the installation of the facilities and the Homeowners Association for Cameron Station shall be responsible for their ongoing maintenance. This requirement may be waived at the discretion of the Director of Planning and Zoning. (PC)

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.

CITY DEPARTMENT COMMENTS

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

Transportation & Environmental Services:

No additional comments.

APPLICATION for SPECIAL USE PERMIT # 2003-0092

PROJECT NAME: **Cameron Station Phase VI & VII**

PROPERTY LOCATION: **Ferdinand Day Drive and Cameron Station Boulevard**

TAX MAP REFERENCE: **68.01 02 05 & 68.01 02 04** ZONE: **CCD #9**

APPLICANT Name: **Cameron Development, L.L.C., a Virginia limited liability company**

Address: **8614 Westwood Center Drive, Suite 900, Vienna, Virginia 22182**

PROPERTY OWNER

Name: **Cameron Development, L.L.C. a Virginia limited liability company**

Address: **8614 Westwood Center Drive, Suite 900, Vienna, Virginia 22182**

PROPOSED USE: **Transportation Management Plant Special Use Permit for Phases VI and VII Cameron Station.**

THE UNDERSIGNED hereby applies for a Special Use Permit in accordance with the provisions of Article XI, Section 11-500 of the 1992 Zoning Ordinance of the City of Alexandria, Virginia.

THE UNDERSIGNED, having obtained permission from the property owner, hereby grants permission to the City of Alexandria to post placard notice on the property for which this application is requested, pursuant to Article XI, Section 11-301(B) of the 1992 Zoning Ordinance of the City of Alexandria, Virginia.

THE UNDERSIGNED hereby attests that all of the information herein provided and specifically including all surveys, drawings, etc., required to be furnished by the applicant are true, correct and accurate to the best of their knowledge and belief. The applicant is hereby notified that any written materials, drawings or illustrations submitted in support of this application and any specific oral representations made to the Planning Commission or City Council in the course of public hearings on this application will be binding on the applicant unless those materials or representations are clearly stated to be non-binding or illustrative of general plans and intentions, subject to substantial revision, pursuant to Article XI, Section 11-207(A)(10), of the 1992 Zoning Ordinance of the City of Alexandria, Virginia.

Land, Clark, Carroll, Mendelson & Blair, P.C.
Duncan W. Blair, Esquire
Print Name of Applicant or Agent

Signature

524 King Street
Mailing/Street Address

(703) 836-1000 **(703) 549-3335**
Telephone # *Fax #*
dblair@landclark.com

Alexandria, Virginia 22314
City and State *Zip Code*

Date **August 6, 2003**

========== ***DO NOT WRITE BELOW THIS LINE - OFFICE USE ONLY*** ==========

Application Received: _____ Date & Fee Paid: _____ $_____

ACTION - PLANNING COMMISSION: _____

ACTION - CITY COUNCIL: _____

Special Use Permit # 2003-0092

All applicants must complete this form. Supplemental forms are required for child care facilities, restaurants, automobile oriented uses and freestanding signs requiring special use permit approval.

1. The applicant is *(check one)* [X] the Owner [ ] Contract Purchaser

   [ ] Lessee or [ ] Other: _____ of the subject property.

   State the name, address and percent of ownership of any person or entity owning an interest in the applicant, unless the entity is a corporation or partnership in which case identify each owner of more than ten percent.

   Cameron Development, LLC, is a Virginia limited liability company, the individuals owning in excess of a ten percent (10%) interest are Ahmad Abdul-Baki and Jeffrey Sneider; their mailing address is c/o Greenvest Associates, 8614 Westwood Center Drive, Suite 900, Vienna, Virginia 22182. Mr. Abdul-Baki and Mr. Sneider are also the co-manger of the limited liability company.

   If property owner or applicant is being represented by an authorized agent such as an attorney, realtor, or other person for which there is some form of compensation, does this agent or the business in which the agent is employed have a business license to operate in the City of Alexandria, Virginia?

   [X] Yes. Provide proof of current City business license

   [ ] No. The agent shall obtain a business license prior to filing application, if required by the City Code.

2. Submit a floor plan and a plot plan with parking layout of the proposed use. One copy of the plan is required for plans that are 8½" x 14" or smaller. Twenty-four copies are required for larger plans or if the plans cannot be easily reproduced. The planning director may waive requirements for plan submission upon receipt of a written request which adequately justifies a waiver. This requirement does not apply if a Site Plan Package is required.

   Not applicable

Special Use Permit #2003-0093

NARRATIVE DESCRIPTION

3. The applicant shall describe below the nature of the request in detail so that the Planning Commission and City Council can understand the nature of the operation and the use, including such items as the nature of the activity, the number and type of patrons, the number of employees, the hours, how parking is to be provided for employees and patrons, and whether the use will generate any noise. (Attach additional sheets if necessary)

The Applicant is requesting that Phase VI & VII be brought into the existing Transportation Management Plan Special Use Permit governing Cameron Station.

USE CHARACTERISTICS

4. The proposed special use permit request is for: *(check one)*

[ ] a new use requiring a special use permit,

[ ] a development special use permit,

[ ] an expansion or change to an existing use without a special use permit,

[ ] expansion or change to an existing use with a special use permit,

[X] other. Please describe: **TMP**

5. Please describe the capacity of the proposed use:

A. How many patrons, clients, pupils and other such users do you expect? Specify time period (i.e., day, hour, or shift).
Not applicable

B. How many employees, staff and other personnel do you expect? Specify time period (i.e., day, hour, or shift).
Not applicable

6. Please describe the proposed hours and days of operation of the proposed use: **Not applicable**

Day:	Hours:

7. Please describe any potential noise emanating from the proposed use: **Not applicable**

   A. Describe the noise levels anticipated from all mechanical equipment and patrons.

   B. How will the noise from patrons be controlled?

8. Describe any potential odors emanating from the proposed use and plans to control them: **Not applicable**

9. Please provide information regarding trash and litter generated by the use: **Not applicable**

   A. What type of trash and garbage will be generated by the use?

B. How much trash and garbage will be generated by the use?

C. How often will trash be collected?

D. How will you prevent littering on the property, streets and nearby properties?

_____

_____

10. Will any hazardous materials, as defined by the state or federal government, be handled, stored, or generated on the property? **Not applicable**

[ ] Yes. [] No.

If yes, provide the name, monthly quantity, and specific disposal method below:

_____

_____

_____

11. Will any organic compounds, for example paint, ink, lacquer thinner, or cleaning or degreasing solvent, be handled, stored, or generated on the property? **Not applicable**

[ ] Yes. [ ] No.

If yes, provide the name, monthly quantity, and specific disposal method below:

_____

_____

_____

12. What methods are proposed to ensure the safety of residents, employees and patrons?
Not applicable

ALCOHOL SALES

13. Will the proposed use include the sale of beer, wine, or mixed drinks?

[ ] Yes. [X No.

If yes, describe alcohol sales below, including if the ABC license will include on-premises and/or off-premises sales. Existing uses must describe their existing alcohol sales and/or service and identify any proposed changes in that aspect of the operation.

PARKING AND ACCESS REQUIREMENTS

14. Please provide information regarding the availability of off-street parking: **Not applicable**

A. How many parking spaces are required for the proposed use pursuant to section 8-200 (A) of the zoning ordinance?

B. How many parking spaces of each type are provided for the proposed use:

_____ Standard spaces

_____ Compact spaces

_____ Handicapped accessible spaces.

_____ Other.

C. Where is required parking located? [ ] on-site [ ] off-site *(check one)*

If the required parking will be located off-site, where will it be located:

_____

Pursuant to section 8-200 (C) of the zoning ordinance, commercial and industrial uses may provide off-site parking within 500 feet of the proposed use, provided that the off-site parking is located on land zoned for commercial or industrial uses. All other uses must provide parking on-site, except that off-street parking may be provided within 300 feet of the use with a special use permit.

D. If a reduction in the required parking is requested, pursuant to section 8-100 (A) (4) or (5) of the zoning ordinance, complete the PARKING REDUCTION SUPPLEMENTAL APPLICATION.

15. Please provide information regarding loading and unloading facilities for the use:

A. How many loading spaces are required for the use, per section 8-200 (B) of the zoning ordinance? **None**

B. How many loading spaces are available for the use? **None**

C. Where are off-street loading facilities located? **None**

D. During what hours of the day do you expect loading/unloading operations to occur? **Not applicable**

E. How frequently are loading/unloading operations expected to occur, per day or per week, as appropriate?
Not applicable

16. Is street access to the subject property adequate or are any street improvements, such as a new turning lane, necessary to minimize impacts on traffic flow? **Not applicable**

_____

_____

SITE CHARACTERISTICS: Not Applicable

17. Will the proposed uses be located in an existing building? [ ] Yes [ ] No

    Do you propose to construct an addition to the building? [ ] Yes [ ] No

    How large will the addition be? _____ square feet.

18. What will the total area occupied by the proposed use be?

    _____ sq. ft. (existing) + _____ sq. ft. (addition if any) = _____sq. ft. (total)

19. The proposed use is located in: *(check one)*

    [ ] a stand alone building [ ] a house located in a residential zone [ ] a warehouse

    [ ] a shopping center. Please provide name of the center: _____

    [ ] an office building. Please provide name of the building: _____

    [ ] other, please describe:_____

Sincerely,

Joseph S. Bennett, President
Cameron Station Civic Association, Inc

EXHIBIT NO. 2

11, 12, 13
11-15-03

WELLS & ASSOCIATES, LLC
TRAFFIC, TRANSPORTATION, and PARKING CONSULTANTS

MEMORANDUM

TO: Linda Erbs
Greenvest, LC

FROM: Michael J. Workosky
Seth M. Fisher
Wells & Associates, LLC

DATE: September 17, 2003

SUBJECT: Updated Traffic Analysis for Cameron Station, Phases VI and VII
Alexandria, Virginia

Introduction

This memorandum presents an updated traffic analysis for Cameron Station. The site is located north of the Capital Beltway, south of Duke Street, and east of Van Dorn Street in Alexandria, Virginia. This study focused on the impacts of constructing the final phases of the project, phases VI and VII, in the southwest portion of the property, as shown on Figure 1.

Phase VI would consist of 97 townhouses, and is located south of Ferdinand Day Drive. Access to the townhouse units would be from an extension of Harold Secord Drive south of Ferdinand Day Drive. Phase VII would consist of 148 condominiums, and is located east of Harold Secord Drive adjacent to Tucker Elementary School. Access to the condominium units would be provided via a driveway on Harold Secord Drive that would serve below-grade parking spaces. The buildout and occupancy of these units was assumed to be complete by 2006.

1420 Spring Hill Road, Suite 600 • McLean, Virginia 22102 • 703 / 917-6620 • Fax: 703 / 917-0739

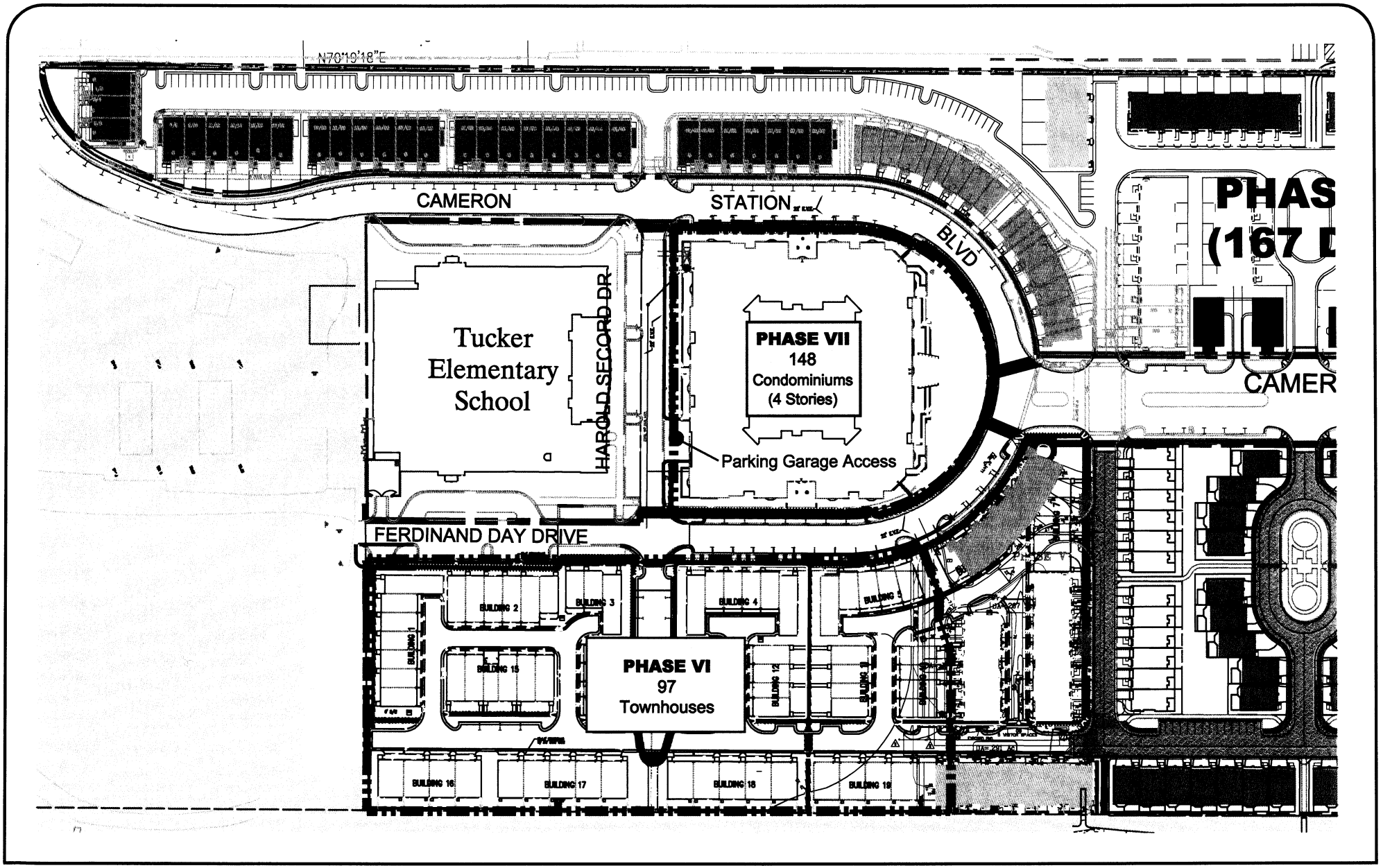


Figure 1
Site Reduction Plan

Cameron Station
Alexandria, Virginia

WELLS & ASSOCIATES, LLC.
TRAFFIC, TRANSPORTATION, and PARKING CONSULTANTS

Tasks undertaken in this study included the following:

1. Review of previous traffic studies, and other background data.

2. Discussions with City of Alexandria staff regarding the scope and analysis parameters of the traffic study.

3. A field reconnaissance of existing roadway and intersection geometrics, traffic controls, traffic signal phasings/timings, speed limits, pedestrian facilities, and transit services and facilities.

4. Counts of existing traffic at key intersections serving the property and within the site.

5. Analysis of existing levels of service at each of these intersections.

6. Forecasts of background future traffic volumes based on existing traffic counts, background traffic growth, and the currently approved portions of Cameron Station.

7. Estimation of the number of AM and PM peak hour vehicle-trips that would be generated by unbuilt development and Phases VI and VII of Cameron Station based on Institute of Transportation Engineers (ITE) trip generation rates and equations.

8. A comparison of the number of vehicle trips generated by the approved and proposed development programs.

9. Identification of total future traffic forecasts based on background traffic forecasts plus site traffic assignments.

10. Calculation of total future levels of service at each key intersection based on total future traffic forecasts, existing traffic controls, and existing intersection geometrics.

11. Identification of any traffic operations improvements required to adequately accommodate the additional site-generated trips.

Sources of data for this analysis included previous traffic studies prepared by Wells & Associates and others, plans prepared by Bowman Consulting Group, Greenvest, LC, the Institute of Transportation Engineers (ITE), and the City of Alexandria.

Background Information

The original traffic study, prepared in 1995, included the following land uses and development densities:

1. 100 Single-Family Dwelling Units.
2. 300 Mid-Rise Apartments.
3. 900 Townhouse Residential.
4. 1,200 Hi-Rise Condominiums.
5. 20,000 S.F. of Specialty Retail.
6. 65-acre Park.

The actual development yields are less than those approved as part of the original traffic study. Phases VI and VII would add a total of 245 units, for an overall total of 1,769. Thus, the overall development density would be 731 units less than originally analyzed and approved.

Based on information provided by Greenvest, 50 condominium units and approximately 15,000 S.F. specialty retail space remain to be built within the project. Thus, these uses were included in the future traffic analyses.

Public Road Network

Access to Cameron Station is provided by South Pickett Street and Edsall Road on the west and Duke Street on the north. Both of these intersections are controlled by traffic signals. A right-in/right-out drive is also located on Duke Street east of Cameron Station Boulevard. Cameron Station Boulevard bisects the site with a posted speed limit of 25 miles per hour, and serves as the principal access to the various sections of the property. It intersects with Ferdinand Day Drive just east of Tucker Elementary School.

Traffic circles and speed bumps currently control traffic on Cameron Station Boulevard. Right-of-way is given to through traffic at these intersections. All of the internal intersections operate under stop sign control. The existing lane use and traffic control devices are shown on Figure 2.

Public Transit Facilities

Residents of Cameron Station are served by public transit through the DASH and Metrobus services on Duke Street and North and South Pickett Streets. Bus stops are located on Duke Street east of the Cameron Station Boulevard intersection.

Painted crosswalks are provided on all approaches at the Duke Street/Cameron Station Boulevard intersection; however, pedestrian signal heads are not present. A similar situation exists at the South Pickett Street/Cameron Station Boulevard intersection.

Pedestrian Access

The design of Cameron Station provides for a pedestrian-friendly environment. Sidewalks are provided throughout the site, and connect to existing sidewalks on Duke Street. Crosswalks and pedestrian signal heads are provided at the Duke Street intersection to facilitate these movements.

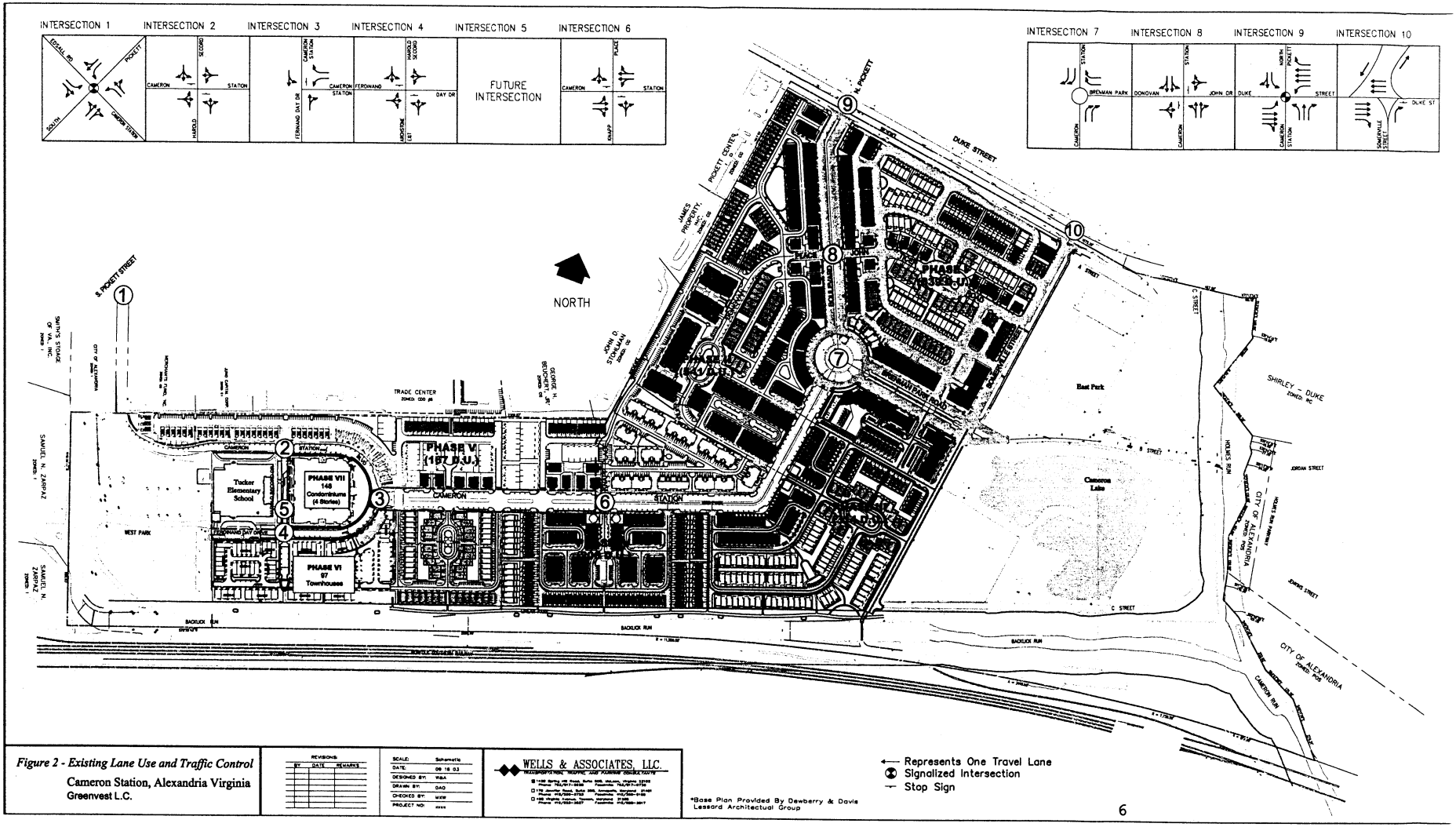


Figure 2 - Existing Lane Use and Traffic Control

Cameron Station, Alexandria Virginia
Greenvest L.C.

REVISIONS:		
BY	DATE	REMARKS

SCALE:	Schematic
DATE:	09.16.03
DESIGNED BY:	WBA
DRAWN BY:	DAO
CHECKED BY:	MXW
PROJECT NO:	xxxx

WELLS & ASSOCIATES, LLC.

*Base Plan Provided By Dewberry & Davis Lessard Architectual Group

Existing Traffic Counts

Updated peak hour vehicular and pedestrian traffic counts were collected by Wells & Associates on Wednesday, September 10, 2003 at the following key intersections:

1. Duke Street/N. Pickett/Cameron Station Boulevard.
2. Duke Street/Right-in/Right-out.
3. Cameron Station Boulevard/John Place.
4. Cameron Station Boulevard/Brenman Park Road.
5. Cameron Station Boulevard/Knapp Place.
6. Cameron Station Boulevard/Ferdinand Day Drive.
7. Cameron Station Boulevard/Harold Secord Drive.
8. Ferdinand Day Drive/ Harold Secord Drive.
9. Cameron Station Boulevard/S. Pickett Street/Edsall Road.

The counts were conducted from 6:00 AM to 9:00 AM and from 4:00 PM to 7:00 PM, and are summarized on Figure 3. Traffic count summaries are contained in Appendix A.

In addition to the traffic counts, field observations were made regarding general traffic operations and evidence of cut-through traffic. Drivers were observed entering the site from Duke Street and South Pickett Street during the peak hours. The overwhelming majority of these motorists were destined for locations within Cameron Station. Thus, a cut-through situation was not apparent. Although the posted speed limit is 25 miles per hour, some vehicles appeared to be traveling at a higher rate of speed.

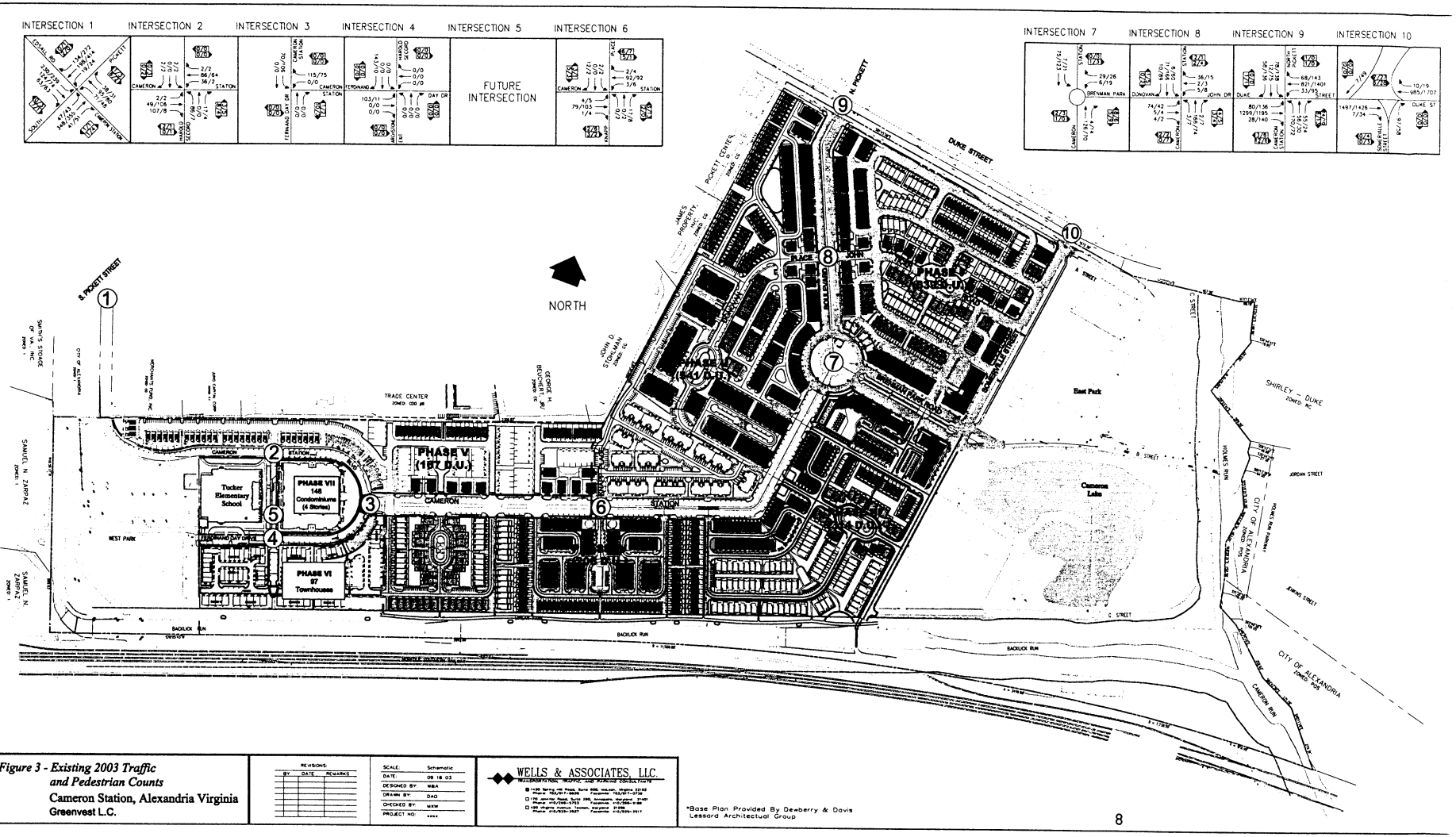


Figure 3 - Existing 2003 Traffic and Pedestrian Counts
Cameron Station, Alexandria Virginia
Greenvest L.C.

REVISIONS:

BY	DATE	REMARKS

SCALE:	Schematic
DATE:	09.16.03
DESIGNED BY:	WBA
DRAWN BY:	DAO
CHECKED BY:	MXW
PROJECT NO:	xxxx

WELLS & ASSOCIATES, LLC.
TRANSPORTATION, TRAFFIC AND PARKING CONSULTANTS

*Base Plan Provided By Dewberry & Davis
Lessard Architectual Group

Existing Capacity Analysis

Existing capacity analyses were prepared for the intersections mentioned previously for both the AM and PM peak hours based on the existing traffic and pedestrian counts, lane use and traffic control devices shown on figure 2, and the Highway Capacity Manual methodology. The results are summarized in Table 1 and discussed below:

1. The signalized intersections of Duke Street and South Pickett Street at Cameron Station Boulevard currently operate at acceptable levels of service (LOS "D" or better) during both AM and PM peak hours.

2. All of the movements at the remaining intersections currently operate at acceptable levels of service with little delay under stop sign control.

3. It is noted that level of service calculations were not possible at the Ferdinand Day Drive/Cameron Station Boulevard intersection or the Harold Secord Drive/Ferdinand Day Drive intersection due to temporary turning movement restrictions at these locations.

Capacity analysis worksheets are contained in Appendix B.

Table 1
Cameron Station
Level of Service Summary

Intersection Number	Intersection	Operating Condition	Critical Movement	Existing 2003 Conditions AM Peak	Existing 2003 Conditions PM Peak	Future 2006 Conditions AM Peak	Future 2006 Conditions PM Peak
#1	South Pickett/Edsall Road/Cameron St. Blvd.	Signalized	NB	C(22.5)	C(22.4)	C(22.8)	C(22.5)
			SB	C(23.8)	C(22.9)	C(24.7)	C(23.8)
			EB	B(16.2)	B(17.5)	B(16.5)	B(18.3)
			WB	B(17.3)	D(36.5)	B(17.6)	D(46.1)
			Overall	**B(19.7)**	**C(27.1)**	**C(20.1)**	**C(31.5)**
#2	Harold Secord Drive/Cameron Station Blvd.	Unsignalized	NBL/T/R	B[11.7]	A[9.6]	B[11.4]	B[10.2]
			SBL/T/R	A[9.8]	A[9.3]	A[9.5]	A[9.4]
			EBL/T/R	A[7.4]	A[7.4]	A[7.4]	A[7.4]
			WBL/T/R	A[7.7]	A[7.5]	A[7.6]	A[7.6]
#3	Ferdinand Day Drive/Cameron Station Blvd.	Unsignalized	SBL/T	NA	NA	A[7.5]	A[7.5]
			WBL	NA	NA	B[10.0]	B[10.7]
			WBR	NA	NA	A[8.9]	A[8.7]
#4	Harold Secord Drive/Ferdinand Day Drive/ Phase VII Access	Unsignalized	NBL/T/R	NA	NA	A[9.4]	A[8.8]
			SBL/T/R	NA	NA	A[9.6]	A[8.9]
			EBL/T/R	NA	NA	A[7.4]	A[7.3]
			WBL/T/R	NA	NA	A[7.3]	A[7.2]
#5	Harold Secord Drive/Phase VI Condo Garage Entrance/Exit	Unsignalized	SBL/T	NA	NA	A[7.4]	A[7.3]
			WBL/R	NA	NA	A[9.7]	A[8.8]
#6	Knapp Place/Cameron Station Blvd.	Unsignalized	NBL/T/R	A[8.7]	A[9.3]	A[8.9]	A[9.4]
			SBL/T/R	A[8.9]	A[9.3]	A[9.0]	A[9.5]
			EBL	A[7.5]	A[7.5]	A[7.5]	A[7.5]
			WBL	A[7.4]	A[7.5]	A[7.5]	A[7.5]
#7	Brenman Park Road/Cameron Station Blvd.	All-Way Stop	NB	A[7.9]	A[7.7]	A[8.4]	A[8.0]
			SB	A[7.6]	A[8.1]	A[7.9]	A[8.5]
			WB	A[7.0]	A[7.1]	A[7.3]	A[7.35]
#8	John Ticer Road/Cameron Station Blvd.	Unsignalized	NBL/T/R	A[7.4]	A[7.9]	A[7.5]	A[8.0]
			SBL/T/R	A[7.8]	A[7.5]	A[7.8]	A[7.6]
			EBL/T/R	B[10.8]	B[12.7]	B[11.1]	B[13.4]
			WBL/T/R	A[9.4]	A[10.0]	A[9.6]	B[10.2]
#9	Duke Street/North Pickett/Site Entrance	Signalized	NB	D(50.2)	D(44.9)	D(49.8)	D(45.0)
			SB	D(45.5)	E(62.8)	D(45.9)	E(73.4)
			EB	C(21.0)	C(21.9)	C(23.4)	C(23.0)
			WB	C(27.7)	D(36.5)	C(29.8)	D(41.8)
			Overall	**C(27.5)**	**C(33.4)**	**C(29.6)**	**D(37.3)**
#10	Somerville Street/Duke Street	Unsignalized	NBR	C(15.7)	C[15.1]	C[17.2]	C[16.1]
			SBR	B[10.9]	C[15.5]	B[11.2]	C[16.4]

Notes: (1) Capacity analyses based on the updated Highway Capacity Manual software, 2000, Version 4.1c.

Site Trip Generation and Comparison

The number of trips that would be generated by Cameron Station under the approved and proposed development programs was calculated based on the standard rates and equations published by the Institute of Transportation Engineers (ITE). Adjustments for internal and transit trips were included consistent with the approved traffic study.

The results are summarized in Table 2, and indicate that the approved program (2,500 dwelling units), would generate 735 total trips (165 in and 571 out) during the AM peak hour, 861 total trips (541 in and 320 out) during the PM peak hour, and 9,753 average daily (24-hour) trips. The proposed program (1,769 units) would generate 589 total trips (192 in and 397 out) during the AM peak hour, 502 total trips (330 in and 172 out) during the PM peak hour, and 6,380 average daily (24-hour) trips. Thus, the proposed program would generate 146 (or 20 percent) *fewer* AM peak hour trips, 358 (or 42 percent) *fewer* PM peak hour trips, and 3,373 (or 35 percent) *fewer* daily trips.

It should be noted that the original traffic study calculated the site trip generation based on the previous version of the Trip Generation manual (5th Edition). The number of trips estimated and used in the 1995 traffic study was higher than those listed above due to the data available at the time the study was prepared.

The vehicle trips generated by the balance of approved development within Cameron Station that includes 50 townhouses and 15,000 S.F. of specialty retail space were calculated based on the overall totals for the project. The results are shown in Table 3, and indicate that the remaining uses would generate 50 total trips (20 in and 30 out) during the AM peak hour, 32 total trips (18 in and 14 out) during the PM peak hour, and 418 average daily (24-hour) trips.

The new vehicle trips that would be generated by phases VI and VII were calculated based on the overall trip generation for the project. The results are shown in Table 3, and indicate that phase. Phase VI (97 townhouses) would generate 24 total trips (5 in and 19 out) during the AM peak hour, 29 total trips (19 in and 10 out) during the PM peak hour, and 339 average daily (24-hour) trips. Phase VII (148 high-rise condominiums) would generate 46 total trips (9 in and 37 out) during the AM peak hour, 46 total trips (28 in and 18 out) during the PM peak hour, and 538 average daily (24-hour) trips.

Table 2

Cameron Station Trip Generation Summary and Comparison (Project Buildout) (1)

Land Use	ITE Land Use Code	Amount	Units	AM Peak Hour IN	AM Peak Hour OUT	AM Peak Hour TOTAL	PM Peak Hour IN	PM Peak Hour OUT	PM Peak Hour TOTAL	Average Daily Traffic
APPROVED PROGRAM (from VETTRA study October 3, 1995)										
Single-Family Detached	210	100	DU	20	59	79	68	39	107	1,037
Internal Capture	10%			2	6	8	7	4	11	104
Transit	10%			2	6	8	7	4	11	104
Land Use Total				16	47	63	54	31	86	830
Mid-Rise Apartment (2)	223	300	DU	34	76	110	78	56	134	1,601
Internal Capture	10%			3	8	11	8	6	13	160
Transit	10%			3	8	11	8	6	13	160
Land Use Total				27	61	88	62	45	107	1,281
Multi-Family	230	900	DU	49	242	291	253	125	378	4,213
Internal Capture	10%			5	24	29	25	13	38	421
Transit	10%			5	24	29	25	13	38	421
Land Use Total				39	194	233	202	100	302	3,370
Hi-Rise Condominium	232	1,200	DU	71	303	374	264	162	426	4,749
Internal Capture	10%			7	30	37	26	16	43	475
Transit	10%			7	30	37	26	16	43	475
Land Use Total				57	242	299	211	130	341	3,799
Residential Subtotal		*2,500*	*DU*	*139*	*544*	*683*	*530*	*306*	*836*	*9,280*
Specialty Retail (3)	814	20,000	G.S.F.	61	67	128	22	30	52	813
Internal Capture	50%			31	34	64	11	15	26	407
Transit	10%			6	7	13	2	3	5	81
Land Use Total				24	27	51	9	12	21	325
Community Park	412	65	Acres	1	-	1	2	2	4	148
Internal Capture				NA	NA	NA	NA	NA	NA	NA
Transit				NA	NA	NA	NA	NA	NA	NA
Land Use Total				1	-	1	2	2	4	148
Total Approved Site Trip Generation				**165**	**571**	**735**	**541**	**320**	**861**	**9,753**
PROPOSED PROGRAM										
Condominiums/Townhouses	230	1,445	DU	72	350	422	375	184	559	6,301
Internal Capture	10%			7	35	42	38	18	56	630
Transit	10%			7	35	42	38	18	56	630
Land Use Total				58	280	338	300	147	447	5,041
Single-Family Detached	210	32	DU	8	24	32	24	14	38	363
Internal Capture	10%			1	2	3	2	1	4	36
Transit	10%			1	2	3	2	1	4	36
Land Use Total				6	19	26	19	11	30	290
Hi-Rise Condominium	232	292	DU	21	92	113	71	44	115	1,325
Internal Capture	10%			2	9	11	7	4	12	133
Transit	10%			2	9	11	7	4	12	133
Land Use Total				17	74	90	57	35	92	1,060
Residential Subtotal		*1,769*	*DU*	*81*	*373*	*454*	*376*	*194*	*570*	*6,391*
Specialty Retail (3)	814	20,000	G.S.F.	61	67	128	22	30	52	813
Internal Capture	50%			31	34	64	11	15	26	407
Transit	10%			6	7	13	2	3	5	81
Land Use Total				24	27	51	9	12	21	325
Community Park	412	65	Acres	1	-	1	2	2	4	148
Internal Capture				NA	NA	NA	NA	NA	NA	NA
Transit				NA	NA	NA	NA	NA	NA	NA
Land Use Total				1	-	1	2	2	4	148
Tucker Elementary School	520	600	Students	103	71	174	-	-	-	576
Internal Capture	0%			NA	NA	NA	NA	NA	NA	NA
Transit	0%			NA	NA	NA	NA	NA	NA	NA
Land Use Total				103	71	174	-	-	-	576
Total Proposed Site Trip Generation		**1,769**	**DU**	**192**	**397**	**589**	**330**	**172**	**502**	**6,380**
Comparison										
Total Approved Site Trip Generation				165	571	735	541	320	861	9,753
Total Proposed Site Trip Generation				192	397	589	330	172	502	6,380
Difference (Approved vs. Proposed)				28	(174)	(146)	(211)	(147)	(358)	(3,373)
Percent Difference				**16.9%**	**-30.4%**	**-19.9%**	**-39.0%**	**-46.1%**	**-41.6%**	**-34.6%**

Notes: (1) Trip generation based on Institute of Transportation Engineers Trip Generation, 6th Edition.

(2) Average Daily Traffic based on interpolated rate of Low-rise Apt. and High-rise Apt. rates.

(3) AM Peak Hour based on Peak Hour of Generator rate.

Table 3
Cameron Station Trip Generation Summary (1)

Land Use	ITE Land Use Code	Amount	Units	AM Peak Hour IN	AM Peak Hour OUT	AM Peak Hour TOTAL	PM Peak Hour IN	PM Peak Hour OUT	PM Peak Hour TOTAL	Average Daily Traffic
PROPOSED PROGRAM (PROJECT BUILDOUT)										
Condominiums/Townhouses	230	1,445	DU	72	350	422	375	184	559	6,301
Internal Capture	10%			7	35	42	38	18	56	630
Transit	10%			7	35	42	38	18	56	630
Land Use Total				58	280	338	300	147	447	5,041
Single-Family Detached	210	32	DU	8	24	32	24	14	38	363
Internal Capture	10%			1	2	3	2	1	4	36
Transit	10%			1	2	3	2	1	4	36
Land Use Total				6	19	26	19	11	30	290
Hi-Rise Condominium	232	292	DU	21	92	113	71	44	115	1,325
Internal Capture	10%			2	9	11	7	4	12	133
Transit	10%			2	9	11	7	4	12	133
Land Use Total				17	74	90	57	35	92	1,060
Residential Subtotal		*1,769*	*DU*	*81*	*373*	*454*	*376*	*194*	*570*	*6,391*
Specialty Retail **(2)**	814	20,000	G.S.F.	61	67	128	22	30	52	813
Internal Capture	50%			31	34	64	11	15	26	407
Transit	10%			6	7	13	2	3	5	81
Land Use Total				24	27	51	9	12	21	325
Community Park	412	65	Acres	1	-	1	2	2	4	148
Internal Capture				NA	NA	NA	NA	NA	NA	NA
Transit				NA	NA	NA	NA	NA	NA	NA
Land Use Total				1	-	1	2	2	4	148
Tucker Elementary School	520	600	Students	103	71	174	-	-	-	576
Internal Capture	0%			NA	NA	NA	NA	NA	NA	NA
Transit	0%			NA	NA	NA	NA	NA	NA	NA
Land Use Total				103	71	174	-	-	-	576
Total Proposed Site Trip Generation				**192**	**397**	**589**	**330**	**172**	**502**	**6,380**
APPROVED (UNBUILT DEVELOPMENT)										
Condominiums (50)	230	50	units	2	12	14	13	6	19	218
Internal Capture	10%			-	1	1	1	1	2	22
Transit	10%			-	1	1	1	1	2	22
Land Use Total				2	10	12	11	4	15	174
Specialty Retail **(3)**	814	15,000	G.S.F.	46	50	96	17	23	40	610
Internal Capture	50%			23	25	48	8	11	19	305
Transit	10%			5	5	10	2	2	4	61
Land Use Total				18	20	38	7	10	17	244
Approved Unbuilt Trip Generation		**50**	**DU**	**20**	**30**	**50**	**18**	**14**	**32**	**418**
PROPOSED (PHASES VI & VII)										
Townhouses (Phase VI)	230	97	DU	5	23	28	25	12	37	423
Internal Capture	10%			-	2	2	3	1	4	42
Transit	10%			-	2	2	3	1	4	42
Land Use Total				5	19	24	19	10	29	339
High-Rise Condominiums (Phase VII)	232	148	DU	11	47	58	36	22	58	672
Internal Capture	10%			1	5	6	4	2	6	67
Transit	10%			1	5	6	4	2	6	67
Land Use Total				9	37	46	28	18	46	538
Proposed Phases VI & VII Trip Generation		**245**	**DU**	**14**	**56**	**70**	**47**	**28**	**75**	**877**

Notes: (1) Trip generation based on Institute of Transportation Engineers Trip Generation, 6th Edition.
(2) AM Peak Hour based on Peak Hour of Generator rate.

Site Access for Phases VI and VII

Access to the 97 townhouses for phase VI would be provided by extending Harold Secord Drive south of Ferdinand Day Drive, and providing an east-west roadway that would connect to Cameron Station Boulevard.

Access to Phase VII (148 condominiums) of Cameron Station is proposed via a driveway on Harold Secord Drive, approximately 125 feet north of the Ferdinand Day Drive intersection. This driveway would provide single lanes for inbound and outbound traffic, and would directly access below-grade parking. (Refer to Figure 1.)

Future Traffic Forecasts

Future traffic forecasts were prepared for 2006 with the buildout of Cameron Station and the proposed phases VI and VII that include existing traffic, ambient growth, traffic generated by approved but un-built portions of Cameron Station, and traffic generated by phases VI and VII.

The existing traffic volumes were modified to reflect the opening of Ferdinand Day Drive south of Cameron Station Boulevard with the construction of phases VI and VII. Traffic at the external intersections was increased by 2.0 percent per year to account for growth in the area, based on a review of historical traffic count data. This growth rate was applied to all non-Cameron Station movements at these locations.

Traffic generated by the remaining portions of Cameron Station and phases VI and VII was assigned to the road network based on a directional distribution derived through an analysis of the current travel patterns and existing traffic counts. Individual site-generated traffic assignments for phases VI and VII are shown on Figures 4 and 5.

These volumes were combined to derive total future traffic forecasts for 2006 and are summarized on Figure 6.

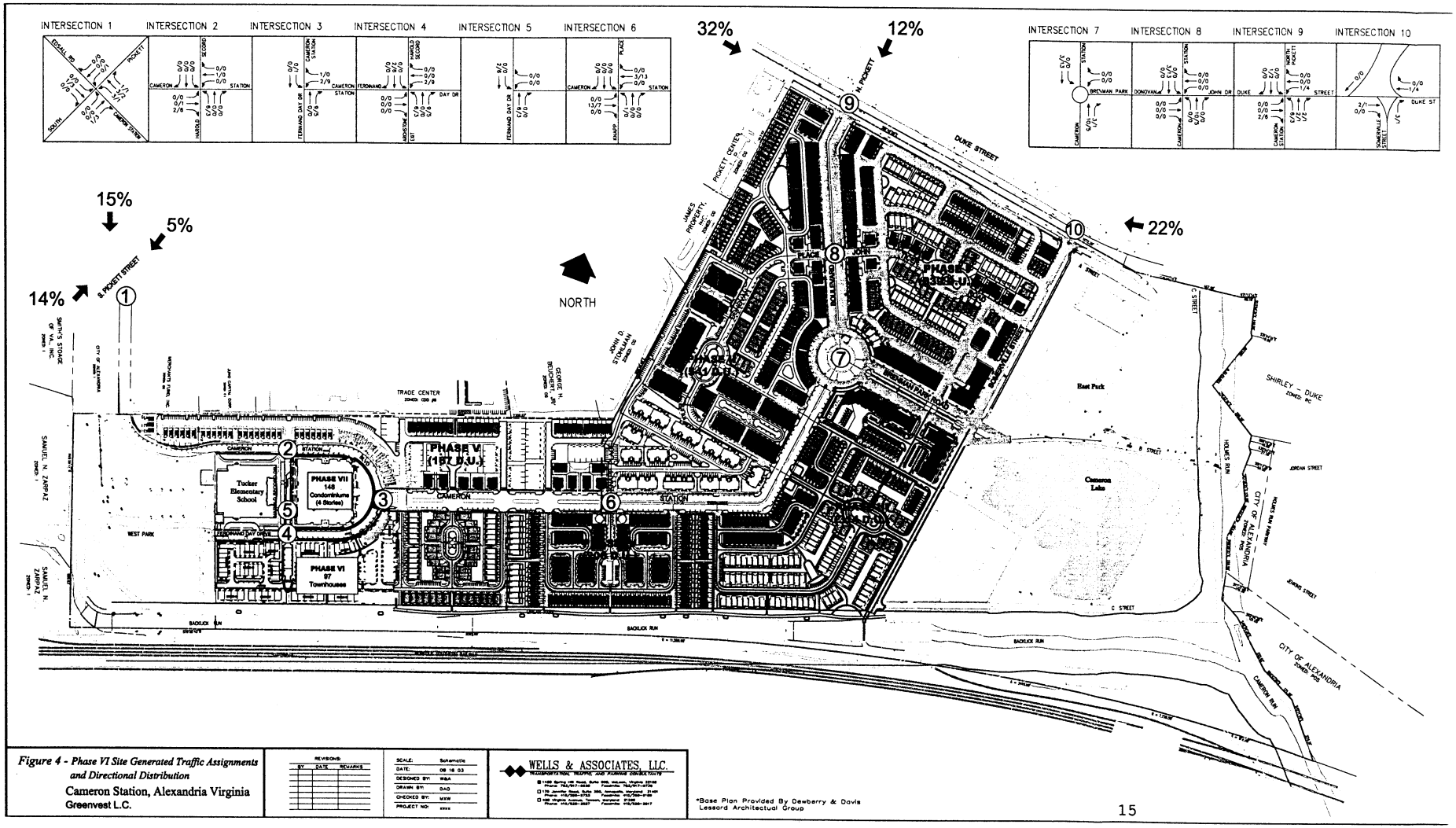


Figure 4 - Phase VI Site Generated Traffic Assignments and Directional Distribution

Cameron Station, Alexandria Virginia

Greenvest L.C.

REVISIONS: BY | DATE | REMARKS

SCALE: Schematic
DATE: 09 16 03
DESIGNED BY: WBA
DRAWN BY: DAG
CHECKED BY: MKW
PROJECT NO: ####

WELLS & ASSOCIATES, LLC.
TRANSPORTATION, TRAFFIC, AND PARKING CONSULTANTS

*Base Plan Provided By Dewberry & Davis Lessard Architectual Group

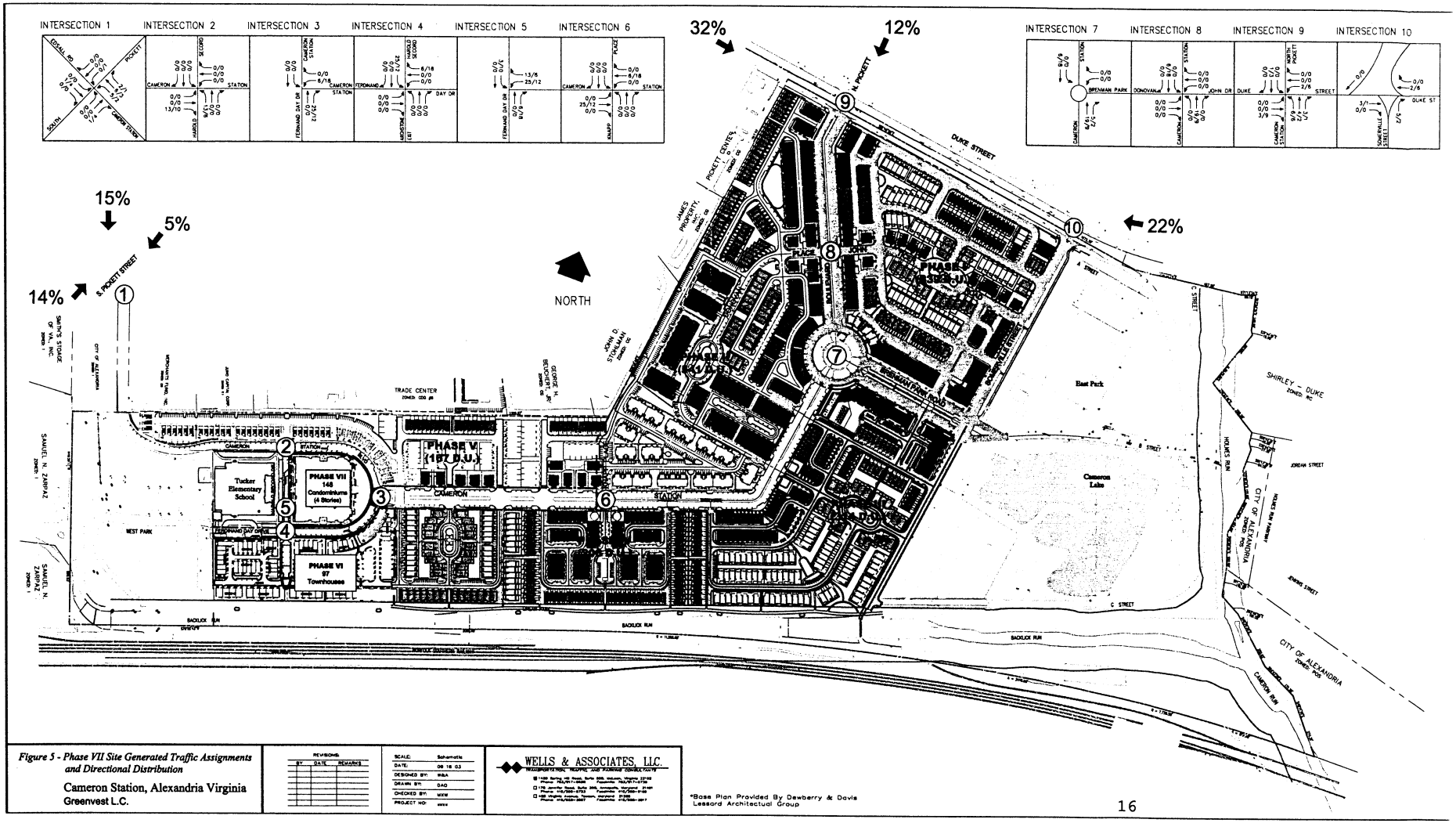


Figure 5 - Phase VII Site Generated Traffic Assignments and Directional Distribution

Cameron Station, Alexandria Virginia
Greenvest L.C.

REVISIONS		
BY	DATE	REMARKS

SCALE:	Schematic
DATE:	09 16 03
DESIGNED BY:	RWA
DRAWN BY:	DAG
CHECKED BY:	MWM
PROJECT NO:	xxxx

WELLS & ASSOCIATES, LLC.

*Base Plan Provided By Dewberry & Davis Lessard Architectual Group

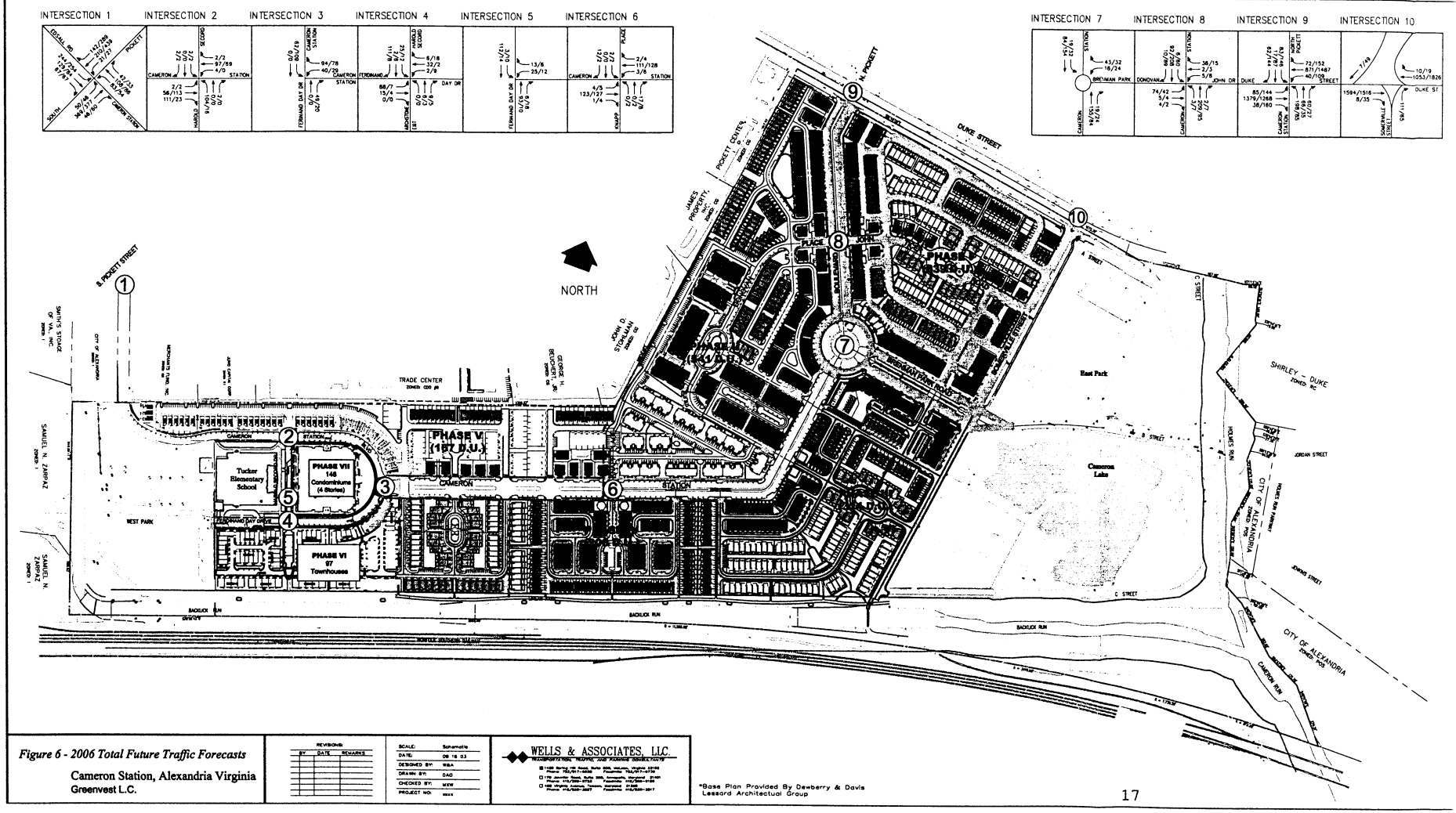


Figure 6 - 2006 Total Future Traffic Forecasts

Cameron Station, Alexandria Virginia
Greenvest L.C.

WELLS & ASSOCIATES, LLC

*Base Plan Provided By Dewberry & Davis
Lessard Architectual Group

Future Capacity Analyses and Traffic Operations

Capacity analyses were prepared for total future conditions assuming the buildout of Cameron Station and phases VI and VII. The results are summarized in Table I and discussed below:

1. The signalized intersections of Duke Street and South Pickett Street at Cameron Station Boulevard would continue to operate at overall acceptable levels of service during both the AM and PM peak hours, with the full buildout and occupancy of Cameron Station. Thus, no additional geometric improvements are required.

2. The Harold Secord Drive/Cameron Station Boulevard intersection would continue to operate at acceptable levels, with all turning movements at LOS "A" or "B".

3. The turning maneuvers to and from the proposed condominium garage entrance on Harold Secord Drive would operate at acceptable levels of service with the site buildout. Single lanes for entering and exiting traffic would adequately accommodate the site-generate vehicle trips.

4. The condominium driveway is located opposite parking spaces used by Tucker Elementary School staff. Since these employees arrive in the morning, are long-term parkers, and leave prior to the evening peak hour, few conflicts with condominium traffic are expected to occur. The road segment of Harold Secord Drive is projected to carry a relatively low volume (238 AM/54 PM total vehicles), and would not be subjected to through traffic, reducing the potential for future conflicts. Appropriate signing and pavement markings should be provided at the garage driveway to ensure pedestrian safety.

5. Pedestrian signal heads should be installed at the Duke Street/Cameron Station Boulevard intersection in order to facilitate pedestrian movements.

6. All of the turning movements at the Harold Secord Drive/Ferdinand Day Drive

intersection are forecasted to operate at acceptable levels of service during the AM and PM peak hours. This assumes that stop signs would be posted for Harold Secord Drive traffic.

7. The critical turning movements at the remaining key internal intersections would continue to operate at acceptable levels of service during both the morning and evening peak hours, without further geometric improvements.

These results indicate that the additional traffic generated by phases VI and VII of Cameron Station would be adequately accommodated by the road network as currently designed. Capacity analysis worksheets for total future conditions are contained in Appendix C.

Conclusions

The conclusions of this traffic study update are as follows:

1. The overall number of residential units proposed within Cameron Station is 731 units less than the previously approved program. Thus, the proposed development program would generate approximately 20 to 42 percent fewer peak hour trips than the approved program.

2. Both of the signalized intersections at Duke Street and South Pickett Street serving Cameron Station currently operate at overall acceptable levels of service (LOS "C" or "D") during both the morning and evening peak hours.

3. All of the turning movements at the key internal intersections within the study area currently operate at acceptable levels of service during both the AM and PM peak commuter hours.

4. The phase VI (148 condominiums) and phase VII (97 townhouses) development programs would generate approximately 70 to 75 new peak hour trips, upon completion in 2006.

5. All of the key internal intersections within Cameron Station would continue to operate at acceptable levels of service under stop sign control during both the AM and PM peak hours with full development and occupancy of the project. This indicates that no major delays would be created by the development of phases VI and VII that require roadway modifications or geometric changes.

6. The signalized intersections serving Cameron Station are forecasted to operate at acceptable levels of service with the buildout of the project, without further geometric improvements.

Appendix A
Existing Vehicle and Pedestrian Counts

Wells & Associates, LLC

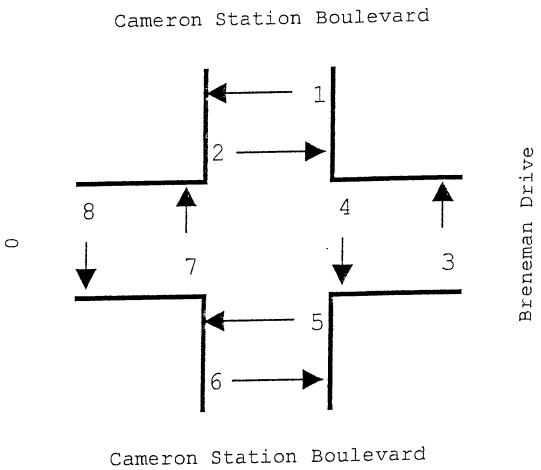
McLean, Virginia

Existing Traffic Count

PROJECT:	Cameron Station 2003	DATE:	09/10/2003	SOUTHBOUND ROAD:	Cameron Station Boulevard
W & A JOB NO.:	2215	DAY:	Wednesday	NORTHBOUND ROAD:	Cameron Station Boulevard
INTERSECTION:	Cameron Station Blvd./Breneman Drive	WEATHER:	Nice	WESTBOUND ROAD:	Breneman Drive
LOCATION:	City of Alexandria	COUNTED BY:	Stuarts	EASTBOUND ROAD:	
		INPUTED BY:	SMF		

Time Period	Turning Movements: Southbound Cameron Station Boulevard				Westbound Breneman Drive				Northbound Cameron Station Boulevard				Eastbound 0				North & South	East & West	Total	PHF	Time Period
	1 Right	2 Thru	3 Left	Total	4 Right	5 Thru	6 Left	Total	7 Right	8 Thru	9 Left	Total	10 Right	11 Thru	12 Left	Total					
AM																					
6:00-6:15	0	0	1	1	0	0	2	2	0	8	0	8	0	0	0	0	9	2	11		6:00-6:15
6:15-6:30	0	1	1	2	1	0	1	2	0	11	0	11	0	0	0	0	13	2	15		6:15-6:30
6:30-6:45	0	5	0	5	1	0	1	2	2	24	0	26	0	0	0	0	31	2	33		6:30-6:45
6:45-7:00	0	11	2	13	1	0	1	2	2	30	0	32	0	0	0	0	45	2	47		6:45-7:00
7:00-7:15	0	3	0	3	6	0	4	10	2	19	0	21	0	0	0	0	24	10	34		7:00-7:15
7:15-7:30	0	7	3	10	9	0	5	14	2	22	0	24	0	0	0	0	34	14	48		7:15-7:30
7:30-7:45	0	14	2	16	4	0	1	5	0	44	0	44	0	0	0	0	60	5	65		7:30-7:45
7:45-8:00	0	18	4	22	5	0	0	5	1	31	0	32	0	0	0	0	54	5	59		7:45-8:00
8:00-8:15	0	19	1	20	6	0	2	8	1	28	0	29	0	0	0	0	49	8	57		8:00-8:15
8:15-8:30	0	24	1	25	13	0	2	15	1	26	0	27	0	0	0	0	52	15	67		8:15-8:30
8:30-8:45	0	14	1	15	5	0	2	7	1	41	0	42	0	0	0	0	57	7	64		8:30-8:45
8:45-9:00	0	10	1	11	5	0	1	6	0	21	0	21	0	0	0	0	32	6	38		8:45-9:00
3 Hour Totals	0	126	17	143	56	0	22	78	12	305	0	317	0	0	0	0	460	78	538		
1 Hour Totals																					
6:00-7:00	0	17	4	21	3	0	5	8	4	73	0	77	0	0	0	0	98	8	106	0.56	6:00-7:00
6:15-7:15	0	20	3	23	9	0	7	16	6	84	0	90	0	0	0	0	113	16	129	0.69	6:15-7:15
6:30-7:30	0	26	5	31	17	0	11	28	8	95	0	103	0	0	0	0	134	28	162	0.84	6:30-7:30
6:45-7:45	0	35	7	42	20	0	11	31	6	115	0	121	0	0	0	0	163	31	194	0.75	6:45-7:45
7:00-8:00	0	42	9	51	24	0	10	34	5	116	0	121	0	0	0	0	172	34	206	0.79	7:00-8:00
7:15-8:15	0	58	10	68	24	0	8	32	4	125	0	129	0	0	0	0	197	32	229	0.88	7:15-8:15
7:30-8:30	0	75	8	83	28	0	5	33	3	129	0	132	0	0	0	0	215	33	248	0.93	7:30-8:30
7:45-8:45	0	75	7	82	29	0	6	35	4	126	0	130	0	0	0	0	212	35	247	0.92	7:45-8:45
8:00-9:00	0	67	4	71	29	0	7	36	3	116	0	119	0	0	0	0	190	36	226	0.84	8:00-9:00
AM Peak 7:30-8:30	0	75	8	83	28	0	5	33	3	129	0	132	0	0	0	0	215	33	248	0.93	AM Peak 7:30-8:30
PM																					
4:00-4:15	0	8	1	9	4	0	1	5	2	10	0	12	0	0	0	0	21	5	26		4:00-4:15
4:15-4:30	0	23	2	25	4	0	1	5	4	13	0	17	0	0	0	0	42	5	47		4:15-4:30
4:30-4:45	0	23	2	25	5	0	2	7	2	21	0	23	0	0	0	0	48	7	55		4:30-4:45
4:45-5:00	0	24	1	25	4	0	0	4	1	16	0	17	0	0	0	0	42	4	46		4:45-5:00
5:00-5:15	0	15	2	17	2	0	3	5	0	8	0	8	0	0	0	0	25	5	30		5:00-5:15
5:15-5:30	0	31	3	34	5	0	2	7	1	16	0	17	0	0	0	0	51	7	58		5:15-5:30
5:30-5:45	0	25	1	26	0	0	2	2	5	15	0	20	0	0	0	0	46	2	48		5:30-5:45
5:45-6:00	0	32	0	32	2	0	5	7	5	22	0	27	0	0	0	0	59	7	66		5:45-6:00
6:00-6:15	0	26	3	29	1	0	5	6	3	12	0	15	0	0	0	0	44	6	50		6:00-6:15
6:15-6:30	0	36	5	41	4	0	5	9	5	9	0	14	0	0	0	0	55	9	64		6:15-6:30
6:30-6:45	0	29	9	38	8	0	3	11	5	17	0	22	0	0	0	0	60	11	71		6:30-6:45
6:45-7:00	0	32	4	36	13	0	6	19	1	32	0	33	0	0	0	0	69	19	88		6:45-7:00
3 Hour Totals	0	304	33	337	52	0	35	87	34	191	0	225	0	0	0	0	562	87	649		
1 Hour Totals																					
4:00-5:00	0	78	6	84	17	0	4	21	9	60	0	69	0	0	0	0	153	21	174	0.79	4:00-5:00
4:15-5:15	0	85	7	92	15	0	6	21	7	58	0	65	0	0	0	0	157	21	178	0.81	4:15-5:15
4:30-5:30	0	93	8	101	16	0	7	23	4	61	0	65	0	0	0	0	166	23	189	0.81	4:30-5:30
4:45-5:45	0	95	7	102	11	0	7	18	7	55	0	62	0	0	0	0	164	18	182	0.78	4:45-5:45
5:00-6:00	0	103	6	109	9	0	12	21	11	61	0	72	0	0	0	0	181	21	202	0.77	5:00-6:00
5:15-6:15	0	114	7	121	8	0	14	22	14	65	0	79	0	0	0	0	200	22	222	0.84	5:15-6:15
5:30-6:30	0	119	9	128	7	0	17	24	18	58	0	76	0	0	0	0	204	24	228	0.86	5:30-6:30
5:45-6:45	0	123	17	140	15	0	18	33	18	60	0	78	0	0	0	0	218	33	251	0.88	5:45-6:45
6:00-7:00	0	123	21	144	26	0	19	45	14	70	0	84	0	0	0	0	228	45	273	0.78	6:00-7:00
PM Peak 6:00-7:00	0	123	21	144	26	0	19	45	14	70	0	84	0	0	0	0	228	45	273	0.78	PM Peak 6:00-7:00

Project Name:	Cameron Station 2003
Project Number:	2215
Location:	City of Alexandria
Intersection:	Cameron Station Blvd./Breneman
Weather:	Nice
Date:	09/10/2003
Surveyor:	Stuarts
Hours:	Mileage:



TIME	Movement							
	1	2	3	4	5	6	7	8
AM								
6:00-6:15	1	2	0	1	1	0	0	0
6:15-6:30	0	0	0	2	1	3	0	0
6:30-6:45	1	2	2	4	1	0	0	0
6:45-7:00	2	0	1	0	0	1	0	0
7:00-7:15	0	0	1	2	0	0	0	0
7:15-7:30	0	1	2	2	0	0	0	0
7:30-7:45	2	2	3	3	2	1	0	0
7:45-8:00	0	0	2	2	0	0	0	0
8:00-8:15	0	1	1	2	0	0	0	0
8:15-8:30	0	0	3	1	1	1	0	0
8:30-8:45	0	0	2	0	1	0	0	0
8:45-9:00	0	0	1	2	0	0	0	0
PM								
4:00-4:15	1	0	0	2	1	0	0	0
4:15-4:30	0	2	2	1	0	0	0	0
4:30-4:45	0	0	2	0	0	0	0	0
4:45-5:00	1	0	0	1	0	0	0	0
5:00-5:15	2	2	2	0	3	0	0	0
5:15-5:30	2	2	5	0	0	0	0	0
5:30-5:45	1	0	1	2	0	0	0	0
5:45-6:00	0	0	3	1	0	0	0	0
6:00-6:15	0	1	2	2	1	0	0	0
6:15-6:30	0	0	0	0	2	0	0	0
6:30-6:45	0	1	2	0	0	0	0	0
6:45-7:00	0	1	2	7	0	0	0	0

Wells & Associates, LLC

McLean, Virginia

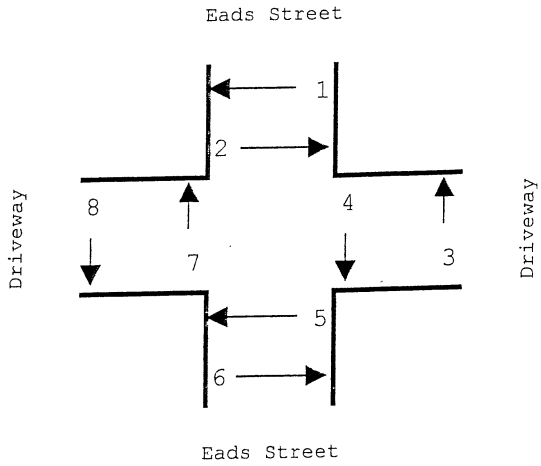
Existing Traffic Count

PROJECT:	Cameron Station 2003	DATE:	09/10/2003	SOUTHBOUND ROAD:	N Pickett Street
W & A JOB NO.:	2215	DAY:	Wednesday	NORTHBOUND ROAD:	Cameron Station Boulevard
INTERSECTION:	Duke St. & Cameron Station Boulevard	WEATHER:	Nice	WESTBOUND ROAD:	Duke Street
LOCATION:	City of Alexandria	COUNTED BY:	Richard & Jerry	EASTBOUND ROAD:	Duke Street
		INPUTED BY:	SMF		

Time Period	Turning Movements: Southbound N Pickett Street 1 Right	2 Thru	3 Left	Total	Westbound Duke Street 4 Right	5 Thru	6 Left	Total	Northbound Cameron Station Boulevard 7 Right	8 Thru	9 Left	Total	Eastbound Duke Street 10 Right	11 Thru	12 Left	Total	North & South	East & West	Total	PHF	Time Period
AM																					
6:00-6:15	8	0	10	18	6	94	0	100	3	4	16	23	1	100	9	110	41	210	251		6:00-6:15
6:15-6:30	2	0	9	11	6	75	0	81	6	9	23	38	2	144	11	157	49	238	287		6:15-6:30
6:30-6:45	8	1	13	22	9	110	1	120	6	14	27	47	2	198	8	208	69	328	397		6:30-6:45
6:45-7:00	11	0	10	21	12	129	2	143	6	12	36	54	6	207	9	222	75	365	440		6:45-7:00
7:00-7:15	8	2	9	19	8	150	2	160	11	14	36	61	6	230	15	251	80	411	491		7:00-7:15
7:15-7:30	14	5	16	35	12	188	8	208	16	20	44	80	13	329	11	353	115	561	676		7:15-7:30
7:30-7:45	10	3	16	29	13	179	6	198	13	20	44	77	8	287	11	306	106	504	610		7:30-7:45
7:45-8:00	9	2	21	32	10	230	9	249	8	16	46	70	8	349	19	376	102	625	727		7:45-8:00
8:00-8:15	19	2	22	43	21	187	8	216	15	9	40	64	9	341	21	371	107	587	694		8:00-8:15
8:15-8:30	13	5	9	27	21	210	14	245	15	21	46	82	8	337	19	364	109	609	718		8:15-8:30
8:30-8:45	17	3	26	46	16	194	2	212	17	10	38	65	3	272	21	296	111	508	619		8:30-8:45
8:45-9:00	13	3	17	33	16	198	7	221	11	15	35	61	11	341	25	377	94	598	692		8:45-9:00
3 Hour Totals	132	26	178	336	150	1,944	59	2,153	127	164	431	722	77	3,135	179	3,391	1,058	5,544	6,602		
1 Hour Totals																					
6:00-7:00	29	1	42	72	33	408	3	444	21	39	102	162	11	649	37	697	234	1,141	1,375	0.78	6:00-7:00
6:15-7:15	29	3	41	73	35	464	5	504	29	49	122	200	16	779	43	838	273	1,342	1,615	0.82	6:15-7:15
6:30-7:30	41	8	48	97	41	577	13	631	39	60	143	242	27	964	43	1,034	339	1,665	2,004	0.74	6:30-7:30
6:45-7:45	43	10	51	104	45	646	18	709	46	66	160	272	33	1,053	46	1,132	376	1,841	2,217	0.82	6:45-7:45
7:00-8:00	41	12	62	115	43	747	25	815	48	70	170	288	35	1,195	56	1,286	403	2,101	2,504	0.86	7:00-8:00
7:15-8:15	52	12	75	139	56	784	31	871	52	65	174	291	38	1,306	62	1,406	430	2,277	2,707	0.93	7:15-8:15
7:30-8:30	51	12	68	131	65	806	37	908	51	66	176	293	33	1,314	70	1,417	424	2,325	2,749	0.95	7:30-8:30
7:45-8:45	58	12	78	148	68	821	33	922	55	56	170	281	28	1,299	80	1,407	429	2,329	2,758	0.95	7:45-8:45
8:00-9:00	62	13	74	149	74	789	31	894	58	55	159	272	31	1,291	86	1,408	421	2,302	2,723	0.95	8:00-9:00
AM Peak 7:45-8:45	58	12	78	148	68	821	33	922	55	56	170	281	28	1,299	80	1,407	429	2,329	2,758	0.95	AM Peak 7:45-8:45
PM																					
4:00-4:15	26	10	41	77	31	313	10	354	3	4	16	23	17	306	44	367	100	721	821		4:00-4:15
4:15-4:30	21	6	30	57	25	325	23	373	8	3	11	22	24	262	27	313	79	685	765		4:15-4:30
4:30-4:45	18	8	25	51	20	290	20	330	8	3	20	31	21	268	35	324	82	654	736		4:30-4:45
4:45-5:00	30	15	35	80	30	345	25	400	9	2	13	24	19	291	41	351	104	751	855		4:45-5:00
5:00-5:15	15	7	36	58	25	330	14	369	3	3	14	20	15	275	21	311	78	680	758		5:00-5:15
5:15-5:30	31	14	24	69	28	403	19	450	2	6	20	28	24	307	38	369	97	819	916		5:15-5:30
5:30-5:45	42	13	34	89	28	316	17	361	7	6	8	21	19	283	34	336	110	697	807		5:30-5:45
5:45-6:00	29	19	28	76	34	334	26	394	9	9	12	30	26	327	36	389	106	783	889		5:45-6:00
6:00-6:15	36	16	37	89	36	371	22	429	6	4	17	27	36	284	34	354	116	783	899		6:00-6:15
6:15-6:30	40	18	37	95	35	314	30	379	5	4	19	28	36	297	29	362	123	741	864		6:15-6:30
6:30-6:45	31	22	36	89	38	382	17	437	4	13	24	41	42	287	37	366	130	803	933		6:30-6:45
6:45-7:00	22	10	34	66	26	323	17	366	13	5	14	32	36	301	33	370	98	736	834		6:45-7:00
3 Hour Totals	341	158	397	896	356	4,046	240	4,642	77	62	188	327	315	3,488	409	4,212	1,223	6,854	10,077		
1 Hour Totals																					
4:00-5:00	95	39	131	265	106	1,273	78	1,457	28	12	60	100	81	1,127	147	1,355	365	2,812	3,177	0.93	4:00-5:00
4:15-5:15	84	36	126	246	100	1,290	82	1,472	28	11	58	97	79	1,096	124	1,299	343	2,771	3,114	0.91	4:15-5:15
4:30-5:30	94	44	120	258	103	1,368	78	1,549	22	14	67	103	79	1,141	135	1,355	361	2,904	3,265	0.89	4:30-5:30
4:45-5:45	118	49	129	296	111	1,394	75	1,580	21	17	55	93	77	1,156	134	1,367	389	2,947	3,336	0.91	4:45-5:45
5:00-6:00	117	53	122	292	115	1,383	76	1,574	21	24	54	99	84	1,192	129	1,405	391	2,979	3,370	0.92	5:00-6:00
5:15-6:15	138	62	123	323	126	1,424	84	1,634	24	25	57	106	105	1,201	142	1,448	429	3,082	3,511	0.96	5:15-6:15
5:30-6:30	147	66	136	349	133	1,335	95	1,563	27	23	56	106	117	1,191	133	1,441	455	3,004	3,459	0.96	5:30-6:30
5:45-6:45	136	75	138	349	143	1,401	95	1,639	24	30	72	126	140	1,195	136	1,471	475	3,110	3,585	0.96	5:45-6:45
6:00-7:00	129	66	144	339	135	1,390	86	1,611	28	26	74	128	150	1,169	133	1,452	467	3,063	3,530	0.95	6:00-7:00
PM Peak 5:45-6:45	136	75	138	349	143	1,401	95	1,639	24	30	72	126	140	1,195	136	1,471	475	3,110	3,585	0.96	PM Peak 5:45-6:45

A-3

Project Name:	Cameron Station 2003
Project Number:	2215
Location:	City of Alexandria
Intersection:	Duke St. & Cameron Station Bou
Weather:	Nice
Date:	09/10/2003
Surveyor:	Richard & Jerry
Hours:	Mileage:



TIME	Movement							
	1	2	3	4	5	6	7	8
AM								
6:00-6:15	1	2	1	1	0	3	0	0
6:15-6:30	1	0	5	1	0	2	0	1
6:30-6:45	0	0	3	2	0	0	0	0
6:45-7:00	0	1	3	1	1	0	0	0
7:00-7:15	0	0	2	4	1	2	0	0
7:15-7:30	0	0	4	0	1	3	0	0
7:30-7:45	0	0	1	0	0	0	0	0
7:45-8:00	1	0	2	1	0	0	0	0
8:00-8:15	0	0	7	2	2	5	0	1
8:15-8:30	0	1	5	2	1	4	0	0
8:30-8:45	0	0	0	3	0	3	0	0
8:45-9:00	1	0	0	2	2	2	0	0
PM								
4:00-4:15			0	0	1	2	0	0
4:15-4:30			0	1	3	0	0	0
4:30-4:45			1	4	1	3	0	0
4:45-5:00	2		1	5	2	0	0	0
5:00-5:15		1	3	5	2	1	0	0
5:15-5:30			4	3	0	3	0	0
5:30-5:45			4	2	4	0	0	0
5:45-6:00			1	6	1	3	3	0
6:00-6:15			8	5	3	2	0	0
6:15-6:30			2	3	2	3	0	1
6:30-6:45			0	5	1	1	0	0
6:45-7:00			0	0	0	0	0	0

Wells & Associates, LLC

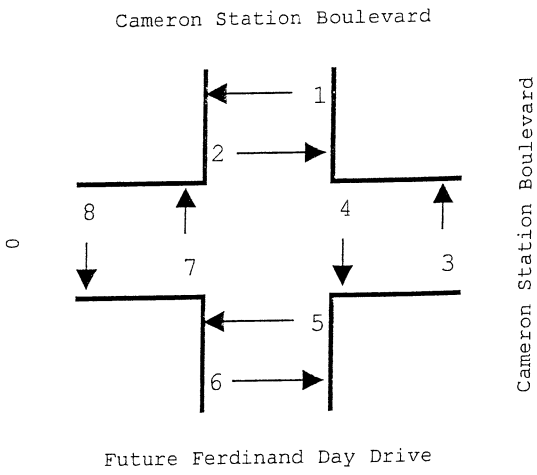
McLean, Virginia

Existing Traffic Count

PROJECT:	Cameron Station 2003	DATE:	09/10/2003	SOUTHBOUND ROAD:	Cameron Station Boulevard
W & A JOB NO.:	2215	DAY:	Wednesday	NORTHBOUND ROAD:	Future Ferdinand Day Drive
INTERSECTION:	Cameron Station Blvd./Ferdinand Day Drive	WEATHER:	Nice	WESTBOUND ROAD:	Cameron Station Boulevard
LOCATION:	City of Alexandria	COUNTED BY:	Bob	EASTBOUND ROAD:	
		INPUTED BY:	SMF		

Time Period	Turning Movements: Southbound Cameron Station Boulevard				Westbound Cameron Station Boulevard				Northbound Future Ferdinand Day Drive				Eastbound 0				North & South	East & West	Total	PHF	Time Period
	1 Right	2 Thru	3 Left	Total	4 Right	5 Thru	6 Left	Total	7 Right	8 Thru	9 Left	Total	10 Right	11 Thru	12 Left	Total					
AM																					
6:00-6:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		6:00-6:15
6:15-6:30	0	0	4	4	3	0	0	3	0	0	0	0	0	0	0	0	4	3	7		6:15-6:30
6:30-6:45	0	0	4	4	16	0	0	16	0	0	0	0	0	0	0	0	4	16	20		6:30-6:45
6:45-7:00	0	0	7	7	17	0	1	18	0	0	0	0	0	0	0	0	7	18	25		6:45-7:00
7:00-7:15	0	0	8	8	23	0	0	23	0	0	0	0	0	0	0	0	8	23	31		7:00-7:15
7:15-7:30	0	0	6	6	12	0	1	13	0	0	0	0	0	0	0	0	6	13	19		7:15-7:30
7:30-7:45	0	0	4	4	26	0	0	26	0	0	0	0	0	0	0	0	4	26	30		7:30-7:45
7:45-8:00	0	0	11	11	30	0	0	30	0	0	0	0	0	0	0	0	11	30	41		7:45-8:00
8:00-8:15	0	0	14	14	18	0	0	18	0	0	0	0	0	0	0	0	14	18	32		8:00-8:15
8:15-8:30	0	0	14	14	28	0	0	28	0	0	0	0	0	0	0	0	14	28	42		8:15-8:30
8:30-8:45	0	0	31	31	39	0	0	39	0	0	0	0	0	0	0	0	31	39	70		8:30-8:45
8:45-9:00	0	0	13	13	16	0	0	16	0	0	0	0	0	0	0	0	13	16	29		8:45-9:00
3 Hour Totals	0	0	116	116	228	0	2	230	0	0	0	0	0	0	0	0	116	230	346		
1 Hour Totals																					
6:00-7:00	0	0	15	15	36	0	1	37	0	0	0	0	0	0	0	0	15	37	52	0.52	6:00-7:00
6:15-7:15	0	0	23	23	59	0	1	60	0	0	0	0	0	0	0	0	23	60	83	0.67	6:15-7:15
6:30-7:30	0	0	25	25	68	0	2	70	0	0	0	0	0	0	0	0	25	70	95	0.77	6:30-7:30
6:45-7:45	0	0	25	25	78	0	2	80	0	0	0	0	0	0	0	0	25	80	105	0.85	6:45-7:45
7:00-8:00	0	0	29	29	91	0	1	92	0	0	0	0	0	0	0	0	29	92	121	0.74	7:00-8:00
7:15-8:15	0	0	35	35	86	0	1	87	0	0	0	0	0	0	0	0	35	87	122	0.74	7:15-8:15
7:30-8:30	0	0	43	43	102	0	0	102	0	0	0	0	0	0	0	0	43	102	145	0.86	7:30-8:30
7:45-8:45	0	0	70	70	115	0	0	115	0	0	0	0	0	0	0	0	70	115	185	0.66	7:45-8:45
8:00-9:00	0	0	72	72	101	0	0	101	0	0	0	0	0	0	0	0	72	101	173	0.62	8:00-9:00
AM Peak 7:45-8:45	0	0	70	70	115	0	0	115	0	0	0	0	0	0	0	0	70	115	185	0.66	AM Peak 7:45-8:45
PM																					
4:00-4:15	0	0	9	9	6	0	0	6	0	0	0	0	0	0	0	0	9	6	15		4:00-4:15
4:15-4:30	0	0	18	18	12	0	0	12	0	0	0	0	0	0	0	0	18	12	30		4:15-4:30
4:30-4:45	0	0	18	18	18	0	0	18	0	0	0	0	0	0	0	0	18	18	36		4:30-4:45
4:45-5:00	0	0	15	15	8	0	0	8	0	0	0	0	0	0	0	0	15	8	23		4:45-5:00
5:00-5:15	0	0	14	14	15	0	0	15	0	0	0	0	0	0	0	0	14	15	29		5:00-5:15
5:15-5:30	0	0	23	23	14	0	0	14	0	0	0	0	0	0	0	0	23	14	37		5:15-5:30
5:30-5:45	0	0	21	21	16	0	0	16	0	0	0	0	0	0	0	0	21	16	37		5:30-5:45
5:45-6:00	0	0	27	27	17	0	0	17	0	0	0	0	0	0	0	0	27	17	44		5:45-6:00
6:00-6:15	0	0	33	33	19	0	0	19	0	0	0	0	0	0	0	0	33	19	52		6:00-6:15
6:15-6:30	0	0	23	23	20	0	0	20	0	0	0	0	0	0	0	0	23	20	43		6:15-6:30
6:30-6:45	0	0	23	23	21	0	0	21	0	0	0	0	0	0	0	0	23	21	44		6:30-6:45
6:45-7:00	0	0	27	27	15	0	0	15	0	0	0	0	0	0	0	0	27	15	42		6:45-7:00
3 Hour Totals	0	0	251	251	181	0	0	181	0	0	0	0	0	0	0	0	251	181	432		
1 Hour Totals																					
4:00-5:00	0	0	60	60	44	0	0	44	0	0	0	0	0	0	0	0	60	44	104	0.72	4:00-5:00
4:15-5:15	0	0	65	65	53	0	0	53	0	0	0	0	0	0	0	0	65	53	118	0.82	4:15-5:15
4:30-5:30	0	0	70	70	55	0	0	55	0	0	0	0	0	0	0	0	70	55	125	0.84	4:30-5:30
4:45-5:45	0	0	73	73	53	0	0	53	0	0	0	0	0	0	0	0	73	53	126	0.85	4:45-5:45
5:00-6:00	0	0	85	85	62	0	0	62	0	0	0	0	0	0	0	0	85	62	147	0.84	5:00-6:00
5:15-6:15	0	0	104	104	66	0	0	66	0	0	0	0	0	0	0	0	104	66	170	0.82	5:15-6:15
5:30-6:30	0	0	104	104	72	0	0	72	0	0	0	0	0	0	0	0	104	72	176	0.85	5:30-6:30
5:45-6:45	0	0	106	106	77	0	0	77	0	0	0	0	0	0	0	0	106	77	183	0.88	5:45-6:45
6:00-7:00	0	0	106	106	75	0	0	75	0	0	0	0	0	0	0	0	106	75	181	0.87	6:00-7:00
PM Peak 5:45-6:45	0	0	106	106	77	0	0	77	0	0	0	0	0	0	0	0	106	77	183	0.88	PM Peak 5:45-6:45

Project Name:	Cameron Station 2003
Project Number:	2215
Location:	City of Alexandria
Intersection:	Cameron Station Blvd./Ferdinan
Weather:	Nice
Date:	09/10/2003
Surveyor:	Bob
Hours:	Mileage:



TIME	Movement							
	1	2	3	4	5	6	7	8
AM								
6:00-6:15	0	0	0	0	0	0	0	0
6:15-6:30	0	0	0	0	0	0	0	0
6:30-6:45	0	0	0	2	0	0	0	0
6:45-7:00	0	0	1	3	0	0	0	0
7:00-7:15	0	0	0	1	0	0	0	0
7:15-7:30	0	0	2	1	0	0	0	0
7:30-7:45	0	0	1	1	0	0	0	0
7:45-8:00	0	0	0	1	0	0	0	0
8:00-8:15	0	0	0	2	0	0	0	0
8:15-8:30	0	0	0	6	0	0	0	0
8:30-8:45	0	0	1	1	0	0	0	0
8:45-9:00	0	0	0	0	0	0	0	0
PM								
4:00-4:15	0	0	0	0	0	0	0	0
4:15-4:30	0	0	0	1	0	0	0	0
4:30-4:45	0	0	1	1	0	0	0	0
4:45-5:00	0	0	0	0	0	0	0	0
5:00-5:15	0	0	0	0	0	0	0	0
5:15-5:30	0	0	1	2	0	0	0	0
5:30-5:45	0	0	1	0	0	0	0	0
5:45-6:00	0	0	2	1	0	0	0	0
6:00-6:15	0	0	1	1	0	0	0	0
6:15-6:30	0	0	1	0	0	0	0	0
6:30-6:45	0	0	0	2	0	0	0	0
6:45-7:00	0	0	0	0	0	0	0	0

Wells & Associates, LLC

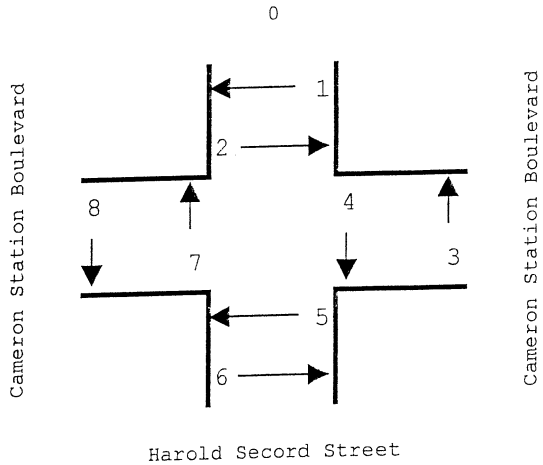
McLean, Virginia

Existing Traffic Count

PROJECT:	Cameron Station 2003	DATE:	09/10/2003	SOUTHBOUND ROAD:	
W & A JOB NO.:	2215	DAY:	Wednesday	NORTHBOUND ROAD:	Harold Secord Street
INTERSECTION:	Cameron Station Blvd./Harold Secord Street	WEATHER:	Nice	WESTBOUND ROAD:	Cameron Station Boulevard
LOCATION:	City of Alexandria	COUNTED BY:	Daniel	EASTBOUND ROAD:	Cameron Station Boulevard
		INPUTED BY:	SMF		

Time Period	Turning Movements																		Total	PHF	Time Period
	Southbound 0				Westbound Cameron Station Boulevard				Northbound Harold Secord Street				Eastbound Cameron Station Boulevard				North & South	East & West			
	1 Right	2 Thru	3 Left	Total	4 Right	5 Thru	6 Left	Total	7 Right	8 Thru	9 Left	Total	10 Right	11 Thru	12 Left	Total					
AM																					
6:00-6:15	0	0	0	0	0	7	1	8	1	0	1	2	4	2	0	6	2	14	16		6:00-6:15
6:15-6:30	0	0	0	0	0	3	0	3	2	0	1	3	1	2	0	3	3	6	9		6:15-6:30
6:30-6:45	0	0	0	0	0	18	0	18	0	0	0	0	1	6	0	7	0	25	25		6:30-6:45
6:45-7:00	0	0	0	0	0	16	1	17	0	0	0	0	1	5	0	6	0	23	23		6:45-7:00
7:00-7:15	0	0	0	0	0	21	2	23	0	0	1	1	6	7	0	13	1	36	37		7:00-7:15
7:15-7:30	0	0	0	0	0	12	4	16	2	0	0	2	10	3	0	13	2	29	31		7:15-7:30
7:30-7:45	0	0	0	0	0	24	4	28	1	0	2	3	10	5	0	15	3	43	46		7:30-7:45
7:45-8:00	0	0	0	0	0	19	7	26	1	0	3	4	9	8	0	17	4	43	47		7:45-8:00
8:00-8:15	0	0	0	0	0	18	11	29	2	0	5	7	17	8	0	25	7	54	61		8:00-8:15
8:15-8:30	0	0	0	0	0	21	15	36	6	0	35	41	44	16	0	60	41	96	137		8:15-8:30
8:30-8:45	0	0	0	0	0	28	3	31	8	0	43	51	37	17	0	54	51	85	136		8:30-8:45
8:45-9:00	0	0	0	0	0	19	1	20	5	0	9	14	6	6	0	12	14	32	46		8:45-9:00
3 Hour Totals	0	0	0	0	0	206	49	255	28	0	100	128	146	85	0	231	126	486	614		
1 Hour Totals																					
6:00-7:00	0	0	0	0	0	44	2	46	3	0	2	5	7	15	0	22	5	68	73	0.73	6:00-7:00
6:15-7:15	0	0	0	0	0	58	3	61	2	0	2	4	9	20	0	29	4	90	94	0.64	6:15-7:15
6:30-7:30	0	0	0	0	0	67	7	74	2	0	1	3	18	21	0	39	3	113	116	0.78	6:30-7:30
6:45-7:45	0	0	0	0	0	73	11	84	3	0	3	6	27	20	0	47	6	131	137	0.74	6:45-7:45
7:00-8:00	0	0	0	0	0	76	17	93	4	0	6	10	35	23	0	58	10	151	161	0.86	7:00-8:00
7:15-8:15	0	0	0	0	0	73	26	99	6	0	10	16	46	24	0	70	16	169	185	0.76	7:15-8:15
7:30-8:30	0	0	0	0	0	82	37	119	10	0	45	55	80	37	0	117	55	236	291	0.53	7:30-8:30
7:45-8:45	0	0	0	0	0	86	36	122	17	0	86	103	107	49	0	156	103	278	381	0.70	7:45-8:45
8:00-9:00	0	0	0	0	0	86	30	116	21	0	92	113	104	47	0	151	113	267	380	0.69	8:00-9:00
AM Peak 7:45-8:45	0	0	0	0	0	86	36	122	17	0	86	103	107	49	0	156	103	278	381	0.70	AM Peak 7:45-8:45
PM																					
4:00-4:15	0	0	0	0	0	15	1	16	3	0	5	8	2	12	0	14	8	30	38		4:00-4:15
4:15-4:30	0	0	0	0	0	10	1	11	1	0	4	5	2	13	0	15	5	26	31		4:15-4:30
4:30-4:45	0	0	0	0	0	16	1	17	1	0	2	3	0	9	0	9	3	26	29		4:30-4:45
4:45-5:00	0	0	0	0	0	8	1	9	0	0	0	0	0	11	0	11	0	20	20		4:45-5:00
5:00-5:15	0	0	0	0	0	16	1	17	0	0	3	3	4	13	0	17	3	34	37		5:00-5:15
5:15-5:30	0	0	0	0	0	12	1	13	1	0	4	5	5	20	0	25	5	36	43		5:15-5:30
5:30-5:45	0	0	0	0	0	13	1	14	5	0	6	11	4	18	0	22	11	36	47		5:30-5:45
5:45-6:00	0	0	0	0	0	15	0	15	2	0	7	9	3	24	0	27	9	42	51		5:45-6:00
6:00-6:15	0	0	0	0	0	16	1	17	1	0	5	6	3	32	0	35	6	52	58		6:00-6:15
6:15-6:30	0	0	0	0	0	19	1	20	1	0	1	2	3	26	0	29	2	49	51		6:15-6:30
6:30-6:45	0	0	0	0	0	16	0	16	2	0	1	3	2	22	0	24	3	40	43		6:30-6:45
6:45-7:00	0	0	0	0	0	13	0	13	0	0	0	0	0	26	0	26	0	39	39		6:45-7:00
3 Hour Totals	0	0	0	0	0	169	9	178	17	0	38	55	28	226	0	254	55	432	487		
1 Hour Totals																					
4:00-5:00	0	0	0	0	0	49	4	53	5	0	11	16	4	45	0	49	16	102	118	0.78	4:00-5:00
4:15-5:15	0	0	0	0	0	50	4	54	2	0	9	11	6	46	0	52	11	106	117	0.79	4:15-5:15
4:30-5:30	0	0	0	0	0	52	4	56	2	0	9	11	9	53	0	62	11	118	129	0.75	4:30-5:30
4:45-5:45	0	0	0	0	0	49	4	53	6	0	13	19	13	62	0	75	19	128	147	0.78	4:45-5:45
5:00-6:00	0	0	0	0	0	56	3	59	8	0	20	28	16	75	0	91	28	150	178	0.87	5:00-6:00
5:15-6:15	0	0	0	0	0	56	3	59	9	0	22	31	15	94	0	109	31	168	199	0.86	5:15-6:15
5:30-6:30	0	0	0	0	0	63	3	66	9	0	19	28	13	100	0	113	28	179	207	0.89	5:30-6:30
5:45-6:45	0	0	0	0	0	66	2	68	6	0	14	20	11	104	0	115	20	183	203	0.88	5:45-6:45
6:00-7:00	0	0	0	0	0	64	2	66	4	0	7	11	8	106	0	114	11	180	191	0.82	6:00-7:00
PM Peak 5:30-6:30	0	0	0	0	0	63	3	66	9	0	19	28	13	100	0	113	28	179	207	0.89	PM Peak 5:30-6:30

Project Name:	Cameron Station 2003
Project Number:	2215
Location:	City of Alexandria
Intersection:	Cameron Station Blvd./Harold S
Weather:	Nice
Date:	09/10/2003
Surveyor:	Daniel
Hours:	Mileage:



TIME	Movement							
	1	2	3	4	5	6	7	8
AM								
6:00-6:15	0	0	0	0	0	0	0	0
6:15-6:30	0	0	2	1	0	1	0	0
6:30-6:45	0	0	0	0	0	0	0	0
6:45-7:00	0	0	0	0	0	0	0	0
7:00-7:15	0	0	0	0	0	0	0	0
7:15-7:30	0	0	0	1	0	1	0	0
7:30-7:45	0	0	1	0	0	0	0	0
7:45-8:00	0	0	0	0	0	0	0	0
8:00-8:15	0	0	1	0	1	0	0	0
8:15-8:30	0	0	0	8	1	0	0	0
8:30-8:45	0	0	0	0	0	0	0	0
8:45-9:00	0	0	0	0	0	0	0	0
PM								
4:00-4:15	0	0	2	0	0	2	0	0
4:15-4:30	0	0	0	0	0	0	0	0
4:30-4:45	0	0	0	5	5	0	0	0
4:45-5:00	0	0	1	0	0	0	0	0
5:00-5:15	0	0	0	0	1	0	0	0
5:15-5:30	0	0	0	0	0	0	0	0
5:30-5:45	0	0	0	0	3	0	6	0
5:45-6:00	0	0	0	0	0	1	1	0
6:00-6:15	0	0	3	0	0	0	2	0
6:15-6:30	0	0	1	3	0	0	0	2
6:30-6:45	0	0	1	0	1	1	1	0
6:45-7:00	0	0	0	1	0	0	0	0

Wells & Associates, LLC

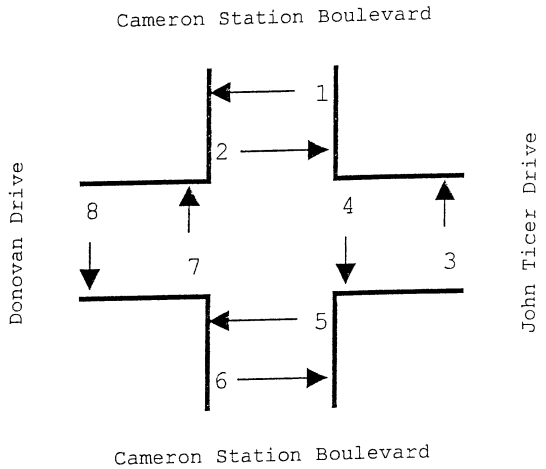
McLean, Virginia

Existing Traffic Count

PROJECT:	Cameron Station 2003	DATE:	09/10/2003	SOUTHBOUND ROAD:	Cameron Station Boulevard	
W & A JOB NO.:	2215	DAY:	Wednesday	NORTHBOUND ROAD:	Cameron Station Boulevard	
INTERSECTION:	Cameron Station Blvd./John Ticer Dr./Donova	WEATHER:	Nice	WESTBOUND ROAD:	John Ticer Drive	
LOCATION:	City of Alexandria	COUNTED BY:	Jim	EASTBOUND ROAD:	Donovan Drive	
		INPUTED BY:	SMF			

Time Period	Turning Movements																		Total	PHF	Time Period
	Southbound Cameron Station Boulevard				Westbound John Ticer Drive				Northbound Cameron Station Boulevard				Eastbound Donovan Drive				North & South	East & West			
	1 Right	2 Thru	3 Left	Total	4 Right	5 Thru	6 Left	Total	7 Right	8 Thru	9 Left	Total	10 Right	11 Thru	12 Left	Total					
AM																					
6:00-6:15	0	4	2	6	3	1	1	5	0	10	0	10	0	0	8	8	16	13	29		6:00-6:15
6:15-6:30	0	3	0	3	3	0	0	3	0	11	0	11	0	0	9	9	14	12	26		6:15-6:30
6:30-6:45	0	6	0	6	8	0	2	10	2	27	0	29	2	0	14	16	35	26	61		6:30-6:45
6:45-7:00	0	11	3	14	15	0	0	15	0	35	0	35	0	2	16	18	49	33	82		6:45-7:00
7:00-7:15	2	9	3	14	13	0	0	13	1	28	3	32	0	3	22	25	46	38	84		7:00-7:15
7:15-7:30	4	16	3	23	15	0	0	15	1	40	1	42	1	2	23	26	65	41	106		7:15-7:30
7:30-7:45	1	18	1	20	15	0	0	15	0	49	0	49	0	2	32	34	69	49	118		7:30-7:45
7:45-8:00	1	19	1	21	10	0	1	11	1	36	0	37	0	2	24	26	58	37	95		7:45-8:00
8:00-8:15	3	17	2	22	4	0	2	6	0	35	0	35	2	1	17	20	57	26	83		8:00-8:15
8:15-8:30	4	28	3	35	18	1	1	20	1	52	0	53	1	1	17	19	88	39	127		8:15-8:30
8:30-8:45	2	7	0	9	4	1	1	6	0	43	3	46	1	1	16	18	55	24	79		8:30-8:45
8:45-9:00	2	13	1	16	8	0	1	9	1	35	0	36	0	1	15	16	52	25	77		8:45-9:00
3 Hour Totals	19	151	19	189	116	3	9	128	7	401	7	415	7	15	213	235	604	363	967		
1 Hour Totals																					
6:00-7:00	0	24	5	29	29	1	3	33	2	83	0	85	2	2	47	51	114	84	198	0.60	6:00-7:00
6:15-7:15	2	29	6	37	39	0	2	41	3	101	3	107	2	5	61	68	144	109	253	0.75	6:15-7:15
6:30-7:30	6	42	9	57	51	0	2	53	4	130	4	138	3	7	75	85	195	138	333	0.79	6:30-7:30
6:45-7:45	7	54	10	71	58	0	0	58	2	152	4	158	1	9	93	103	229	161	390	0.83	6:45-7:45
7:00-8:00	8	62	8	78	53	0	1	54	3	153	4	160	1	9	101	111	238	165	403	0.85	7:00-8:00
7:15-8:15	9	70	7	86	44	0	3	47	2	160	1	163	3	7	96	106	249	153	402	0.85	7:15-8:15
7:30-8:30	9	82	7	98	47	1	4	52	2	172	0	174	3	6	90	99	272	151	423	0.83	7:30-8:30
7:45-8:45	10	71	6	87	36	2	5	43	2	166	3	171	4	5	74	83	258	126	384	0.76	7:45-8:45
8:00-9:00	11	65	6	82	34	2	5	41	2	165	3	170	4	4	65	73	252	114	366	0.72	8:00-9:00
AM Peak 7:30-8:30	9	82	7	98	47	1	4	52	2	172	0	174	3	6	90	99	272	151	423	0.83	AM Peak 7:30-8:30
PM																					
4:00-4:15	17	2	3	22	5	0	0	5	2	14	0	16	1	0	5	6	38	11	49		4:00-4:15
4:15-4:30	14	31	8	53	3	0	0	3	7	17	0	24	1	1	5	7	77	10	87		4:15-4:30
4:30-4:45	15	25	10	50	6	0	1	7	1	3	1	5	1	0	6	7	55	14	69		4:30-4:45
4:45-5:00	16	24	10	50	2	0	2	4	1	20	0	21	0	0	2	2	71	6	77		4:45-5:00
5:00-5:15	11	23	10	44	7	0	0	7	3	14	3	20	1	0	4	5	64	12	76		5:00-5:15
5:15-5:30	20	33	9	62	7	1	0	8	3	13	1	17	0	0	4	4	79	12	91		5:15-5:30
5:30-5:45	11	27	14	52	4	0	1	5	2	18	1	21	1	0	2	3	73	8	81		5:30-5:45
5:45-6:00	15	35	15	65	3	0	1	4	3	23	2	28	0	1	4	5	93	9	102		5:45-6:00
6:00-6:15	25	42	21	88	8	2	3	13	4	16	0	20	0	2	13	15	108	28	136		6:00-6:15
6:15-6:30	22	45	10	77	4	1	0	5	0	11	2	13	0	1	7	8	90	13	103		6:15-6:30
6:30-6:45	21	44	21	86	1	0	3	4	1	28	0	29	1	0	11	12	115	16	131		6:30-6:45
6:45-7:00	21	35	8	64	2	0	2	4	2	19	5	26	1	1	11	13	90	17	107		6:45-7:00
3 Hour Totals	208	366	139	713	52	4	13	69	29	196	15	240	7	6	74	87	953	156	1,109		
1 Hour Totals																					
4:00-5:00	62	82	31	175	16	0	3	19	11	54	1	66	3	1	18	22	241	41	282	0.81	4:00-5:00
4:15-5:15	56	103	38	197	18	0	3	21	12	54	4	70	3	1	17	21	267	42	309	0.89	4:15-5:15
4:30-5:30	62	105	39	206	22	1	3	26	8	50	5	63	2	0	16	18	269	44	313	0.86	4:30-5:30
4:45-5:45	58	107	43	208	20	1	3	24	9	65	5	79	2	0	12	14	287	38	325	0.89	4:45-5:45
5:00-6:00	57	118	48	223	21	1	2	24	11	68	7	86	2	1	14	17	309	41	350	0.86	5:00-6:00
5:15-6:15	71	137	59	267	22	3	5	30	12	70	4	86	1	3	23	27	353	57	410	0.75	5:15-6:15
5:30-6:30	73	149	60	282	19	3	5	27	9	68	5	82	1	4	26	31	364	58	422	0.78	5:30-6:30
5:45-6:45	83	166	67	316	16	3	7	26	8	78	4	90	1	4	35	40	406	66	472	0.87	5:45-6:45
6:00-7:00	89	166	60	315	15	3	8	26	7	74	7	88	2	4	42	48	403	74	477	0.88	6:00-7:00
PM Peak 6:00-7:00	89	166	60	315	15	3	8	26	7	74	7	88	2	4	42	48	403	74	477	0.88	PM Peak 6:00-7:00

Project Name:	Cameron Station 2003
Project Number:	2215
Location:	City of Alexandria
Intersection:	Cameron Station Blvd./John Tic
Weather:	Nice
Date:	09/10/2003
Surveyor:	Jim
Hours:	Mileage:



TIME	Movement							
	1	2	3	4	5	6	7	8
AM								
6:00-6:15	0	0	0	1	1	1	0	0
6:15-6:30	0	0	0	0	0	1	0	0
6:30-6:45	0	0	0	2	1	0	1	2
6:45-7:00	3	0	3	0	2	2	0	1
7:00-7:15	1	0	1	4	1	0	0	2
7:15-7:30	0	2	1	1	1	0	0	0
7:30-7:45	0	1	1	5	0	1	0	0
7:45-8:00	1	1	2	0	6	0	0	0
8:00-8:15	1	0	1	1	3	0	0	0
8:15-8:30	0	1	0	0	0	0	0	0
8:30-8:45	0	0	1	2	3	0	1	0
8:45-9:00	0	0	0	2	0	0	0	0
PM								
4:00-4:15	0	0	1	0	0	1	0	0
4:15-4:30	0	0	0	0	0	0	2	0
4:30-4:45	0	0	2	0	2	0	2	3
4:45-5:00	0	3	0	0	1	1	1	1
5:00-5:15	0	1	2	2	0	2	0	4
5:15-5:30	1	0	1	2	0	1	0	2
5:30-5:45	2	1	2	2	0	0	0	2
5:45-6:00	0	1	0	0	0	0	5	2
6:00-6:15	0	0	3	1	0	5	1	0
6:15-6:30	1	2	0	2	0	0	3	2
6:30-6:45	0	1	0	0	1	0	1	0
6:45-7:00	0	1	2	1	1	2	0	0

Wells & Associates, LLC

McLean, Virginia

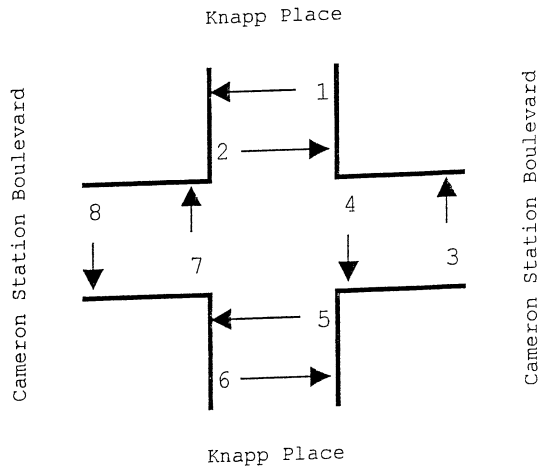
Existing Traffic Count

PROJECT:	Cameron Station 2003	DATE:	09/10/2003	SOUTHBOUND ROAD:	Knapp Place	
W & A JOB NO.:	2215	DAY:	Wednesday	NORTHBOUND ROAD:	Knapp Place	
INTERSECTION:	Cameron Station Blvd./Knapp Place	WEATHER:	Nice	WESTBOUND ROAD:	Cameron Station Boulevard	
LOCATION:	City of Alexandria	COUNTED BY:	Carson	EASTBOUND ROAD:	Cameron Station Boulevard	
		INPUTED BY:	SMF			

Time Period	Turning Movements																		Total	PHF	Time Period
	Southbound Knapp Place				Westbound Cameron Station Boulevard				Northbound Knapp Place				Eastbound Cameron Station Boulevard				North & South	East & West			
	1 Right	2 Thru	3 Left	Total	4 Right	5 Thru	6 Left	Total	7 Right	8 Thru	9 Left	Total	10 Right	11 Thru	12 Left	Total					
AM																					
6:00-6:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		6:00-6:15
6:15-6:30	0	0	0	0	0	6	0	6	2	0	0	2	0	5	0	5	2	11	13		6:15-6:30
6:30-6:45	1	0	0	1	0	14	1	15	3	0	0	3	1	6	0	7	4	22	26		6:30-6:45
6:45-7:00	0	0	1	1	0	19	0	19	2	0	1	3	0	15	0	15	4	34	38		6:45-7:00
7:00-7:15	0	0	2	2	0	13	1	14	2	0	1	3	0	11	0	11	5	25	30		7:00-7:15
7:15-7:30	1	0	0	1	0	17	1	18	4	0	1	5	0	7	0	7	6	25	31		7:15-7:30
7:30-7:45	2	0	3	5	0	20	0	20	3	0	2	5	0	12	0	12	10	32	42		7:30-7:45
7:45-8:00	3	0	0	3	1	19	0	20	6	0	0	6	0	17	1	18	9	38	47		7:45-8:00
8:00-8:15	5	0	1	6	0	19	2	21	3	0	0	3	0	26	0	26	9	47	56		8:00-8:15
8:15-8:30	2	0	0	2	0	26	0	26	5	0	0	5	1	22	3	26	7	52	59		8:15-8:30
8:30-8:45	2	0	1	3	1	28	1	30	3	0	0	3	0	14	0	14	6	44	50		8:30-8:45
8:45-9:00	1	0	3	4	0	18	1	19	3	0	0	3	0	12	1	13	7	32	39		8:45-9:00
3 Hour Totals	17	0	11	28	2	199	7	208	36	0	5	41	2	147	5	154	69	362	431		
1 Hour Totals																					
6:00-7:00	1	0	1	2	0	39	1	40	7	0	1	8	1	26	0	27	10	67	77	0.51	6:00-7:00
6:15-7:15	1	0	3	4	0	52	2	54	9	0	2	11	1	37	0	38	15	92	107	0.70	6:15-7:15
6:30-7:30	2	0	3	5	0	63	3	66	11	0	3	14	1	39	0	40	19	106	125	0.83	6:30-7:30
6:45-7:45	3	0	6	9	0	69	2	71	11	0	5	16	0	45	0	45	25	116	141	0.84	6:45-7:45
7:00-8:00	6	0	5	11	1	69	2	72	15	0	4	19	0	47	1	48	30	120	150	0.80	7:00-8:00
7:15-8:15	11	0	4	15	1	75	3	79	16	0	3	19	0	62	1	63	34	142	176	0.79	7:15-8:15
7:30-8:30	12	0	4	16	1	84	2	87	17	0	2	19	1	77	4	82	35	169	204	0.86	7:30-8:30
7:45-8:45	12	0	2	14	2	92	3	97	17	0	0	17	1	79	4	84	31	181	212	0.90	7:45-8:45
8:00-9:00	10	0	5	15	1	91	4	96	14	0	0	14	1	74	4	79	29	175	204	0.88	8:00-9:00
AM Peak 7:45-8:45	12	0	2	14	2	92	3	97	17	0	0	17	1	79	4	84	31	181	212	0.90	AM Peak 7:45-8:45
PM																					
4:00-4:15	0	0	0	0	1	15	1	17	2	0	0	2	1	19	0	20	2	37	39		4:00-4:15
4:15-4:30	0	0	0	0	0	17	3	20	1	0	0	1	0	22	0	22	1	42	43		4:15-4:30
4:30-4:45	1	0	0	1	3	16	2	21	2	0	0	2	1	18	0	19	3	40	43		4:30-4:45
4:45-5:00	0	0	0	0	0	17	4	21	1	0	0	1	2	13	0	15	1	36	37		4:45-5:00
5:00-5:15	0	0	1	1	0	12	4	16	1	0	0	1	0	13	1	14	2	30	32		5:00-5:15
5:15-5:30	1	0	0	1	0	21	1	22	1	0	0	1	0	20	1	21	2	43	45		5:15-5:30
5:30-5:45	0	0	1	1	3	14	0	17	2	0	0	2	0	23	2	25	3	42	45		5:30-5:45
5:45-6:00	0	0	0	0	0	26	1	27	1	0	0	1	0	21	2	23	1	50	51		5:45-6:00
6:00-6:15	1	0	1	2	2	25	0	27	2	0	1	3	0	25	1	26	5	53	58		6:00-6:15
6:15-6:30	0	0	0	0	1	23	1	25	1	0	0	1	2	34	3	39	1	64	65		6:15-6:30
6:30-6:45	0	0	0	0	1	20	2	23	1	0	1	2	1	24	0	25	2	48	50		6:30-6:45
6:45-7:00	1	0	1	2	0	24	3	27	4	2	0	6	1	20	1	22	8	49	57		6:45-7:00
3 Hour Totals	4	0	4	8	11	230	22	263	19	2	2	23	8	252	11	271	31	534	565		
1 Hour Totals																					
4:00-5:00	1	0	0	1	4	65	10	79	6	0	0	6	4	72	0	76	7	155	162	0.94	4:00-5:00
4:15-5:15	1	0	1	2	3	62	13	78	5	0	0	5	3	66	1	70	7	148	155	0.90	4:15-5:15
4:30-5:30	2	0	1	3	3	66	11	80	5	0	0	5	3	64	2	69	8	149	157	0.87	4:30-5:30
4:45-5:45	1	0	2	3	3	64	9	76	5	0	0	5	2	69	4	75	8	151	159	0.88	4:45-5:45
5:00-6:00	1	0	2	3	3	73	6	82	5	0	0	5	0	77	6	83	8	165	173	0.85	5:00-6:00
5:15-6:15	2	0	2	4	5	86	2	93	6	0	1	7	0	89	6	95	11	188	199	0.86	5:15-6:15
5:30-6:30	1	0	2	3	6	88	2	96	6	0	1	7	2	103	8	113	10	209	219	0.84	5:30-6:30
5:45-6:45	1	0	1	2	4	94	4	102	5	0	2	7	3	104	6	113	9	215	224	0.86	5:45-6:45
6:00-7:00	2	0	2	4	4	92	6	102	8	2	2	12	4	103	5	112	16	214	230	0.88	6:00-7:00
PM Peak 6:00-7:00	2	0	2	4	4	92	6	102	8	2	2	12	4	103	5	112	16	214	230	0.88	PM Peak 6:00-7:00

A-11

Project Name:	Cameron Station 2003
Project Number:	2215
Location:	City of Alexandria
Intersection:	Cameron Station Blvd./Knapp Pl
Weather:	Nice
Date:	09/10/2003
Surveyor:	Carson
Hours:	Mileage:



TIME	Movement							
	1	2	3	4	5	6	7	8
AM								
6:00-6:15	1	0	0	1	0	0	0	0
6:15-6:30	0	0	2	2	0	0	0	0
6:30-6:45	0	0	0	1	0	0	0	0
6:45-7:00	1	2	3	1	0	1	1	0
7:00-7:15	1	1	3	0	0	0	0	0
7:15-7:30	2	4	1	1	0	0	2	0
7:30-7:45	1	0	0	0	0	0	0	2
7:45-8:00	0	1	2	0	0	1	1	2
8:00-8:15	1	2	1	1	0	0	0	1
8:15-8:30	4	2	0	0	0	2	0	0
8:30-8:45	1	0	0	1	2	0	2	2
8:45-9:00	2	0	0	1	0	1	0	0
PM								
4:00-4:15	1	0	1	0	0	0	0	0
4:15-4:30	0	1	1	0	1	0	0	0
4:30-4:45	1	2	0	2	0	1	0	0
4:45-5:00	1	0	7	6	0	3	0	2
5:00-5:15	1	0	0	1	4	1	2	0
5:15-5:30	1	0	0	1	2	2	0	0
5:30-5:45	4	2	0	0	0	5	0	1
5:45-6:00	1	2	0	3	1	0	0	2
6:00-6:15	4	1	3	0	2	0	1	0
6:15-6:30	2	0	0	0	2	2	0	3
6:30-6:45	1	0	0	0	2	0	0	0
6:45-7:00	0	0	0	0	0	0	0	0

Appendix B
Existing 2003 Capacity Analyses

Wells & Associates, LLC

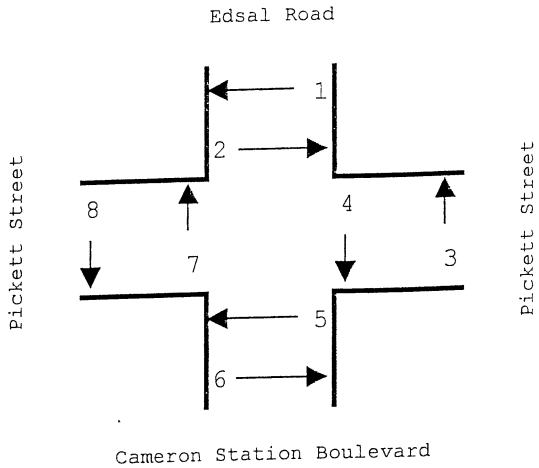
McLean, Virginia

Existing Traffic Count

PROJECT:	Cameron Station 2003	DATE:	09/10/2003	SOUTHBOUND ROAD:	Edsal Road	
W & A JOB NO.:	2215	DAY:	Wednesday	NORTHBOUND ROAD:	Cameron Station Boulevard	
INTERSECTION:	Cameron Station Blvd./Pickett St. S/Edsal Rd	WEATHER:	Nice	WESTBOUND ROAD:	Pickett Street	
LOCATION:	City of Alexandria	COUNTED BY:	Sherrie & Angela	EASTBOUND ROAD:	Pickett Street	
		INPUTED BY:	SMF			

Time Period	Turning Movements																		Total	PHF	Time Period
	Southbound Edsal Road				Westbound Pickett Street				Northbound Cameron Station Boulevard				Eastbound Pickett Street				North & South	East & West			
	1 Right	2 Thru	3 Left	Total	4 Right	5 Thru	6 Left	Total	7 Right	8 Thru	9 Left	Total	10 Right	11 Thru	12 Left	Total					
AM																					
6:00-6:15	3	2	14	19	12	34	0	46	3	3	8	14	0	29	5	34	33	80	113		6:00-6:15
6:15-6:30	6	2	15	23	15	25	1	41	3	3	7	13	4	36	11	51	36	92	128		6:15-6:30
6:30-6:45	9	5	40	54	12	25	1	38	1	7	14	22	1	58	7	66	76	104	180		6:30-6:45
6:45-7:00	12	7	42	61	16	38	1	55	4	5	13	22	6	72	9	87	83	142	225		6:45-7:00
7:00-7:15	6	12	50	68	18	42	2	62	7	9	13	29	8	69	7	84	97	146	243		7:00-7:15
7:15-7:30	11	9	50	70	28	46	3	77	3	7	10	20	4	68	4	76	90	153	243		7:15-7:30
7:30-7:45	9	11	65	85	26	52	1	79	6	15	16	37	9	72	8	89	122	168	290		7:30-7:45
7:45-8:00	11	17	61	89	36	55	2	93	4	11	24	39	7	85	6	98	128	191	319		7:45-8:00
8:00-8:15	16	20	56	92	32	55	4	91	7	6	14	27	7	90	8	105	119	196	315		8:00-8:15
8:15-8:30	14	58	49	121	39	46	9	94	6	18	17	41	11	81	10	102	162	196	358		8:15-8:30
8:30-8:45	19	33	59	111	30	56	3	89	11	30	18	59	11	80	11	102	170	191	361		8:30-8:45
8:45-9:00	14	13	66	93	33	41	3	77	14	41	22	77	12	97	18	127	170	204	374		8:45-9:00
3 Hour Totals	130	189	567	886	297	515	30	842	69	155	176	400	80	837	104	1,021	1,286	1,863	3,149		
1 Hour Totals																					
6:00-7:00	30	16	111	157	55	122	3	180	11	18	42	71	11	195	32	238	228	418	646	0.72	6:00-7:00
6:15-7:15	33	26	147	206	61	130	5	196	15	24	47	86	19	235	34	288	292	484	776	0.80	6:15-7:15
6:30-7:30	38	33	182	253	74	151	7	232	15	28	50	93	19	267	27	313	346	545	891	0.92	6:30-7:30
6:45-7:45	38	39	207	284	88	178	7	273	20	36	52	108	27	281	28	336	392	609	1,001	0.86	6:45-7:45
7:00-8:00	37	49	225	312	108	195	8	311	20	42	63	125	28	294	25	347	437	658	1,095	0.86	7:00-8:00
7:15-8:15	47	57	232	336	122	208	10	340	20	39	64	123	27	315	26	368	459	708	1,167	0.91	7:15-8:15
7:30-8:30	50	106	231	387	133	208	16	357	23	50	71	144	34	328	32	394	531	751	1,282	0.90	7:30-8:30
7:45-8:45	60	128	225	413	137	212	18	367	28	65	73	166	36	336	35	407	579	774	1,353	0.94	7:45-8:45
8:00-9:00	63	124	230	417	134	198	19	351	38	95	71	204	41	348	47	436	621	787	1,408	0.94	8:00-9:00
AM Peak 8:00-9:00	63	124	230	417	134	198	19	351	38	95	71	204	41	348	47	436	621	787	1,408	0.94	AM Peak 8:00-9:00
PM																					
4:00-4:15	13	10	54	77	62	74	3	139	0	8	13	21	7	71	7	85	98	224	322		4:00-4:15
4:15-4:30	11	11	54	76	61	94	7	162	4	11	10	25	16	70	13	99	101	261	362		4:15-4:30
4:30-4:45	15	6	60	81	60	100	1	161	12	8	16	36	17	78	8	103	117	264	381		4:30-4:45
4:45-5:00	5	4	58	67	60	89	7	156	14	16	24	54	23	105	13	141	121	297	418		4:45-5:00
5:00-5:15	21	18	72	111	68	103	3	174	9	20	16	45	10	88	8	106	156	280	436		5:00-5:15
5:15-5:30	17	18	50	85	69	112	8	189	8	12	12	32	13	94	12	119	117	308	425		5:15-5:30
5:30-5:45	12	14	56	82	64	101	7	172	8	19	9	36	14	86	10	110	118	282	400		5:30-5:45
5:45-6:00	13	24	61	98	71	98	6	175	6	29	11	46	14	87	13	114	144	289	433		5:45-6:00
6:00-6:15	16	10	50	76	52	77	8	137	4	20	6	30	18	79	10	107	106	244	350		6:00-6:15
6:15-6:30	21	16	40	77	70	78	4	152	4	13	9	26	12	76	8	96	103	248	351		6:15-6:30
6:30-6:45	19	13	58	90	56	93	4	153	7	13	9	29	9	77	6	92	119	245	364		6:30-6:45
6:45-7:00	12	16	43	71	54	76	2	132	6	1	3	10	13	71	11	95	81	227	308		6:45-7:00
3 Hour Totals	175	160	656	991	747	1,095	60	1,902	82	170	138	390	166	982	119	1,267	1,381	3,169	4,550		
1 Hour Totals																					
4:00-5:00	44	31	226	301	243	357	18	618	30	43	63	136	63	324	41	428	437	1,046	1,483	0.89	4:00-5:00
4:15-5:15	52	39	244	335	249	386	18	653	39	55	66	160	66	341	42	449	495	1,102	1,597	0.92	4:15-5:15
4:30-5:30	58	46	240	344	257	404	19	680	43	56	68	167	63	365	41	469	511	1,149	1,660	0.95	4:30-5:30
4:45-5:45	55	54	236	345	261	405	25	691	39	67	61	167	60	373	43	476	512	1,167	1,679	0.96	4:45-5:45
5:00-6:00	63	74	239	376	272	414	24	710	31	80	48	159	51	355	43	449	535	1,159	1,694	0.97	5:00-6:00
5:15-6:15	58	66	217	341	256	388	29	673	26	80	38	144	59	346	45	450	485	1,123	1,608	0.93	5:15-6:15
5:30-6:30	62	64	207	333	257	354	25	636	22	81	35	138	58	328	41	427	471	1,063	1,534	0.89	5:30-6:30
5:45-6:45	69	63	209	341	249	346	22	617	21	75	35	131	53	319	37	409	472	1,026	1,498	0.86	5:45-6:45
6:00-7:00	68	55	191	314	232	324	18	574	21	47	27	95	52	303	35	390	409	964	1,373	0.94	6:00-7:00
PM Peak 5:00-6:00	63	74	239	376	272	414	24	710	31	80	48	159	51	355	43	449	535	1,159	1,694	0.97	PM Peak 5:00-6:00

Project Name:	Cameron Station 2003
Project Number:	2215
Location:	City of Alexandria
Intersection:	Cameron Station Blvd./Pickett
Weather:	Nice
Date:	09/10/2003
Surveyor:	Sherrie & Angela
Hours:	Mileage:



TIME	Movement							
	1	2	3	4	5	6	7	8
AM								
6:00-6:15	0	0	0	0	2	0	1	0
6:15-6:30	0	0	0	1	0	0	0	0
6:30-6:45	0	0	0	0	0	0	0	0
6:45-7:00	0	0	0	0	1	0	0	0
7:00-7:15	0	0	0	0	2	2	1	0
7:15-7:30	2	0	0	0	0	0	0	0
7:30-7:45	0	0	0	0	1	0	0	0
7:45-8:00	0	0	0	0	0	0	0	0
8:00-8:15	0	2	0	0	1	1	0	0
8:15-8:30	0	0	0	2	0	0	0	1
8:30-8:45	0	0	1	3	0	0	0	3
8:45-9:00	0	0	0	1	0	0	0	3
PM								
4:00-4:15	0	0	0	3	3	0	0	0
4:15-4:30	0	0	0	0	0	1	0	1
4:30-4:45	0	0	0	2	0	0	1	1
4:45-5:00	0	0	1	0	0	0	0	0
5:00-5:15	0	0	1	0	1	1	0	1
5:15-5:30	0	0	0	0	0	2	3	0
5:30-5:45	1	0	1	0	0	1	0	0
5:45-6:00	0	0	1	2	0	0	0	0
6:00-6:15	1	0	0	0	0	1	4	1
6:15-6:30	0	0	0	0	0	0	0	0
6:30-6:45	0	0	0	0	0	0	0	0
6:45-7:00	0	0	0	1	0	1	1	0

Wells & Associates, LLC

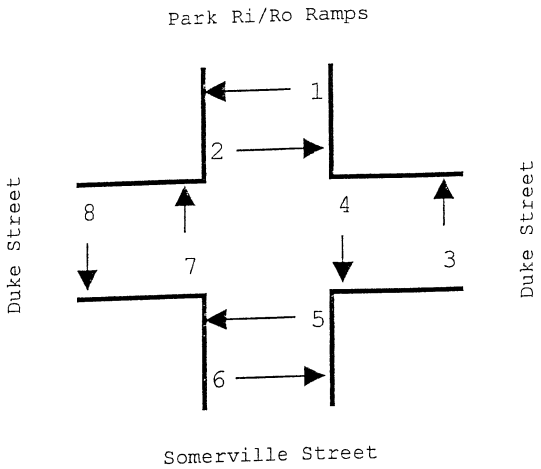
McLean, Virginia

Existing Traffic Count

PROJECT:	Cameron Station 2003	DATE:	09/10/2003	SOUTHBOUND ROAD:	Park Ri/Ro Ramps	
W & A JOB NO.:	2215	DAY:	Wednesday	NORTHBOUND ROAD:	Somerville Street	
INTERSECTION:	Duke St./Somerville St./Park ramps	WEATHER:	Nice	WESTBOUND ROAD:	Duke Street	
LOCATION:	City of Alexandria	COUNTED BY:	Gary and Joseph	EASTBOUND ROAD:	Duke Street	
		INPUTED BY:	SMF			

Time Period	Turning Movements																North & South	East & West	Total	PHF	Time Period
	Southbound Park Ri/Ro Ramps				Westbound Duke Street				Northbound Somerville Street				Eastbound Duke Street								
	1 Right	2 Thru	3 Left	Total	4 Right	5 Thru	6 Left	Total	7 Right	8 Thru	9 Left	Total	10 Right	11 Thru	12 Left	Total					
AM																					
6:00-6:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		6:00-6:15
6:15-6:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		6:15-6:30
6:30-6:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		6:30-6:45
6:45-7:00	1	0	0	1	1	80	0	81	15	0	0	15	2	170	0	172	16	253	269		6:45-7:00
7:00-7:15	1	0	0	1	0	125	0	125	20	0	0	20	0	236	0	236	21	361	382		7:00-7:15
7:15-7:30	0	0	0	0	0	233	0	233	31	0	0	31	7	305	0	312	31	545	576		7:15-7:30
7:30-7:45	2	0	0	2	3	209	0	212	38	0	0	38	0	355	0	355	40	567	607		7:30-7:45
7:45-8:00	0	0	0	0	4	255	0	259	36	0	0	36	4	425	0	429	36	688	724		7:45-8:00
8:00-8:15	3	0	0	3	2	256	0	258	24	0	0	24	0	337	0	337	27	595	622		8:00-8:15
8:15-8:30	3	0	0	3	2	296	0	298	21	0	0	21	2	369	0	371	24	669	693		8:15-8:30
8:30-8:45	1	0	0	1	2	178	0	180	16	0	0	16	1	366	0	367	17	547	564		8:30-8:45
8:45-9:00	1	0	0	1	1	230	0	231	26	0	0	26	1	316	0	317	27	548	575		8:45-9:00
3 Hour Totals	12	0	0	12	15	1,862	0	1,877	227	0	0	227	17	2,879	0	2,896	235	4,773	5,012		
1 Hour Totals																					
6:00-7:00	1	0	0	1	1	80	0	81	15	0	0	15	2	170	0	172	16	253	269	0.25	6:00-7:00
6:15-7:15	2	0	0	2	1	205	0	206	35	0	0	35	2	406	0	408	37	614	651	0.43	6:15-7:15
6:30-7:30	2	0	0	2	1	438	0	439	66	0	0	66	9	711	0	720	68	1,159	1,227	0.53	6:30-7:30
6:45-7:45	4	0	0	4	4	647	0	651	104	0	0	104	9	1,066	0	1,075	108	1,726	1,834	0.76	6:45-7:45
7:00-8:00	3	0	0	3	7	822	0	829	125	0	0	125	11	1,321	0	1,332	128	2,161	2,289	0.79	7:00-8:00
7:15-8:15	5	0	0	5	9	953	0	962	129	0	0	129	11	1,422	0	1,433	134	2,395	2,529	0.87	7:15-8:15
7:30-8:30	8	0	0	8	11	1,016	0	1,027	119	0	0	119	6	1,486	0	1,492	127	2,519	2,646	0.91	7:30-8:30
7:45-8:45	7	0	0	7	10	985	0	995	97	0	0	97	7	1,497	0	1,504	104	2,499	2,603	0.90	7:45-8:45
8:00-9:00	8	0	0	8	7	960	0	967	87	0	0	87	4	1,388	0	1,392	95	2,359	2,454	0.89	8:00-9:00
AM Peak 7:30-8:30	8	0	0	8	11	1,016	0	1,027	119	0	0	119	6	1,486	0	1,492	127	2,519	2,646	0.91	AM Peak 7:30-8:30
PM																					
4:00-4:15	4	0	0	4	4	411	0	415	7	0	0	7	2	313	0	315	11	730	741		4:00-4:15
4:15-4:30	8	0	0	8	1	348	0	349	9	0	0	9	3	306	0	309	17	658	675		4:15-4:30
4:30-4:45	8	0	0	8	1	452	0	453	3	0	0	3	3	307	0	310	11	763	774		4:30-4:45
4:45-5:00	11	0	0	11	0	288	0	288	10	0	0	10	4	328	0	332	21	620	641		4:45-5:00
5:00-5:15	12	0	0	12	2	462	0	464	4	0	0	4	2	314	0	316	16	780	796		5:00-5:15
5:15-5:30	14	0	0	14	4	403	0	407	11	0	0	11	4	327	0	331	25	738	763		5:15-5:30
5:30-5:45	22	0	0	22	5	458	0	463	10	0	0	10	6	332	0	338	32	801	833		5:30-5:45
5:45-6:00	11	0	0	11	0	369	0	369	12	0	0	12	3	363	0	366	23	735	758		5:45-6:00
6:00-6:15	12	0	0	12	6	424	0	430	15	0	0	15	7	325	0	332	27	762	789		6:00-6:15
6:15-6:30	11	0	0	11	0	448	0	448	16	0	0	16	12	366	0	378	27	826	853		6:15-6:30
6:30-6:45	16	0	0	16	10	458	0	468	14	0	0	14	7	376	0	383	30	851	881		6:30-6:45
6:45-7:00	10	0	0	10	3	377	0	380	13	0	0	13	8	359	0	367	23	747	770		6:45-7:00
3 Hour Totals	139	0	0	139	36	4,898	0	4,934	124	0	0	124	61	4,016	0	4,077	263	9,011	9,274		
1 Hour Totals																					
4:00-5:00	31	0	0	31	6	1,499	0	1,505	29	0	0	29	12	1,254	0	1,266	60	2,771	2,831	0.91	4:00-5:00
4:15-5:15	39	0	0	39	4	1,550	0	1,554	26	0	0	26	12	1,255	0	1,267	65	2,821	2,886	0.91	4:15-5:15
4:30-5:30	45	0	0	45	7	1,605	0	1,612	28	0	0	28	13	1,276	0	1,289	73	2,901	2,974	0.93	4:30-5:30
4:45-5:45	59	0	0	59	11	1,611	0	1,622	35	0	0	35	16	1,301	0	1,317	94	2,939	3,033	0.91	4:45-5:45
5:00-6:00	59	0	0	59	11	1,692	0	1,703	37	0	0	37	15	1,336	0	1,351	96	3,054	3,150	0.95	5:00-6:00
5:15-6:15	59	0	0	59	15	1,654	0	1,669	48	0	0	48	20	1,347	0	1,367	107	3,036	3,143	0.94	5:15-6:15
5:30-6:30	56	0	0	56	11	1,699	0	1,710	53	0	0	53	28	1,386	0	1,414	109	3,124	3,233	0.95	5:30-6:30
5:45-6:45	50	0	0	50	16	1,699	0	1,715	57	0	0	57	29	1,430	0	1,459	107	3,174	3,281	0.93	5:45-6:45
6:00-7:00	49	0	0	49	19	1,707	0	1,726	58	0	0	58	34	1,426	0	1,460	107	3,186	3,293	0.93	6:00-7:00
PM Peak 6:00-7:00	49	0	0	49	19	1,707	0	1,726	58	0	0	58	34	1,426	0	1,460	107	3,186	3,293	0.93	PM Peak 6:00-7:00

Project Name:	Cameron Station 2003
Project Number:	2215
Location:	City of Alexandria
Intersection:	Duke St./Somerville St./Park r
Weather:	Nice
Date:	09/10/2003
Surveyor:	Gary and Joseph
Hours:	Mileage:



TIME	Movement							
	1	2	3	4	5	6	7	8
AM								
6:00-6:15	0	0	0	0	0	0	0	0
6:15-6:30	0	0	0	0	0	0	0	0
6:30-6:45	0	0	0	0	0	0	0	0
6:45-7:00	1	0	0	0	0	0	0	0
7:00-7:15	1	1	0	0	0	0	0	0
7:15-7:30	1	2	0	0	0	0	0	0
7:30-7:45	1	3	0	0	0	0	0	0
7:45-8:00	1	0	0	0	0	0	0	0
8:00-8:15	2	3	0	0	0	0	0	0
8:15-8:30	2	2	0	0	0	0	0	0
8:30-8:45	2	1	0	0	0	0	0	0
8:45-9:00	3	0	0	0	0	0	0	0
PM								
4:00-4:15	3	0	0	0	2	0	0	0
4:15-4:30	2	2	0	0	1	1	0	0
4:30-4:45	2	2	0	0	0	1	0	0
4:45-5:00	1	0	0	0	2	1	0	0
5:00-5:15	6	1	0	0	2	5	0	0
5:15-5:30	3	3	0	0	0	5	0	0
5:30-5:45	4	9	0	0	1	2	0	0
5:45-6:00	5	5	0	0	1	1	0	0
6:00-6:15	6	0	0	0	1	1	0	0
6:15-6:30	10	4	0	0	2	1	0	0
6:30-6:45	7	9	0	0	0	0	0	0
6:45-7:00	4	15	0	0	1	1	0	0

Analyst: MXW
Agency: Wells & Associates, LLC
Date: 9/15/03
Period: AM Peak Hour
Project ID: Cameron Station
E/W St: S. Pickett Street

Inter.: 1
Area Type: All other areas
Jurisd: Alexandria, Virginia
Year : Existing 2003

N/S St: Edsal/Cameron Station

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	2	0	1	1	0	1	1	0	1	1	0
LGConfig		LTR		L	TR		L	TR		L	TR	
Volume	47	348	41	19	198	134	71	95	38	230	124	63
Lane Width		12.0		12.0	12.0		12.0	12.0		12.0	12.0	
RTOR Vol			0			0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	A							
Thru	A							
Right	A							
Peds								
WB Left	A							
Thru	A							
Right	A							
Peds								
NB Right								
SB Right								
NB Left					A	A		
Thru						A		
Right						A		
Peds								
SB Left					A	A		
Thru						A		
Right						A		
Peds								
EB Right								
WB Right								
Green	48.0				8.0	32.0		
Yellow	3.0				3.0	3.0		
All Red	1.0				1.0	1.0		

Cycle Length: 100.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
LTR	1465	3052	0.33	0.48	16.2	B	16.2	B
Westbound								
L	384	801	0.05	0.48	13.9	B		
TR	840	1750	0.44	0.48	17.5	B	17.3	B
Northbound								
L	459	1770	0.17	0.44	17.0	B		
TR	571	1783	0.26	0.32	25.5	C	22.5	C
Southbound								
L	511	1770	0.50	0.44	21.6	C		
TR	570	1780	0.36	0.32	26.6	C	23.8	C

Intersection Delay = 19.7 (sec/veh) Intersection LOS = B

HCS2000: Signalized Intersections Release 4.1c

Analyst: MXW
Agency: Wells & Associates, LLC
Date: 3/15/03
Period: PM Peak Hour
Project ID: Cameron Station
E/W St: S. Pickett

Inter.: 1
Area Type: All other areas
Jurisd: Alexandria, Virginia
Year : Existing 2001

N/S St: Edsal/Cameron Station

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	2	0	1	1	0	1	1	0	1	1	0
LGConfig		LTR		L	TR		L	TR		L	TR	
Volume	43	355	51	24	414	272	48	80	31	239	74	63
Lane Width		12.0		12.0	12.0		12.0	12.0		12.0	12.0	
RTOR Vol			0			0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination		1	2	3	4	5	6	7	8
EB	Left	A				NB Left	A	A		
	Thru	A				Thru		A		
	Right	A				Right		A		
	Peds					Peds				
WB	Left	A				SB Left	A	A		
	Thru	A				Thru		A		
	Right	A				Right		A		
	Peds					Peds				
NB	Right					EB Right				
SB	Right					WB Right				
Green		48.0					8.0	32.0		
Yellow		3.0					3.0	3.0		
All Red		1.0					1.0	1.0		

Cycle Length: 100.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
	Capacity		v/c	g/C	Delay	LOS	Delay	LOS
Eastbound								
LTR	1121	2335	0.45	0.48	17.5	B	17.5	B
Westbound								
L	377	785	0.07	0.48	14.1	B		
TR	841	1752	0.91	0.48	37.3	D	36.5	D
Northbound								
L	508	1770	0.10	0.44	16.5	B		
TR	572	1786	0.22	0.32	25.0	C	22.4	C
Southbound								
L	534	1770	0.50	0.44	21.4	C		
TR	560	1750	0.27	0.32	25.6	C	22.9	C

Intersection Delay = 27.1 (sec/veh) Intersection LOS = C

B-2

HCS2000: Unsignalized Intersections Release 4.1c

TWO-WAY STOP CONTROL SUMMARY

Analyst: SMH
Agency/Co.: Wells & Associates
Date Performed: 3/4/2001
Analysis Time Period: AM Peak Hour
Intersection: Cameron Station/Harold Secord
Jurisdiction: Alexandria, VA
Units: U. S. Customary
Analysis Year: Existing
Project ID: Cameron Station
East/West Street: Cameron Station Blvd
North/South Street: Harold Secord Drive
Intersection Orientation: EW Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	2	49	107	36	86	2
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate, HFR	2	54	118	40	95	2
Percent Heavy Vehicles	2	--	--	2	--	--
Median Type	Undivided					
RT Channelized?						
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	
Upstream Signal?		No			No	

Minor Street: Approach	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	86	0	17	2	0	2
Peak Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate, HFR	95	0	18	2	0	2
Percent Heavy Vehicles	2	2	2	2	2	2
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?		No			No	
Storage						
RT Channelized?						
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	LTR	LTR		LTR			LTR	
v (vph)	2	40		113			4	
C(m) (vph)	1496	1379		651			750	
v/c	0.00	0.03		0.17			0.01	
95% queue length	0.00	0.09		0.62			0.02	
Control Delay	7.4	7.7		11.7			9.8	

LOS	A	A	B	A
Approach Delay			11.7	9.8
Approach LOS			B	A

HCS2000: Unsignalized Intersections Release 4.1c

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TWO-WAY STOP CONTROL(TWSC) ANALYSIS

Analyst: SMH
Agency/Co.: Wells & Associates
Date Performed: 3/4/2001
Analysis Time Period: AM Peak Hour
Intersection: Cameron Station/Harold Secord
Jurisdiction: Alexandria, VA
Units: U. S. Customary
Analysis Year: Existing
Project ID: Cameron Station
East/West Street: Cameron Station Blvd
North/South Street: Harold Secord Drive
Intersection Orientation: EW
Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street Movements	1 L	2 T	3 R	4 L	5 T	6 R
Volume	2	49	107	36	86	2
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Peak-15 Minute Volume	1	14	30	10	24	1
Hourly Flow Rate, HFR	2	54	118	40	95	2
Percent Heavy Vehicles	2	--	--	2	--	--
Median Type	Undivided					
RT Channelized?						
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	
Upstream Signal?		No			No	

Minor Street Movements	7 L	8 T	9 R	10 L	11 T	12 R
Volume	86	0	17	2	0	2
Peak Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Peak-15 Minute Volume	24	0	5	1	0	1
Hourly Flow Rate, HFR	95	0	18	2	0	2
Percent Heavy Vehicles	2	2	2	2	2	2
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?		No			No	
Storage						
RT Channelized?						

HCS2000: Unsignalized Intersections Release 4.1c

TWO-WAY STOP CONTROL SUMMARY

Analyst: SMH
Agency/Co.: Wells & Associates
Date Performed: 3/4/2001
Analysis Time Period: PM Peak Hour
Intersection: Cameron Station/Harold Secord
Jurisdiction: Alexandria, VA
Units: U. S. Customary
Analysis Year: Existing
Project ID: Cameron Station
East/West Street: Cameron Station Blvd
North/South Street: Harold Secord Drive
Intersection Orientation: EW Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	2	106	8	2	64	2
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate, HFR	2	117	8	2	71	2
Percent Heavy Vehicles	2	--	--	2	--	--
Median Type	Undivided					
RT Channelized?						
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	
Upstream Signal?		No			No	

Minor Street: Approach	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	7	0	4	2	0	2
Peak Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate, HFR	7	0	4	2	0	2
Percent Heavy Vehicles	2	2	2	2	2	2
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?		No			No	
Storage						
RT Channelized?						
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	LTR	LTR		LTR			LTR	
v (vph)	2	2		11			4	
C(m) (vph)	1514	1440		786			838	
v/c	0.00	0.00		0.01			0.00	
95% queue length	0.00	0.00		0.04			0.01	
Control Delay	7.4	7.5		9.6			9.3	

B-5

LOS	A	A	A	A
Approach Delay			9.6	9.3
Approach LOS			A	A

HCS2000: Unsignalized Intersections Release 4.1c

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TWO-WAY STOP CONTROL(TWSC) ANALYSIS

Analyst: SMH
Agency/Co.: Wells & Associates
Date Performed: 3/4/2001
Analysis Time Period: PM Peak Hour
Intersection: Cameron Station/Harold Secord
Jurisdiction: Alexandria, VA
Units: U. S. Customary
Analysis Year: Existing
Project ID: Cameron Station
East/West Street: Cameron Station Blvd
North/South Street: Harold Secord Drive
Intersection Orientation: EW
Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street Movements	1 L	2 T	3 R	4 L	5 T	6 R
Volume	2	106	8	2	64	2
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Peak-15 Minute Volume	1	29	2	1	18	1
Hourly Flow Rate, HFR	2	117	8	2	71	2
Percent Heavy Vehicles	2	--	--	2	--	--
Median Type	Undivided					
RT Channelized?						
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	
Upstream Signal?		No			No	

Minor Street Movements	7 L	8 T	9 R	10 L	11 T	12 R
Volume	7	0	4	2	0	2
Peak Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Peak-15 Minute Volume	2	0	1	1	0	1
Hourly Flow Rate, HFR	7	0	4	2	0	2
Percent Heavy Vehicles	2	2	2	2	2	2
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?		No			No	
Storage						
RT Channelized?						

HCS2000: Unsignalized Intersections Release 4.1c

TWO-WAY STOP CONTROL SUMMARY

Analyst:	SMH
Agency/Co.:	Wells & Associates
Date Performed:	3/4/2001
Analysis Time Period:	AM Peak Hour
Intersection:	Cameron Station/Knapp Place
Jurisdiction:	Alexandria, VA
Units: U. S. Customary	
Analysis Year:	Existing
Project ID:	Cameron Station
East/West Street:	Cameron Station Blvd
North/South Street:	Knapp Place
Intersection Orientation:	EW
Study period (hrs):	0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Eastbound			Westbound		
Movement	1 L	2 T	3 R	4 L	5 T	6 R
Volume	4	79	1	3	92	2
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate, HFR	4	87	1	3	102	2
Percent Heavy Vehicles	2	--	--	2	--	--
Median Type	Raised curb					
RT Channelized?						
Lanes	0	2	0	0	2	0
Configuration		LT	TR		LT	TR
Upstream Signal?		No			No	

Minor Street: Approach	Northbound			Southbound		
Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume	0	0	17	2	0	12
Peak Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate, HFR	0	0	18	2	0	13
Percent Heavy Vehicles	2	2	2	2	2	2
Percent Grade (%)		0			0	
Median Storage	1					
Flared Approach: Exists?		No			No	
Storage						
RT Channelized?						
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	LT	LT		LTR			LTR	
v (vph)	4	3		18			15	
C(m) (vph)	1465	1493		980			935	
v/c	0.00	0.00		0.02			0.02	
95% queue length	0.01	0.01		0.06			0.05	
Control Delay	7.5	7.4		8.7			8.9	

LOS	A	A	A	A
Approach Delay			8.7	8.9
Approach LOS			A	A

HCS2000: Unsignalized Intersections Release 4.1c

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TWO-WAY STOP CONTROL(TWSC) ANALYSIS

Analyst: SMH
Agency/Co.: Wells & Associates
Date Performed: 3/4/2001
Analysis Time Period: AM Peak Hour
Intersection: Cameron Station/Knapp Place
Jurisdiction: Alexandria, VA
Units: U. S. Customary
Analysis Year: Existing
Project ID: Cameron Station
East/West Street: Cameron Station Blvd
North/South Street: Knapp Place
Intersection Orientation: EW Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street Movements	1 L	2 T	3 R	4 L	5 T	6 R
Volume	4	79	1	3	92	2
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Peak-15 Minute Volume	1	22	0	1	26	1
Hourly Flow Rate, HFR	4	87	1	3	102	2
Percent Heavy Vehicles	2	--	--	2	--	--
Median Type	Raised curb					
RT Channelized?						
Lanes	0	2	0	0	2	0
Configuration	LT	TR		LT	TR	
Upstream Signal?		No			No	

Minor Street Movements	7 L	8 T	9 R	10 L	11 T	12 R
Volume	0	0	17	2	0	12
Peak Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Peak-15 Minute Volume	0	0	5	1	0	3
Hourly Flow Rate, HFR	0	0	18	2	0	13
Percent Heavy Vehicles	2	2	2	2	2	2
Percent Grade (%)		0			0	
Median Storage Flared Approach: Exists?	1	No			No	
Storage						
RT Channelized?						

HCS2000: Unsignalized Intersections Release 4.1c

TWO-WAY STOP CONTROL SUMMARY

Analyst: SMH
Agency/Co.: Wells & Associates
Date Performed: 3/4/2001
Analysis Time Period: PM Peak Hour
Intersection: Cameron Station/Knapp Place
Jurisdiction: Alexandria, VA
Units: U. S. Customary
Analysis Year: Existing
Project ID: Cameron Station
East/West Street: Cameron Station Blvd
North/South Street: Knapp Place
Intersection Orientation: EW Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Eastbound			Westbound		
Movement	1 L	2 T	3 R	4 L	5 T	6 R
Volume	5	103	4	6	92	4
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate, HFR	5	114	4	6	102	4
Percent Heavy Vehicles	2	--	--	2	--	--
Median Type	Raised curb					
RT Channelized?						
Lanes	0	2	0	0	2	0
Configuration		LT	TR		LT	TR
Upstream Signal?		No			No	

Minor Street: Approach	Northbound			Southbound		
Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume	2	2	8	2	0	2
Peak Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate, HFR	2	2	8	2	0	2
Percent Heavy Vehicles	2	2	2	2	2	2
Percent Grade (%)		0			0	
Median Storage 1						
Flared Approach: Exists?		No			No	
Storage						
RT Channelized?						
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	LT	LT		LTR			LTR	
v (vph)	5	6		12			4	
C(m) (vph)	1473	1460		853			837	
v/c	0.00	0.00		0.01			0.00	
95% queue length	0.01	0.01		0.04			0.01	
Control Delay	7.5	7.5		9.3			9.3	

LOS	A	A	A	A
Approach Delay			9.3	9.3
Approach LOS			A	A

HCS2000: Unsignalized Intersections Release 4.1c

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TWO-WAY STOP CONTROL(TWSC) ANALYSIS

Analyst: SMH
Agency/Co.: Wells & Associates
Date Performed: 3/4/2001
Analysis Time Period: PM Peak Hour
Intersection: Cameron Station/Knapp Place
Jurisdiction: Alexandria, VA
Units: U. S. Customary
Analysis Year: Existing
Project ID: Cameron Station
East/West Street: Cameron Station Blvd
North/South Street: Knapp Place
Intersection Orientation: EW Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street Movements	1 L	2 T	3 R	4 L	5 T	6 R
Volume	5	103	4	6	92	4
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Peak-15 Minute Volume	1	29	1	2	26	1
Hourly Flow Rate, HFR	5	114	4	6	102	4
Percent Heavy Vehicles	2	--	--	2	--	--
Median Type	Raised curb					
RT Channelized?						
Lanes	0	2	0	0	2	0
Configuration	LT	TR		LT	TR	
Upstream Signal?		No			No	

Minor Street Movements	7 L	8 T	9 R	10 L	11 T	12 R
Volume	2	2	8	2	0	2
Peak Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Peak-15 Minute Volume	1	1	2	1	0	1
Hourly Flow Rate, HFR	2	2	8	2	0	2
Percent Heavy Vehicles	2	2	2	2	2	2
Percent Grade (%)		0			0	
Median Storage	1					
Flared Approach: Exists?		No			No	
Storage						
RT Channelized?						

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ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst: SMH
Agency/Co.: Wells & Associates
Date Performed: 3/15/03
Analysis Time Period: AM Peak Hour
Intersection: Cameron Station/Brenman Park
Jurisdiction: Alexandria, VA
Units: U. S. Customary
Analysis Year: Existing
Project ID: Cameron Station
East/West Street: Brenman Park Road
North/South Street: Cameron Station Blvd

Worksheet 2 - Volume Adjustments and Site Characteristics

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	0	0	0	0	0	35	0	130	0	0	82	0
% Thrus Left Lane												

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration			R		T		T	
PHF			0.90		0.90		0.90	
Flow Rate			38		144		91	
% Heavy Veh			2		2		2	
No. Lanes			1		1		1	
Opposing-Lanes			0		1		1	
Conflicting-lanes			1		1		1	
Geometry group			1		1		1	

Duration, T 0.25 hrs.

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane			38		144		91	
Left-Turn			0		0		0	
Right-Turn			38		0		0	
Prop. Left-Turns			0.0		0.0		0.0	
Prop. Right-Turns			1.0		0.0		0.0	
Prop. Heavy Vehicle			0.0		0.0		0.0	
Geometry Group			1		1		1	

Adjustments Exhibit 17-33:

hLT-adj			0.2		0.2		0.2	
hRT-adj			-0.6		-0.6		-0.6	
hHV-adj			1.7		1.7		1.7	
hadj, computed			-0.6		0.0		0.0	

Worksheet 4 - Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate			38		144		91	
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial			0.03		0.13		0.08	
hd, final value			3.84		4.10		4.15	
x, final value			0.04		0.16		0.10	
Move-up time, m			2.0		2.0		2.0	
Service Time			1.8		2.1		2.2	

Worksheet 5 - Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate			38		144		91	
Service Time			1.8		2.1		2.2	
Utilization, x			0.04		0.16		0.10	
Dep. headway, hd			3.84		4.10		4.15	
Capacity			288		394		341	
Delay			7.00		7.91		7.64	
LOS			A		A		A	
Approach:								
Delay			7.00		7.91		7.64	
LOS			A		A		A	

Intersection Delay 7.69 Intersection LOS A

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ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst: SMH
Agency/Co.: Wells & Associates
Date Performed: 3/15/03
Analysis Time Period: PM Peak Hour
Intersection: Cameron Station/Brenman Park
Jurisdiction: Alexandria, VA
Units: U. S. Customary
Analysis Year: Existing
Project ID: Cameron Station
East/West Street: Brenman Park Road
North/South Street: Cameron Station Blvd

Worksheet 2 - Volume Adjustments and Site Characteristics

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	0	0	0	0	0	45	0	84	0	0	144	0
% Thrus Left Lane												

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration			R		T		T	
PHF			0.90		0.90		0.90	
Flow Rate			50		93		160	
% Heavy Veh			2		2		2	
No. Lanes			1		1		1	
Opposing-Lanes			0		1		1	
Conflicting-lanes			1		1		1	
Geometry group			1		1		1	

Duration, T 0.25 hrs.

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane			50		93		160	
Left-Turn			0		0		0	
Right-Turn			50		0		0	
Prop. Left-Turns			0.0		0.0		0.0	
Prop. Right-Turns			1.0		0.0		0.0	
Prop. Heavy Vehicle			0.0		0.0		0.0	
Geometry Group			1		1		1	

Adjustments Exhibit 17-33:

hLT-adj			0.2		0.2		0.2	
hRT-adj			-0.6		-0.6		-0.6	
hHV-adj			1.7		1.7		1.7	
hadj, computed			-0.6		0.0		0.0	

Worksheet 4 - Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate			50		93		160	
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial			0.04		0.08		0.14	
hd, final value			3.88		4.20		4.13	
x, final value			0.05		0.11		0.18	
Move-up time, m			2.0		2.0		2.0	
Service Time			1.9		2.2		2.1	

Worksheet 5 - Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate			50		93		160	
Service Time			1.9		2.2		2.1	
Utilization, x			0.05		0.11		0.18	
Dep. headway, hd			3.88		4.20		4.13	
Capacity			300		343		410	
Delay			7.10		7.70		8.06	
LOS			A		A		A	
Approach:								
Delay			7.10		7.70		8.06	
LOS			A		A		A	

Intersection Delay 7.79 Intersection LOS A

HCS2000: Unsignalized Intersections Release 4.1c

TWO-WAY STOP CONTROL SUMMARY

Analyst: SMH
Agency/Co.: Wells & Associates
Date Performed: 3/4/2001
Analysis Time Period: AM Peak Hour
Intersection: Cameron Station/John Ticer Dr
Jurisdiction: Alexandria, VA
Units: U. S. Customary
Analysis Year: Existing
Project ID: Cameron Station
East/West Street: John Ticer Drive
North/South Street: Cameron Station Blvd
Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	3	166	2	6	71	10
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate, HFR	3	184	2	6	78	11
Percent Heavy Vehicles	2	--	--	2	--	--
Median Type	Raised curb					
RT Channelized?						
Lanes	0	2	0	0	2	0
Configuration		LT	TR		LT	TR
Upstream Signal?		No			No	

Minor Street: Approach	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	5	2	36	74	5	4
Peak Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate, HFR	5	2	40	82	5	4
Percent Heavy Vehicles	2	2	2	2	2	2
Percent Grade (%)		0			0	
Median Storage	1					
Flared Approach: Exists?		No			No	
Storage						
RT Channelized?						
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	LT	LT		LTR			LTR	
v (vph)	3	6		47			91	
C(m) (vph)	1502	1370		869			715	
v/c	0.00	0.00		0.05			0.13	
95% queue length	0.01	0.01		0.17			0.44	
Control Delay	7.4	7.6		9.4			10.8	

LOS	A	A	A	B
Approach Delay			9.4	10.8
Approach LOS			A	B

HCS2000: Unsignalized Intersections Release 4.1c

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TWO-WAY STOP CONTROL(TWSC) ANALYSIS

Analyst: SMH
Agency/Co.: Wells & Associates
Date Performed: 3/4/2001
Analysis Time Period: AM Peak Hour
Intersection: Cameron Station/John Ticer Dr
Jurisdiction: Alexandria, VA
Units: U. S. Customary
Analysis Year: Existing
Project ID: Cameron Station
East/West Street: John Ticer Drive
North/South Street: Cameron Station Blvd
Intersection Orientation: NS
Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street Movements	1 L	2 T	3 R	4 L	5 T	6 R
Volume	3	166	2	6	71	10
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Peak-15 Minute Volume	1	46	1	2	20	3
Hourly Flow Rate, HFR	3	184	2	6	78	11
Percent Heavy Vehicles	2	--	--	2	--	--
Median Type	Raised curb					
RT Channelized?						
Lanes	0	2	0	0	2	0
Configuration	LT	TR		LT	TR	
Upstream Signal?		No			No	

Minor Street Movements	7 L	8 T	9 R	10 L	11 T	12 R
Volume	5	2	36	74	5	4
Peak Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Peak-15 Minute Volume	1	1	10	21	1	1
Hourly Flow Rate, HFR	5	2	40	82	5	4
Percent Heavy Vehicles	2	2	2	2	2	2
Percent Grade (%)		0			0	
Median Storage Flared Approach: Exists?	1	No			No	
Storage						
RT Channelized?						

HCS2000: Unsignalized Intersections Release 4.1c

TWO-WAY STOP CONTROL SUMMARY

Analyst: SMH
Agency/Co.: Wells & Associates
Date Performed: 3/4/2001
Analysis Time Period: PM Peak Hour
Intersection: Cameron Station/John Ticer Dr
Jurisdiction: Alexandria, VA
Units: U. S. Customary
Analysis Year: Existing
Project ID: Cameron Station
East/West Street: John Ticer Drive
North/South Street: Cameron Station Blvd
Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1 L	2 T	3 R	4 L	5 T	6 R
Volume	7	74	7	60	166	89
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate, HFR	7	82	7	66	184	98
Percent Heavy Vehicles	2	--	--	2	--	--
Median Type	Raised curb					
RT Channelized?						
Lanes	0	2	0	0	2	0
Configuration		LT	TR		LT	TR
Upstream Signal?		No			No	

Minor Street: Approach	Westbound			Eastbound		
Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume	8	3	15	42	4	2
Peak Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate, HFR	8	3	16	46	4	2
Percent Heavy Vehicles	2	2	2	2	2	2
Percent Grade (%)		0			0	
Median Storage 1						
Flared Approach: Exists?		No			No	
Storage						
RT Channelized?						
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	LT	LT		LTR			LTR	
v (vph)	7	66		27			52	
C(m) (vph)	1263	1482		748			518	
v/c	0.01	0.04		0.04			0.10	
95% queue length	0.02	0.14		0.11			0.33	
Control Delay	7.9	7.5		10.0-			12.7	

LOS	A	A	A	B
Approach Delay			10.0-	12.7
Approach LOS			A	B

HCS2000: Unsignalized Intersections Release 4.1c

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TWO-WAY STOP CONTROL(TWSC) ANALYSIS

Analyst:	SMH
Agency/Co.:	Wells & Associates
Date Performed:	3/4/2001
Analysis Time Period:	PM Peak Hour
Intersection:	Cameron Station/John Ticer Dr
Jurisdiction:	Alexandria, VA
Units: U. S. Customary	
Analysis Year:	Existing
Project ID: Cameron Station	
East/West Street:	John Ticer Drive
North/South Street:	Cameron Station Blvd
Intersection Orientation: NS	Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street Movements	1 L	2 T	3 R	4 L	5 T	6 R
Volume	7	74	7	60	166	89
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Peak-15 Minute Volume	2	21	2	17	46	25
Hourly Flow Rate, HFR	7	82	7	66	184	98
Percent Heavy Vehicles	2	--	--	2	--	--
Median Type	Raised curb					
RT Channelized?						
Lanes	0	2	0	0	2	0
Configuration	LT	TR		LT	TR	
Upstream Signal?		No			No	

Minor Street Movements	7 L	8 T	9 R	10 L	11 T	12 R
Volume	8	3	15	42	4	2
Peak Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Peak-15 Minute Volume	2	1	4	12	1	1
Hourly Flow Rate, HFR	8	3	16	46	4	2
Percent Heavy Vehicles	2	2	2	2	2	2
Percent Grade (%)		0			0	
Median Storage Flared Approach: Exists?	1	No			No	
Storage						
RT Channelized?						

Analyst: MXW
Agency: Wells & Associates, LLC
Date: 3/3/01
Period: AM Peak Hour
Project ID: Cameron Station
E/W St: Duke Street

Inter.: 2
Area Type: All other areas
Jurisd: Alexandria, Virginia
Year : Existing

N/S St: N. Pickett/Cameron Station

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	3	0	1	3	1	1	1	1	1	1	0
LGConfig	L	TR		L	T	R	L	T	R	L	TR	
Volume	80	1299	28	33	821	68	170	56	55	78	12	58
Lane Width	12.0	12.0		12.0	12.0	12.0	12.0	12.0	12.0	10.0	10.0	
RTOR Vol			0			0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination		1	2	3	4	5	6	7	8
EB	Left	A	A	A		NB Left	A		
	Thru		A	A		Thru	A		
	Right		A	A		Right	A		
	Peds.					Peds			
WB	Left	A		A		SB Left		A	
	Thru			A		Thru		A	
	Right			A		Right		A	
	Peds					Peds			
NB	Right	A				EB Right			
SB	Right					WB Right			
Green		10.0	9.0	40.0			16.0	15.0	
Yellow		3.0	3.0	3.0			3.0	3.0	
All Red		1.0	2.0	2.0			1.0	1.0	

Cycle Length: 112.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
L	506	1770	0.18	0.61	10.7	B		
TR	2444	5069	0.60	0.48	21.6	C	21.0	C
Westbound								
L	264	1770	0.14	0.45	17.8	B		
T	1816	5085	0.50	0.36	28.4	C	27.7	C
R	565	1583	0.13	0.36	24.4	C		
Northbound								
L	253	1770	0.75	0.14	57.6	E		
T	266	1863	0.23	0.14	43.0	D	50.2	D
R	367	1583	0.17	0.23	34.6	C		
Southbound								
L	221	1652	0.39	0.13	45.5	D		
TR	204	1522	0.38	0.13	45.4	D	45.5	D

Intersection Delay = 27.5 (sec/veh) Intersection LOS = C

HCS2000: Signalized Intersections Release 4.1c

Analyst: MXW
Agency: Wells & Associates, LLC
Date: 3/15/03
Period: PM Peak Hour
Project ID: Cameron Station
E/W St: Duke Street

Inter.: 2
Area Type: All other areas
Jurisd: Alexandria, Virginia
Year : Existing

N/S St: N. Pickett/Cameron Station

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	3	0	1	3	1	1	1	1	1	1	0
LGConfig	L	TR		L	T	R	L	T	R	L	TR	
Volume	136	1195	140	95	1401	143	72	30	24	138	75	136
Lane Width	12.0	12.0		12.0	12.0	12.0	12.0	12.0	12.0	10.0	10.0	
RTOR Vol			0			0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination		1	2	3	4	5	6	7	8
EB	Left	A	A	A		NB Left	A		
	Thru		A	A		Thru	A		
	Right		A	A		Right	A		
	Peds					Peds			
WB	Left	A		A		SB Left		A	
	Thru			A		Thru		A	
	Right			A		Right		A	
	Peds					Peds			
NB	Right	A				EB Right			
SB	Right					WB Right			
Green		10.0	9.0	40.0			13.0	19.0	
Yellow		3.0	3.0	3.0			3.0	3.0	
All Red		1.0	2.0	2.0			1.0	1.0	

Cycle Length: 113.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
L	426	1770	0.35	0.60	16.9	B		
TR	2392	5005	0.62	0.48	22.4	C	21.9	C
Westbound								
L	259	1770	0.41	0.44	19.8	B		
T	1800	5085	0.87	0.35	38.7	D	36.5	D
R	560	1583	0.28	0.35	26.5	C		
Northbound								
L	204	1770	0.39	0.12	47.6	D		
T	214	1863	0.15	0.12	45.4	D	44.9	D
R	322	1583	0.08	0.20	36.6	D		
Southbound								
L	278	1652	0.55	0.17	45.4	D		
TR	264	1570	0.89	0.17	74.1	E	62.8	E

Intersection Delay = 33.4 (sec/veh) Intersection LOS = C

HCS2000: Unsignalized Intersections Release 4.1c

TWO-WAY STOP CONTROL SUMMARY

Analyst:	SMH
Agency/Co.:	Wells & Associates
Date Performed:	3/4/2001
Analysis Time Period:	AM Peak Hour
Intersection:	Duke St/Somerville St
Jurisdiction:	Alexandria, VA
Units: U. S. Customary	
Analysis Year:	Existing
Project ID:	Cameron Station
East/West Street:	Duke Street
North/South Street:	Somerville Street
Intersection Orientation:	EW
Study period (hrs):	0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume		1048	7		690	10
Peak-Hour Factor, PHF		0.90	0.90		0.90	0.90
Hourly Flow Rate, HFR		1164	7		766	11
Percent Heavy Vehicles		--	--		--	--
Median Type	Raised curb					
RT Channelized?			No			No
Lanes		2	1		2	1
Configuration		T	R		T	R
Upstream Signal?		No			No	

Minor Street: Approach	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume			97			7
Peak Hour Factor, PHF			0.90			0.90
Hourly Flow Rate, HFR			107			7
Percent Heavy Vehicles			2			2
Percent Grade (%)		0			0	
Median Storage	1					
Flared Approach: Exists?						
Storage						
RT Channelized?			No			No
Lanes			1			1
Configuration			R			R

Delay, Queue Length, and Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Config					R			R
v (vph)					107			7
C(m) (vph)					442			615
v/c					0.24			0.01
95% queue length					0.94			0.03
Control Delay					15.7			10.9

LOS	C	B
Approach Delay	15.7	10.9
Approach LOS	C	B

HCS2000: Unsignalized Intersections Release 4.1c

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TWO-WAY STOP CONTROL(TWSC) ANALYSIS

Analyst:	SMH
Agency/Co.:	Wells & Associates
Date Performed:	3/4/2001
Analysis Time Period:	AM Peak Hour
Intersection:	Duke St/Somerville St
Jurisdiction:	Alexandria, VA
Units: U. S. Customary	
Analysis Year:	Existing
Project ID: Cameron Station	
East/West Street:	Duke Street
North/South Street:	Somerville Street
Intersection Orientation: EW	Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street Movements	1 L	2 T	3 R	4 L	5 T	6 R
Volume		1048	7		690	10
Peak-Hour Factor, PHF		0.90	0.90		0.90	0.90
Peak-15 Minute Volume		291	2		192	3
Hourly Flow Rate, HFR		1164	7		766	11
Percent Heavy Vehicles		--	--		--	--
Median Type	Raised curb					
RT Channelized?			No			No
Lanes		2	1		2	1
Configuration		T	R		T	R
Upstream Signal?		No			No	

Minor Street Movements	7 L	8 T	9 R	10 L	11 T	12 R
Volume			97			7
Peak Hour Factor, PHF			0.90			0.90
Peak-15 Minute Volume			27			2
Hourly Flow Rate, HFR			107			7
Percent Heavy Vehicles			2			2
Percent Grade (%)		0			0	
Median Storage	1					
Flared Approach: Exists?						
Storage						
RT Channelized?			No			No

HCS2000: Unsignalized Intersections Release 4.1c

TWO-WAY STOP CONTROL SUMMARY

Analyst: SMH
Agency/Co.: Wells & Associates
Date Performed: 3/4/2001
Analysis Time Period: PM Peak Hour
Intersection: Duke St/Somerville St
Jurisdiction: Alexandria, VA
Units: U. S. Customary
Analysis Year: Existing
Project ID: Cameron Station
East/West Street: Duke Street
North/South Street: Somerville Street
Intersection Orientation: EW Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume		998	34		1195	19
Peak-Hour Factor, PHF		0.90	0.90		0.90	0.90
Hourly Flow Rate, HFR		1108	37		1327	21
Percent Heavy Vehicles		--	--		--	--
Median Type	Raised curb					
RT Channelized?			No			No
Lanes		2	1		2	1
Configuration		T	R		T	R
Upstream Signal?		No			No	

Minor Street: Approach	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume			58			49
Peak Hour Factor, PHF			0.90			0.90
Hourly Flow Rate, HFR			64			54
Percent Heavy Vehicles			2			2
Percent Grade (%)		0			0	
Median Storage	1					
Flared Approach: Exists?						
Storage						
RT Channelized?			No			No
Lanes			1			1
Configuration			R			R

Delay, Queue Length, and Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Config					R			R
v (vph)					64			54
C(m) (vph)					419			397
v/c					0.15			0.14
95% queue length					0.53			0.47
Control Delay					15.1			15.5

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LOS	C	C
Approach Delay	15.1	15.5
Approach LOS	C	C

HCS2000: Unsignalized Intersections Release 4.1c

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TWO-WAY STOP CONTROL(TWSC) ANALYSIS

Analyst:	SMH
Agency/Co.:	Wells & Associates
Date Performed:	3/4/2001
Analysis Time Period:	PM Peak Hour
Intersection:	Duke St/Somerville St
Jurisdiction:	Alexandria, VA
Units: U. S. Customary	
Analysis Year:	Existing
Project ID:	Cameron Station
East/West Street:	Duke Street
North/South Street:	Somerville Street
Intersection Orientation:	EW
Study period (hrs):	0.25

Vehicle Volumes and Adjustments

Major Street Movements	1 L	2 T	3 R	4 L	5 T	6 R
Volume		998	34		1195	19
Peak-Hour Factor, PHF		0.90	0.90		0.90	0.90
Peak-15 Minute Volume		277	9		332	5
Hourly Flow Rate, HFR		1108	37		1327	21
Percent Heavy Vehicles		--	--		--	--
Median Type	Raised curb					
RT Channelized?			No			No
Lanes		2	1		2	1
Configuration		T	R		T	R
Upstream Signal?		No			No	

Minor Street Movements	7 L	8 T	9 R	10 L	11 T	12 R
Volume			58			49
Peak Hour Factor, PHF			0.90			0.90
Peak-15 Minute Volume			16			14
Hourly Flow Rate, HFR			64			54
Percent Heavy Vehicles			2			2
Percent Grade (%)		0			0	
Median Storage	1					
Flared Approach: Exists?						
Storage						
RT Channelized?			No			No

Appendix C
Total Future 2006 Capacity Analyses

Analyst: MXW
Agency: Wells & Associates, LLC
Date: 9/15/03
Period: AM Peak Hour
Project ID: Cameron Station
E/W St: S. Pickett Street

Inter.: 1
Area Type: All other areas
Jurisd: Alexandria, Virginia
Year : Total Future 2006

N/S St: Edsal/Cameron Station

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	2	0	1	1	0	1	1	0	1	1	0
LGConfig		LTR		L	TR		L	TR		L	TR	
Volume	50	369	46	21	210	142	83	108	42	244	129	67
Lane Width		12.0		12.0	12.0		12.0	12.0		12.0	12.0	
RTOR Vol		0			0			0			0	

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	A				NB Left	A		A
Thru	A				Thru		A	
Right	A				Right		A	
Peds					Peds			
WB Left	A				SB Left	A		A
Thru	A				Thru		A	
Right	A				Right		A	
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	48.0				8.0		32.0	
Yellow	3.0				3.0		3.0	
All Red	1.0				1.0		1.0	

Cycle Length: 100.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
LTR	1452	3024	0.36	0.48	16.5	B	16.5	B
Westbound								
L	367	765	0.06	0.48	14.0	B		
TR	840	1750	0.47	0.48	17.8	B	17.6	B
Northbound								
L	451	1770	0.20	0.44	17.2	B		

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TR	571	1784	0.29	0.32	25.8	C	22.8	C
Southbound								
L	494	1770	0.55	0.44	23.1	C		
TR	569	1779	0.38	0.32	26.8	C	24.7	C

Intersection Delay = 20.1 (sec/veh) Intersection LOS = C

HCS2000: Signalized Intersections Release 4.1c

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OPERATIONAL ANALYSIS

Analyst: MXW
Agency/Co.: Wells & Associates, LLC
Date Performed: 9/15/03
Analysis Time Period: AM Peak Hour
Intersection: 1
Area Type: All other areas
Jurisdiction: Alexandria, Virginia
Analysis Year: Total Future 2006
Project ID: Cameron Station
East/West Street: S. Pickett Street North/South Street: Edsal/Cameron Station

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	50	369	46	21	210	142	83	108	42	244	129	67
% Heavy Veh	2	2	2	2	2	2	2	2	2	2	2	0
PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PK 15 Vol	14	103	13	6	58	39	23	30	12	68	36	19
Hi Ln Vol												
% Grade		0			0			0			0	
Ideal Sat		1900			1900	1900		1900	1900		1900	1900
ParkExist												
NumPark												
No. Lanes	0	2	0	1	1	0	1	1	0	1	1	0
LGConfig		LTR		L	TR		L	TR		L	TR	
Lane Width		12.0			12.0	12.0		12.0	12.0		12.0	12.0
RTOR Vol		0			0			0			0	
Adj Flow		517		23	391		92	167		271	217	

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Analyst: MXW Inter.: 1
Agency: Wells & Associates, LLC Area Type: All other areas
Date: 3/15/03 Jurisd: Alexandria, Virginia
Period: PM Peak Hour Year : Total Future
Project ID: Cameron Station
E/W St: S. Pickett N/S St: Edsal/Cameron Station

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	2	0	1	1	0	1	1	0	1	1	0
LGConfig		LTR		L	TR		L	TR		L	TR	
Volume	46	377	60	27	439	289	54	86	33	254	84	67
Lane Width		12.0		12.0	12.0		12.0	12.0		12.0	12.0	
RTOR Vol		0			0			0			0	

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	A				NB Left	A		A
Thru	A				Thru		A	
Right	A				Right		A	
Peds					Peds			
WB Left	A				SB Left	A		A
Thru	A				Thru		A	
Right	A				Right		A	
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	48.0				8.0		32.0	
Yellow	3.0				3.0		3.0	
All Red	1.0				1.0		1.0	

Cycle Length: 100.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
LTR	1055	2197	0.51	0.48	18.3	B	18.3	B
Westbound								
L	356	742	0.08	0.48	14.2	B		
TR	841	1752	0.96	0.48	47.3	D	46.1	D
Northbound								
L	494	1770	0.12	0.44	16.6	B		

TR	571	1785	0.23	0.32	25.2	C	22.5	C
Southbound								
L	525	1770	0.54	0.44	22.5	C		
TR	561	1754	0.30	0.32	25.9	C	23.8	C

Intersection Delay = 31.5 (sec/veh) Intersection LOS = C

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OPERATIONAL ANALYSIS

Analyst: MXW
Agency/Co.: Wells & Associates, LLC
Date Performed: 3/15/03
Analysis Time Period: PM Peak Hour
Intersection: 1
Area Type: All other areas
Jurisdiction: Alexandria, Virginia
Analysis Year: Total Future
Project ID: Cameron Station
East/West Street: S. Pickett
North/South Street: Edsal/Cameron Station

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	46	377	60	27	439	289	54	86	33	254	84	67
% Heavy Veh	2	2	2	2	2	2	2	2	2	2	2	0
PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PK 15 Vol	13	105	17	8	122	80	15	24	9	71	23	19
Hi Ln Vol												
% Grade		0			0			0			0	
Ideal Sat		1900			1900 1900			1900 1900			1900 1900	
ParkExist												
NumPark												
No. Lanes	0	2	0	1	1	0	1	1	0	1	1	0
LGConfig		LTR		L	TR		L	TR		L	TR	
Lane Width		12.0			12.0 12.0			12.0 12.0			12.0 12.0	
RTOR Vol		0			0			0			0	
Adj Flow		537			30 809			60 133			282 167	

TWO-WAY STOP CONTROL SUMMARY

Analyst: SMH
Agency/Co.: Wells & Associates
Date Performed: 3/4/2001
Analysis Time Period: AM Peak Hour
Intersection: Cameron Station/Harold Secord
Jurisdiction: Alexandria, VA
Units: U. S. Customary
Analysis Year: Total Future
Project ID: Cameron Station
East/West Street: Cameron Station Blvd
North/South Street: Harold Secord Drive
Intersection Orientation: EW Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	2	56	111	4	97	2
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate, HFR	2	62	123	4	107	2
Percent Heavy Vehicles	2	--	--	2	--	--
Median Type	Undivided					
RT Channelized?						
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	
Upstream Signal?		No			No	

Minor Street: Approach	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	104	0	2	2	0	2
Peak Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate, HFR	115	0	2	2	0	2
Percent Heavy Vehicles	2	2	2	2	2	2
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?		No			No	
Storage						
RT Channelized?						
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	LTR	LTR		LTR			LTR	
v (vph)	2	4		117			4	
C(m) (vph)	1481	1364		683			803	
v/c	0.00	0.00		0.17			0.00	
95% queue length	0.00	0.01		0.61			0.02	
Control Delay	7.4	7.6		11.4			9.5	
LOS	A	A		B			A	
Approach Delay				11.4			9.5	
Approach LOS				B			A	

HCS2000: Unsignalized Intersections Release 4.1c

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TWO-WAY STOP CONTROL(TWSC) ANALYSIS

Analyst: SMH
Agency/Co.: Wells & Associates
Date Performed: 3/4/2001
Analysis Time Period: AM Peak Hour
Intersection: Cameron Station/Harold Secord
Jurisdiction: Alexandria, VA
Units: U. S. Customary
Analysis Year: Total Future
Project ID: Cameron Station
East/West Street: Cameron Station Blvd
North/South Street: Harold Secord Drive
Intersection Orientation: EW Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street Movements	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	2	56	111	4	97	2
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Peak-15 Minute Volume	1	16	31	1	27	1
Hourly Flow Rate, HFR	2	62	123	4	107	2
Percent Heavy Vehicles	2	--	--	2	--	--
Median Type	Undivided					

TWO-WAY STOP CONTROL SUMMARY

Analyst: SMH
Agency/Co.: Wells & Associates
Date Performed: 3/4/2001
Analysis Time Period: PM Peak Hour
Intersection: Cameron Station/Harold Secord
Jurisdiction: Alexandria, VA
Units: U. S. Customary
Analysis Year: Total Future
Project ID: Cameron Station
East/West Street: Cameron Station Blvd
North/South Street: Harold Secord Drive
Intersection Orientation: EW Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	2	113	23	0	69	2
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate, HFR	2	125	25	0	76	2
Percent Heavy Vehicles	2	--	--	2	--	--
Median Type	Undivided					
RT Channelized?						
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	
Upstream Signal?		No			No	

Minor Street: Approach	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	16	0	0	2	0	2
Peak Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate, HFR	17	0	0	2	0	2
Percent Heavy Vehicles	2	2	2	2	2	2
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?		No			No	
Storage						
RT Channelized?						
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	LTR	LTR		LTR			LTR	
v (vph)	2	0		17			4	
C(m) (vph)	1508	1409		710			827	
v/c	0.00	0.00		0.02			0.00	
95% queue length	0.00	0.00		0.07			0.01	
Control Delay	7.4	7.6		10.2			9.4	
LOS	A	A		B			A	
Approach Delay				10.2			9.4	
Approach LOS				B			A	

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TWO-WAY STOP CONTROL(TWSC) ANALYSIS

Analyst: SMH
Agency/Co.: Wells & Associates
Date Performed: 3/4/2001
Analysis Time Period: PM Peak Hour
Intersection: Cameron Station/Harold Secord
Jurisdiction: Alexandria, VA
Units: U. S. Customary
Analysis Year: Total Future
Project ID: Cameron Station
East/West Street: Cameron Station Blvd
North/South Street: Harold Secord Drive
Intersection Orientation: EW Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street Movements	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	2	113	23	0	69	2
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Peak-15 Minute Volume	1	31	6	0	19	1
Hourly Flow Rate, HFR	2	125	25	0	76	2
Percent Heavy Vehicles	2	--	--	2	--	--
Median Type	Undivided					

TWO-WAY STOP CONTROL SUMMARY

Analyst: SMH
Agency/Co.: Wells & Associates
Date Performed: 3/15/2003
Analysis Time Period: AM Peak Hour
Intersection: Cameron Station/Ferinand Day
Jurisdiction: Alexandria, VA
Units: U. S. Customary
Analysis Year: Future 2006
Project ID: Cameron Station
East/West Street: Cameron Station Blvd
North/South Street: Ferinand Day Drive
Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	5	49	62	5		
Peak-Hour Factor, PHF		0.90	0.90	0.90	0.90	
Hourly Flow Rate, HFR		5	54	68	5	
Percent Heavy Vehicles		--	--	2	--	--
Median Type	Undivided					
RT Channelized?						
Lanes	1	0		0	1	
Configuration		TR			LT	
Upstream Signal?		No			No	

Minor Street: Approach	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	40		94			
Peak Hour Factor, PHF	0.90		0.90			
Hourly Flow Rate, HFR	44		104			
Percent Heavy Vehicles	2		2			
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?						
Storage						
RT Channelized?			No			
Lanes	1	1				
Configuration	L	R				

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Config		LT	L		R			
v (vph)		68	44		104			
C(m) (vph)		1517	762		1018			
v/c		0.04	0.06		0.10			
95% queue length			0.14	0.18		0.34		
Control Delay		7.5	10.0+		8.9			
LOS		A	B		A			
Approach Delay				9.3				
Approach LOS				A				

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TWO-WAY STOP CONTROL(TWSC) ANALYSIS

Analyst: SMH
Agency/Co.: Wells & Associates
Date Performed: 3/15/2003
Analysis Time Period: AM Peak Hour
Intersection: Cameron Station/Ferinand Day
Jurisdiction: Alexandria, VA
Units: U. S. Customary
Analysis Year: Future 2006
Project ID: Cameron Station
East/West Street: Cameron Station Blvd
North/South Street: Ferinand Day Drive
Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street Movements	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	5	49	62	5		
Peak-Hour Factor, PHF		0.90	0.90	0.90	0.90	
Peak-15 Minute Volume		1	14	17	1	
Hourly Flow Rate, HFR		5	54	68	5	
Percent Heavy Vehicles		--	--	2	--	--
Median Type	Undivided					

TWO-WAY STOP CONTROL SUMMARY

Analyst: SMH
Agency/Co.: Wells & Associates
Date Performed: 3/15/2003
Analysis Time Period: PM Peak Hour
Intersection: Cameron Station/Ferinand Day
Jurisdiction: Alexandria, VA
Units: U. S. Customary
Analysis Year: Future 2006
Project ID: Cameron Station
East/West Street: Cameron Station Blvd
North/South Street: Ferinand Day Drive
Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	5	20		109	5	
Peak-Hour Factor, PHF		0.90	0.90		0.90	0.90
Hourly Flow Rate, HFR		5	22		121	5
Percent Heavy Vehicles		--	--		2	--
Median Type	Undivided					
RT Channelized?						
Lanes	1	0		0	1	
Configuration		TR			LT	
Upstream Signal?		No			No	

Minor Street: Approach	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	29			78		
Peak Hour Factor, PHF	0.90			0.90		
Hourly Flow Rate, HFR	32			86		
Percent Heavy Vehicles	2			2		
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?						
Storage						
RT Channelized?			No			
Lanes	1		1			
Configuration		L	R			

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Config		LT	L		R			
v (vph)		121	32		86			
C(m) (vph)		1573	663		1052			
v/c		0.08	0.05		0.08			
95% queue length			0.25	0.15		0.27		
Control Delay		7.5	10.7		8.7			
LOS		A	B		A			
Approach Delay				9.3				
Approach LOS				A				

HCS2000: Unsignalized Intersections Release 4.1c

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TWO-WAY STOP CONTROL(TWSC) ANALYSIS

Analyst: SMH
Agency/Co.: Wells & Associates
Date Performed: 3/15/2003
Analysis Time Period: PM Peak Hour
Intersection: Cameron Station/Ferinand Day
Jurisdiction: Alexandria, VA
Units: U. S. Customary
Analysis Year: Future 2006
Project ID: Cameron Station
East/West Street: Cameron Station Blvd
North/South Street: Ferinand Day Drive
Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street Movements	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	5	20	109	5		
Peak-Hour Factor, PHF		0.90	0.90	0.90	0.90	
Peak-15 Minute Volume		1	6	30	1	
Hourly Flow Rate, HFR		5	22	121	5	
Percent Heavy Vehicles		--	--	2	--	--
Median Type	Undivided					

TWO-WAY STOP CONTROL SUMMARY

Analyst: SMH
Agency/Co.: Wells & Associates
Date Performed: 3/4/2001
Analysis Time Period: AM Peak Hour
Intersection: Ferdinand Day Dr/Harold Secord
Jurisdiction: Alexandria, VA
Units: U. S. Customary
Analysis Year: Future 2006
Project ID: Cameron Station
East/West Street: Ferdinand Day Drive
North/South Street: Harold Secord
Intersection Orientation: EW Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	88	15	0	2	32	6
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate, HFR	97	16	0	2	35	6
Percent Heavy Vehicles	2	--	--	2	--	--
Median Type	Undivided					
RT Channelized?						
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	
Upstream Signal?		No			No	

Minor Street: Approach	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	0	6	9	25	2	111
Peak Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate, HFR	0	6	10	27	2	123
Percent Heavy Vehicles	2	2	2	2	2	2
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?		No			No	
Storage						
RT Channelized?						
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	LTR	LTR		LTR			LTR	
v (vph)	97	2		16			152	
C(m) (vph)	1568	1602		830			927	
v/c	0.06	0.00		0.02			0.16	
95% queue length	0.20	0.00		0.06			0.58	
Control Delay	7.4	7.3		9.4			9.6	
LOS	A	A		A			A	
Approach Delay				9.4			9.6	
Approach LOS				A			A	

HCS2000: Unsignalized Intersections Release 4.1c

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TWO-WAY STOP CONTROL(TWSC) ANALYSIS

Analyst: SMH
Agency/Co.: Wells & Associates
Date Performed: 3/4/2001
Analysis Time Period: AM Peak Hour
Intersection: Ferdinand Day Dr/Harold Secord
Jurisdiction: Alexandria, VA
Units: U. S. Customary
Analysis Year: Future 2006
Project ID: Cameron Station
East/West Street: Ferdinand Day Drive
North/South Street: Harold Secord
Intersection Orientation: EW Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street Movements	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	88	15	0	2	32	6
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Peak-15 Minute Volume	24	4	0	1	9	2
Hourly Flow Rate, HFR	97	16	0	2	35	6
Percent Heavy Vehicles	2	--	--	2	--	--
Median Type	Undivided					

TWO-WAY STOP CONTROL SUMMARY

Analyst: SMH
Agency/Co.: Wells & Associates
Date Performed: 3/4/2001
Analysis Time Period: PM Peak Hour
Intersection: Ferdinand Day Dr/Harold Secord
Jurisdiction: Alexandria, VA
Units: U. S. Customary
Analysis Year: Future 2006
Project ID: Cameron Station
East/West Street: Ferdinand Day Drive
North/South Street: Harold Secord
Intersection Orientation: EW Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	7	4	0	9	2	18
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate, HFR	7	4	0	10	2	20
Percent Heavy Vehicles	2	--	--	2	--	--
Median Type	Undivided					
RT Channelized?						
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	
Upstream Signal?		No			No	

Minor Street: Approach	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	0	3	5	12	6	8
Peak Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate, HFR	0	3	5	13	6	8
Percent Heavy Vehicles	2	2	2	2	2	2
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?		No			No	
Storage						
RT Channelized?						
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	LTR	LTR	LTR			LTR		
v (vph)	7	10	8			27		
C(m) (vph)	1593	1618	966			941		
v/c	0.00	0.01	0.01			0.03		
95% queue length	0.01	0.02	0.03			0.09		
Control Delay	7.3	7.2	8.8			8.9		
LOS	A	A	A			A		
Approach Delay			8.8			8.9		
Approach LOS			A			A		

HCS2000: Unsignalized Intersections Release 4.1c

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TWO-WAY STOP CONTROL(TWSC) ANALYSIS

Analyst: SMH
Agency/Co.: Wells & Associates
Date Performed: 3/4/2001
Analysis Time Period: PM Peak Hour
Intersection: Ferdinand Day Dr/Harold Secord
Jurisdiction: Alexandria, VA
Units: U. S. Customary
Analysis Year: Future 2006
Project ID: Cameron Station
East/West Street: Ferdinand Day Drive
North/South Street: Harold Secord
Intersection Orientation: EW Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street Movements	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	7	4	0	9	2	18
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Peak-15 Minute Volume	2	1	0	2	1	5
Hourly Flow Rate, HFR	7	4	0	10	2	20
Percent Heavy Vehicles	2	--	--	2	--	--
Median Type	Undivided					

TWO-WAY STOP CONTROL SUMMARY

Analyst: SMH
Agency/Co.: Wells & Associates
Date Performed: 3/4/2001
Analysis Time Period: AM Peak Hour
Intersection: Entrance/Harold Secord
Jurisdiction: Alexandria, VA
Units: U. S. Customary
Analysis Year: Future 2006
Project ID: Cameron Station
East/West Street: Entrance
North/South Street: Harold Secord
Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume		93	6	3	112	
Peak-Hour Factor, PHF		0.90	0.90	0.90	0.90	
Hourly Flow Rate, HFR		103	6	3	124	
Percent Heavy Vehicles		--	--	2	--	--
Median Type	Undivided					
RT Channelized?						
Lanes		1	0	0	1	
Configuration			TR		LT	
Upstream Signal?			No		No	

Minor Street: Approach	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	25		13			
Peak Hour Factor, PHF	0.90		0.90			
Hourly Flow Rate, HFR	27		14			
Percent Heavy Vehicles	2		2			
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?		No				
Storage						
RT Channelized?						
Lanes	0		0			
Configuration		LR				

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Config		LT		LR				
v (vph)		3		41				
C(m) (vph)		1481		808				
v/c		0.00		0.05				
95% queue length		0.01		0.16				
Control Delay		7.4		9.7				
LOS		A		A				
Approach Delay				9.7				
Approach LOS				A				

HCS2000: Unsignalized Intersections Release 4.1c

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TWO-WAY STOP CONTROL(TWSC) ANALYSIS

Analyst: SMH
Agency/Co.: Wells & Associates
Date Performed: 3/4/2001
Analysis Time Period: AM Peak Hour
Intersection: Entrance/Harold Secord
Jurisdiction: Alexandria, VA
Units: U. S. Customary
Analysis Year: Future 2006
Project ID: Cameron Station
East/West Street: Entrance
North/South Street: Harold Secord
Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street Movements	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	93	6	3	112		
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90		
Peak-15 Minute Volume	26	2	1	31		
Hourly Flow Rate, HFR	103	6	3	124		
Percent Heavy Vehicles	--	--	2	--	--	
Median Type	Undivided					

TWO-WAY STOP CONTROL SUMMARY

Analyst: SMH
Agency/Co.: Wells & Associates
Date Performed: 3/4/2001
Analysis Time Period: PM Peak Hour
Intersection: Entrance/Harold Secord
Jurisdiction: Alexandria, VA
Units: U. S. Customary
Analysis Year: Future 2006
Project ID: Cameron Station
East/West Street: Entrance
North/South Street: Harold Secord
Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	10	18		10	14	
Peak-Hour Factor, PHF		0.90	0.90		0.90	0.90
Hourly Flow Rate, HFR		11	20		11	15
Percent Heavy Vehicles		--	--		2	--
Median Type	Undivided					
RT Channelized?						
Lanes	1	0		0	1	
Configuration		TR			LT	
Upstream Signal?		No			No	

Minor Street: Approach	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	12		6			
Peak Hour Factor, PHF	0.90		0.90			
Hourly Flow Rate, HFR	13		6			
Percent Heavy Vehicles	2		2			
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?		No				
Storage						
RT Channelized?						
Lanes	0		0			
Configuration		LR				

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Config		LT		LR				
v (vph)		11		19				
C(m) (vph)		1582		975				
v/c		0.01		0.02				
95% queue length		0.02		0.06				
Control Delay		7.3		8.8				
LOS		A		A				
Approach Delay				8.8				
Approach LOS				A				

HCS2000: Unsignalized Intersections Release 4.1c

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TWO-WAY STOP CONTROL(TWSC) ANALYSIS

Analyst: SMH
Agency/Co.: Wells & Associates
Date Performed: 3/4/2001
Analysis Time Period: PM Peak Hour
Intersection: Entrance/Harold Secord
Jurisdiction: Alexandria, VA
Units: U. S. Customary
Analysis Year: Future 2006
Project ID: Cameron Station
East/West Street: Entrance
North/South Street: Harold Secord
Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street Movements	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	10	18	10	14		
Peak-Hour Factor, PHF		0.90	0.90	0.90	0.90	
Peak-15 Minute Volume		3	5	3	4	
Hourly Flow Rate, HFR		11	20	11	15	
Percent Heavy Vehicles		--	--	2	--	--
Median Type	Undivided					

TWO-WAY STOP CONTROL SUMMARY

Analyst: SMH
Agency/Co.: Wells & Associates
Date Performed: 9/16/03
Analysis Time Period: AM Peak Hour
Intersection: Cameron Station/Knapp Place
Jurisdiction: Alexandria, VA
Units: U. S. Customary
Analysis Year: Total Future
Project ID: Cameron Station
East/West Street: Cameron Station Blvd
North/South Street: Knapp Place
Intersection Orientation: EW Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	4	123	1	3	111	2
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate, HFR	4	136	1	3	123	2
Percent Heavy Vehicles	2	--	--	2	--	--
Median Type	Raised curb					
RT Channelized?						
Lanes	0	2	0	0	2	0
Configuration		LT	TR		LT	TR
Upstream Signal?		No			No	

Minor Street: Approach	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	0	0	17	2	0	12
Peak Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate, HFR	0	0	18	2	0	13
Percent Heavy Vehicles	2	2	2	2	2	2
Percent Grade (%)		0			0	
Median Storage	1					
Flared Approach: Exists?		No			No	
Storage						
RT Channelized?						
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	LT	LT		LTR			LTR	
v (vph)	4	3		18			15	
C(m) (vph)	1439	1432		945			915	
v/c	0.00	0.00		0.02			0.02	
95% queue length	0.01	0.01		0.06			0.05	
Control Delay	7.5	7.5		8.9			9.0	
LOS	A	A		A			A	
Approach Delay				8.9			9.0	
Approach LOS				A			A	

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TWO-WAY STOP CONTROL(TWSC) ANALYSIS

Analyst: SMH
Agency/Co.: Wells & Associates
Date Performed: 9/16/03
Analysis Time Period: AM Peak Hour
Intersection: Cameron Station/Knapp Place
Jurisdiction: Alexandria, VA
Units: U. S. Customary
Analysis Year: Total Future
Project ID: Cameron Station
East/West Street: Cameron Station Blvd
North/South Street: Knapp Place
Intersection Orientation: EW Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street Movements	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	4	123	1	3	111	2
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Peak-15 Minute Volume	1	34	0	1	31	1
Hourly Flow Rate, HFR	4	136	1	3	123	2
Percent Heavy Vehicles	2	--	--	2	--	--
Median Type	Raised curb					

TWO-WAY STOP CONTROL SUMMARY

Analyst: SMH
Agency/Co.: Wells & Associates
Date Performed: 3/16/03
Analysis Time Period: PM Peak Hour
Intersection: Cameron Station/Knapp Place
Jurisdiction: Alexandria, VA
Units: U. S. Customary
Analysis Year: Total Future 2006
Project ID: Cameron Station
East/West Street: Cameron Station Blvd
North/South Street: Knapp Place
Intersection Orientation: EW Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	5	127	4	6	128	4
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate, HFR	5	141	4	6	142	4
Percent Heavy Vehicles	2	--	--	2	--	--
Median Type	Raised curb					
RT Channelized?						
Lanes	0	2	0	0	2	0
Configuration		LT	TR		LT	TR
Upstream Signal?		No			No	

Minor Street: Approach	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	2	2	8	2	0	2
Peak Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate, HFR	2	2	8	2	0	2
Percent Heavy Vehicles	2	2	2	2	2	2
Percent Grade (%)		0			0	
Median Storage	1					
Flared Approach: Exists?		No			No	
Storage						
RT Channelized?						
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	EB		WB		Northbound			Southbound		
Movement	1		4	7	8	9	10	11		12
Lane Config	LT		LT		LTR			LTR		
v (vph)	5		6		12			4		
C(m) (vph)	1424		1427		824			798		
v/c	0.00		0.00		0.01			0.01		
95% queue length	0.01		0.01		0.04			0.02		
Control Delay	7.5		7.5		9.4			9.5		
LOS	A		A		A			A		
Approach Delay					9.4			9.5		
Approach LOS					A			A		

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TWO-WAY STOP CONTROL(TWSC) ANALYSIS

Analyst: SMH
Agency/Co.: Wells & Associates
Date Performed: 3/16/03
Analysis Time Period: PM Peak Hour
Intersection: Cameron Station/Knapp Place
Jurisdiction: Alexandria, VA
Units: U. S. Customary
Analysis Year: Total Future 2006
Project ID: Cameron Station
East/West Street: Cameron Station Blvd
North/South Street: Knapp Place
Intersection Orientation: EW Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street Movements	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	5	127	4	6	128	4
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Peak-15 Minute Volume	1	35	1	2	36	1
Hourly Flow Rate, HFR	5	141	4	6	142	4
Percent Heavy Vehicles	2	--	--	2	--	--
Median Type	Raised curb					

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ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst: SMH
Agency/Co.: Wells & Associates
Date Performed: 3/15/03
Analysis Time Period: AM Peak Hour
Intersection: Cameron Station/Brenman Park
Jurisdiction: Alexandria, VA
Units: U. S. Customary
Analysis Year: Total Future 2006
Project ID: Cameron Station
East/West Street: Brenman Park Road
North/South Street: Cameron Station Blvd

Worksheet 2 - Volume Adjustments and Site Characteristics

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	0	0	0	0	0	59	0	174	0	0	103	0

% Thrus Left Lane

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration			R		T		T	
PHF			0.90		0.90		0.90	
Flow Rate			65		193		114	
% Heavy Veh			2		2		2	
No. Lanes			1		1		1	
Opposing-Lanes			0		1		1	
Conflicting-lanes			1		1		1	
Geometry group			1		1		1	

Duration, T 0.25 hrs.

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2

Flow Rates:			
Total in Lane	65	193	114
Left-Turn	0	0	0
Right-Turn	65	0	0
Prop. Left-Turns	0.0	0.0	0.0
Prop. Right-Turns	1.0	0.0	0.0
Prop. Heavy Vehicle	0.0	0.0	0.0
Geometry Group	1	1	1
Adjustments Exhibit 17-33:			
hLT-adj	0.2	0.2	0.2
hRT-adj	-0.6	-0.6	-0.6
hHV-adj	1.7	1.7	1.7
hadj, computed	-0.6	0.0	0.0

Worksheet 4 - Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate			65		193		114	
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial			0.06		0.17		0.10	
hd, final value			4.00		4.19		4.27	
x, final value			0.07		0.22		0.14	
Move-up time, m			2.0		2.0		2.0	
Service Time			2.0		2.2		2.3	

Worksheet 5 - Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate			65		193		114	
Service Time			2.0		2.2		2.3	
Utilization, x			0.07		0.22		0.14	
Dep. headway, hd			4.00		4.19		4.27	
Capacity			315		443		364	
Delay			7.31		8.40		7.93	
LOS			A		A		A	
Approach:								
Delay			7.31		8.40		7.93	
LOS			A		A		A	

Intersection Delay 8.07 Intersection LOS A

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ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst: SMH
Agency/Co.: Wells & Associates
Date Performed: 3/15/03
Analysis Time Period: PM Peak Hour
Intersection: Cameron Station/Brenman Park
Jurisdiction: Alexandria, VA
Units: U. S. Customary
Analysis Year: Total Future 2006
Project ID: Cameron Station
East/West Street: Brenman Park Road
North/South Street: Cameron Station Blvd

Worksheet 2 - Volume Adjustments and Site Characteristics

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	0	0	0	0	0	56	0	108	0	0	186	0
% Thrus Left Lane												

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration			R		T		T	
PHF			0.90		0.90		0.90	
Flow Rate			62		120		206	
% Heavy Veh			2		2		2	
No. Lanes			1		1		1	
Opposing-Lanes			0		1		1	
Conflicting-lanes			1		1		1	
Geometry group			1		1		1	

Duration, T 0.25 hrs.

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2

Flow Rates:			
Total in Lane	62	120	206
Left-Turn	0	0	0
Right-Turn	62	0	0
Prop. Left-Turns	0.0	0.0	0.0
Prop. Right-Turns	1.0	0.0	0.0
Prop. Heavy Vehicle	0.0	0.0	0.0
Geometry Group	1	1	1
Adjustments Exhibit 17-33:			
hLT-adj	0.2	0.2	0.2
hRT-adj	-0.6	-0.6	-0.6
hHV-adj	1.7	1.7	1.7
hadj, computed	-0.6	0.0	0.0

Worksheet 4 - Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate			62		120		206	
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial			0.06		0.11		0.18	
hd, final value			4.04		4.28		4.19	
x, final value			0.07		0.14		0.24	
Move-up time, m			2.0		2.0		2.0	
Service Time			2.0		2.3		2.2	

Worksheet 5 - Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate			62		120		206	
Service Time			2.0		2.3		2.2	
Utilization, x			0.07		0.14		0.24	
Dep. headway, hd			4.04		4.28		4.19	
Capacity			312		370		456	
Delay			7.35		7.98		8.51	
LOS			A		A		A	
Approach:								
Delay			7.35		7.98		8.51	
LOS			A		A		A	

Intersection Delay 8.16 Intersection LOS A

TWO-WAY STOP CONTROL SUMMARY

Analyst: SMH
Agency/Co.: Wells & Associates
Date Performed: 3/16/03
Analysis Time Period: AM Peak Hour
Intersection: Cameron Station/John Ticer Dr
Jurisdiction: Alexandria, VA
Units: U. S. Customary
Analysis Year: Total Future 2006
Project ID: Cameron Station
East/West Street: John Ticer Drive
North/South Street: Cameron Station Blvd
Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	3	209	2	6	92	10
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate, HFR	3	232	2	6	102	11
Percent Heavy Vehicles	2	--	--	2	--	--
Median Type	Raised curb					
RT Channelized?						
Lanes	0	2	0	0	2	0
Configuration		LT	TR		LT	TR
Upstream Signal?		No			No	

Minor Street: Approach	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	5	2	36	74	5	4
Peak Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate, HFR	5	2	40	82	5	4
Percent Heavy Vehicles	2	2	2	2	2	2
Percent Grade (%)		0			0	
Median Storage	1					
Flared Approach: Exists?		No			No	
Storage						
RT Channelized?						
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	LT	LT		LTR			LTR	
v (vph)	3	6		47			91	
C(m) (vph)	1472	1315		833			678	
v/c	0.00	0.00		0.06			0.13	
95% queue length	0.01	0.01		0.18			0.46	
Control Delay	7.5	7.8		9.6			11.1	
LOS	A	A		A			B	
Approach Delay				9.6			11.1	
Approach LOS				A			B	

HCS2000: Unsignalized Intersections Release 4.1c

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TWO-WAY STOP CONTROL(TWSC) ANALYSIS

Analyst: SMH
Agency/Co.: Wells & Associates
Date Performed: 3/16/03
Analysis Time Period: AM Peak Hour
Intersection: Cameron Station/John Ticer Dr
Jurisdiction: Alexandria, VA
Units: U. S. Customary
Analysis Year: Total Future 2006
Project ID: Cameron Station
East/West Street: John Ticer Drive
North/South Street: Cameron Station Blvd
Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street Movements	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	3	209	2	6	92	10
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Peak-15 Minute Volume	1	58	1	2	26	3
Hourly Flow Rate, HFR	3	232	2	6	102	11
Percent Heavy Vehicles	2	--	--	2	--	--
Median Type	Raised curb					

TWO-WAY STOP CONTROL SUMMARY

Analyst: SMH
Agency/Co.: Wells & Associates
Date Performed: 3/16/03
Analysis Time Period: PM Peak Hour
Intersection: Cameron Station/John Ticer Dr
Jurisdiction: Alexandria, VA
Units: U. S. Customary
Analysis Year: Total Future 2006
Project ID: Cameron Station
East/West Street: John Ticer Drive
North/South Street: Cameron Station Blvd
Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	7	95	7	60	208	89
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate, HFR	7	105	7	66	231	98
Percent Heavy Vehicles	2	--	--	2	--	--
Median Type	Raised curb					
RT Channelized?						
Lanes	0	2	0	0	2	0
Configuration		LT	TR		LT	TR
Upstream Signal?		No			No	

Minor Street: Approach	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	8	3	15	42	4	2
Peak Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate, HFR	8	3	16	46	4	2
Percent Heavy Vehicles	2	2	2	2	2	2
Percent Grade (%)		0			0	
Median Storage	1					
Flared Approach: Exists?		No			No	
Storage						
RT Channelized?						
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	LT	LT		LTR			LTR	
v (vph)	7	66		27			52	
C(m) (vph)	1213	1453		720			483	
v/c	0.01	0.05		0.04			0.11	
95% queue length	0.02	0.14		0.12			0.36	
Control Delay	8.0	7.6		10.2			13.4	
LOS	A	A		B			B	
Approach Delay				10.2			13.4	
Approach LOS				B			B	

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TWO-WAY STOP CONTROL(TWSC) ANALYSIS

Analyst: SMH
Agency/Co.: Wells & Associates
Date Performed: 3/16/03
Analysis Time Period: PM Peak Hour
Intersection: Cameron Station/John Ticer Dr
Jurisdiction: Alexandria, VA
Units: U. S. Customary
Analysis Year: Total Future 2006
Project ID: Cameron Station
East/West Street: John Ticer Drive
North/South Street: Cameron Station Blvd
Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street Movements	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	7	95	7	60	208	89
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Peak-15 Minute Volume	2	26	2	17	58	25
Hourly Flow Rate, HFR	7	105	7	66	231	98
Percent Heavy Vehicles	2	--	--	2	--	--
Median Type	Raised curb					

Analyst: MXW Inter.: 2
Agency: Wells & Associates, LLC Area Type: All other areas
Date: 3/3/01 Jurisd: Alexandria, Virginia
Period: AM Peak Hour Year : Total Future 2006
Project ID: Cameron Station
E/W St: Duke Street N/S St: N. Pickett/Cameron Station

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	3	0	1	3	1	1	1	1	1	1	0
LGConfig	L	TR		L	T	R	L	T	R	L	TR	
Volume	85	1379	38	40	871	72	198	66	60	83	17	62
Lane Width	12.0	12.0		12.0	12.0	12.0	12.0	12.0	12.0	10.0	10.0	
RTOR Vol		0			0			0			0	

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	A	A	A		NB Left	A		
Thru		A	A		Thru	A		
Right		A	A		Right	A		
Peds					Peds			
WB Left	A		A		SB Left		A	
Thru			A		Thru		A	
Right			A		Right		A	
Peds					Peds			
NB Right	A				EB Right			
SB Right					WB Right			
Green	10.0	9.0	38.0		18.0	15.0		
Yellow	3.0	3.0	3.0		3.0	3.0		
All Red	1.0	2.0	2.0		1.0	1.0		

Cycle Length: 112.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
L	480	1770	0.20	0.59	12.0	B		
TR	2352	5065	0.67	0.46	24.1	C	23.4	C
Westbound								
L	239	1770	0.18	0.43	19.3	B		
T	1725	5085	0.56	0.34	30.6	C	29.8	C
R	537	1583	0.15	0.34	25.9	C		
Northbound								
L	284	1770	0.77	0.16	57.6	E		

T	299	1863	0.24	0.16	41.5	D	49.8	D
R	396	1583	0.17	0.25	33.1	C		
Southbound								
L	221	1652	0.42	0.13	45.8	D		
TR	205	1534	0.43	0.13	46.0	D	45.9	D

Intersection Delay = 29.6 (sec/veh) Intersection LOS = C

HCS2000: Signalized Intersections Release 4.1c

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OPERATIONAL ANALYSIS

Analyst: MXW
Agency/Co.: Wells & Associates, LLC
Date Performed: 3/3/01
Analysis Time Period: AM Peak Hour
Intersection: 2
Area Type: All other areas
Jurisdiction: Alexandria, Virginia
Analysis Year: Total Future 2006
Project ID: Cameron Station
East/West Street: Duke Street
North/South Street: N. Pickett/Cameron Station

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	85	1379	38	40	871	72	198	66	60	83	17	62
% Heavy Veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PK 15 Vol	24	383	11	11	242	20	55	18	17	23	5	17
Hi Ln Vol												
% Grade		0			0			0			0	
Ideal Sat	1900	1900		1900	1900	1900	1900	1900	1900	1900	1900	
ParkExist												
NumPark												
No. Lanes	1	3	0	1	3	1	1	1	1	1	1	0
LGConfig	L	TR		L	T	R	L	T	R	L	TR	
Lane Width	12.0	12.0		12.0	12.0	12.0	12.0	12.0	12.0	10.0	10.0	
RTOR Vol		0			0			0			0	
Adj Flow	94	1574		44	968	80	220	73	67	92	88	

Analyst: MXW
Agency: Wells & Associates, LLC
Date: 3/15/03
Period: PM Peak Hour
Project ID: Cameron Station
E/W St: Duke Street

Inter.: 2
Area Type: All other areas
Jurisd: Alexandria, Virginia
Year : Total Future 2006

N/S St: N. Pickett/Cameron Station

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	3	0	1	3	1	1	1	1	1	1	0
LGConfig	L	TR		L	T	R	L	T	R	L	TR	
Volume	144	1268	160	109	1487	152	85	35	27	146	87	144
Lane Width	12.0	12.0		12.0	12.0	12.0	12.0	12.0	12.0	10.0	10.0	
RTOR Vol		0			0			0			0	

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left*	A	A	A		NB Left	A		
Thru		A	A		Thru	A		
Right		A	A		Right	A		
Peds					Peds			
WB Left	A		A		SB Left		A	
Thru		A			Thru		A	
Right		A			Right		A	
Peds					Peds			
NB Right	A				EB Right			
SB Right					WB Right			
Green	10.0	9.0	39.0		13.0	19.0		
Yellow	3.0	3.0	3.0		3.0	3.0		
All Red	1.0	2.0	2.0		1.0	1.0		

Cycle Length: 112.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	v/c	g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
L	429	1770	0.37	0.60	17.7	B		
TR	2366	5000	0.67	0.47	23.5	C	23.0	C
Westbound								
L	241	1770	0.50	0.44	20.9	C		
T	1771	5085	0.93	0.35	44.8	D	41.8	D
R	551	1583	0.31	0.35	27.0	C		
Northbound								
L	205	1770	0.46	0.12	47.8	D		

T	216	1863	0.18	0.12	45.1	D	45.0	D
R	325	1583	0.09	0.21	36.2	D		
Southbound								
L	280	1652	0.58	0.17	45.8	D		
TR	267	1576	0.96	0.17	90.8	F	73.4	E

Intersection Delay = 37.3 (sec/veh) Intersection LOS = D

HCS2000: Signalized Intersections Release 4.1c

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OPERATIONAL ANALYSIS

Analyst: MXW
Agency/Co.: Wells & Associates, LLC
Date Performed: 3/15/03
Analysis Time Period: PM Peak Hour
Intersection: 2
Area Type: All other areas
Jurisdiction: Alexandria, Virginia
Analysis Year: Total Future 2006
Project ID: Cameron Station

East/West Street: Duke Street
North/South Street: N. Pickett/Cameron Station

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	144	1268	160	109	1487	152	85	35	27	146	87	144
% Heavy Veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PK 15 Vol	40	352	44	30	413	42	24	10	8	41	24	40
Hi Ln Vol												
% Grade		0			0			0			0	
Ideal Sat	1900	1900		1900	1900	1900	1900	1900	1900	1900	1900	
ParkExist												
NumPark												
No. Lanes	1	3	0	1	3	1	1	1	1	1	1	0
LGConfig	L	TR		L	T	R	L	T	R	L	TR	
Lane Width	12.0	12.0		12.0	12.0	12.0	12.0	12.0	12.0	10.0	10.0	
RTOR Vol		0			0			0			0	
Adj Flow	160	1587		121	1652	169	94	39	30	162	257	

TWO-WAY STOP CONTROL SUMMARY

Analyst: SMH
Agency/Co.: Wells & Associates
Date Performed: 3/4/2001
Analysis Time Period: AM Peak Hour
Intersection: Duke St/Somerville St
Jurisdiction: Alexandria, VA
Units: U. S. Customary
Analysis Year: Total Future 2006
Project ID: Cameron Station
East/West Street: Duke Street
North/South Street: Somervillle Street
Intersection Orientation: EW Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume		1116	8		737	10
Peak-Hour Factor, PHF		0.90	0.90		0.90	0.90
Hourly Flow Rate, HFR		1240	8		818	11
Percent Heavy Vehicles		--	--		--	--
Median Type	Raised curb					
RT Channelized?			No			No
Lanes		2	1		2	1
Configuration		T	R		T	R
Upstream Signal?		No			No	

Minor Street: Approach	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume		111			7	
Peak Hour Factor, PHF		0.90			0.90	
Hourly Flow Rate, HFR		123			7	
Percent Heavy Vehicles		2			2	
Percent Grade (%)		0			0	
Median Storage 1						
Flared Approach: Exists?						
Storage						
RT Channelized?			No			No
Lanes		1			1	
Configuration		R			R	

Delay, Queue Length, and Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Config				R			R	
v (vph)				123			7	
C(m) (vph)				417			592	
v/c				0.29			0.01	
95% queue length				1.21			0.04	
Control Delay				17.2			11.2	
LOS				C			B	
Approach Delay				17.2			11.2	
Approach LOS				C			B	

HCS2000: Unsignalized Intersections Release 4.1c

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TWO-WAY STOP CONTROL(TWSC) ANALYSIS

Analyst: SMH
Agency/Co.: Wells & Associates
Date Performed: 3/4/2001
Analysis Time Period: AM Peak Hour
Intersection: Duke St/Somerville St
Jurisdiction: Alexandria, VA
Units: U. S. Customary
Analysis Year: Total Future 2006
Project ID: Cameron Station
East/West Street: Duke Street
North/South Street: Somerville Street
Intersection Orientation: EW Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street Movements	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	1116	8		737	10	
Peak-Hour Factor, PHF	0.90	0.90		0.90	0.90	
Peak-15 Minute Volume	310	2		205	3	
Hourly Flow Rate, HFR	1240	8		818	11	
Percent Heavy Vehicles	--	--		--	--	
Median Type	Raised curb					

TWO-WAY STOP CONTROL SUMMARY

Analyst: SMH
Agency/Co.: Wells & Associates
Date Performed: 3/4/2001
Analysis Time Period: PM Peak Hour
Intersection: Duke St/Somerville St
Jurisdiction: Alexandria, VA
Units: U. S. Customary
Analysis Year: Total Future 2006
Project ID: Cameron Station
East/West Street: Duke Street
North/South Street: Somerville Street
Intersection Orientation: EW Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume		1061	35		1278	19
Peak-Hour Factor, PHF		0.90	0.90		0.90	0.90
Hourly Flow Rate, HFR		1178	38		1420	21
Percent Heavy Vehicles		--	--		--	--
Median Type	Raised curb					
RT Channelized?			No			No
Lanes		2	1		2	1
Configuration		T	R		T	R
Upstream Signal?		No			No	

Minor Street: Approach	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume		65			49	
Peak Hour Factor, PHF		0.90			0.90	
Hourly Flow Rate, HFR		72			54	
Percent Heavy Vehicles		2			2	
Percent Grade (%)		0			0	
Median Storage	1					
Flared Approach: Exists?						
Storage						
RT Channelized?			No			No
Lanes		1			1	
Configuration		R			R	

Delay, Queue Length, and Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Config				R			R	
v (vph)				72			54	
C(m) (vph)				397			370	
v/c				0.18			0.15	
95% queue length				0.65			0.51	
Control Delay				16.1			16.4	
LOS				C			C	
Approach Delay				16.1			16.4	
Approach LOS				C			C	

HCS2000: Unsignalized Intersections Release 4.1c

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TWO-WAY STOP CONTROL(TWSC) ANALYSIS

Analyst: SMH
Agency/Co.: Wells & Associates
Date Performed: 3/4/2001
Analysis Time Period: PM Peak Hour
Intersection: Duke St/Somerville St
Jurisdiction: Alexandria, VA
Units: U. S. Customary
Analysis Year: Total Future 2006
Project ID: Cameron Station
East/West Street: Duke Street
North/South Street: Somerville Street
Intersection Orientation: EW Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street Movements	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	1061	35			1278	19
Peak-Hour Factor, PHF	0.90	0.90			0.90	0.90
Peak-15 Minute Volume	295	10			355	5
Hourly Flow Rate, HFR	1178	38			1420	21
Percent Heavy Vehicles	--	--			--	--
Median Type	Raised curb					

Development Special Use Permit with Site Plan (DSUP) #2003-0018

APPLICATION for
DEVELOPMENT SPECIAL USE PERMIT with SITE PLAN
DSUP
PROJECT NAME: **Cameron Station Phase VI**

PROPERTY LOCATION: **Ferdinand Day Drive**

TAX MAP REFERENCE: **68.01 02 05** ZONE: **CCD #9**

APPLICANT Name: **Cameron Development, L.L.C., a Virginia limited liability company**
Address: **8614 Westwood Center Drive, Suite 900, Vienna, Virginia 22182**

PROPERTY OWNER
Name: **Cameron Development, L.L.C. a Virginia limited liability company**
Address: **8614 Westwood Center Drive, Suite 900, Vienna, Virginia 22182**

SUMMARY OF PROPOSAL: **Preliminary Development Plan pursuant to approved CDD Concept Plan for Phase VI Cameron Station.**

MODIFICATIONS REQUESTED: **None**

SUP's REQUESTED: **§5-605 CDD Preliminary Development Plan Special Use Permit**

THE UNDERSIGNED hereby applies for Development Site Plan, with Special Use Permit, approval in accordance with the provisions of Title 7, Chapter 5 of the Code of the City of Alexandria, Virginia.

THE UNDERSIGNED, having obtained permission from the property owner, hereby grants permission to the City of Alexandria to post placard notice on the property for which this application is requested, pursuant to Article XI, Section 11-301 (B) of the 1992 Zoning Ordinance of the City of Alexandria, Virginia.

THE UNDERSIGNED also attests that all of the information herein provided and specifically including all surveys, drawings, etc., required of the applicant are true, correct and accurate to the best of their knowledge and belief.

Land, Clark, Carroll, Mendelson & Blair, P.C.
By Duncan W. Blair, Esquire
Print Name of Applicant or Agent *Signature*

524 King Street (703) 836-1000 (703) 549-3335 dblair@landclark.com
Mailing/Street Address *Telephone #* *Fax #* *E-mail*

Alexandria, Virginia 22313 June 17, 2003
City and State *Zip Code* *Date*

========== ***DO NOT WRITE BELOW THIS LINE - OFFICE USE ONLY*** ==========

Application Received: _____ Received Plans for Completeness: _____
Fee Paid & Date: $_____ _____ Received Plans for Preliminary: _____
Legal Advertisement: _____ Property Placard: _____

ACTION - PLANNING COMMISSION: 11/06/03 RECOMMEND APPROVAL 6-0

ACTION - CITY COUNCIL: Approved 6 to 0--See attachment.

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REPORTS OF BOARDS, COMMISSIONS AND COMMITTEES (continued)

Planning Commission (continued)

11. DEVELOPMENT SPECIAL USE PERMIT #2003-0018
500 CAMERON STATION BLVD./FERDINAND DAY DRIVE - CAMERON STATION - PHASE VI
Public Hearing and Consideration of a request for a development special use permit, with site plan, to construct townhouses within Phase VI of the Cameron Station development; zoned CDD-9/Coordinated Development District. Applicant: Cameron Development, LLC, by Duncan Blair

COMMISSION ACTION: Recommend Approval 6-0

12. DEVELOPMENT SPECIAL USE PERMIT #2003-0017
400 CAMERON STATION BOULEVARD - CAMERON STATION - PHASE VII
Public Hearing and Consideration of a request for a development special use permit, with site plan, to construct a condominium building within Phase VII of the Cameron Station development; zoned CDD-9/Coordinated Development District. Applicant: Cameron Development, LLC, by Duncan Blair

COMMISSION ACTION: Recommend Approval 6-0

13. SPECIAL USE PERMIT #2003-0092
CAMERON STATION BOULEVARD AND FERDINAND DAY DRIVE
TRANSPORTATION MANAGEMENT PLAN
Public Hearing and Consideration of a request to amend the transportation management plan to include Cameron Station Phase VI and VII; zoned CDD-9/Coordinated Development District. Applicant: Cameron Development, LLC, by Duncan Blair

COMMISSION ACTION: Recommend Approval 6-0

City Council approved the Planning Commission recommendations for items 11, 12 and 13, with the following: a condition be provided that would allow for the new developments to use their private trash pick-up service, but that after one year, there would be a good faith discussion among the homeowners and City staff to see if they could be enticed to join in with the City trash service; and that the homeowners association be involved with the planning of the bus shelters.
Council Action:_____

14. DEVELOPMENT SPECIAL USE PERMIT #2003-0029
1700 DUKE STREET
Public Hearing and Consideration of a request to amend the development special use permit to increase the number of condominium units; zoned CDD-1/Coordinated Development District. Applicant: JBG/Rockwood Duke Street, LLC, by Harry Hart, Attorney

COMMISSION ACTION: Recommend Approval 6-0

City Council approved the Planning Commission recommendation, with an amendment to the first paragraph of condition #12 to read: "The applicant shall provide a parking management plan which outlines the mechanism to maximize the use of the parking structure to the satisfaction of the Director of Planning and Zoning. The site plan and building permit shall be amended to depict the revised parking garage configuration to account for the two additional residential units by re-striping the garage to accommodate the two (2) residential spaces."
Council Action:_____

11,12,13
11-15-03

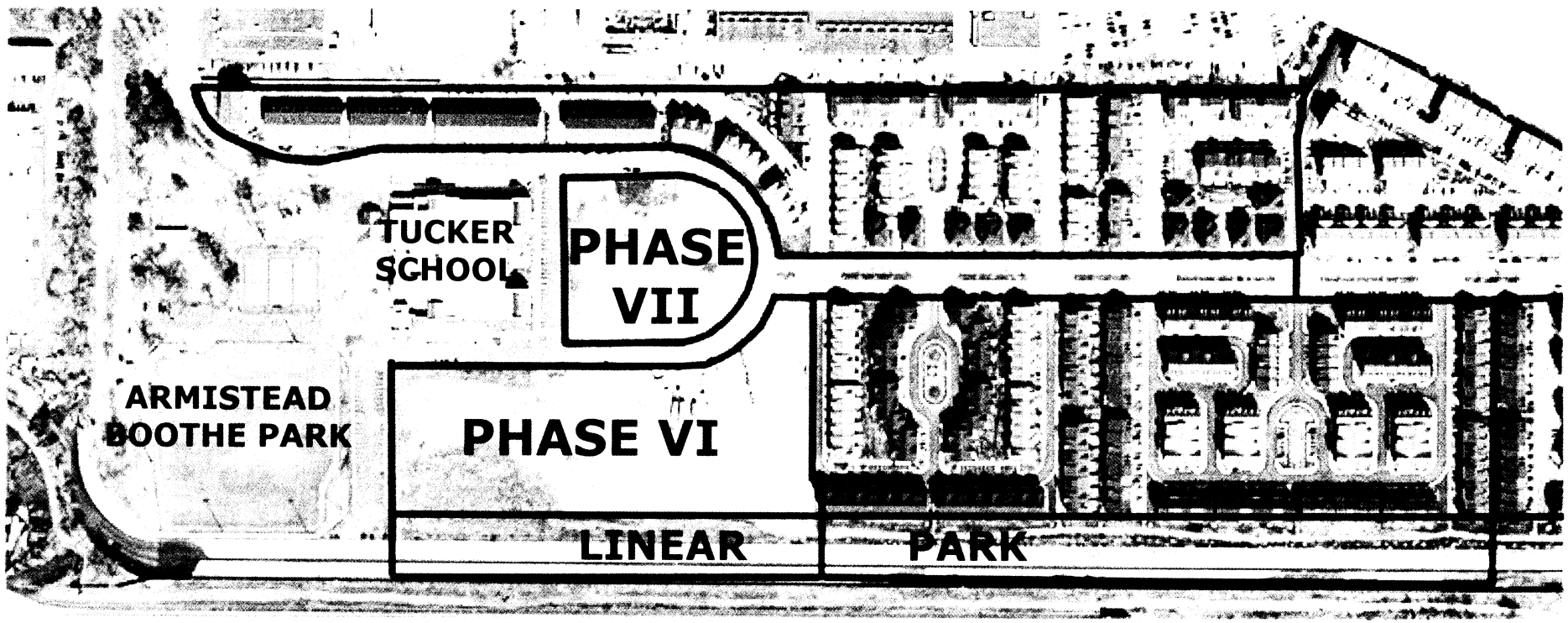
CAMERON STATION

PHASE VI (DSUP#2003-0018)

PHASE VII (DSUP#2003-0017)

TRANSPORTATION MANAGEMENT PLAN (SUP#2003-0092)

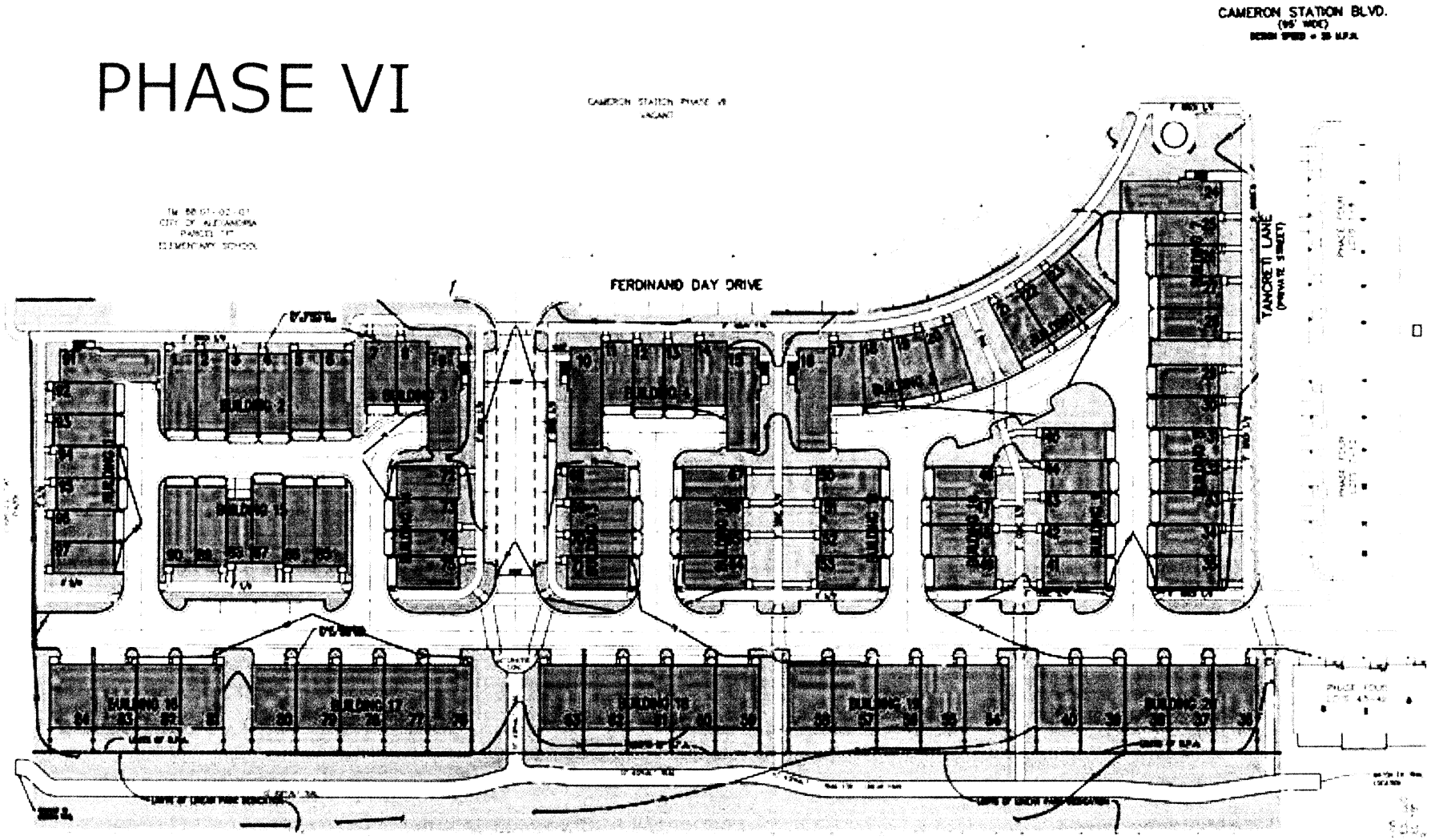
Cameron Station Phases VI – VI



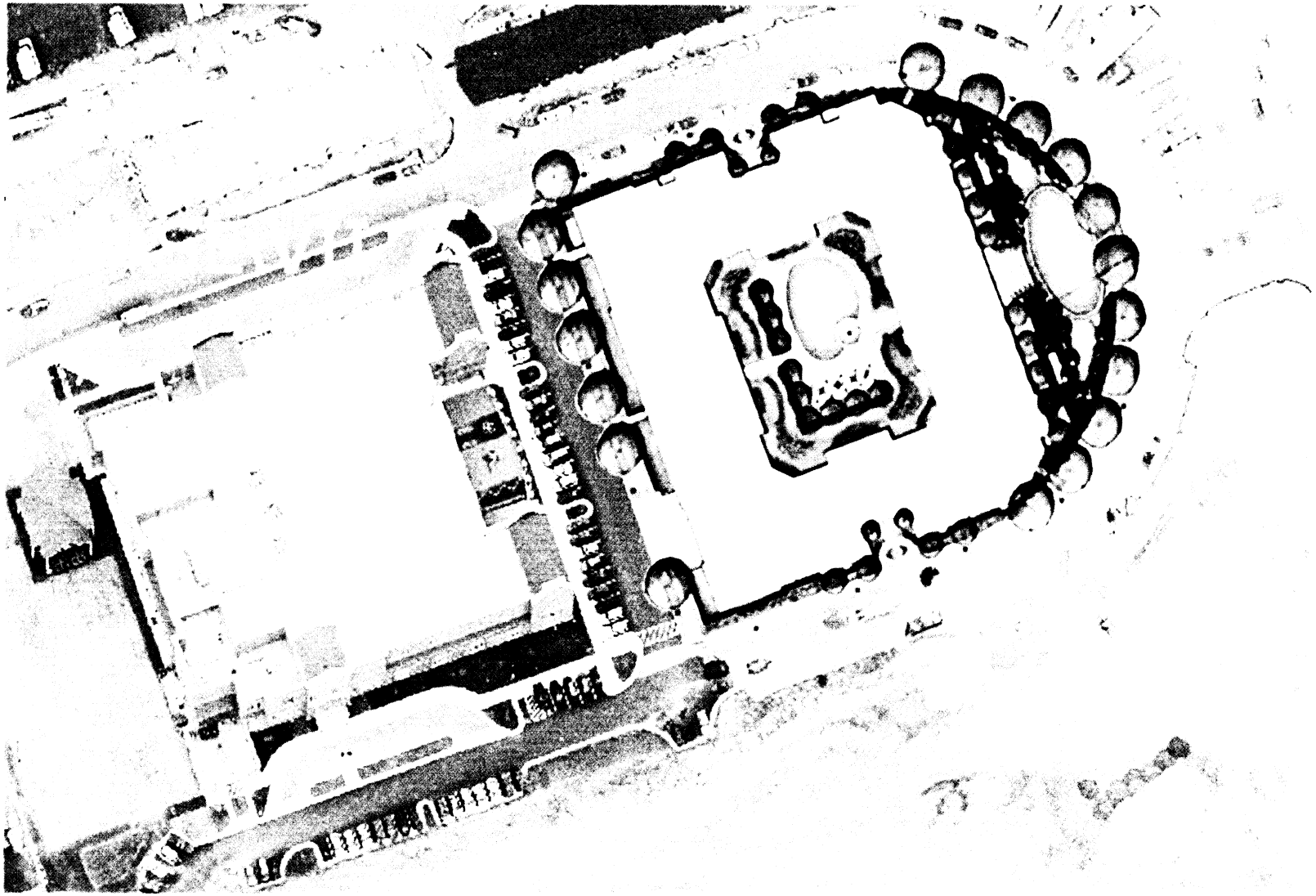
Prior Applications

- **ARCHSTONE**
  - **309 Unit Multi-family**
  - **Six-level parking garage**
- **BROOKDALE**
  - **261 Dwelling Units**
  - **120 feet tall**

PHASE VI



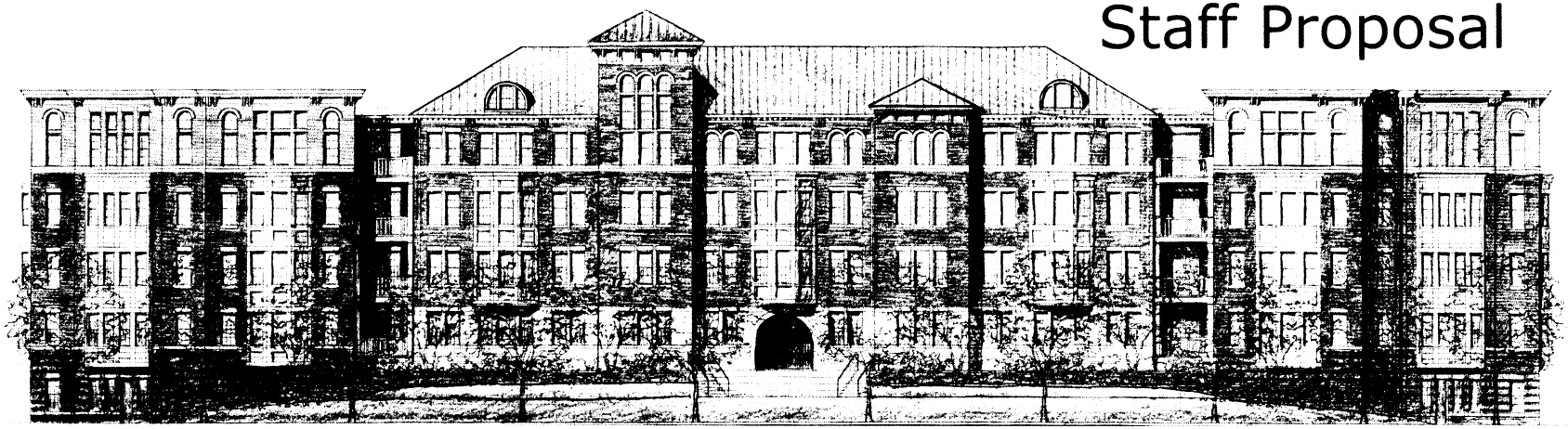
- **97 Townhouses/5.15 acres**
- **30% Open Space**
- **20 % visitor parking**
- **Completion of linear park with pedestrian links**
- **Extended street grid**
- **Unit loss**



- 148 condo units
- 2.44 acre site
- 7 on-site affordable units
- 26% visitor parking
- 45% open space (30% ground level)
- 60 ft. high

PHASE VII

Staff Proposal



Applicant's Original Proposal

Massing/Building breaks/roof form/tower/design

PROCESS AND COMMUNITY CONCERNS

- Citizen Involvement
  - 4 Community workshops prior to application
  - 3 Community meetings after plan submission
  - 2 Additional meetings with staff and residents
- Community Concerns
  - Mass of new condominium building
  - Open space – desired consolidated, high-quality
  - Parking – assigned residential, sufficient visitor
  - Cameron Club
  - Linear Park
  - Construction phasing

AFFORDABLE HOUSING

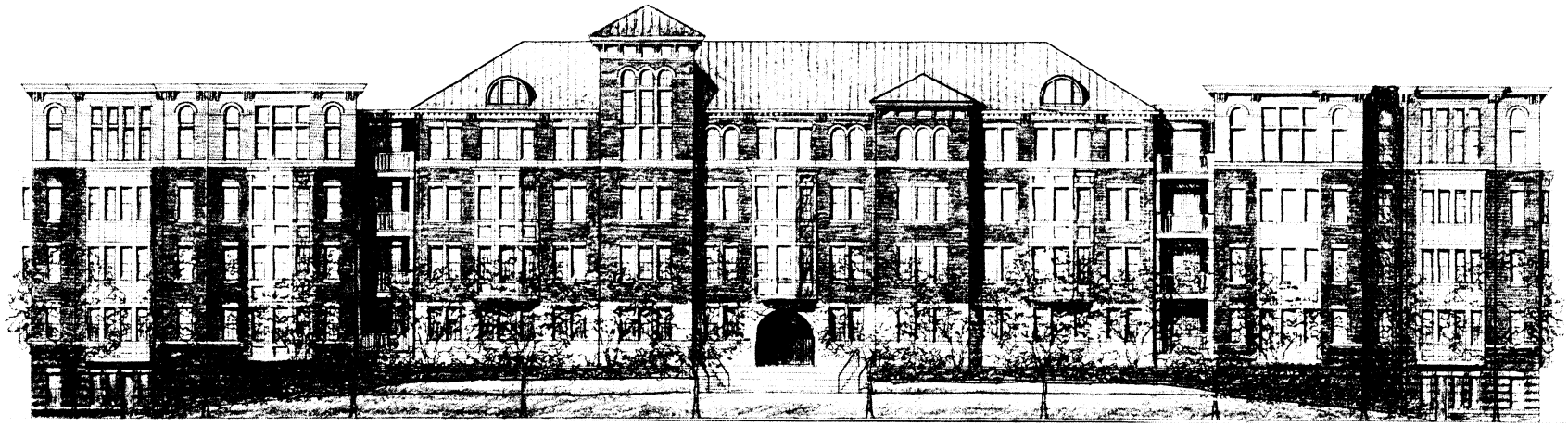
- Required - Ph VI and VII combined
  470,363 sq. ft. - $470,363
  standard contribution.

- Recommended – 7 on-site Phase VII condo's
  - 4 – One-bedroom units (reduced from $325,000 to $175,000)
  - 3 - Two-bedroom units (reduced from $350,000 to $225,000)

Resulting in on-site unit contribution of ~$975,000

CONCLUSION

Planning Commission unanimously recommended approval of the applications subject to the conditions as amended in the staff report.



11,12,13
11-15-03

J Bennett
<jb900@yahoo.com>

11/13/2003 12:19 PM

To: Bill Euille <alexvamayor@aol.com>, Ludwig Gaines <ludwig@gainwithgaines.com>, Rob Krupicka <rob@krupicka.com>, Andrew Macdonald <macdonaldcouncil@msn.com>, Del Pepper <delpepper@aol.com>, Paul Smedberg <smedbergpc@aol.com>, Joyce Woodson <council@joycewoodson.net>
cc: Duncan Blair <dblair@landclark.com>, Linda Erbs <lerbs@greenvest.com>, Barbara Ross <barbara.ross@ci.alexandria.va.us>, Jackie Henderson <jackie.henderson@ci.alexandria.va.us>, Phil Sunderland <phil.sunderland@ci.alexandria.va.us>, Mindy Lyle <mindylyle@comcast.net>
Subject: DOCKET ITEMS #11, 12 & 13 - CAMERON STATION DEVELOMENTAL SUP's & TMP

Dear Mayor and City Council,

We support the Planning Commission recommendations for approval of these docket items along with the changes they incorporated. The changes were based on suggestions we, the Cameron Station Civic Association, and the Cameron Station Community Association (the HOA) made to the Planning Commission.

Our message to the Planning Commission, which was copied to you at the same time, is attached.

Many thanks for your consideration.

Joe Bennett

Dear Planning Commissioners,

The Board of Directors of the Cameron Station Civic Association, Inc. supports these two developments for the remaining phases of Cameron Station. These developments are compatible with the existing community and will be pleasing additions.

The condo building, which comprises Phase VII, sets an important example of urban design with its parking under the building. One level of parking is under ground, the other level, while at ground level, is masked by residential units surrounding it. Also two garage parking spaces will be included in the sales price of each two and three bedroom condo, rather than making the second one a priced option. We believe this provision will reduce the impact of residents using visitor parking on the street.

We believe both projects provide adequate parking for visitors and residents and traffic generation will not adversely affect the community.

We support the conditions staff recommends regarding architectural treatment of both phases and believe they will assure buildings of high quality design and finish. We also support the affordable housing provision.

We call your attention to identical conditions #17.g. for Phase VI and #8.f. in VII. We believe the conditions should clearly indicate

that the disclosure of nearby uses, such as the waste-to-energy, asphalt, and rock crushing plants, be revealed in the marketing process, much as #8.e. for phase VII requires regarding the private nature of Harold Secord Street, the street to the west of the phase. As it is stated, it is unclear when this disclosure would occur.

We believe community concerns regarding impact on the Cameron Club and on construction disruptions can be satisfactorily resolved with Greenvest's continued commitment and involvement in resolving them.

Mindy Lyle, our First Vice President, will speak on behalf of our Board at the Planning Commission meeting.

Thank you very much for your consideration.

Sincerely,

Joseph S. Bennett, President
Cameron Station Civic Association, Inc

Development Special Use Permit with Site Plan (DSUP) #2003-0018

APPLICATION for
DEVELOPMENT SPECIAL USE PERMIT with SITE PLAN
DSUP
PROJECT NAME: **Cameron Station Phase VI**

PROPERTY LOCATION: **Ferdinand Day Drive**

TAX MAP REFERENCE: **68.01 02 05** ZONE: **CCD #9**

APPLICANT Name: **Cameron Development, L.L.C., a Virginia limited liability company**
Address: **8614 Westwood Center Drive, Suite 900, Vienna, Virginia 22182**

PROPERTY OWNER
Name: **Cameron Development, L.L.C. a Virginia limited liability company**
Address: **8614 Westwood Center Drive, Suite 900, Vienna, Virginia 22182**

SUMMARY OF PROPOSAL: **Preliminary Development Plan pursuant to approved CDD Concept Plan for Phase VI Cameron Station.**

MODIFICATIONS REQUESTED: **None**

SUP's REQUESTED: **§5-605 CDD Preliminary Development Plan Special Use Permit**

THE UNDERSIGNED hereby applies for Development Site Plan, with Special Use Permit, approval in accordance with the provisions of Title 7, Chapter 5 of the Code of the City of Alexandria, Virginia.

THE UNDERSIGNED, having obtained permission from the property owner, hereby grants permission to the City of Alexandria to post placard notice on the property for which this application is requested, pursuant to Article XI, Section 11-301 (B) of the 1992 Zoning Ordinance of the City of Alexandria, Virginia.

THE UNDERSIGNED also attests that all of the information herein provided and specifically including all surveys, drawings, etc., required of the applicant are true, correct and accurate to the best of their knowledge and belief.

Land, Clark, Carroll, Mendelson & Blair, P.C.
By Duncan W. Blair, Esquire — Duncan W. Blair
Print Name of Applicant or Agent *Signature*

524 King Street (703) 836-1000 (703) 549-3335 dblair@landclark.com
Mailing/Street Address *Telephone #* *Fax #* *E-mail*

Alexandria, Virginia 22313 June 17, 2003
City and State *Zip Code* *Date*

========== ***DO NOT WRITE BELOW THIS LINE - OFFICE USE ONLY*** ==========

Application Received: _____ Received Plans for Completeness: _____
Fee Paid & Date: $_____ _____ Received Plans for Preliminary: _____
Legal Advertisement: _____ Property Placard: _____

ACTION - PLANNING COMMISSION: 11/06/03 RECOMMEND APPROVAL 6-0

ACTION - CITY COUNCIL: Approved 6 to 0--See attachment.

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Development Special Use Permit with Site Plan (DSUP) # 2003-0017

APPLICATION for
DEVELOPMENT SPECIAL USE PERMIT with SITE PLAN
DSUP
PROJECT NAME: Cameron Station Phase VII

PROPERTY LOCATION: **Cameron Station Boulevard and Ferdinand Day Drive**
400 Cameron Blvd.
TAX MAP REFERENCE: **68.01 02 04** ZONE: **CCD #9**

APPLICANT Name: **Cameron Development, L.L.C., a Virginia limited liability company**
Address: **8614 Westwood Center Drive, Suite 900, Vienna, Virginia 22182**

PROPERTY OWNER
Name: **Cameron Development, L.L.C. a Virginia limited liability company**
Address: **8614 Westwood Center Drive, Suite 900, Vienna, Virginia 22182**

SUMMARY OF PROPOSAL: **Preliminary Development Plan pursuant to approved CDD Concept Plan for Phase VII Cameron Station.**

MODIFICATIONS REQUESTED: **Vision clearance setbacks on Harold Secord and Ferdinand Day Drive and Harold Secord and Cameron Station Blvd.**

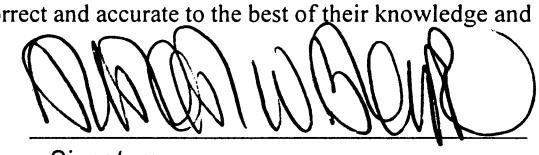
SUP's REQUESTED: **§5-605 CDD Preliminary Development Plan Special Use Permit**

THE UNDERSIGNED hereby applies for Development Site Plan, with Special Use Permit, approval in accordance with the provisions of Title 7, Chapter 5 of the Code of the City of Alexandria, Virginia.

THE UNDERSIGNED, having obtained permission from the property owner, hereby grants permission to the City of Alexandria to post placard notice on the property for which this application is requested, pursuant to Article XI, Section 11-301 (B) of the 1992 Zoning Ordinance of the City of Alexandria, Virginia.

THE UNDERSIGNED also attests that all of the information herein provided and specifically including all surveys, drawings, etc., required of the applicant are true, correct and accurate to the best of their knowledge and belief.

Land, Clark, Carroll, Mendelson & Blair, P.C.
By Duncan W. Blair, Esquire
Print Name of Applicant or Agent


Signature

524 King Street — *Mailing/Street Address*
(703) 836-1000 — *Telephone #*
(703) 549-3335 — *Fax #*
dblair@landclark.com — *E-mail*

Alexandria, Virginia 22313 — *City and State* *Zip Code*
May 23, 2003 — *Date*

========== ***DO NOT WRITE BELOW THIS LINE - OFFICE USE ONLY*** ==========

Application Received: _____
Fee Paid & Date: $_____ _____
Legal Advertisement: _____
Received Plans for Completeness: _____
Received Plans for Preliminary: _____
Property Placard: _____

ACTION - PLANNING COMMISSION: 11/06/03 RECOMMEND APPROVAL 6-0

ACTION - CITY COUNCIL: Approved 6 to 0 -- See attachment.

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APPLICATION for SPECIAL USE PERMIT # 2003-0092

13

PROJECT NAME: **Cameron Station Phase VI & VII**

PROPERTY LOCATION: **Ferdinand Day Drive and Cameron Station Boulevard**

TAX MAP REFERENCE: **68.01 02 05 & 68.01 02 04** ZONE: **CCD #9**

APPLICANT Name: **Cameron Development, L.L.C., a Virginia limited liability company**

Address: **8614 Westwood Center Drive, Suite 900, Vienna, Virginia 22182**

PROPERTY OWNER
Name: **Cameron Development, L.L.C. a Virginia limited liability company**

Address: **8614 Westwood Center Drive, Suite 900, Vienna, Virginia 22182**

PROPOSED USE: **Transportation Management Plant Special Use Permit for Phases VI and VII Cameron Station.**

THE UNDERSIGNED hereby applies for a Special Use Permit in accordance with the provisions of Article XI, Section 11-500 of the 1992 Zoning Ordinance of the City of Alexandria, Virginia.

THE UNDERSIGNED, having obtained permission from the property owner, hereby grants permission to the City of Alexandria to post placard notice on the property for which this application is requested, pursuant to Article XI, Section 11-301(B) of the 1992 Zoning Ordinance of the City of Alexandria, Virginia.

THE UNDERSIGNED hereby attests that all of the information herein provided and specifically including all surveys, drawings, etc., required to be furnished by the applicant are true, correct and accurate to the best of their knowledge and belief. The applicant is hereby notified that any written materials, drawings or illustrations submitted in support of this application and any specific oral representations made to the Planning Commission or City Council in the course of public hearings on this application will be binding on the applicant unless those materials or representations are clearly stated to be non-binding or illustrative of general plans and intentions, subject to substantial revision, pursuant to Article XI, Section 11-207(A)(10), of the 1992 Zoning Ordinance of the City of Alexandria, Virginia.

Land, Clark, Carroll, Mendelson & Blair, P.C.
Duncan W. Blair, Esquire
Print Name of Applicant or Agent

Signature

524 King Street
Mailing/Street Address

(703) 836-1000 **(703) 549-3335**
Telephone # *Fax #*
dblair@landclark.com

Alexandria, Virginia 22314
City and State *Zip Code*

Date **August 6, 2003**

========== ***DO NOT WRITE BELOW THIS LINE - OFFICE USE ONLY*** ==========

Application Received: _____ Date & Fee Paid: _____ $_____

ACTION - PLANNING COMMISSION: 11/06/03 RECOMMEND APPROVAL 6-0

ACTION - CITY COUNCIL: Approved 6 to 0 -- See attachment