

**Docket Item #9 A & B**

**MPA #2008-0002**

**DSUP #2006-0025**

**DASH Bus Facility**

**3000 and 3100 Business  
Center Drive**

**Planning Commission  
May 6, 2008**



Docket Item #9 A & B

MASTER PLAN AMENDMENT #2008-0002  
DEV. SPECIAL USE PERMIT #2006-0025  
DASH BUS OPERATIONS AND  
MAINTENANCE FACILITY

Planning Commission Meeting  
May 6, 2008

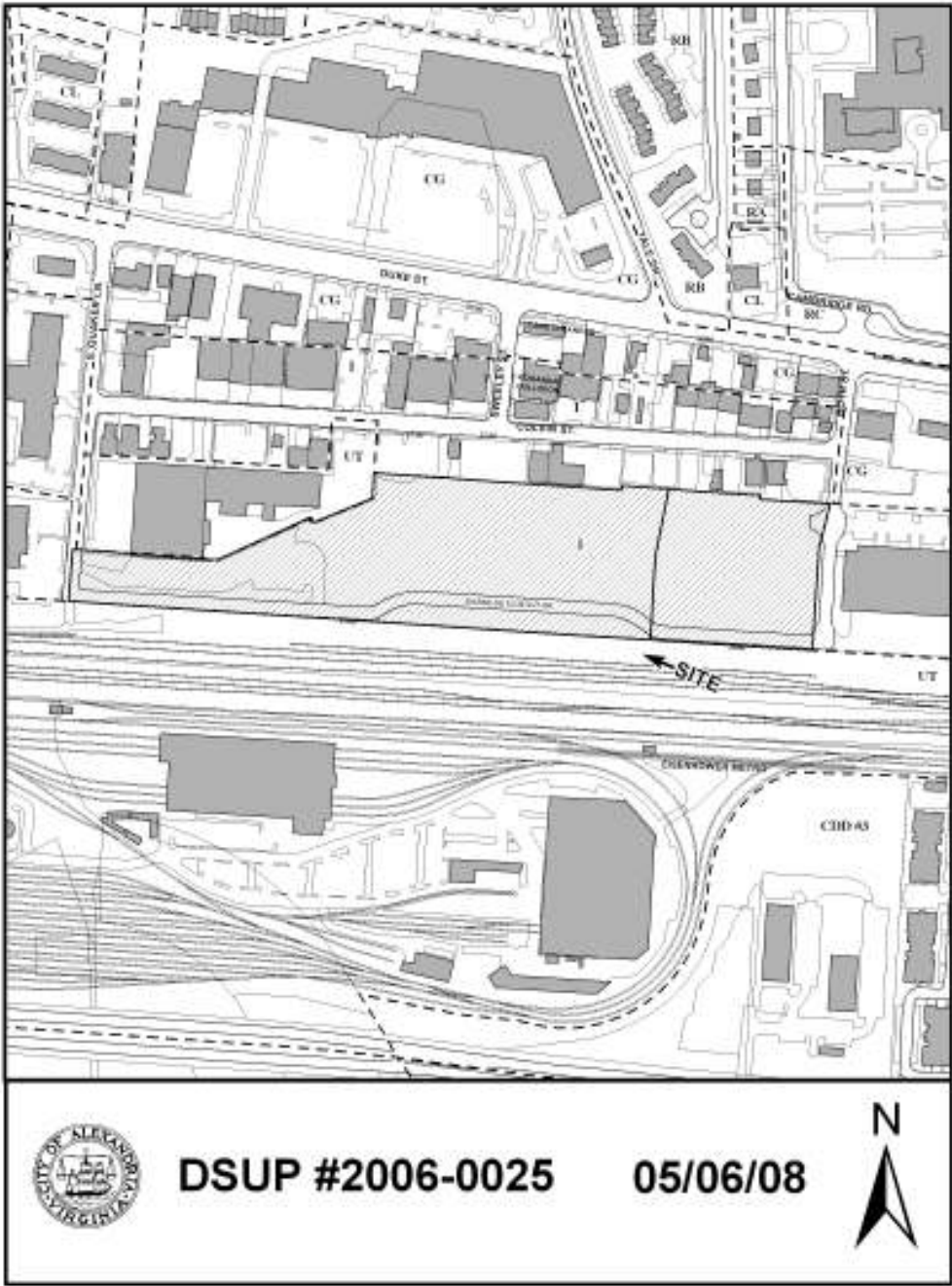
**ISSUE:** Consideration of (1) a request for an amendment to the City's Master Plan to increase building height limits in the Taylor Run/Duke Street Small Area Plan; and (2) a request for a development special use permit, with site plan, subdivision, and a modification, to construct a public building.

**APPLICANT:** City of Alexandria, Department of General Services

**LOCATION:** 3000 and 3100 Business Center Drive

**ZONE:** I/Industrial

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**I. IMPACT AND BENEFIT**

IMPACT/BENEFIT	COMMENTS
Consistency with the City's Adopted Plans and Policies	<ul style="list-style-type: none"> <li>▪ Assists in achieving effective transportation system as identified in the Strategic Plan</li> <li>▪ Expanded facility allows increased levels of service which can facilitate increased ridership and reduced auto-dependency</li> <li>▪ Identified as a major project in the Strategic Plan</li> </ul>
Use	<ul style="list-style-type: none"> <li>▪ 160,000 SF Public Bus Facility</li> </ul>
Pedestrian	<ul style="list-style-type: none"> <li>▪ Streetscape improvements on Business Center Drive and Roth Street</li> </ul>
Mass and Scale / Building Compatibility	<ul style="list-style-type: none"> <li>▪ Building ranges in height from 20 to 38 feet.</li> <li>▪ Horizontal bands of color and art deco inspired elements to reduce the perceived length and mass of the building.</li> </ul>
Traffic	<ul style="list-style-type: none"> <li>▪ Proposed facility to maintain circulation patterns of existing facility; primarily S. Quaker Lane to Duke Street.</li> <li>▪ Operations to nearly double with the completion of the facility, but operators and buses arrive and depart from facility during off-peak hours.</li> </ul>
Parking	<ul style="list-style-type: none"> <li>▪ Approximately 260 roof-top parking spaces provided for DASH employees and non-revenue vehicles</li> <li>▪ Approximately 90 surfaces spaces provided for T&amp;ES and RP&amp;CA employees on-site</li> </ul>
Environmental	<ul style="list-style-type: none"> <li>▪ Achieving points toward LEED Silver Certification</li> </ul>
Fiscal	<ul style="list-style-type: none"> <li>▪ Total facility budget is \$40.5 million</li> <li>▪ \$34.3 million of VDOT Urban Funds allocated for project</li> <li>▪ \$700,000 of NVTA Funds allocated for project</li> </ul>

## II. BACKGROUND

### A. *Site History*

The site was annexed from Fairfax County in 1952 and subsequently zoned Industrial 1 (I-1) and Industrial 2 (I-2). This zoning classification, which permitted light and heavy industrial uses, continued through the 1980s. With the adoption of the 1992 Zoning Ordinance, the site was zoned Industrial (I).

In 1989, CSX Corporation received approval of a special use permit to develop approximately 485,000 square feet of low-rise warehouse space on 28 acres of land, including this site. The development, known as the Alexandria Business Center, included eight buildings which provided warehouse, distribution, and light manufacturing operations. In 1990, one of the eight approved buildings was constructed at 2900 Business Center Drive. None of the other seven buildings were constructed and approval expired in 1999.

Recognizing the need for a new DASH bus operation and maintenance facility, in 2002 the City acquired 3000 and 3100 Business Center Drive from Pepper Lane, LLC and CSX Corporation.



*Figure 1: Existing Site*

### B. *Site Description*

The site consists of two parcels, the eastern parcel is approximately 3 acres and the western parcel is approximately 8 acres. The site is located in an area of the City predominantly characterized by light industrial uses, many of which are owned and operated by the City. Mixtures of commercial and light industrial uses are located north of the site on Duke Street and Colvin Street. The existing DASH facility is located west of the proposed facility and the recently renovated City Operations facility is located east of the site, across Roth Street. The Norfolk Southern and WMATA railroad corridor



*Figure 2: Existing Site*

is located south of the site and Avalon Bay, a 458-unit residential apartment complex is located to the south across the railroad corridor, approximately 500 to 700 feet from the site. Many other City uses, including the recently approved Witter Recreational Fields, the salt dome, and the proposed Alexandria Police Facility are located in close proximity to the site, between Telegraph Road and Wheeler Avenue.



*Figure 3: Surrounding City Uses*

The site is a rectangular shape (approximately 1,100 feet in length and 350 feet in width) and relatively flat, decreasing in grade approximately 5 feet from north to south. While site topography is minimal, there is a substantial change in grade from Duke Street to the site (approximately 20 feet). This change in grade, in addition to the lower scale buildings positioned between Duke Street and the site, provide a transition between the residential uses north of Duke Street and the industrial uses located adjacent to the railroad corridor.

Due to the industrial uses which previously occupied this area, the site contains areas of contaminated soil, as well as the former location of an above ground gasoline storage tank and an underground diesel tank. Prior to purchasing the DASH site, an investigation was conducted to determine the subsurface soil, groundwater, and environmental conditions. The investigation confirmed the presence of petroleum contaminants, hazardous concentrations of lead, and trace amounts of other contaminants. Due to the proposed use of the site, the applicant has proposed to minimize soil disturbance and cap the contaminants in place.

### ***C. Need for New Facility***

The Alexandria Transit Company, established in 1984 to provide local transportation service to the community, is a non-profit public service corporation owned by the City. Currently, the Alexandria Transit Company's DASH system provides nine bus routes within the City, two bus routes to the Pentagon during peak service periods, transportation accommodations for special events, charter services and contract services.

The City purchased the existing DASH facility from CSX Corporation in 1988, which was originally a railcar rehabilitation warehouse. The building was renovated in 1990 to accommodate 30 buses and 40 employees. At the time of renovation, DASH owned 19 buses and had approximately 40 employees. Within two years of the renovation, DASH acquired 14 additional buses and exceeded the capacity of the renovated facility. Since then, the DASH fleet has expanded to 62 buses and 140 employees to meet the City's increasing transit demand. As a result, DASH has outgrown the existing facility in terms of operation and maintenance capacity, as well as administrative capacity.

The capacity constraints limit the ability of DASH to meet current and future transit demands. For example, an adequate level of service, as defined by the Urban Transit Standards, is bus headway of 10 minutes during the peak hours and approximately 30 minute headway during the non-peak hours. Many of the DASH routes currently operate with 30 minute headway during the peak hours and 60 minute headway during the non-peak hours. Due to the constraints of the existing facility, DASH is currently incapable of achieving an adequate level of service, as defined by the Urban Transit Standards.

The proposed facility offers an opportunity for DASH to achieve an adequate level of service as it provides storage for 96 buses, allowing DASH to add new buses to existing routes and develop new routes in areas currently lacking sufficient service. The proposed facility also provides expanded maintenance bays and equipment areas; facilitating improved maintenance capacity and reducing the time buses are out-of-service.



*Figure 4: Existing DASH Facility*

The existing DASH maintenance facility provides no flexibility to accommodate alternative fuel buses, or variety in vehicle size and type. Alternative fuel buses, such as hybrid buses, require specific equipment that the existing facility cannot accommodate due to size limitations. In order to phase out the diesel buses and replace the fleet with an environmentally friendly fleet, it is necessary to accommodate a variety of equipment which can adequately serve the existing fleet and the fleet of the future. In addition, the long-range plan for the DASH system includes the provision of circulator routes in areas such as Potomac Yard and Eisenhower East, which may not require full-size buses. To provide additional options, it is necessary for the facility to accommodate a variety of vehicle types, both for alternative fuels and alternative functions.

The proposed facility provides sufficient capacity to store and repair a variety of buses, including alternative fuel buses and smaller buses, typically designed to serve circulator routes. Due to the increased storage capacity and expanded equipment areas, DASH can expand the bus fleet to include environmentally friendly buses and buses of various sizes, designed to serve circulator routes, charter services and contract services.

**D. Funding – Land Acquisition and Facility**

In early 2002, City Council recognized the need for a new DASH operation and maintenance facility, and directed staff to proceed with the purchase of 9.7 acres of land between S. Quaker Lane and Roth Street on Business Center Drive. *Table 1* provides a brief history of the funding and land acquisition for the DASH operation and maintenance facility.

**Table 1: History of Funding and Land Acquisition**

Date	Action
January 2000	City Council directed staff to proceed with the purchase of 9.7 acres to accommodate a future DASH operations and maintenance facility.
May 2000	City Council voted to request that the Commonwealth Transportation Board reallocate \$7.25 million in State Urban Funds from the King Street Underpass Project to the purchase of land for a new DASH facility
June 2000	Planning Commission approves a Section 9.06 request for the acquisition of 9.7 acres located between S. Quaker Lane and Business Center Drive
May 2001	City Council approves the FY 2002 - FY 2007 Capital Improvement Program (CIP) which includes the acquisition of land for a new DASH facility
January 2002	City Council authorized the City Manager to proceed with the acquisition of 9.7 acres for a new DASH facility
May 2002	3.1 acres of land acquired from Pepper Lane, LLC
July 2002	6.6 acres of land acquired from CSX Realty, Inc

While the new DASH facility was first identified as a capital improvement project in the FY 2002-2007 Capital Improvement Program (CIP) and remained a capital improvement project in subsequent CIPs, funding for the project was uncertain until 2005. Between 2005 and 2007, the City requested that the Commonwealth Transportation Board reallocate funding from other state-funded projects and allocate new funding to fund the construction of the new facility. Overall, state funding of \$35 million was allocated to this project. In 2005, the City allocated approximately \$35 million in VDOT urban funds for the design and construction of the new facility in the CIP. In January 2008, the City Council authorized the capital project allocation of over \$32 million in VDOT Urban Funds to construct and equip the new facility. The design-build delivery method was selected to provide a more cost effective alternative to the traditional design-bid-build method of construction. The following table outlines the facility budget:

**Table 2: DASH Bus Facility Budget**

<b>DASH Bus Facility Budget</b>	
<u>Funding Source</u>	<u>Amount</u>
VDOT Urban Funds	\$34,300,020
City of Alexandria Match	\$699,980
City Funding – Facility	\$2,229,000
City Funding – Contingency	\$3,271,000



<b>Total Funding:</b>	<b>\$40,500,000</b>
Uses	Cost
Design Fees	\$2,700,000
Base Building and Site	\$33,729,000
Furniture, Fixture, and Equipment	\$800,000
Contingency	\$3,271,000
<b>Total Cost</b>	<b>\$40,500,000</b>

**E. Project Description**

The applicant proposes to construct a 160,000 square foot public building to serve as the DASH bus operations and maintenance facility. The proposed facility ranges from one-to-two stories in height (20-38 feet) and has an overall floor area ratio of 0.40. Approximately 260 parking spaces are proposed on the roof of the facility to provide parking for DASH employees and non-revenue vehicles. The proposed rooftop parking is accessible by a ramp, located at the northeast corner of the site. In addition to the rooftop parking, approximately 100 spaces area proposed in a surface parking lot to provide parking for City staff, service vehicles, and visitors.



*Figure 5: Rendering of Proposed Facility*

The proposed facility and surface parking lot are primarily accessible from Business Center Drive for buses, visitors, and City staff and the ramp for the rooftop parking lot is accessible from Roth Street. The applicant proposes to straighten Business Center Drive with the construction of the proposed facility, to ease movement of buses, visitors, and employees.

The first floor of the proposed facility accommodates internal storage for 96 buses, 10 maintenance bays, bus washing and fueling stations, offices, a training room, locker rooms, a lunch room, and storage space. Two underground fueling tanks, located adjacent to Business Center Drive, are proposed to fuel the bus fleet. The functions provided within the first floor are primarily devoted to the operation, maintenance, and storage of the bus fleet. The second floor of the building, on the other hand, is designed to serve the administration and transportation employees, as well as the visitors. The second floor includes a driver-ready area, exercise room, dispatch office, training room, conference rooms, administrative offices, and the building's reception area.

The proposed facility will not serve as a customer service center and as a result, few visitors to the facility are anticipated. The proposed facility will serve as the destination for lost and found items, but general customer service information will be provided in other locations, such as the Old Town Transit Shop, located across from the King Street Metro Station. However, any visitors that visit the facility to retrieve lost and found items will enter the building at the southeast corner, along Business Center Drive, and will be directed to the reception area at the second floor.

Currently, DASH provides fixed route bus service from 5:00 a.m. to 1:00 a.m. on weekdays, 6:30 a.m. to midnight on Saturdays, and 7:00 a.m. to 11:30 p.m. on Sundays as well as transportation for special events, charter services and contract services. While the hours of operation will not change with the proposed facility, DASH plans to expand services to increase frequency on existing routes, create additional routes, provide circulators in areas such as



*Figure 6: Site Plan in Aerial*

Potomac Yard and Eisenhower East, as well as provide shopping shuttles and community buses. These improvements require an increase in the number of employees, and the proposed facility accommodates 190 employees, an increase of 72 employees from today.

DASH currently employs approximately 9 administrative employees, 91 transportation employees, and 18 maintenance employees, a total staff of 118. During the week, the first shift typically begins at 4:00 a.m. and the last shift typically ends at 1:00 a.m. On weekends and holidays, the first shift typically begins at 5:00 a.m. and the last shift typically ends at 1:00 a.m. on Saturdays and midnight on Sundays and holidays. Currently, the number of employees on-duty ranges from 2 to 104 depending on the day of the week and the time of the day. For example, only 2 employees are on-duty Saturdays, Sundays, and holidays at 5:00 a.m. and 104 employees are on-duty at 3:00 p.m. during the week.

While the start of the first shift and the completion of the last shift will not change with the proposed facility, the number of employees on-duty will increase to improve service. At the completion of the proposed facility, DASH anticipates that the number of staff will be increased to 190 employees: 15 administrative, 143 transportation, and 31 maintenance employees. Therefore, the number of employees on-duty will range from 2 to 166 depending on the day of the week and the time of day.

The proposed facility has also been designed to accommodate an area for future expansion, enabling internal storage for an additional 34 buses. Adequate employee parking for the future expansion has been considered with the proposed facility; the 260 employee spaces located on

the roof of the proposed facility were designed to accommodate existing and future DASH employees and non-revenue vehicles. While a future expansion has been anticipated as part of the planning process, the expansion requires subsequent approval by the Planning Commission and City Council.



*Figure 7: Proposed Business Center Drive Building Elevation*

### **F. *Future Use of Existing DASH Facility***

Consistent with the many existing and proposed City facilities located in this area of the City, the Department of General Services anticipates maintaining the site currently occupied by the existing DASH facility as a public facility. The City must evaluate the long-term needs of the public facilities prior to determining the future use of the site. The Department of General Services is evaluating several options for reuse that are compatible with the light industrial character of the area and plans to return to Planning Commission and City Council with an application for this site in the future.

### **G. *Timing***

If this proposal is approved by the Planning Commission and City Council it will take approximately 18 months to finalize design and construction of the facility, resulting in an October 2009 facility completion. Improvements in frequency of service and expanded routes are likely to occur shortly after the completion of the proposed facility. While improvements in service are largely dependent upon financing, DASH anticipates achieving adequate service levels, as defined by the Urban Transit Standards, within a few years of the proposed facility's completion. The 2009 City Budget proposes the purchase of seven new buses. Assuming the purchase of these buses is approved, DASH believes that two of the seven buses will be used to facilitate route expansion, while the remaining five buses will be used to replace older diesel buses. Funding constraints may delay improvements to frequency of service on current routes and the expansion of additional routes, but the proposed facility offers a point of commencement to improved levels of service.

### III. ZONING

The property is zoned Industrial (I). Public buildings, such as the DASH Bus Operations and Maintenance facility are permitted in this zone with a special use permit. The proposed bus operations and maintenance facility requires approval of the following:

- A master plan amendment to increase permitted building height from 35 to 50 feet; and
- A development special use permit to construct a public building in the Industrial zone.

**Table 3: Zoning**

<b>DASH Bus Operations and Maintenance Facility</b>		
Property Address:	3000 and 3100 Business Center Drive	
Total Site Area:	401,240 SF or 9.21 Acres (with Request for Subdivision)	
Zone:	Industrial (I)	
Current Use:	Vacant	
Proposed Use:	Public Building – Bus Operations and Maintenance Facility	
	<b><u>Permitted/Required</u></b>	<b><u>Proposed</u></b>
Floor Area Ratio	.85 (1.25 with SUP)	.40
Height	35 Feet*	38 Feet
Open Space	N/A	Ground Level: 117,896 SF Roof Top: 3,278 SF Total: 121,174 SF (30%)
Parking		
Office:	65 spaces	Rooftop: 259 spaces
Office (Over 20 Employees)	90 spaces	Surface: 93 spaces
Non-Office:	80 spaces	Visitor: 5 spaces
Total:	235 spaces	Total: 357 spaces
*Maximum Height permitted by the Taylor Run/Duke Street Small Area Plan. Maximum Height permitted in I Zone is 50 feet.		

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

The proposed facility provides an opportunity to fulfill many of the goals and objectives identified in the City's planning policies and documents – primarily the provision of efficient public transportation to reduce auto-dependency and improve quality of life. The City's Strategic Plan identifies the construction of a new DASH operations and maintenance facility as a project essential to achieving the goal of an integrated, multi-modal transportation system that efficiently and effectively transports City residents, visitors, and employees.

The facility also enables DASH to improve quality of service by providing sufficient storage for additional buses, expanded maintenance bays to accommodate a larger bus fleet, adequate parts and equipment areas, and the ability to transition the fleet to environmentally friendly buses. DASH anticipates that the new facility will facilitate increased service levels on existing routes and the creation of new routes to connect new and future development, revitalized areas, and neighborhoods currently lacking sufficient transit.

While the proposed facility provides an opportunity to enhance transit service within the City, it also presents a substantial challenge with regard to design. The proposed facility is very long, extending over 600 feet along Business Center Drive and 235 feet along Roth Street; dimensions required to accommodate the facility's use and function. As the proposed facility is a public building, staff believes it is imperative to maintain the high quality building design required of private development. However, achieving high-quality design on a building of this mass and scale was challenging, as described below in further detail. Refinement of the design, mass and architecture has resulted in a building which expresses the color and brand of the DASH bus while simultaneously respecting the facility's function.

##### ***A. Master Plan Amendment***

The proposal requests an amendment to the Taylor Run/Duke Street Small Area Plan to increase the height permitted on the site from 35 feet to 50 feet. In the 1992 Taylor Run/Duke Street Small Area Plan, the height permitted in this area of the City was decreased from 200 feet (heights permitted for a planned unit development with a special use permit) to 35 feet as part of the 1992 Master Plan. While the Master Plan limits the height of this site to 35 feet, the current Industrial zoning permits heights up to 50 feet. Therefore, although the proposal requires an amendment to the Master Plan, staff considers this amendment a technical amendment to reflect existing zoning.

The proposed building is 3 feet taller than the 35 feet currently permitted by the Master Plan. The additional 3 feet of height is needed to ensure adequate clearance is provided for the long-term maintenance of mechanical equipment. During an initial review of this request, staff evaluated the permitted heights of adjoining parcels, topography, and context and recommended that the applicant request approval of a master plan amendment to increase the permitted building height to 50 feet to conform to the permitted height in the Industrial zone.



*Figure 8: Existing Building Heights*

While the area south of Duke Street encompasses several small area plans including Taylor Run/Duke Street, Seminary Hill/Strawberry Hill and King Street Metro Station/Eisenhower Avenue, the permitted heights on parcels adjacent to the rail corridor generally range from 45 to 50 feet, consistent with the Industrial and Utility zones. Due to the heights permitted in the Industrial zone and on adjoining properties, staff supports the request to increase the permitted height to 50 feet.



*Figure 9: Surrounding Small Area Plans*

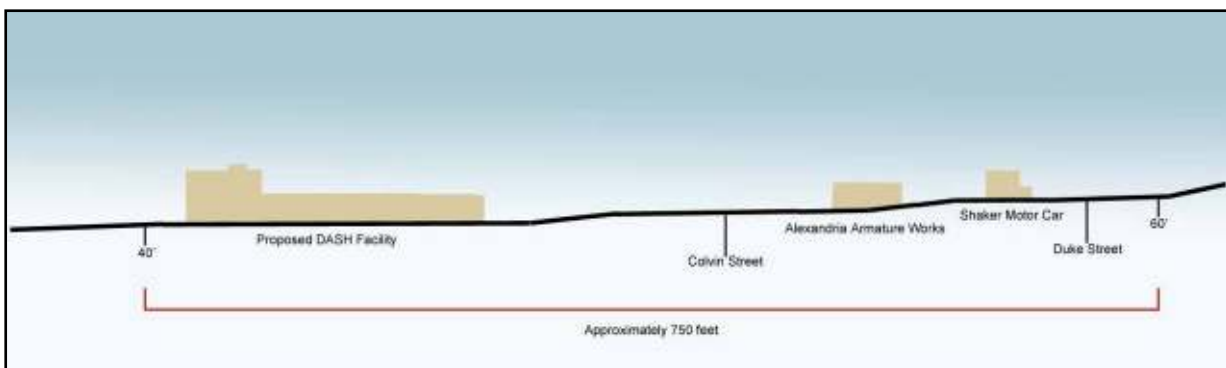
Ideally, staff would recommend increasing the height permitted on parcels located between Colvin Street and the railway corridor to 50 feet, including the existing DASH facility. While the Taylor Run/Duke Street Small Area Plan permits heights of 45 feet on the existing facility

parcel, staff believes that the maximum permitted height should be 50 feet, consistent with the zoning and adjacent properties. Although the City also owns the parcel on which the existing facility is located, staff determined that it was best to evaluate an increase in height with a specific development proposal. However, as staff supports the master plan amendment to increase height at the location of the proposed facility, staff would also likely support a maximum height of 50 feet at the existing facility.



*Figure 10: Proposed Building Heights*

Beyond consistency with the Industrial zone and surrounding permitted building heights, staff also believes that a height of 50 feet is appropriate in this area due to the change in grade from north to south. From Duke Street, the grade drops approximately 20 feet to the railroad corridor, which forms the southern border of the site. Due to the difference in grade, the height perceived from Duke Street and the residential neighborhoods north of Duke Street will be less than 50 feet.



*Figure 11: Section from Duke Street to Site*

In addition to the transition in grade, the buildings located between Duke Street and the site offer a transition in use. The buildings located on Duke Street are primarily commercial in character and range in height from one to three stories. While the buildings located on Colvin Street also

range in height from one to three stories, the services provided in the buildings are predominantly light industrial. The area between Duke Street and the site, including Colvin Street, offer an intermediate zone where the land uses transition from commercial to light industrial. In this location, the character moves from the lower-scale residential uses north of Duke Street to commercial and industrial uses adjacent to the rail corridor.

Staff supports the request for a master plan amendment to increase building height as the change in grade from north to south, the surrounding uses, and the surrounding building heights provide a rational transition for uses and heights, and provide the appropriate context for a maximum building height of 50 feet.

**B. Development Special Use Permit**

The DASH operation and maintenance facility is a public building proposed in the Industrial (I) zone, which requires approval of a development special use permit (DSUP). Staff supports the request for DSUP approval as a bus operation and maintenance facility is an appropriate use in this location of the City. The areas immediately adjacent to the site are zoned Commercial General (CG), Industrial (I), and Utility (UT), and are occupied by a variety of light industrial uses, which provide services such as distribution, manufacturing, auto-repair, and storage facilities. Due to the adjacent uses and existing zoning, the proposed facility is compatible with the character of the surrounding property and neighborhood.

Furthermore, the proposed facility conforms to the uses identified for this area in the City’s master plan. The Taylor Run / Duke Street Small Area Plan identifies this site as an area with redevelopment potential, but indicates that the lack of visibility, accessibility, and proximity to the railroad corridor preclude this site from office and residential redevelopment. Rather, the plan identifies this site as an area for heavy commercial and industrial redevelopment, such as the facility proposed.



*Figure 12: Surrounding Buildings*



- Commercial
- Townhouse
- Public Open Space and Community Recreation
- Office/Commercial Medium
- Apartment/Multi-Family
- Industrial
- Utility

*Figure 13: Zoning Context*



As previously indicated, the closest residential use is approximately 500 to 700 feet south of the site, across the Norfolk Southern and WMATA railroad corridor. While residential uses are located north of Duke Street, light industrial and commercial buildings provide an adequate transition to the proposed facility. Due to the distance of this site from residential uses, residents, motorists, and pedestrians are not adversely affected by the daily operations of the proposed facility.

Finally, a City-wide study, expected to commence in early 2009, will evaluate the longevity of industrial uses in the City as well as the locations desired for continued industrial use. As outlined in the Economic Sustainability Report recently adopted by City Council, it is necessary for the City to maintain some industrial zoned lands to ensure a diversity of uses, functions, and employment opportunities within the City. While the findings and recommendations of the City-wide study have yet to be developed, staff anticipates that the area south of Duke Street and north of the railroad corridor will remain industrial in character, due to the location, limited visibility, limited access, and relative distance from residential neighborhoods. Due to the anticipated continuation of industrial uses in this area of the City, staff supports the request for a development special use permit to construct a public building in the Industrial zone.

### **C. *Building***

A challenge with this proposal was creating a high-quality building of which the City can be proud, while simultaneously keeping within the facility's budget requirements. An initial step to overcoming this challenge was the use of precast concrete for the structure and the building facades. With a high-quality building material as the base, staff and the applicant were then able to add refinement to express the light industrial use through a high-quality building design.



*Figure 14: Proposed Business Center Drive Building Elevation*

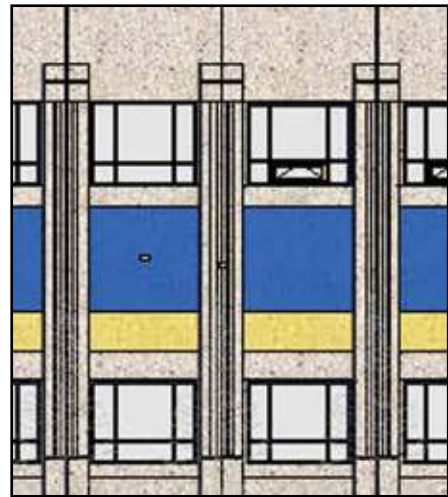
Particularly through the integration of color, the building design recalls the horizontal theme of the DASH bus brand. In addition to representing the movement of the DASH bus, the horizontal bands of blue and yellow create a hierarchy of facades and reflect the internal operations of the facility. Specifically, the blue horizontal band expresses the location of the administrative functions, while the yellow band, which extends around the entire facility, represents the division between the first and second floors and serves to connect the primary, secondary, and tertiary facades.

The precast concrete base and the organization of the windows offer an opportunity to develop an overall building design which recalls some of Alexandria's best industrial art deco designs. Many of the City's best art deco examples are warehouses and industrial buildings located in the Del Ray neighborhood. Each of these buildings typically has simple ornamentation, repetitive bays, vertical striping as the main orientation, and gridded windows with operable awnings.



*Figure 15: Del Ray Art Deco Building*

Consistent with these industrial examples, the proposed facility is characterized by art deco columns on the south and east building facades to identify the main building entrance and the administrative area. Similar to the treatment of the blue horizontal band, limiting the columns to the southern and eastern building facades expresses the location of the administrative functions and creates primary, secondary, and tertiary facades.



*Figure 16: Proposed Fluted Columns*

Beyond the integration of color and detailed columns, the building further recalls Alexandria's industrial art deco tradition through signage. Due to the site's location, the proposed building is visible from many different vantage points, including Business Center Drive, Virginia Railway Express and Metro trains, and uses immediately south of the railroad corridor along Eisenhower Avenue. Staff and the applicant consider this visibility an opportunity to incorporate signage which identifies the facility and can also serve as public art.

The proposed DASH sign is located at the southeast corner of the building, facing Business Center Drive. The placement of the proposed sign further identifies this area of the building as the main entrance and the primary façade. The proposed sign features large-scale, three-dimensional letters forming the DASH logo, with yellow and blue neon edging, allowing the sign to function as a focal point day and night. The proposed sign also incorporates horizontal pin-striping in a blue accent color to emphasize the yellow letters.

The other building element that received considerable attention is the ramp access to the rooftop parking. While the ramp represents a significant design challenge for staff, it is a necessary structure to access the 260 employee parking spaces located on the roof of the facility. Considered an extension of the building, precast concrete also forms the majority of the ramp. At its base, the ramp is constructed of cast-in-place concrete. In an effort to screen and soften the base of the ramp, plantings are proposed on both the north and south side of the ramp.

### **Environmental Design Elements**

Consistent with the City's policy to incorporate green building technology, the applicant has designed the DASH operation and maintenance facility to achieve Silver Certification in the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED) program. The proposed facility achieves points toward certification for activities such as the site selection, the redevelopment of a brownfield, the provision of alternative transportation, the stormwater design, the use of water efficient landscaping, and the reduction of water use, amongst other design features. Furthermore, the applicant has requested approval from the U.S. Green Building Council to award innovation in design points for the following design features: water reclamation for the bus wash, installation of a traction elevator, and the establishment of a sustainable operation and maintenance plan.

#### **D. *Future Expansion***

In addition to the 160,000 sq. ft. facility currently proposed, the applicant has also allocated land area on the site to accommodate a future expansion, as funding permits. The expansion area, located immediately west of the proposed building, provides the capability to add interior bus storage for approximately 34 additional buses, creating a total capacity of 130 buses. As the expansion is not included in the requested approvals, approval of a separate development special use permit is required.

The proposed facility and the future expansion are sufficient to achieve a level of service consistent with the Urban Transit Standards, defined as 10-minute headway during peak hours and 30-minute headway during non-peak hours, for the foreseeable future.

#### **E. *Traffic and Circulation***

A traffic impact study, prepared by Baker and Associates in May 2005, evaluated the existing and future traffic conditions associated with the proposed Alexandria Police Facility, the proposed DASH operation and maintenance facility, and the City operation facility located at 2900 Business Center Drive. While the study focused primarily on the traffic impacts of the proposed Alexandria Police Facility, it identified intersections currently operating at unacceptable levels of service and offered recommendations for improvement. Overall, the study determined that no significant congestion problems are anticipated with the construction of the aforementioned City projects.

The traffic impact study evaluated the existing and future levels of service at both intersections which provide access to the proposed DASH facility; the intersection of S. Quaker Lane and Duke Street and the intersection of Roth Street and Duke Street. Table 4 (next page) provides a comparison of the peak hour traffic conditions at these two intersections.

**Table 4: Comparison of Peak Hour Traffic Conditions**

Intersection	Existing Conditions (2005)		Future Conditions (2015)	
	LOS (delays in seconds/vehicle)			
	AM	PM	AM	PM
S. Quaker Lane and Duke Street	B (11)	B (12)	B (10)	B (11)
Roth Street and Duke Street	D (50)	E (74)	D (44)	D (36)

The intersection of S. Quaker Lane and Duke Street is the primary route used by the existing DASH facility. The existing facility, located at 116 S. Quaker Lane, currently routes buses directly to Duke Street. At the signalized intersection of S. Quaker Lane and Duke Street, buses travel east or west, depending on the origination of the route.

The proposed facility, located immediately east of the existing facility on Business Center Drive, will maintain the circulation patterns of the existing facility. While Roth Street will be used occasionally for maintenance testing, the slope, width, and signal timing preclude Roth Street from being a primary circulation route.

Although the proposed facility nearly doubles the number of buses arriving and departing from the site, the traffic impact study determined that the proposed facility will not create traffic congestion, as operators and buses depart from and arrive at the facility during off-peak times of the day. For example, many of the fixed bus routes depart from the existing facility around 5:00 a.m. to provide service during the morning rush hour. These buses generally return to the facility at the end of the morning peak period. Additional buses depart from the facility near the end of the peak morning period to operate the Patent and Trademark Office lunch loop and begin fixed route service. Similarly, the buses providing service during the evening rush hour return to the facility at the end of the evening peak period. Therefore it is expected that no changes would occur in the trip generation during AM and PM peak hours.

**F. *Subdivision***

The applicant is requesting approval to consolidate Lot 702 and Lot 703 on Business Center Drive and to re-subdivide the property to create a final site area of approximately 9 acres. Currently, Lot 702 is approximately 3 acres and Lot 703 is approximately 8 acres. However, Lot 703 is rather irregular in shape and extends south of the existing DASH Bus facility to S. Quaker Lane. Due to the irregular shape of the lot, and its proximity to two adjacent parcels owned by the City, the request for approval to re-subdivide is rational as it enables future redevelopment of the existing parcels for other City use.

**Modification**

In addition to the request for approval of consolidation and re-subdivision, the applicant has also requested approval of a modification to install an 8-foot fence around the perimeter of the site. A 6-foot fence, as permitted in the Zoning Ordinance, does not provide sufficient security for the proposed facility. To ensure the security of the facility and the employees, staff supports the modification to install and 8-foot fence around the perimeter of the site.

**G. Community**

During the past few years, the applicant has met with the neighboring civic associations and other interested parties to discuss the proposed DASH facility, as well as adjacent City development projects such as the Witter Recreational Fields and the proposed Alexandria Police Facility. Table 5 provides a brief summary of the meetings which have occurred to date.

**Table 5: Community Meetings**

May 2005	Public information meeting to discuss plans for proposed City Complex, which included the proposed Alexandria Police Facility, proposed DASH operation and maintenance facility, City operation facility, and Witter Recreational Fields
April 2008	Public Information Meeting for DASH facility – Update provided for other City development projects in the area

In addition to the meetings documented in Table 5, staff also met with the Alexandria Federation of Civic Associations. While attendance at the aforementioned meetings was limited in spite of notification, the neighboring civic associations, business owners, and general public have not expressed opposition or concern with the proposed DASH operation and maintenance facility.

**V. CONCLUSION**

As proposed, the DASH Bus operations and maintenance facility offers an opportunity to:

- Expand transit options and add new routes and connections throughout the City;
- Meet needs of changing and increasing commuter travel patterns in new developments and revitalized areas, including the Eisenhower Valley, Potomac Yard, and neighborhoods such as Del Ray, and the West End;
- Provide flexibility for operating alternative fuel vehicles and operating smaller, community buses that will improve neighborhood circulation, mobility, accessibility, and connectivity;
- Improve overall efficiencies and effectiveness of City’s transit services by providing high-quality, frequent transit connections to attract new riders, offer viable alternatives, mitigate increases in traffic congestion and parking problems, and reduce environmental impacts and air quality.

Therefore, staff recommends **approval** of the proposed master plan amendment and development special use permit subject to compliance with all applicable codes and the following staff recommendations.

STAFF: Faroll Hamer, Director, Planning and Zoning;  
Jeff Farner, Development Division Chief;  
Tom Canfield, City Architect;  
Gary Wagner, Principal Planner; and  
Jessica Ryan, Urban Planner.

## **VI. STAFF RECOMMENDATIONS**

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

### **A. BUILDING DESIGN:**

1. The final architectural elevations shall be consistent with the level of quality and detail provided in the preliminary architectural elevations dated April 23, 2008. In addition, the applicant shall provide additional refinements to the satisfaction of the Directors of P&Z and T&ES that shall at a minimum include:
  - a. All facades of the building shall be constructed entirely of masonry (precast) as generally depicted in the preliminary architectural elevations.
  - b. The building elevations shall be light sandblast and include bands of blue and yellow paint or stain to add visual interest and identification to the building.
  - c. The band of blue shall be provided on the two-story segment of the Business Center Drive and Roth Street building elevations, except in the recessed building segments. The band of yellow shall be located immediately beneath the band of blue on the two-story segment of the Business Center Drive and Roth Street elevations and continue on each building elevation.
  - d. Louvers located within the yellow band shall be factory finished or painted yellow to match the band of yellow stain or paint. All other louvers shall be factory finished or painted match corresponding wall material or color.
  - e. The stairs located on the north of the building shall be factory finished or painted to correspond to the color of the precast.
  - f. Overhead doors shall be factory finished to match the bands of blue stain or paint.
  - g. Provide fourteen to sixteen detailed, fluted pilasters on the southern and eastern building elevations to identify the main entrance and administrative area as a primary façade.
  - h. Windows shall be gridded with an operable awning and mullions shall be factory finished or painted yellow to correspond to the yellow building band.
  - i. The entrance canopy shall be enhanced to provide a decorative, cable-suspended canopy. All building identification shall be located above the canopy to ensure consistency with the art deco style.
  - j. The DASH sign shall be integrated with the building and designed in general conformance with Attachment #1.
  - k. The rooftop mechanical equipment visible from Business Center Drive and Roth Street shall be painted to match the precast concrete panels.
  - l. The building mounted light fixtures shall be an integrated part of the façade and shall be provided with the final site plan submission.
  - m. The freestanding light poles on the ramp shall be eliminated. Wall mounted lighting on the interior of the ramp shall be provided.

- n. The City of Alexandria encourages the use of green/sustainable building technology. The applicant shall achieve points toward LEED Silver Certification under the U.S. Green Building Council's System. The sustainable design elements and innovative technologies implemented to achieve the points shall be consistent with the preliminary project checklist dated February 29, 2008.
  - o. A color on-site mock-up shall be provided prior to the final selection of the precast concrete and other building materials.
  - p. Color architectural elevations (front, side and rear) shall be submitted with the final site plan and with the mylar submission. (P&Z)(T&ES)
2. The applicant of any building or structure constructed in excess of 10,000 square feet; or any building or structure which constructs an addition in excess of 10,000 square feet shall contact the City of Alexandria Radio Communications Manager prior to submission of final site plan. The proposed project shall be reviewed for compliance with radio requirements of the City of Alexandria to the satisfaction of the City of Alexandria Radio Communications Manager prior to site plan approval. Such buildings and structures shall meet the following conditions:
- a. The building or structure shall be designed to support a frequency range between 806 to 824 MHz and 850 to 869 MHz.
  - b. The building or structure design shall support minimal signal transmission strength of -95 dBm within 90 percent of each floor area.
  - c. The building or structure design shall support a minimal signal reception strength of -95 dBm received from the radio system when transmitted from within 90 percent of each floor area.
  - d. The building or structure shall be tested annually for compliance with City radio communication requirements to the satisfaction of the Radio Communications Manager. A report shall be filed annually with the Radio Communications Manager which reports the test findings.

If the building or structure fails to meet the above criteria, the applicant shall install to the satisfaction of the Radio Communications Manager such acceptable amplification systems incorporated into the building design which can aid in meeting the above requirements. Examples of such equipment are either a radiating cable system or an FCC approved type bi-directional amplifier. Final testing and acceptance of amplification systems shall be reviewed and approved by the Radio Communications Manager. Acknowledged by applicant, will be evaluated with DB team. (Code)

**B. PEDESTRIAN AND STREETSCAPE:**

3. The applicant shall provide pedestrian and streetscape improvements that at a minimum provide the level of improvements depicted on the preliminary site plan dated March 20, 2008 and shall also at a minimum provide the following to the satisfaction of the Directors of P&Z, RP&CA, and T&ES:



- a. The sidewalk on the north side of Business Center Drive, with the exception of the entrance area, shall be a 6-foot-wide unobstructed sidewalk located adjacent to the curb with a minimum 6-foot landscape strip located between the sidewalk and the bioretention planter boxes.
  - b. The sidewalk on the west side of Roth Street shall be a minimum of 7 feet, with a minimum unobstructed width of 5-feet. A landscape strip shall be provided adjacent to the curb and a continuous screen hedge shall be installed adjacent to the sidewalk within the landscape strip. Street trees shall be centered in the landscape strip between the screen hedge and the curb.
  - c. The developer shall install and maintain ADA accessible pedestrian crossings serving the site.
  - d. Where crosswalks are to be marked, provide thermoplastic (open ladder) style crosswalks at all midblock locations; all other crosswalks at controlled intersections shall be standard two-line crosswalks.
  - e. All pedestrian and streetscape improvements shall be completed prior to the issuance of a certificate of occupancy permit. (P&Z) (T&ES)(RP&CA)
4. Americans with Disability Act (ADA) ramps shall comply with the requirements of Memorandum to Industry No. 03-07 on Accessible Curb Ramps dated August 2, 2007 with truncated domes on the end of the ramp with contrasting color from the rest of the ramp. A copy of this Memorandum is available on the City of Alexandria website. (T&ES)
5. Provide all pedestrian and traffic signage in accordance with the Manual of Uniform Traffic Control Devices (MUTCD), latest edition to the satisfaction of the Director of T&ES. (T&ES)

**C. LANDSCAPING:**

6. The applicant shall provide landscape improvements that at a minimum provide the level of improvements depicted on the preliminary site plan dated March 20, 2008 and shall also at a minimum provide the following to the satisfaction of the Directors of P&Z, RP&CA, T&ES, and Code Enforcement:
- a. Develop, provide, install and maintain an integrated Landscape Plan that is coordinated with other associated site.
  - b. The plan shall comply with the City of Alexandria Landscape Guidelines.
    - i. Ensure that FDC connections and secure access/exit areas for the building are not compromised by proposed plantings.
    - ii. Provide required crown area coverage.
    - iii. Provide hose bibs at a maximum spacing of 90' apart on three faces of the building, as generally depicted on the preliminary plan
    - iv. Hose bibs and ground set water connections must be fully accessible and not blocked by plantings, site utilities or other obstructions.
  - c. The transformer located adjacent to Business Center Drive shall be screened.

- d. Flow-through planter boxes shall be precast to match the building materials.
- e. The rooftop open space shall be designed to function as high-quality usable open space for the employees. At a minimum, the rooftop deck shall include planters, tables and chairs, benches, and trash receptacles.
- f. The landscaping for the proposed development shall not impede the visibility of any FDC or Fire Hydrant and shall comply with Section 912 of the Statewide Fire Prevention Code. Landscaping that impedes FDC visibility and shall be removed by the Final Site Plan #1 submission. (RP&CA)(P&Z)(T&ES)(Code)

**D. SITE PLAN:**

7. Security fences and gates shall be black, vinyl-coated chain link and shall not exceed 8 feet in height. (P&Z)
8. Shift the security fence located adjacent to the stormwater management basin north to accommodate the five street trees between the sidewalk and the fence. (P&Z)
9. The final subdivision and consolidation plats shall be submitted as part of the submission for first final site plan and shall be approved and recorded prior to the release of the final site plan. (P&Z)
10. Provide a lighting plan with the final site plan to verify that lighting meets City standards. The plan shall be to the satisfaction of the Directors of T&ES and P&Z in consultation with the Chief of Police and shall include the following:
  - a. Clearly show location of all existing and proposed street lights and site lights, shading back less relevant information;
  - b. A lighting schedule that identifies each type and number of fixtures, mounting height, and strength of fixture in Lumens or Watts;
  - c. Manufacturer's specifications and details for all proposed fixtures including site, landscape, pedestrian, sign(s), and security lighting.
  - d. A photometric plan with lighting calculations that include all existing and proposed light fixtures, including any existing street lights located on the opposite side(s) of all adjacent streets. Photometric calculations must extend from proposed building face(s) to property line and from property line to the opposite side(s) of all the adjacent streets and/or 20 feet beyond the property line on all adjacent properties, and right-of-way. Show existing and proposed street lights and site lights.
  - e. Photometric site lighting plan shall be coordinated with architectural/building mounted lights, site lighting, street trees and street lights and minimize light spill into adjacent residential areas.
  - f. Provide location of conduit routing between site lighting fixtures so as to avoid conflicts with street trees.
  - g. Detail information indicating proposed light pole and footing in relationship to adjacent grade or pavement.

- h. The lighting for the areas not covered by the City of Alexandria' standards shall be designed to the satisfaction of Directors of T&ES and P&Z.
- i. Provide numeric summary for various areas (i.e., roadway, walkway/ sidewalk, alley, and parking lot, etc.) in the proposed development.
- j. Full cut-off lighting shall be used at the development site to prevent light spill onto adjacent properties. (T&ES)(P&Z) (Police)

**E. STORMWATER:**

- 11. Per the requirements of the City of Alexandria Zoning Ordinance Article XI, the applicant shall complete a drainage study and adequate outfall analysis for the total drainage area to the receiving sewer that serves the site. If the existing storm system is determined to be inadequate then the applicant shall design and build on-site or off-site improvements to discharge to an adequate outfall; even if the post development storm water flow from the site is reduced from the pre-development flow. The Plan shall demonstrate to the satisfaction of the Director of T&ES that a non-erosive stormwater outfall is present. (T&ES)
- 12. Per the requirements of the City of Alexandria Zoning Ordinance (AZO) Article XIII, the applicant shall comply with the peak flow requirements and prepare a Stormwater Management Plan so that from the site, the post-development peak runoff rate from a two-year storm and a ten-year storm, considered individually, shall not exceed their respective predevelopment rates. If combined uncontrolled and controlled stormwater outfall is proposed, the peak flow requirements of the Zoning Ordinance shall be met. (T&ES)
- 13. Flow from downspouts, foundation drains, and sump pumps shall be discharged to the storm sewer outfall as per the requirements of Memorandum to the industry on Downspouts, Foundation Drains, and Sump Pumps, Dated June 18, 2004 that is available on the City of Alexandria's web site. The downspouts and sump pump discharges shall be piped to the storm sewer outfall, where applicable after treating for water quality as per the requirements of Article XIII of Alexandria Zoning Ordinance (AZO). (T&ES)
- 14. All stormwater designs that require analysis of pressure hydraulic systems, including but not limited to the design of flow control structures and storm water flow conveyance systems shall be signed and sealed by a professional engineer, registered in the Commonwealth of Virginia. The design of storm sewer shall include the adequate outfall, inlet, and hydraulic grade line (HGL) analyses that shall be completed to the satisfaction of the Director of T&ES. Provide appropriate reference and/or source used to complete these analyses. If applicable, the Director of T&ES may require resubmission of all plans that do not meet this standard. (T&ES)

15. The storm water collection system is located within the Cameron Run watershed. All on-site storm water curb inlets and public curb inlets within 50 feet of the property line shall be duly marked using standard City markers, or to the satisfaction of the Director of T&ES. (T&ES)

**F. WASTEWATER / SANITARY SEWERS:**

16. In compliance with the City of Alexandria Zoning Ordinance Article XI, the applicant shall complete a sanitary sewer adequate outfall analysis as per the requirements of Memorandum to Industry No. 02-07 New Sanitary Sewer Connection and Adequate Outfall Analysis dated June 1, 2007. (T&ES)

**G. SOLID WASTE:**

17. The City of Alexandria shall provide the solid waste collection services and all the refuse/recycling facilities shall be designed to the satisfaction of Director T&ES. (T&ES)
18. The standard containers that are compatible with the City collection system shall be provided to the satisfaction of the Director of Transportation and Environmental Services. (T&ES)
19. The applicant shall provide storage space for solid waste and recyclable materials containers as outlined in the City's "Solid Waste and Recyclable Materials Storage Space Guidelines", or to the satisfaction of the Director of Transportation & Environmental Services. The City's storage space guidelines and required Recycling Implementation Plan forms are available at: [www.alexandriava.gov](http://www.alexandriava.gov) or contact the City's Solid Waste Division at 703-519-3486 ext.132. (T&ES)

**H. STREETS/TRAFFIC:**

20. All improvements to the City's infrastructure, including but not limited to, curb, gutter, sidewalk, and driveway aprons, and patch work required for utility installation, etc., or damaged during construction shall be designed and constructed as per the City of Alexandria standards and specifications. (T&ES)
21. Prior to the release of the final site plan, provide a Traffic Control Plan for construction detailing proposed controls to traffic movement, lane closures, construction entrances, haul routes, and storage and staging. (T&ES)
22. All Traffic Control Device design plans, Work Zone Traffic Control plans, and Traffic Studies shall be signed and sealed by a professional engineer, registered in the Commonwealth of Virginia. (T&ES)

23. Show turning movements of standard vehicles, buses, and trash trucks on the parking structure and/or on-site. Turning movements shall meet AASHTO vehicular guidelines and shall be to the satisfaction of the Director of T&ES. (T&ES)
24. The slope on parking ramp to garage entrance shall not exceed 10 percent. In case the slope varies between 10% and 12% then the applicant shall provide trench drain connected to a storm sewer to eliminate or diminish the possibility of ice formation. (T&ES)

**I. UTILITIES:**

25. All private utilities shall be located outside of the public right-of-way and public utility easements. (T&ES)
26. Show all existing and proposed public and private utilities and easements and provide a descriptive narration of various utilities. (T&ES)

**J. SOILS:**

27. The applicant shall provide a geotechnical report, including recommendations from a geotechnical professional for proposed cut slopes and embankments with the submission of the first final site plan. (T&ES)

**K. BMP FACILITIES:**

28. The City of Alexandria's storm water management regulations regarding water quality are two-fold: first, phosphorus removal requirement and second, water quality volume default. Compliance with the phosphorus requirement does not relieve the applicant from the water quality default requirement. The water quality volume determined by the site's proposed impervious area shall be treated in a Best Management Practice (BMP) facility.
29. Provide BMP narrative and complete pre and post development drainage maps that include areas outside that contribute surface runoff from beyond project boundaries to include adequate topographic information, locations of existing and proposed storm drainage systems affected by the development, all proposed BMP's and a completed Worksheet A or B and Worksheet C, as applicable. (T&ES)
30. The storm water Best Management Practices (BMPs) required for this project shall be constructed and installed under the direct supervision of the design professional or his designated representative. Prior to release of the performance bond, the design professional shall submit a written certification to the Director of T&ES that the BMPs are:
  - a. Constructed and installed as designed and in accordance with the approved Final Site Plan.

- b. Clean and free of debris, soil, and litter by either having been installed or brought into service after the site was stabilized. (T&ES)
31. Surface-installed storm water Best Management Practice (BMP) measures, i.e. Bio-Retention Filters, Vegetated Swales, etc. that are employed for this site, require installation of descriptive signage to the satisfaction of the Director of T&ES. (T&ES)
32. The DASH Bus Maintenance Facility, 3000 Business Center Drive, shall be added to the Memorandum of Understanding dated July 2007 concerning maintenance responsibilities for the City owned stormwater management best management practices. Page 3 of 3 lists departmental responsibilities of facilities and their addresses. The DASH Bus Maintenance Facility with three bioretention planters and one extended detention pond shall be added to the responsibilities of the Department of General Services. Amending this document shall be accomplished prior to mylar approval. (T&ES)
33. Prior to release of the temporary certificate of occupancy, a copy of the Operation and Maintenance Manual shall be submitted to the Division of Environmental Quality on digital media. (T&ES)
34. Prior to release of the temporary certificate of occupancy, the Applicant is required to submit a certification by a qualified professional to the satisfaction of the Director of T&ES that any existing storm water management facilities adjacent to the project and associated conveyance systems were not adversely affected by construction operations and that they are functioning as designed and are unaffected by construction activities. If maintenance of the facility or systems were required in order to make this certification, provide a description of the maintenance measures performed. (T&ES)

**L. CONTAMINATED LAND:**

35. Due to historic uses at the site and potential for contamination, the following condition shall be included:
  - a. The Applicant shall design and install a vapor barrier and ventilation system for buildings and parking areas in order to prevent the migration or accumulation of methane or other gases, or conduct a study and provide a report signed by a professional engineer showing that such measures are not required to the satisfaction of Directors of T&ES and Code Enforcement. (T&ES)
36. 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, applicable contaminants, and the estimated quantity of any contaminated soils and/or groundwater at or in the immediate vicinity of the site.
  - b. Submit a Risk Assessment indicating any risks associated with the contamination.
  - c. Submit a Health and Safety Plan indicating measures to be taken during

remediation and/or construction activities to minimize the potential risks to workers, the neighborhood, and the environment.

- d. Applicant shall submit 5 copies of the above. The remediation plan must be included in the Final Site Plan. (T&ES)

**M. NOISE:**

37. All exterior building mounted loudspeakers are prohibited. (T&ES)

**N. AIR POLLUTION:**

38. The Applicant shall control odors and any other air pollution sources resulting from operations at the site and prevent them from leaving the property or becoming a nuisance to neighboring properties, as determined by the Director of Transportation and Environmental Services. (T&ES)
39. DASH buses and contractors shall not cause or permit diesel fueled vehicles to idle for more than 10 minutes when parked. (T&ES)

**O. AUTOMOTIVE:**

40. Car wash facilities must be equipped with a water recycling system. The building official shall approve such a system. Any car washing activity must drain to the sanitary sewer system with prior approval from ASA, or be covered by a VPDES permit for discharge into the storm sewer. (T&ES)
41. Provide a plan that shows the method of connection for the discharge of vehicle wash to an approved sanitary sewer system and proper disposal of rainwater to the storm sewer system. In case the applicant chooses to install commercial car washing equipment, such equipment shall be equipped with a water recycling system approved by the building official. (T&ES)
42. All waste products including but not limited to organic compounds (solvents), motor oil, compressor lubricant and antifreeze shall be disposed of in accordance with all local, state and federal ordinances or regulations and not be discharged to the sanitary or storm sewers or be discharged onto the ground. (T&ES)
43. The applicant shall comply with the City of Alexandria Best Management practices manual for automotive related industries. A copy can be obtained by contacting the Division of Environmental Quality at 703-838-4334. (T&ES)

**P. CONSTRUCTION:**

44. A "Certified Land Disturber" (CLD) shall be named in a letter to the Division Chief of C&I prior to any land disturbing activities. If the CLD changes during the project, that

change must be noted in a letter to the Division Chief. A note to this effect shall be placed on the Phase I Erosion and Sediment Control sheets on the site plan. (T&ES)

45. During the construction phase of this development, the site developer, their contractor, certified land disturber, or owner's other agent shall implement a waste and refuse control program. This program shall control wastes such as discarded building materials, concrete truck washout, chemicals, litter or trash, trash generated by construction workers or mobile food vendor businesses serving them, and all sanitary waste at the construction site and prevent offsite migration that may cause adverse impacts to neighboring properties or to the environment to the satisfaction of Directors of Transportation and Environmental Services and Code Enforcement. All wastes shall be properly disposed offsite in accordance with all applicable federal, state and local laws. (T&ES)
46. The applicant shall prepare and submit a plan that delineates a detailed construction management plan for the entire project for review and approval by the Directors of P&Z, T&ES, and Code Enforcement prior to the release the final site plan. Before commencing any clearing or grading of the site, the applicant shall hold a meeting with notice to all adjoining property owners to explain the plan for temporary pedestrian and vehicular circulation, and hours and overall schedule for construction. Copies of plans showing the hauling route, construction worker parking, and temporary pedestrian and vehicular circulation and temporary construction trailer location shall be posted in the construction trailer and given to each subcontractor before they commence work. (P&Z)(T&ES)
47. The applicant shall identify a person who will serve as liaison to the community throughout the duration of construction. The name and telephone number, including an emergency contact number, of this individual shall be provided in writing to residents, property managers and business owners whose property abuts the site and shall be placed on the project sign, to the satisfaction of the Directors of P&Z and T&ES. (T&ES)
48. Submit an approvable construction phasing plan to the satisfaction of the Director of T&ES, which will allow review, approval and partial release of final the site plan. In addition, building and construction permits required for site preconstruction shall be permitted prior to release of the final site plan to the satisfaction of the Direction of T&ES. (T&ES)
49. The applicant shall submit a wall check to the Departments of P&Z and T&ES prior to the commencement of framing for the building(s). The building footprint depicted on the wall check shall comply with the approved final site plan. The wall check shall also provide the top-of-slab and first floor elevation as part of the wall check. The wall check shall be prepared and sealed by a registered engineer or surveyor, and shall be approved by the City prior to commencement of framing. (P&Z)(T&ES)
50. As part of the request for a certificate of occupancy permit, a building and site location survey shall be submitted to the Departments of P&Z and T&ES for all site



improvements. A certification of height for the building shall also be submitted as part of the certificate of occupancy for each building(s). The certification shall be prepared and sealed by a registered architect and shall state that the height of the building complies with the height permitted pursuant to the approved development special use permit and that the height was calculated based on all applicable provisions of the Zoning Ordinance. (P&Z)(T&ES)

51. 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; the sign shall notify the public of the nature of the upcoming project and shall provide a phone number for public questions regarding the project. (P&Z)(T&ES)
52. Temporary construction trailers shall be permitted and be subject to the approval of the Directors of P&Z, T&ES, and Code Enforcement. The trailer(s) shall be located on the final site plan and removed prior to the issuance of a certificate of occupancy permit. (P&Z) (T&ES) (Code)

**Q. MISCELLANEOUS:**

53. The applicant shall provide two (2) short-term / visitor bicycle parking racks at the ground level preferably located within 50 yards of the building entrance. If the rack location is not apparent or immediately visible to visitors, provide standard, MUTCD compliant (D4-3) signs indicating location of bicycle parking. Racks may not be more than 200 yards from the building entrance. Bicycle rack locations are preferably covered and grouped. Short term racks shall be located in a manner that will not obstruct the existing / proposed sidewalks. City of Alexandria bicycle parking standards and details for acceptable locations are available at: [www.alexride.org/bicycleparking.php](http://www.alexride.org/bicycleparking.php) (T&ES)
54. Long term / employee bicycle parking, storage and changing rooms:
  - a. The applicant shall provide five (5) long-term / employee bicycle parking racks to the satisfaction of the Director of T&ES. If the racks location is not apparent or immediately visible, provide standard, MUTCD compliant (D4-3) signs indicating the location of bicycle parking. City of Alexandria bicycle parking standards and details for acceptable locations are available at: [www.alexride.org/bicycleparking.php](http://www.alexride.org/bicycleparking.php)
  - b. The applicant shall provide two (2) shower(s) per gender and a minimum of ten (10) clothes storage lockers per gender. The lockers shall be accessible to all employees of the facility to the satisfaction of the Director of T&ES.
  - c. To satisfy LEED Credit 4.2 (Alternative Transportation: Bicycle Storage and Changing Rooms) the combination of short-term/visitor parking and long-term/employee parking may be increased in the event that the number of bicycle parking spaces does not provide enough bicycle racks to provide for 5% or more of all building users during peak use periods. (T&ES)

CITY DEPARTMENT CODE COMMENTS

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

**Planning and Zoning**

- F-1 Revise the proposed plat of consolidation and the re-subdivision plat to include identify the newly subdivided lots as Lot 800 and Lot 801, rather than Lot 702 and 703. (P&Z)
- F-2 Revise the proposed plat of consolidation and the re-subdivision plat to be shown on an 18"x24" sheet with thin lines depicting the existing lots and a thicker line depicting the proposed lots. (P&Z)
- F-3 Revise the proposed plat of consolidation and the re-subdivision plat to depict the tax map numbers for all existing and surrounding parcels in dotted lines/words. (P&Z)

**Transportation and Environmental Services**

- F-1 Since the record drawings, maps, and other documents of the City of Alexandria, State, and Federal agencies show the true north pointing upwards, therefore, the Site Plan shall show the true north arrow pointing upward as is customary; however, for the sake of putting the plan together and/or ease of understanding, the project north arrow pointing upward, preferably east, or west may be shown provided it is consistently shown in the same direction on all the sheets with no exception at all. The north arrow shall show the source of meridian. The project north arrow pointing downward will not be acceptable even if, it is shown consistently on all the sheets. (T&ES)
- F-2 The plan shall show sanitary and storm sewer, and water line in plan and profile in the first final submission and cross reference the sheets on which the plan and profile is shown, if plan and profile is not shown on the same sheet. Clearly label the sanitary and storm sewer, or water line plans and profiles. Provide existing and proposed grade elevations along with the rim and invert elevations of all the existing and proposed sanitary and storm sewer at manholes, and water line piping at gate wells on the respective profiles. Use distinctive stationing for various sanitary and storm sewers (if applicable or required by the plan), and water line in plan and use the corresponding stationing in respective profiles. (T&ES)
- F-3 The Plan shall include a dimension plan with all proposed features fully dimensioned and the property line clearly shown. (T&ES)
- F-4 Include all symbols, abbreviations, and line types in the legend. (T&ES)
- F-5 All storm sewers shall be constructed to the City of Alexandria standards and specifications. The minimum diameter for storm sewers shall be 18-inches in the public Right of Way (ROW) and the minimum size storm sewer catch basin lead shall be 15".

The acceptable pipe material will be Ductile Iron Pipe (DIP) AWWA C-151 (ANSI A21.51) Class 52 or Reinforced Concrete Pipe (RCP) ASTM C-76 Class IV. For roof drainage system, Polyvinyl Chloride (PVC) ASTM 3034-77 SDR 35 and ASTM 1785-76 Schedule 40 pipes will be acceptable. The acceptable minimum and maximum velocities will be 2.5 fps and 15 fps, respectively. The storm sewers immediately upstream of the first manhole in the public Right of Way shall be owned and maintained privately (i.e., all storm drains not shown within an easement or in a public Right of Way shall be owned and maintained privately). (T&ES)

- F-6 All sanitary sewers shall be constructed to the City of Alexandria standards and specifications. The minimum diameter of sanitary sewers shall be 10" in the public Right of Way and sanitary lateral 6". The acceptable pipe materials will be Polyvinyl Chloride (PVC) ASTM 3034-77 SDR 35, ASTM 1785-76 Schedule 40, Ductile Iron Pipe (DIP) AWWA C-151 (ANSI A21.51) Class 52, or reinforced concrete pipe ASTM C-76 Class IV (For 12" or larger diameters); however, RCP C-76 Class III pipe may be acceptable on private properties. The acceptable minimum and maximum velocities will be 2.5 fps and 10 fps, respectively. Lateral shall be connected to the sanitary sewer through a manufactured "Y" or "T" or approved sewer saddle. Where the laterals are being connected to existing Terracotta pipes, replace the section of main and provide manufactured "Y" or "T", or else install a manhole. (T&ES)
- F-7 Lateral Separation of Sewers and Water Mains: A horizontal separation of 10' (edge to edge) shall be provided between a storm or sanitary sewer and a water line; however, if this horizontal separation cannot be achieved then the sewer and water main shall be installed in separate trenches and the bottom of the water main shall be at least 18" above of the top of the sewer. If both the horizontal and vertical separations cannot be achieved then the sewer pipe material shall be Ductile Iron Pipe (DIP) AWWA C-151 (ANSI A21.51) Class 52 and pressure tested in place without leakage prior to installation. (T&ES)
- F-8 Maintenance of Vertical Separation for Crossing Water Main Over and Under a Sewer: When a water main over crosses or under crosses a sewer then the vertical separation between the bottom of one (i.e., sewer or water main) to the top of the other (water main or sewer) shall be at least 18"; however, if this cannot be achieved then both the water main and the sewer shall be constructed of Ductile Iron Pipe (DIP) AWWA C-151 (ANSI A21.51) Class 52 with joints that are equivalent to water main standards for a distance of 10 feet on each side of the point of crossing. A section of water main pipe shall be centered at the point of crossing and the pipes shall be pressure tested in place without leakage prior to installation. Sewers crossing over the water main shall have adequate structural support (concrete pier support and/or concrete encasement) to prevent damage to the water main. Sanitary sewers under creeks and storm sewer pipe crossings with less than 6" clearance shall be encased in concrete. (T&ES)
- F-9 No pipe shall pass through or come in contact with any part of sewer manhole. Manholes shall be placed at least 10 feet horizontally from the water main whenever possible.

When local conditions prohibit this horizontal separation, the manhole shall be of watertight construction and tested in place. (T&ES)

- F-10 Crossing Existing or Proposed Utilities: Underground telephone, cable T.V., gas, and electrical duct banks shall be crossed maintaining a minimum of 12” of separation or clearance with water main, sanitary, or storm sewers. If this separation cannot be achieved then the sewer pipe material shall be Ductile Iron Pipe (DIP) AWWA C-151 (ANSI A21.51) Class 52 and pressure tested in place without leakage prior to installation. Sewers and water main crossing over the utilities shall have adequate structural support (pier support and/or concrete encasement) to prevent damage to the utilities. (T&ES)
- F-11 The rip rap shall be designed as per the requirements of Virginia Erosion and Sediment Control Handbook, Latest Edition. (T&ES)
- F-12 Dimensions of parking spaces, aisle widths, etc. within the parking garage shall be provided on the plan. Note that dimensions shall not include column widths. (T&ES)
- F-13 The applicant shall provide a transportation study that examines the impacts of proposed development on pedestrian, transit and vehicular traffic. (T&ES)
- F-14 The Plan shall call out various storm and sanitary sewer and water structures in the plan and profile views. (T&ES)
- F-15 Provide proposed elevations (contours and spot shots) in sufficient details on grading plan to clearly show the drainage patterns. (T&ES)
- F-16 All sanitary laterals and/or sewers are to be maintained by the City. (T&ES)
- F-17 A minimum of 30 feet separation between beginning of street corner radius and any driveway apron radius shall be maintained. (T&ES)
- F-18 Project lies partially within an area described on historical maps as containing marine clays. Construction methodology and erosion and sediment control measures must account for the presence (or absence) of marine clay or highly erodible soils. (T&ES)
- F-19 The applicant shall provide storage space for solid waste and recyclable materials containers as outlined in the City's “*Solid Waste and Recyclable Materials Storage Space Guidelines*”, or to the satisfaction of the Director of Transportation & Environmental Services. The City's storage space guidelines and required Recycling Implementation Plan forms are available at: [www.alexandriava.gov](http://www.alexandriava.gov) or contact the City's Solid Waste Division at 703-519-3486 ext.132. (T&ES)
- C-1. All downspouts must be connected to a storm sewer by continuous underground pipe. (T&ES)

- C-2. All easements and/or dedications must be recorded prior to release of the plan. (T&ES)
- C-3. 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. (T&ES)
- C-4. All drainage facilities must be designed to the satisfaction of T&ES. Drainage divide maps and computations must be provided for approval. (T&ES)
- C-5. Provide a phased erosion and sediment control plan consistent with grading and construction plan. (T&ES)
- C-6. Per the Memorandum to Industry, dated July 20, 2005, the applicant is advised regarding a requirement that applicants provide as-built sewer data as part of the final as-built process. Upon consultation with engineering firms, it has been determined that initial site survey work and plans will need to be prepared using Virginia State Plane (North Zone) coordinates based on NAD 83 and NAVD 88. Control points/Benchmarks which were used to establish these coordinates should be referenced on the plans. To insure that this requirement is achieved, the applicant is requested to prepare plans in this format including initial site survey work if necessary. (T&ES)
- C-7. Americans with Disability Act (ADA) ramps shall comply with the requirements of Memorandum to Industry No. 03-07 on Accessible Curb Ramps dated August 2, 2007 with truncated domes on the end of the ramp with contrasting color from the rest of the ramp. A copy of this Memorandum is available on the City of Alexandria website. (T&ES)
- C-8. 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. (T&ES)
- C-9. The applicant must comply with the Article XIII of the City of Alexandria Zoning Ordinance, which includes requirements for storm water pollutant load reduction, treatment of the water quality volume default, and storm water quantity management. (T&ES)
- C-10. 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. (T&ES)
- C-11. All required permits from Virginia Department of Environmental Quality, Environmental Protection Agency, Army Corps of Engineers, and Virginia Marine Resources must be in place for all project construction and mitigation work prior to release of the final site plan. This includes the state requirement for a VSMP permit for land disturbing activities greater than 2500 SF. (T&ES)

- C-12. All streets and alleys must comply with the City's Minimum Standards for Private Streets and Alleys. (T&ES)
- C-13. Provide City standard pavement for Emergency Vehicle Easements (EVE). (T&ES)
- C-14. All driveway entrances, sidewalks, curbing, etc. in the public ROW or abutting public ROW shall meet City design standards. (T&ES)
- C-15. Applicants will be required to submit a Recycling Implementation Plan form to the Solid Waste Division, as outlined in Article H to Title 5 (Ordinance Number 4438), which requires all commercial properties to recycle. (T&ES)

### **Alexandria Sanitation Authority**

- C-1 Ensure all discharges are in accordance with the City of Alexandria Code 4035.
- R-1 Ensure that planned flow capacity does not exceed City of Alexandria allotted ASA plant capacity of 20.5.
- R-2 Ensure in writing to ASA that additional flow planned does not exceed flow capacity in ASA Interceptors and Trunk Sewers during wet and average flow conditions.
- R-3 Proposed construction and sewer discharge limits from new facility could be regulated by ASA Pretreatment. Provide a list of stored chemicals and clarify whether the bus wash/chassis wash is a closed loop.
- F-1 Detailed sanitary sewer flow calculations are not shown on plans.

### **Code Enforcement**

- F-1 The proposed security gates shall be equipped with an override system that opens the gates in the event of a power failure, activation of a siren, or through the use of a Knox Box key. These features shall be designed and installed to the satisfaction of the Director of Code Enforcement.
- F-2 Provide a Fire Lane through the rear of the site on the proposed roadway. The Fire Lane shall be properly signed, 22 feet in width (minimum), have a minimum turning radii of R-25' and shall be free of parked vehicles at all times. Finding met.
- F-3 Provide hydrant coverage along the front and rear of the structures. Fire hydrants serving fire department connections (FDC) shall be located no closer than 40 feet and no greater than 100 feet from each FDC; on site fire hydrants shall be spaced with a maximum distance of three hundred (300) feet between hydrants and the most remote point of vehicular access on site. Finding resolved.

- F-4 Buildings shall be equipped with an automatic fire suppression system. Finding resolved.
- F-5 Provide two Siamese connections located to the satisfaction of the Director of Code Enforcement. Finding resolved.
- F-6 A separate tap is required for the building fire service connection. Finding resolved.
- F-7 The fire hydrant located near the stormwater retention pond shall be moved along the rear access driveway. Finding resolved.
- F-8 All Emergency Vehicle Easements shall be designed to AASHTO HS-20 loading. Acknowledged by applicant.
- F-9 The FDC located at the southeast corner of the building is further than 100 feet from a fire hydrant. The FDC or hydrant must be relocated as to comply with code requirement C-1. Finding resolved.
- 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. Acknowledged by applicant.
- C-2 The final site plans shall show placement of fire easement signs. See attached guidelines for sign details and placement requirements. Acknowledged by applicant, attached guidelines were hand distributed to the applicant on 3/13/2008.
- C-3 A soils report must be submitted with the building permit application. Acknowledged by applicant.
- C-4 Prior to submission of the Final Site Plan #1, 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 by applicant.
- C-5 A Certificate of occupancy shall be obtained prior to any occupancy of the building or portion thereof, in accordance with USBC 119.0. Acknowledged by applicant.
- C-6 A fire prevention code permit is required for the proposed operation at the time of application for a Certificate of Occupancy. Acknowledged by applicant.

- C-7 New construction must comply with the current edition of the Uniform Statewide Building Code (USBC). Acknowledged by applicant.
- C-8 Required exits, parking, and accessibility within the building for persons with disabilities must comply with USBC Chapter 11. Acknowledged by applicant.
- C-9 This structure contains mixed use groups [B, Business; S-1, Moderate-Hazard Storage (motor vehicle repair garage), S-2, Low-Hazard Storage (public garage, group 2) and is subject to the mixed use and occupancy requirements of the USBC. Acknowledged by applicant.
- C-10 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.
- C-11 Roof drainage systems must be installed so as neither to impact upon, nor cause erosion/damage to adjacent property. Acknowledged by applicant.
- C-12 The public parking garage (Use Group S-2) is required to be equipped with a sprinkler system (USBC 903.2.9). Acknowledged by applicant.
- C-13 The public parking garage floor must comply with USBC 406.2.6 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 2901). This parking garage is classified as an S-2, Group 2, public garage. Acknowledged by applicant.
- C-14 Enclosed parking garages must be ventilated in accordance with USBC 406.4.2. Acknowledged by applicant.
- C-15 This garage with a gross square footage of is required to have an automatic sprinkler system throughout the structure to be in compliance with USBC406.4.1 and 903.2.9. Acknowledged by applicant.
- C-16 A fire protective signaling system is required in the B, Business use group area (offices) which are located two or more stories above the lowest level of exit discharge (USBC 907.2.2). Acknowledged by applicant.
- C-17 Oil water separators are required where automobiles are services, greased, repaired, washed, or where gasoline is dispensed. The separator shall be be designed and installed in accordance with the plumbing code. Acknowledged by applicant.
- C-18 The developer shall declare on the plans if the parking structure is considered a public parking structure complying with Chapter 4 of the USBC or an open parking structure. If the structure is declared as an open parking structure, the developer shall submit



information detailing how the structure meets the openness criteria. If the structure is declared a public parking structure, the plans shall reflect required water and sewer lines, FDC's and oil / water separator locations. Acknowledged by applicant, this will be an open parking structure given the rooftop parking.

- C-19 The new handrails must comply with USBC for a minimum/maximum height of 30 to 34 inches. The ends must extend 12" beyond the top and bottom risers. The handgrip position must not be more than 2-1/4" in cross-sectional dimension, or the shape must provide an equivalent gripping surface. The handgrip portion must have a smooth surface with no sharp corners. The space between the wall and handrail must not be less than 1-1/2". Acknowledged by applicant.
- C-20 The new stairs must comply with USBC for riser and tread dimensions. Acknowledged by applicant.

**ATTACHMENT**

