GOVERNMENT OF THE DISTRICT OF COLUMBIA
DEPARTMENT OF TRANSPORTATION

d. Policy Planning and Sustainability Administration

MEMORANDUM

TO: Sara Bardin
Director, Office of Zoning

FROM: Samuel Zimbabwe
Associate Director, PPSA
District Department of Transportation

DATE: October 10, 2012

SUBJECT: ZC Case No. 12-08 – Text and Map Amendment to Create and Implement the St Elizabeths East (StE) District for the St Elizabeths East Campus

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APPLICATION

The Office of Planning (OP) has requested amendments to the Zoning Regulations and Map to permit and guide development of the St Elizabeths East Campus. The proposed Saint Elizabeths East (StE) District would have nineteen (19) subdistricts with its own height, density, lot occupancy, street frontage requirements, and a district-wide cap of 4,800 new off-street parking spaces. These amendments would allow most uses as proposed in the 2012 St Elizabeths East Master Plan and Design Guidelines be matter-of-right or permitted by Special Exception.

SUMMARY

The St Elizabeths East Campus master plan proposes 4.2 million gross square feet of development, which includes both new development and adaptive reuse of historic buildings. The master plan recommends the following mix of land use:

- Office: 1.8 million gross square feet
- Residential: 1,300 units
- Retail: 206,600 gross square feet
- Hospitality: 330,000 gross square feet
- Civic and Educational: 250,000 gross square feet

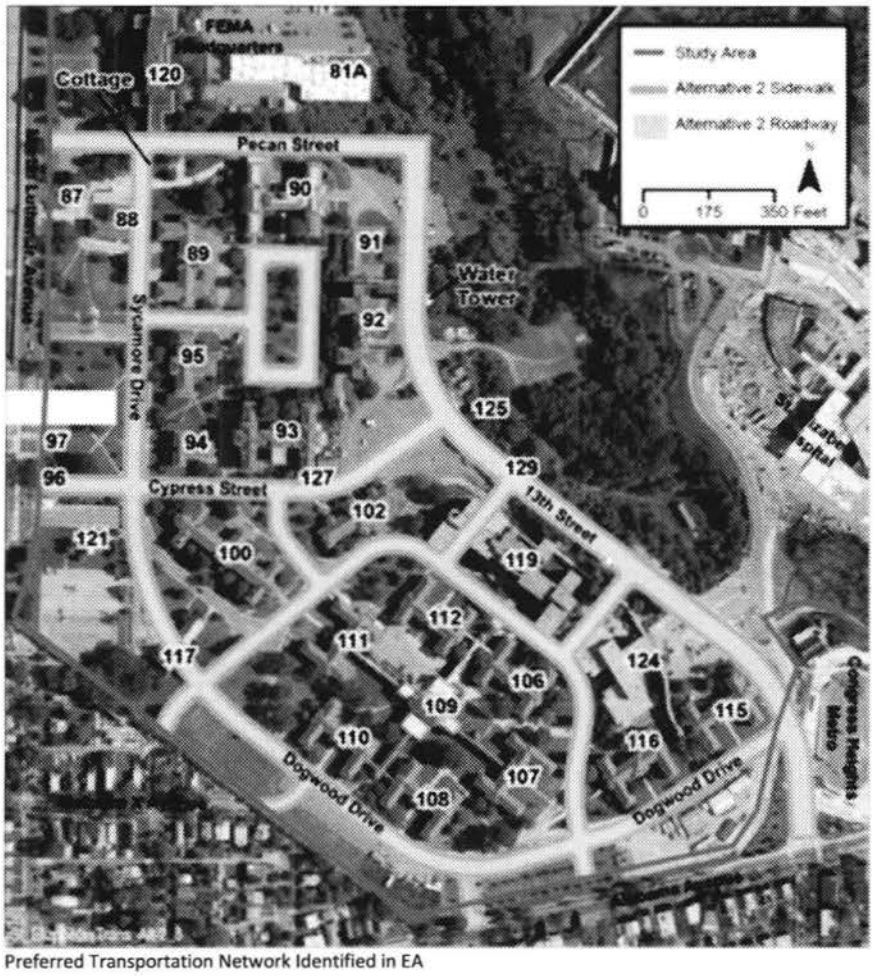
DDOT completed an Environmental Assessment (EA) to evaluate the potential impacts associated with constructing a transportation network to serve the East Campus. Analysis in the EA concluded that the anticipated mixed-use development within the StE District will increase traffic volumes during the peak period along the existing entry points. Further, the level of parking that could be constructed on the site could lead to a level of trip generation on the site not anticipated in DDOT's analysis. DDOT finds that these concerns are addressed by the design of the roadway network and by a robust performance monitoring plan. The new transportation network will redistribute and improve circulation through the campus. As a result, intersections will experience less delay and the residential area southwest of the campus will experience less cut-through traffic as long as the peak hour vehicle trips do not exceed the estimates identified in the EA. Adherance to a robust monitoring program will guarantee the expected trip generation rates and mode split assumptions identified in the EA are met.

TRANSPORTATION ANALYSIS

DDOT is committed to achieving an exceptional quality of life in the nation's capital by encouraging sustainable travel practices, constructing safer streets and providing outstanding access to goods and services. As one means to achieve this vision, DDOT works through the zoning process to ensure alternative modes of transportation are adequate to accommodate new travel demand while discouraging single occupancy vehicle trips.

In 2011, DDOT and the Federal Highway Administration (FHWA) initiated an EA to evaluate a multimodal transportation network to serve the St Elizabeths East Campus. The purpose and need of the project was to improve connectivity, open the campus, provide multimodal transportation options, remove existing roadway deficiencies, manage expected growth in travel demand, and facilitate transportation needs of DHS.

As part of the EA, DDOT evaluated various roadway networks that could serve the East Campus and meet the purpose and need of the project. Included in the evaluation was a robust transportation analysis which took a detailed look at how the transportation network would function if the site was redeveloped. Ultimately, DDOT selected a preferred alternative for a transportation network that provided two north south links, largely parallel to Martin Luther King Jr. Avenue with multiple entrances to the campus along Martin Luther King Jr. Avenue, Alabama Avenue, and the Congress Heights neighborhood adjacent to the southwest section of the site. On June 26, 2012, FHWA determined that the Preferred Alternative as identified by DDOT will not have a significant impact on the natural, human, or built environment. This Preferred Alternative is reflected in the proposed StE District map layout and in the image below.



Preferred Transportation Network Identified in EA

Trip Generation and Mode Split

As part of our transportation analysis, DDOT projected trip generation by mode for the site. Projecting trip generation for a site of this magnitude and location can be difficult. A site of this size can generate internal trips that are highly desirable as they result in no net impact to the larger transportation network. Determining the level of trip generation that can be expected to remain internal to the site is exceptionally difficult. Additionally, the site is in a location that is neither highly urban like Downtown or Columbia Heights nor is it suburban like much of Prince George's County. This adds further difficulty in projecting trip generation.

DDOT utilized data found in the region's travel demand model along with data found in state of the practice research to estimate trip generation and mode split. DDOT arrived at relatively conservative trip generation projections that address the location's difficult to predict travel characteristics. Ultimately, DDOT estimated that approximately 60% of travelers to the site would access it by automobile and between 20% and 30% would arrive by transit depending on the time of day and direction of travel. DDOT believes that these estimates show higher vehicle trips and lower transit trips than are likely to be achieved. As such, DDOT believes the operations analysis is conservative and potentially overstates impacts from vehicular traffic. The trip generation and mode split assumptions are summarized below.

AM Peak Period	Mode Split		Peak Hour Vehicle Trips	
	Origin	Destination	Origin	Destination
Single-Occupancy Vehicle	40%	40%	261	618
High-Occupancy Vehicle	11%	18%	33	125
Trucks	3%	1%	20	20
Transit	29%	31%	NA	NA
Non-motorized	16%	10%	NA	NA
Total			314	762

PM Peak Period	Mode Split		Peak Hour Vehicle Trips	
	Origin	Destination	Origin	Destination
Single-Occupancy Vehicle	39%	39%	738	474
High-Occupancy Vehicle	21%	24%	185	134
Trucks	1%	1%	14	14
Transit	26%	20%	NA	NA
Non-motorized	13%	16%	NA	NA
Total			937	622

Roadway Capacity and Operations

DDOT aims to provide a safe and efficient roadway network that provides for the timely movement of people, goods and services. As part of the evaluation of potential impacts on the transportation network, analysis of travel conditions for the area have been performed for the existing conditions as well as for future conditions with and without the proposed site transportation network. The analysis satisfactorily incorporates assumptions into the operations analysis related to parking, mode split, trip generation, trip distribution and assignment, site access, as well as system performance monitoring.

Currently, both Martin Luther King, Jr Avenue & Lebaum Street during AM peak and Alabama Avenue & 8th Street during the PM peak are operating at a failing level of service, while other intersections within the residential area directly southwest of the East Campus are operating at a poor level of service. In addition, the lack of connectivity, largely caused by the closed St Elizabeths East Campus, forces many vehicles to circulate through neighborhood streets. This is particularly the case for the area directly west of Congress Heights, north of Alabama Avenue, and south of the St Elizabeths East Campus. This neighborhood serves as the cut through for vehicles traveling between Alabama Avenue and Malcolm X / Martin Luther King Jr. Avenue.

A robust transportation analysis was completed as part of the EA process which anticipated development within the StE District, along with the Department of Homeland Security (DHS) relocation to the West Campus and the Federal Emergency Management Agency (FEMA) relocation to a site directly north of the East Campus Development. By 2035, traffic volumes are expected to increase significantly in the area. In response to the increase in demand caused by DHS, the General Services Administration (GSA) has committed to funding significant transportation improvements in the area. These include a new interchange at Malcolm X Avenue and I-295 and widening Martin Luther King

Jr. Avenue from Alabama Avenue to the northern edge of the St Elizabeths campus to five lanes. In addition, the District is proposing significant changes to access along the Suitland Parkway / South Capitol Street corridor. In the vicinity of the East Campus, DDOT is constructing a new interchange at Martin Luther King Jr. Avenue and Suitland Parkway and reconstructing the interchange of Suitland Parkway and I-295. These improvements will provide marginal capacity increase, but will significantly improve operations by adding connectivity and removing bottlenecks in the system. The net effect is the provision of additional capacity to access both the East and West Campus of St Elizabeths.

The build scenario for the site would provide significant linkages that would allow many regional trips currently traveling through adjacent neighborhoods or creating congestion in the area arterials to utilize the new transportation network in the East Campus. Opening of the East Campus will allow for alternate routes to avoid this congestion. These alternate routes will allow trips that are moving to/from Alabama Avenue to/from DHS or to/from Joint Base Anacostia Bolling (JBAB) to either travel around the Martin Luther King Jr. Avenue congestion or to directly cross Martin Luther King Jr. Avenue by using Malcolm X Avenue. Both of these diversions minimize vehicle trips through adjacent communities. As a result, in future build conditions, most area intersections are expected to operate at an acceptable level of service for both peak periods and cut through traffic will be reduced.

Safety

All streets and intersections designed in the Preferred Alternative meet existing federal and DDOT safety standards. In addition, the design of the transportation network will provide new accommodations for bicyclists and pedestrians, a new signal at 12th Street and Alabama Avenue, and a reconfigured driveway connection to the new St Elizabeths Hospital to 13th Street. Future development projects in the StE district are expected to design additional streetscape elements, access points, and loading per our Design and Engineering Manual in order to meet existing safety standards.

Bicycle and Pedestrian Facilities

The District of Columbia is committed to enhancing the walk-ability and bike-ability of the District by ensuring consistent investment in pedestrian and bike infrastructure in both the public and private realms. Generally, DDOT expects new developments to serve the needs of all generated trips including pedestrian and bicycle trips.

There are currently no on-street bicycle facilities near the East Campus and the narrow roadways within the campus are uncomfortable and potentially unsafe for cyclists. The proposed transportation network will provide bicycle lanes along 13th Street and create a network of low-speed streets that would accommodate cyclists with safe and attractive facilities. DDOT expects that all new development will provide secure off-street and on-street bicycle parking per existing zoning regulations and DDOT policy at the time of permitting.

Pedestrian connectivity in the area is currently obstructed by Suitland Parkway and the East Campus itself, which is currently closed. The proposed transportation network would upgrade existing sidewalks and install new and missing sidewalks on both sides of all streets, which are expected to increase connectivity, improve safety, and shorten walk times. Pedestrian connections into the campus would increase from four to eight further increasing access and connectivity to the Metro Station and the neighborhood. DDOT expects that all new development will maintain or further increase pedestrian connections within the site.

Transit Services

The District and the Washington Metropolitan Area Transit Authority (WMATA) have partnered to provide extensive public transit service in the District of Columbia. DDOT's vision is to leverage this investment to increase the share of non-automotive travel modes so that economic development opportunities increase with minimal infrastructure investment.

DDOT considered the needs of transit when designing the East Campus roadways. All streets in the proposed transportation network were designed to accommodate busses. The street network was also designed to provide a loop to serve the needs of the future DHS shuttle service which will take DHS employees from the Metro station to the FEMA site in the northern portion of the East Campus. This design will provide for a faster and more reliable service by avoiding both Alabama Avenue and Martin Luther King Jr. Avenue.

The StE District is served by multiple high frequency bus routes and the Congress Heights Metro Station. DDOT estimates that that 20-30% of travelers to the development will arrive by transit. This estimate is most likely understating transit ridership as developments in other transit rich locations achieve higher transit ridership.

Site Access and Loading

DDOT strives to accommodate vehicle loading in a reasonable and safe manner while at the same time preserving traffic flow and safety. The proposed transportation network includes loading and access in its design and DDOT supports the proposed loading restrictions from Martin Luther King, Jr. Avenue, Dogwood Street, 13th Street, and Oak Dr. These curb cut restrictions will improve traffic flow and multimodal access throughout the site.

DDOT expects that future development in the StE district will design access and loading per our Design and Engineering Manual to ensure safety standards are met. All curb cuts shall be a minimum of 60 ft. from the nearest intersection (defined by the intersection of the curb lines extended) and 32 ft. from an adjacent commercial driveway or 24 ft. from an adjacent residential driveway and must be approved by the Public Space Committee.

Parking

The overall parking demand created by the development is primarily a function of land use, development square footage, and price/supply of parking spaces. However in urban areas, other factors contribute to the demand for parking such as price and the availability of nearby high-quality public transit. With the Site in proximity to such transit, DDOT expects a moderate need for on-site parking.

A cap of 4,800 off-street parking spaces is proposed for the entire District. In addition to the off-street parking facilities, as part of the construction of the roadway network, approximately 750 additional on-street parking spaces will be constructed on East Campus streets. DDOT's EA did not directly evaluate parking demand for the development within the StE District. DDOT is concerned that if this level of parking is constructed, more vehicle trips could be generated than were anticipated and analyzed in the EA. To address the potential of over generation of vehicle trips, DDOT requests a performance monitoring plan to be discussed in a subsequent section.

Streetscape and Public Realm

The transportation network within the StE District will include public streets with a minimum of 75 ft. of right of way to be constructed and maintained by DDOT. The proposed right of way will allow for a bicycle lane on 13th Street, wide sidewalks, planting strips, lightning, and outdoor café space. All future development is expected to follow the St Elizabeths East Master Plan and Design Guidelines as outlined in the June 2012 plan for specific streetscape plans along their property line.

Transportation Demand Management (TDM)

TDM is a set of strategies, programs, services and physical elements that influence travel behavior by mode, frequency, time, route, or trip length in order to help achieve highly efficient and sustainable use of transportation facilities. In the District, this typically means implementing infrastructure or programs to maximize the use of mass transit, bicycle and pedestrian facilities, and reduce single occupancy vehicle trips during peak periods.

A TDM plan will be expected of all future development projects to ensure that the forecasted trip generation rates are not exceeded and that the use of mass transit, bicycle and pedestrian facilities, and single occupancy vehicle trip reductions are maximized during peak periods.

Performance Monitoring & Measuring

Impacts to the surrounding roadway network are manageable if future development projects within the StE District achieve the mode split and trip generation rates identified in DDOT's EA. Accordingly, DDOT suggests requiring a robust monitoring program designed to limit vehicle trips accessing the site to the level assumed in DDOT's EA. Reporting could be accomplished on a site-by-site or district-wide basis.

DDOT suggests flexibility in meeting this requirement. A variety of approaches could achieve the goal of limiting site vehicle trips to the level assumed in the EA. DDOT suggests that the Zoning Commission establish a structure outside the zoning process to determine how to establish specific reporting criteria, methodology for completion, and trip thresholds for each site. This will allow the monitoring program to respond to the development program as plans for the site become more clear.

SUMMARY AND RECOMMENDATION

In summary, DDOT concludes that the proposed StE District will increase traffic volumes in the area, but the designed transportation network will redistribute traffic to new routes, improve the level of service, reduce residential cut-through traffic, and increase pedestrian and bicycling access as long as the expected trip generation rates and mode split assumptions identified in the EA are met. DDOT recommends that all future projects adopt a monitoring program which will require that total site vehicle trips are at or below the level assumed in the EA.

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