


**GOVERNMENT OF THE DISTRICT OF COLUMBIA
DEPARTMENT OF TRANSPORTATION**



d. Policy, Planning, and Sustainability Administration

MEMORANDUM

TO: District of Columbia Board of Zoning Adjustment

FROM: Jamie Henson
Manager, Systems Planning 

DATE: February 16, 2017

SUBJECT: BZA Case No. 19452 - 1700 Rhode Island Ave NE - Ward 5 Emergency Shelter

APPLICATION

The District of Columbia Department of General Services (the "Applicant"), pursuant to 11 DCMR Subtitle X, Chapters 9 and 10, requests a special exception under the MU-use requirements of Subtitle U § 513.1(b)(6), and variances from the parking requirements of Subtitle C § 701.5, the loading requirements of Subtitle C § 901.1, the open court requirements of Subtitle G § 202.1, the height requirements of Subtitle G § 403.1, the lot occupancy requirements of Subtitle G § 404.1, and the rear yard requirements of Subtitle G § 405.2, to allow the addition to an existing building and operate a short-term family housing facility in the MU-4 Zone at premises 1700 Rhode Island Avenue, NE (Square 4134, Lot 800). The shelter will contain 46 units with 150 beds, 3 vehicle parking spaces, 4 short-term bicycle spaces (2 racks), and 4 long-term bicycle spaces.

SUMMARY OF DDOT REVIEW

The District Department of Transportation (DDOT) is committed to achieve an exceptional quality of life in the nation's capital by encouraging sustainable travel practices, safer streets, and outstanding access to goods and services. As one means to achieve this vision, DDOT works through the zoning process to ensure that impacts from new developments are manageable within and take advantage of the District's multimodal transportation network.

The purpose of DDOT's review is to assess the potential safety and capacity impacts of the proposed action on the District's transportation network and, as necessary, propose mitigations that are commensurate with the action. After an extensive review of the case materials submitted by the Applicant, DDOT finds:

- The Applicant expects that the facility will hold a maximum of 26 staff and 150 beds;
- Access to loading and off-street parking is consistent with DDOT standards;
- The on-street parking supply has the capacity to meet parking demand;
- The site is well-served by transit;

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- Residents will have access to the long-term bicycle parking facilities; and
- A corner of the existing and proposed building projects into public space; DDOT expects the Applicant to comply with building and public space regulations.

DDOT has no objection to the requested variances and special exception.

Continued Coordination

The Applicant is expected to continue to work with DDOT outside of the Board of Zoning Adjustment process on the following matters:

- Public space, including curb and gutter, street trees and landscaping, street lights, sidewalks and lead walks, and other features within the public rights of way, are expected to be designed and built or maintained to DDOT standards.

TRANSPORTATION ANALYSIS

Site Design

Site design, which includes site access, loading, and public realm design, plays a critical role in determining a proposed action's impact on the District's infrastructure. While transportation impacts can change over time, the site design will remain constant throughout the lifespan of the proposed development, making site design a critical aspect of DDOT's development review process. Accordingly, new developments must provide a safe and welcoming pedestrian experience, enhance the public realm, and serve as positive additions to the community.

Site Access

The site is located on an improved lot bounded by 17th Street to the west, Rhode Island Avenue to the south, a public alley to the east, and residential properties to the north. The Applicant proposes to utilize the public alley for parking and loading access. The pedestrian access for the shelter is from 17th Street and Rhode Island Avenue via accessible paths. Vehicular parking and loading access will occur from the public alley to the east.

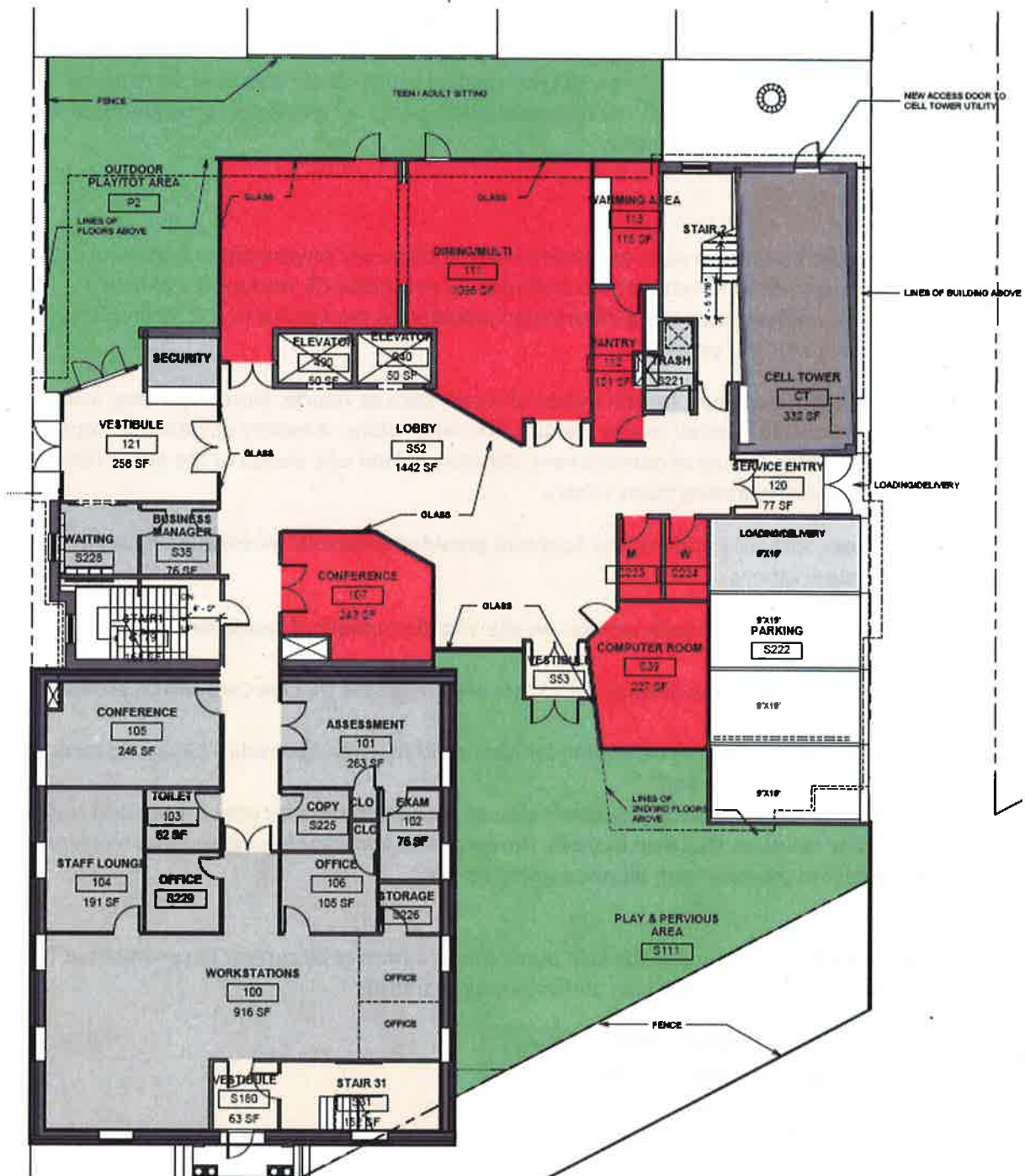


Figure 1 - Site Access (Source: Gorove/Slade)

Loading

DDOT’s practice is to accommodate vehicle loading in a safe and efficient manner, while at the same time preserving safety across non-vehicle modes and limiting any hindrance to traffic operations. For new developments, DDOT requires that loading take place in private space and that no back-up maneuvers occur in the public realm. This often results in loading being accessed through an alley network.

The Applicant proposes one 19-foot service/delivery space in lieu of the zoning requirements for one 30-foot loading berth and one service/delivery space. The Applicant confirmed that all food and supply delivery will occur from vehicles no larger than 19-feet. Loading activities will consist of six to seven deliveries per day, including trash pick-up. The proposed loading area is sufficient to accommodate the project and is consistent with DDOT standards.

Trip Generation

Residential trip generation estimates were developed using Institute of Transportation Engineers (ITE) Land Use Code 220 (Apartments). Given that the staff uses do not follow ITE land uses, staff trip generation estimates were developed using information provided by the Applicant. DDOT finds this method to be appropriate for this project.

Each trip a person makes is made by a certain means of travel, such as vehicle, bicycle, walking, and transit. The means of travel is referred to as a 'mode' of transportation. A variety of elements impact the mode of travel, including density of development, diversity of land use, design of the public realm, availability and cost of parking, among many others.

To inform trip and mode split assumptions, the Applicant provided additional information based on existing policies and observations:

- Residents are not allowed to park vehicles on-site and the number of residents who own vehicles is negligible;
- Children enrolled in DC Public Schools (DCPS) are eligible for the DC One Card, which allows students to ride transit free;
- Adult residents will continue to be eligible for Metrorail/ Metrobus subsidies (SmarTrip cards) to assist with transit expenses; and
- At the existing DC General facility, residents are not allowed to store bicycles on-site and staff is unaware of any residents that own bicycles. However, the Applicant has agreed that residents will have access to the long-term bicycle parking spaces.

The Applicant developed the following mode split assumptions informed by current observations at DC General, existing policies, location of the site, and proximity to transit:

User Group	Mode Split			
	Auto	Transit	Bike	Walk
Residential	<1%	90%	0%	10%
Staff	70%	22%	5%	3%

Figure 2 - Expected Mode Split (Source: Gorove/Slade)

Based on the residential mode split assumptions discussed above, the Applicant predicted that during the AM peak hour, up to 29 non-auto trips will be generated, and during the PM peak hour, up to 49 non-auto trips would be generated.

Mode	AM Peak Hour			PM Peak Hour		
	In	Out	Total	In	Out	Total
Auto	0 veh/hr	0 veh/hr	0 veh/hr	0 veh/hr	0 veh/hr	0 veh/hr
Transit	5 ppl/hr	21 ppl/hr	26 ppl/hr	29 ppl/hr	15 ppl/hr	44 ppl/hr
Bike	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr
Walk	1 ppl/hr	2 ppl/hr	3 ppl/hr	3 ppl/hr	2 ppl/hr	5 ppl/hr

Figure 3 - Peak Residential Trip Generation (Source: Gorove/Slade)

Mode	Morning Shift Change (6:45-7:45AM)			Afternoon Shift Change (2:45-3:45PM)			Night Shift Change (10:45-11:45PM)		
	In	Out	Total	In	Out	Total	In	Out	Total
Auto	12 veh/hr	8 veh/hr	20 veh/hr	11 veh/hr	12 veh/hr	23 veh/hr	8 veh/hr	11 veh/hr	19 veh/hr
Transit	4 ppl/hr	2 ppl/hr	6 ppl/hr	4 ppl/hr	4 ppl/hr	8 ppl/hr	2 ppl/hr	4 ppl/hr	6 ppl/hr
Bike	1 ppl/hr	0 ppl/hr	1 ppl/hr	0 ppl/hr	1 ppl/hr	1 ppl/hr	1 ppl/hr	0 ppl/hr	1 ppl/hr
Walk	0 ppl/hr	1 ppl/hr	1 ppl/hr	1 ppl/hr	0 ppl/hr	1 ppl/hr	0 ppl/hr	1 ppl/hr	1 ppl/hr

Figure 4 - Peak Staff Trip Generation (Source: Gorove/Slade)

Peak hour for staff trip generation is based on staff shift changes which occur at 7:00am, 3:00pm, and 11:00pm, as these are the hours when the most vehicular trips are expected to be generated by staff use. The trip generation hours observed from 6:45 am to 7:45 am, 2:45 pm to 3:45 pm, and 10:30 pm to 11:30 pm includes the staff shift changes and the peak hours generated by the site uses. Figure 4 shows that a total of 20 vehicular trips are expected to be generated during the AM peak trip generation of the staff, a total of 23 vehicular trips mid-day, and a total of 19 vehicular trips during the PM peak trip generation of the staff.

Using the assumptions discussed above, the Applicant estimated the following level of weekday peak hour trip generation:

Mode	Land Use	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
Auto	Residents	0 veh/hr	0 veh/hr	0 veh/hr	0 veh/hr	0 veh/hr	0 veh/hr
Auto	Staff	12 veh/hr	8 veh/hr	17 veh/hr	1 veh/hr	1 veh/hr	2 veh/hr
Auto	Total	12 veh/hr	8 veh/hr	17 veh/hr	1 veh/hr	1 veh/hr	2 veh/hr
Transit	Residents	5 ppl/hr	21 ppl/hr	26 ppl/hr	29 ppl/hr	15 ppl/hr	44 ppl/hr
Transit	Staff	4 ppl/hr	2 ppl/hr	6 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr
Transit	Total	9 ppl/hr	23 ppl/hr	32 ppl/hr	29 ppl/hr	15 ppl/hr	44 ppl/hr
Bike	Residents	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr
Bike	Staff	1 ppl/hr	0 ppl/hr	1 ppl/hr	0 ppl/hr	0 ppl/hr	2 ppl/hr
Bike	Total	1 ppl/hr	0 ppl/hr	1 ppl/hr	0 ppl/hr	0 ppl/hr	2 ppl/hr
Walk	Residents	1 ppl/hr	2 ppl/hr	3 ppl/hr	3 ppl/hr	2 ppl/hr	5 ppl/hr
Walk	Staff	0 ppl/hr	1 ppl/hr	1 ppl/hr	0 ppl/hr	0 ppl/hr	1 ppl/hr
Walk	Total	1 ppl/hr	3 ppl/hr	4 ppl/hr	3 ppl/hr	2 ppl/hr	6 ppl/hr

Figure 5 - Peak Trip Generation for Overall Development (Source: Gorove/Slade)

DDOT guidance suggests that a Comprehensive Transportation Review (CTR) be completed if various thresholds for added traffic are met, which could signify the potential for impacts to the surrounding street network. Based on this project's anticipated level of trip generation, a comprehensive vehicle traffic analysis is not required, as thresholds are not met and impacts to the surrounding vehicle network are expected to be minimal. However, the Applicant conducted a vehicle parking occupancy study, which met DDOT's parameters and is consistent with the scale of the action.

Off-Street Vehicle 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 the availability of high quality transit, frequency of transit service, and proximity to transit.

Pursuant to 11-C DCMR § 701.5, the proposed uses are required to provide 22 vehicle parking spaces. The Applicant proposes to provide 3 off-street parking spaces. Current policy does not allow residents to park on on-site. Therefore, it is assumed that the 3 off-street parking spaces will be used by staff. Based on information provided by the Applicant, the facility will have a maximum of 26 staff on-site.

The Applicant performed a parking occupancy study on Wednesday, December 7, 2016, to determine if the surrounding street network has the capacity to meet parking demand. The study was conducted within a quarter-mile of the site, at hourly intervals from 5:00 pm to 12:00 am. The study shows that during 10:00 pm when peak occupancy was observed, there are approximately 243 available on-street parking spaces out of 377 spaces. The study concluded that the on-street parking supply has the capacity to meet parking demands generated by the staff use.

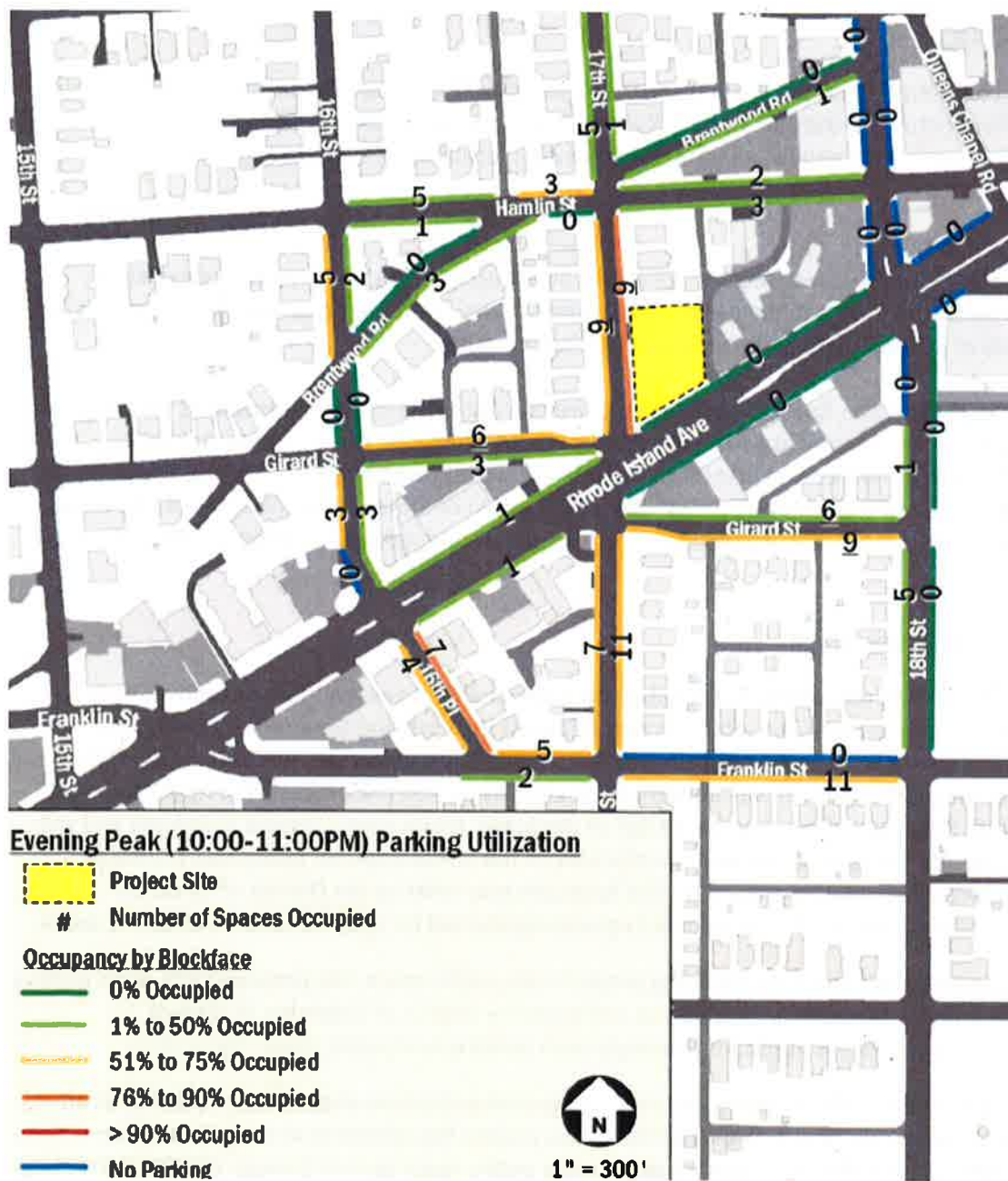


Figure 3 - On-Street Parking Occupancy – 10 PM (Source: Gorove/Slade)

Transit Service

The District and 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.

The site is located 1.0 miles to the Rhode Island Avenue Metro Station, which is served by the Red Line. The site also has access to Metrobus service; the closest stop is located at the northwest corner of the 17th Street and Rhode Island Avenue intersection. Buses near the site operate at 5-64 minute headways and include 82, 83, 86, B8, B9, E2, H6, T14, and T18.

Pedestrian Facilities

The District is committed to enhance the pedestrian accessibility by ensuring consistent investment in pedestrian infrastructure on the part of both the public and private sectors. DDOT expects new developments to serve the needs of all trips they generate, including pedestrian trips.

Bicycle Facilities

The District is committed to enhancing bicycle access by ensuring consistent investment in bicycle infrastructure on the part of both the public and private sectors. DDOT expects new developments to serve the needs of all trips they generate, including bicycling trips.

To serve bicycling needs, the Applicant proposes to provide 4 short-term bicycle spaces (2 racks) and 4 long-term bicycle spaces located in a secure hold that is protected from the elements and easily accessible. Additionally, two Capital Bikeshare stations are located within one mile of the site; the nearest station is located a block away on 18th Street just south of Rhode Island Avenue with 15 docks. Bicycle facilities surround the site, including the exclusive and share bike lanes along 12th Street and 18th Street.

Streetscape and the Public Realm

In line with District policy and practice, any substantial new building development or renovation is expected to rehabilitate streetscape infrastructure between the curb and the property lines. This includes curb and gutter, street trees and landscaping, street lights, sidewalks, and other appropriate features within the public rights of way bordering the site. As part of this process, the Applicant must work closely with DDOT to ensure that the design of the public realm meets current standards and will substantially upgrade the appearance and functionality of the streetscape for public users needing to access the property or circulating around it. The Applicant may refer to the District of Columbia Municipal Regulations and DDOT's Design and Engineering Manual for specific controls of public space.

A corner of the existing and proposed building projects into public space; the proposed site plans show a stairwell in this building projection, which is not permitted by District of Columbia Municipal Regulations. DDOT expects the Applicant to comply with building and public space regulations.

DDOT's lack of objection to these zoning variance and special exceptions should not be viewed as an approval of public space elements. If any portion of the project has elements in the public space requiring approval, the Applicant is required to pursue a public space permit through DDOT's permitting process. The Applicant may refer to the District of Columbia Municipal Regulations and DDOT's Design and Engineering Manual for specific controls of public space. A summary can be found in the Public Realm Design Manual.