

**Alef Bet Montessori School, Adequate Public Facilities Test No. APF202001**

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Completed: 4-13-20

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**Description**

Request for Adequate Public Facilities (APF) review to expand enrollment from 39 students to 90 students.

**Location:** 6125 Tuckerman Lane.

**Master Plan:** 1992 *North Bethesda- Garrett Park Master Plan* area.

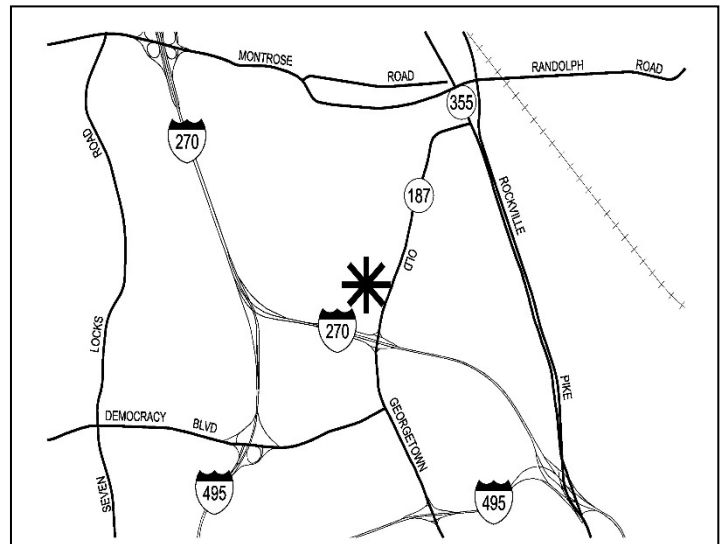
**Zone:** R-200.

**Property Size:** 0.59-acre.

**Applicant:** Alef Bet Montessori School.

**Accepted Date:** November 22, 2019.

**Review Basis:** APF review prior to Use and Occupancy Permit, Chapter 8-32.



**Summary**

- Staff recommends **approval with conditions**.
- Applicant requests expansion of enrollment from 39 students to 90 students.
- No expansion of the existing school/building is proposed.
- This review is limited to the transportation Adequate Public Facilities (APF) determination only. The Property is a recorded lot created by Plat No. 7383 in 1964, and neither a Preliminary Plan nor a Site Plan are required. Per Chapter 8-32, the Planning Board must find whether all applicable public facilities will be adequate to support the proposed development.

**STAFF RECOMMENDATION:** Approval subject to the following conditions:

- 1) Total student occupancy is limited to 90 students, including early care, toddlers, preschool children, and elementary age children.
- 2) Prior to issuance of the Use and Occupancy Certificate for the additional 51 students, for a total of 90 students, and continuing on all days the school is in session throughout the five years following APF approval, the Applicant must have an onsite certified traffic manager to direct traffic operations during the morning drop-off period (7:30 – 9:00 a.m.). The certified traffic manager shall have received certification as a “Temporary Traffic Control Traffic Manager” or equivalent accepted by the Maryland State Highway Administration, or may be an off-duty police officer. This agreement must be filed with the Planning Department, the Montgomery County Department of Permitting Services, and the Montgomery County Department of Transportation.
- 3) Prior to issuance of the Use and Occupancy Certificate for the additional 51 students, for a total of 90 students, the Applicant must enter into a binding agreement with the Planning Board to perform a Transportation Management Plan (TMP) for five years following APF approval. The TMP must also be filed with the Montgomery County Department of Permitting Services and the Montgomery County Department of Transportation. This TMP must be submitted within one month of the start of each school year and include the following:
  - a) Outline the responsibilities of the onsite certified traffic manager. The onsite certified traffic manager must direct traffic operations during the morning drop-off period (7:30 – 9:00 a.m.) and prohibit queuing onto Tuckerman Lane.
  - b) The TMP must include:
    - I. Current and projected student enrollment
    - II. Efforts to promote study family carpooling and teacher/staff carpooling
    - III. Student pick-up/drop-off data
    - IV. On-site and adjacent street queuing trends and any operational changes to address potential queuing on Tuckerman Lane
    - V. Any transportation issues observed on the property within the previous 12 months
    - VI. Off-site parking agreements
- 4) No vehicles may queue within the public right-of-way on Tuckerman Lane while accessing the Site. As with all traffic regulations, vehicle queuing in the public right-of-way where prohibited may be subject to enforcement.
- 5) The Applicant must limit student drop-offs by vehicles during the morning peak hour (7:30-8:30 a.m.) to 50 students.
- 6) Prior to issuance of the Use and Occupancy Certificate for the additional 51 students, for a total of 90 students, the Applicant must contribute \$1,200 to the Montgomery County Department of Transportation’s CIP 507154 to support intersection improvements at Old Georgetown Road and Tuckerman Lane.

- 7) Prior to issuance of the Use and Occupancy Certificate for the additional 51 students, for a total of 90 students, the Applicant must provide two (2) short-term bicycle parking spaces on-site, in the form of inverted u-racks.
- 8) The Applicant must maintain off-site parking agreements to provide parking during special events. The off-site parking agreements must be included and updated annually in the Transportation Management Plan.

## SITE AND PROJECT DESCRIPTION

The 0.59-acre property, identified as Lot 19 as recorded in 1964 on Plat No. 7383 (Subject Property), is zoned R-200 and currently operates as a school for children from preschool to elementary students. The existing single-family home was converted into a school in 2019. The Subject Property is in North Bethesda on Tuckerman Lane, two blocks west of Old Georgetown Road. The school operates Monday-Friday from 7:30 a.m. to 3:00 p.m., with after-school programs from 3:00 to 6:30 p.m.

The school's current enrollment is 38 students. The Department of Permitting Services (DPS) approved an enrollment of 33 students in August 2017; the occupancy permit was later amended to allow a maximum of 39 students following the submission of a traffic statement which determined the project would generate fewer than 50 peak-hour trips and was exempt from LATR approval. The school features programs for early care, toddlers, preschool children, and elementary age children. Arrival time in the morning is staggered by 30 minutes for each group, with the first group arriving at 7:30 a.m. and the last group arriving at 9:00 a.m.



Figure 1: Aerial photo of the site, outlined in red

Alef Bet Montessori School is a Jewish Montessori Day School. Per Chapter 59, Section 3.4.5.B of the 2014 Montgomery County Zoning Ordinance, a conditional use is not required for private educational institutions on premises owned or leased by a religious organization. The Applicant has requested an Adequate Public Facilities (APF) Transportation determination to expand enrollment from 39 students to a maximum of 90 students. A Local Area Transportation Review was completed to analyze the transportation impact of the proposed increased enrollment, including updated traffic counts from January 2020. No expansion of the building footprint is being requested as part of this APF review.

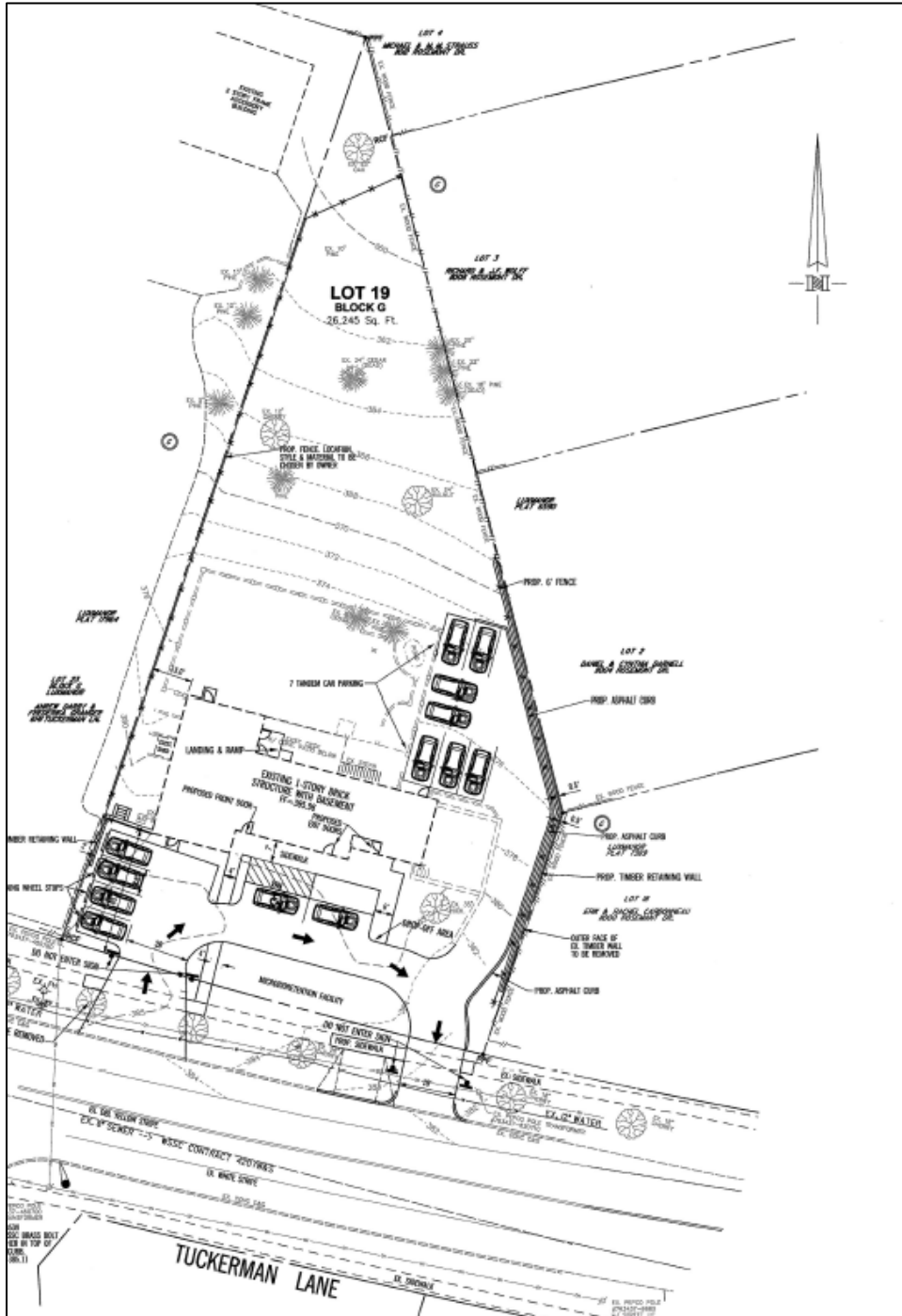


Figure 2: Site Plan of the Application Area

## ANALYSIS AND FINDINGS

### Master-Planned Roadways and Bikeways

Tuckerman Lane between Falls Road and Old Georgetown Road is classified as an Arterial road with two lanes, 35 mph posted speed, and an 80-foot right-of-way. No additional right-of-way dedication is required by the Applicant on Tuckerman Lane. The 2018 *Bicycle Master Plan* recommends a sidepath on Tuckerman Lane, although the side of the road is not specified; the existing right-of-way will allow for the future implementation of the sidepath.

### Transit Service

Ride On Route 37 operates peak weekday service between the Potomac Community Center and the Grosvenor-Strathmore Metro station, with select trips originating and terminating at the Wheaton Metro station. On weekdays, eastbound service operates from 6:17 a.m. to 9:45 a.m. and from 4:30 p.m. to 7:55 p.m.; westbound service operates from 6:00 a.m. to 9:12 a.m. and from 3:59 p.m. to 7:54 p.m. Route 37 does not operate on Saturday or Sunday.

### Pedestrian and Bicycle Facilities

There is an existing variable width sidewalk (minimum width 5 feet) adjacent to the curb along the Property's Tuckerman Lane frontage. The current sidewalk meets requirements set forth in Chapter 49 of the County Code (The Road Code).

To encourage multimodal access by staff members, the Applicant is required to provide two short-term bike parking spaces, in the form of inverted u-racks.

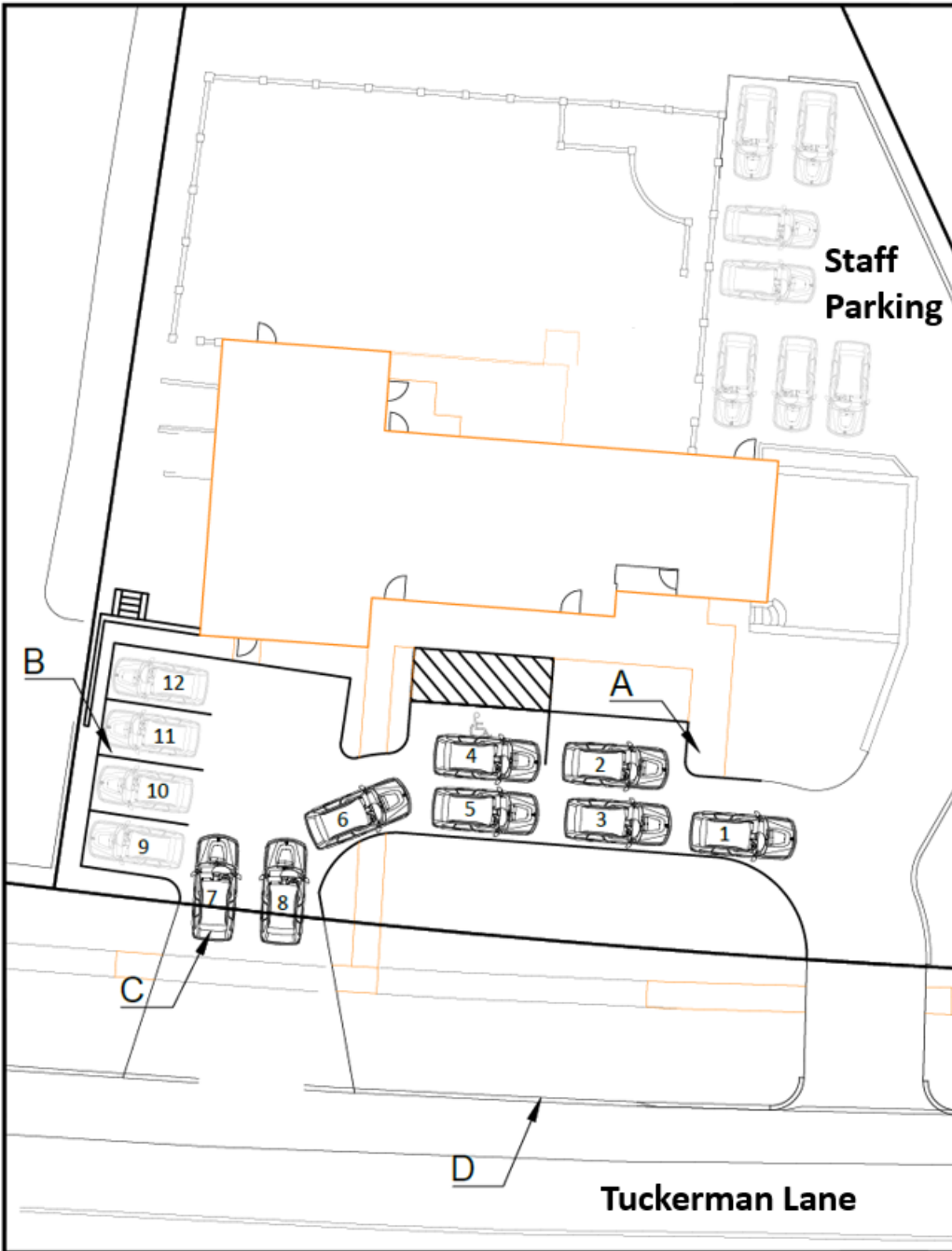
The Montgomery County Department of Transportation (MCDOT) is currently studying alternatives for the Tuckerman Lane Pedestrian and Bicycle Improvements project. This project is evaluating a range of roadway improvements near the Alef Bet Montessori School that will improve safety for people walking and biking, including adding a 5-foot bike lane, 8-foot shared use path (where feasible), and an 8-foot on-street parking lane. MCDOT is proceeding with facility planning for the segment from Whisperwood Lane to Old Georgetown Road in FY2021. However, this project is not funded for final design and construction.

### Vehicular Parking and Circulation

Access to the Property is served by a circular one-way drive aisle off Tuckerman Lane. Two travel lanes for pick-up and drop-off accommodates 12 vehicles, up to eight in the carpool lane and four parking spaces that are unoccupied during the morning drop-off and evening pick-up periods (Figure 3). Queuing onto Tuckerman Lane is prohibited. Four employees facilitate the drop-off process and guide children from their parents' vehicles to the building entrance. Planning Staff visited the site on Wednesday, October 16, 2019, to observe vehicular circulation during a typical morning drop-off period. During that site visit, Staff did not observe a queue onto Tuckerman Lane. Many drop-offs were completed in under one minute, resulting in few instances of vehicles remaining in the driveway for long periods.

Currently, a Montgomery County police officer is stationed at the school's driveway on Tuckerman Lane from 8:00-9:15 a.m. to control turning movements into and out of the site and to stop cross-traffic on Tuckerman Lane as necessary. As a condition of the Transportation Management Plan, the school will provide a certified traffic manager to facilitate the pick-up/drop-off process prior to issuance of the Use and Occupancy Certificate for the additional 51 students. Most students are released at or before 3:00 p.m., which reduces the Site's impact on the evening commuter peak period.

Thirteen parking spaces are provided on-site in the following configuration: six spaces in front of the school and seven tandem spaces in the rear for staff parking. The six front parking spaces are not occupied during the pick-up and drop-off periods and function as visitor parking at all other times. Limited on-street parking is provided on Tuckerman Lane east and west of the property, but on-street parking is prohibited along the frontage of the property, in accordance with discussions with the Montgomery County Department of Transportation.



Drop-off and Pick-up  
Stacking Lanes

- A. Drop Off Spot : Staff assists children in and out of car.
- B. 4 spaces used for pick up and drop off. No staff parking during those times.
- C. 2 carpool lanes, clockwise flow. Students do not exit car until in front of school.
- D. No parking between driveways.



NORTH

Alef Bet Montessori School

Figure 3: Site Stacking/Queuing Diagram

The school has executed off-site parking agreements with two nearby sites to handle overflow parking during special events (of which there are 10-12 per year) and address concerns from neighboring residents. As part of the off-site parking arrangement, Alef Bet provides a shuttle between the Site and the two off-site parking locations:

- **Aish of Greater Washington (11418 Old Georgetown Road):** Located 0.9 miles from the site; providing use of 16 parking spaces during special events.
- **MedSuites of Bethesda (11414 Old Georgetown Road):** Located 0.8 miles from the site; providing use of 60 parking spaces during special events. The property owner is also granting the school use of his 15-passenger van to transport guests from MedSuites of Bethesda to Alef Bet.

Local Area Transportation Review

The Applicant is proposing to expand enrollment to 90 students. As such, the Site is expected to generate more than 50 peak-hour person trips, and a traffic study was completed to comply with the Local Area Transportation Review (LATR) guidelines. The Site is not expected to generate more than 50 peak-hour pedestrian, bicycle, or transit trips, and is therefore exempt from adequacy tests associated with those modes of transportation. The LATR analysis determined there will be no significant impact to the local transportation network.

Start and end times for Alef Bet’s four programs are staggered, which minimizes the traffic impact on Tuckerman Lane and nearby intersections during the peak AM and PM hours. Staggered drop-offs will occur from 7:30-9:30 a.m., and will be limited to 50 vehicle trips per hour. The majority of pick-ups will occur before 2:45 p.m., in advance of the peak PM hour (5:15-6:15 p.m.). Peak PM hour trips (5:15-6:15) are based on 22 “after-school” students that will be dismissed between 4:45 and 5:45 p.m. An overview of weekday peak-hour person trips generated within the morning peak hour (7:30-8:30 a.m.) and the evening peak hour (5:15-6:15 p.m.) is shown below:

Land Use	Unit (Students/DU)	Peak AM Hour (7:30 – 8:30 am)	Peak PM Hour (5:15-6:15 pm)
Private School	50 students	52	10
Single-family Home	1 DU	0	1
<b>Total New Trips</b>	--	52	11
<i>ITE Code: 534 Private School (K-8)</i>			
<i>AM peak hour trips assume that 55% of students will arrive during the peak hour, based on historical data; PM peak hour trips are based on 22 “after-school” students</i>			
<i>Total new trips deducts the existing vehicle trip generated by the single-family home in the AM period</i>			

Figure 4: ITE Peak Hour Trip Generation Rates

Traffic counts were also conducted at the Site’s entrance in January 2020 to determine the trip generation rate associated with the existing enrollment. Thirty-three drop-off trips were recorded during the morning period (6:45 – 8:45 a.m.). The observed trip generation rate is higher than what the Institute of Transportation Engineers (ITE) Trip Generation Manual estimates, with a rate of 0.84 per student in the morning period. Based on this trip generation rate, the Site expects to generate 42 trips during the peak morning hour (with a maximum of 50 student drop-offs allowed per hour). The ITE trip generation rate in the morning period is 0.58.<sup>1</sup> As the observed trip generation rate is more conservative, it was applied to the requested increase in students (51), for a maximum enrollment of 90 students. While the observed rate is higher than the ITE rate, the school expects future trip generation

<sup>1</sup> ITE Land Use Code 543 (Private School K-8)

to drop as enrollment increases and more opportunities for carpools develop, such as pairs of siblings. Regardless of demand, inbound trips will be capped at 50 per hour.

Intersection Level of Service

The Site is in the North Bethesda Policy Area, which is designated as an Orange Policy Area by the 2016-2020 Subdivision Staging Policy. Traffic congestion in Orange Policy Areas is measured using the Highway Capacity Manual (HCM) delay-based level of service standards, which applies to all signalized study intersections. The HCM average vehicle delay standard for the North Bethesda Policy Area is 71 seconds. The HCM vehicle delay standard is currently exceeded at the intersection of Tuckerman Lane and Old Georgetown Road during both the morning and evening peak hours. For the morning peak period, the delay for existing conditions is 80.9 seconds/vehicle, 143.6 seconds/vehicle when accounting for background conditions, and 147.5 seconds/vehicle for the total future conditions, including Alef Bet’s increased enrollment (Figure 5). For the evening peak period, the delay for existing conditions is 77.5 seconds/vehicle, 151.6 seconds/vehicle when accounting for background conditions, and 152.7 seconds/vehicle for the total future conditions, including Alef Bet’s increased enrollment. Trips generated by the school results in an increase of 3.9 seconds of delay during the morning peak period and 1.1 seconds during the evening peak period at the Tuckerman Lane/Old Georgetown Road intersection. However, this is expected to be reduced by staggering student arrival times between early care, toddlers, preschool children and elementary age children over a two-hour period.

	AM Peak Period	PM Peak Period
<b>Existing Conditions</b>	80.9 seconds	77.5 seconds
<b>Background Conditions</b>	143.6 seconds	151.6 seconds
<b>Future Conditions</b>	147.5 seconds	152.7 seconds
<i>Background Conditions includes the pipeline developments</i>		
<i>Future conditions includes the pipeline developments and Alef Bet’s projected traffic</i>		

Figure 5: HCM Level of Service at Old Georgetown Road and Tuckerman Lane

Level of service was also analyzed at the intersection of Westlake Drive / Tuckerman Lane, 1.1 miles west of the school and the closest signalized intersection west of Alef Bet. This intersection is also west of I-270 and is therefore in the Potomac Policy Area. Potomac is a Yellow Policy Area, with a 55 second HCM average vehicle delay. Including the background conditions and Alef Bet’s expanded enrollment, the projected CLV congestion at this intersection is 845 in the morning peak hour and 1,092 in the evening peak hour, well below the 1,450 threshold for the Potomac Policy Area. As such, HCM analysis is not required at this intersection, as the CLV congestion is lower than 1,350.

The Applicant worked closely with the Maryland Department of Transportation State Highway Administration (SHA) and MCDOT to determine the site’s traffic impact to the intersection of Tuckerman Lane and Old Georgetown Road. Per SHA’s Traffic Monitoring System, in 2018 the average annual weekday traffic (AAWDT) on Tuckerman Lane was 16,700, a marginal decrease from the AAWDT in 2012 (16,850). The Applicant submitted a Design Request for a traffic signal modification to SHA to better facilitate the newly generated turning movements at the intersection. SHA and MCDOT considered several alternatives and concluded that while traffic signal modifications proposed by the Applicant would alleviate the delay generated by the site, the modifications would have marginal overall benefit to the intersection and the corridor. The removal of the existing right-turn restriction from Tuckerman Lane to southbound Old Georgetown Road (“No right-turn on red”), was also discussed. This modification is not endorsed by the Planning Department, as restricting right turns on red lights reduces conflicts between turning vehicles, pedestrians and bicycles, and improves safety for all users.



The Local Area Transportation Review allows for non-vehicular mitigation to be considered. The Planning Department and MCDOT considered mitigation in the form of traffic calming measures on adjacent residential streets. However, south of Tuckerman Lane neither Rosemont Drive nor Lux Lane meet MCDOT's requirements for speed humps: road segments of 1,000 feet (minimum) uninterrupted by stop, yield, or signal control.<sup>2</sup> MCDOT also administers access restrictions, intended to discourage through traffic on residential streets by prohibiting full or directional entry into or through particular streets and/or for specific periods.<sup>3</sup> Requests for traffic volume restrictions must be made by a local citizens association which represents a significant number of residents or by petition from 15% of the households in an area being proposed for traffic restrictions.

The Planning Department and MCDOT request a \$1,200 contribution to fund traffic signal modifications at the intersection of Old Georgetown Road and Tuckerman Lane, which MCDOT estimates will cost \$20,000 overall. The requested contribution is proportional to Alef Bet's congestion impact at the intersection of Old Georgetown Road and Tuckerman Lane: 3.9 seconds in the AM peak period and 1.1 seconds in the PM peak period. The HCM average vehicle delay standard for the North Bethesda Policy Area is 71 seconds. Factoring in 12 pipeline developments and Alef Bet's estimated traffic, the intersection is projected to exceed the Policy Area's HCM congestion threshold by 76.5 seconds in the AM peak period and 81.7 seconds in the PM peak period. Alef Bet accounts for 5% (\$1,000) of the increased congestion at the intersection of Old Georgetown Road and Tuckerman Lane in the AM peak period and 1% (\$200) of the increased congestion in PM peak period, which results in a \$1,200 proportional contribution. Additionally, this intersection is located near several schools and these intersection improvements will create a safer environment for pedestrians and bicyclists.

The Planning Department will continue to work closely with the Applicant to ensure the conditions of this APF approval are met and the impact on the local transportation network is minimized. The Transportation Management Plan requires annual monitoring for five years. The annual monitoring report will include current and projected student enrollment, documents efforts to promote carpooling for staff and students, and a summary of on-site queuing trends and operational issues.

#### Citizen Concerns

As of the date of this Staff Report, staff received 25 emails from residents supporting Alef Bet's expanded enrollment and nine emails from residents opposing the expanded enrollment. Concerns from residents opposing the project are focused on impacts to traffic operations on Tuckerman Lane, potential cut-through traffic on nearby residential streets, and traffic congestion at the intersection of Old Georgetown Road and Tuckerman Lane. Over the past two years, Planning Department staff have also met with residents representing "Concerns About the School," a community group that is concerned with the school's impact on traffic, safety, and livability in the neighborhoods of Luxmanor, Windermere, Old Farm, Tilden Woods, and The Oaks. In 2017, concerns were also raised to County Council member Roger Berliner's office focused on non-local cut-through traffic, the safety of pedestrians and bicyclists due to speeding on Tuckerman Lane, and overflow vehicular traffic from the site onto Tuckerman Lane. As noted, the school's driveway can accommodate 12 vehicles concurrently (8 in the carpool lane and four parked vehicles), and four employees expedite the drop-off process by guiding children from their parents' vehicles to the building entrance, limiting dwell time and overflow traffic onto Tuckerman Lane.

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<sup>2</sup> Executive Regulation 1-18 AM – Speed Humps for Residential Streets:

[https://www.montgomerycountymd.gov/COUNCIL/Resources/Files/res/2018/20180717\\_18-1177.pdf](https://www.montgomerycountymd.gov/COUNCIL/Resources/Files/res/2018/20180717_18-1177.pdf)

<sup>3</sup> Executive Regulation 17-94 AM – Through Traffic Volume Access Restrictions in Residential Areas:

[https://www.montgomerycountymd.gov/DOT-Traffic/Resources/Files/PDF/exreg17\\_94am.pdf](https://www.montgomerycountymd.gov/DOT-Traffic/Resources/Files/PDF/exreg17_94am.pdf)

In response to community traffic concerns, MCDOT installed stop signs at the intersection of Rosemont Drive and Lux Lane. MCDOT will consider future traffic calming measures on nearby residential streets, such as speed humps, if such measures are requested by residents and meet the criteria for installation.

Correspondence from residents supporting the school's expanded enrollment claim to not have observed an increase in cut-through traffic and consider the school a community asset.

## **CONCLUSION**

The proposed addition meets all requirements established under Section 8-32 of the County Code. The public transportation facilities will be adequate to serve the 51 additional students. Staff recommends approval of the APF transportation determination with the conditions specified above.

## **ATTACHMENTS**

Attachment A – Statement of Justification

Attachment B – Site Plan

Attachment C – Alef Bet Montessori School Transportation Management Plan

Attachment D – MCDOT TIS Review

Attachment E - Correspondence