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SIDWELL FRIENDS SCHOOL

Transportation Management Plan

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Board of Zoning Adjustment
District of Columbia
CASE NO.17703A
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INTRODUCTION

Sidwell Friends School (herein referred to as the Applicant, Sidwell, or the School) proposes to relocate its Lower School located at 5112 Edgemoor Lane in Bethesda, Maryland, to its Upper/Middle School campus located at 3825 Wisconsin Avenue in northwest Washington, DC. To relocate the Lower School and unify it with the Upper/Middle School campus, the Applicant proposes to renovate the existing Washington Home, demo two existing buildings on the Upper/Middle School campus to create a new central landscape, construct a new gym at the Lower School, and build a new addition at the Lower School to link the Upper, Middle, and Lower Schools. The resulting unification will allow the School to operate in a more efficient and coordinated manner.

In conjunction with the relocation of the Lower School, Sidwell proposes to increase the cap at its Wisconsin Avenue campus from the current cap of 850 students to 1,250 students. The increased cap would accommodate the 850 students currently enrolled at the Upper and Middle Schools, 300 students currently enrolled at the Lower School in Bethesda, and an increase of 100 students across the three divisions. The faculty/staff cap would be increased from 190 to 260. The increased cap would accommodate the 190 faculty/staff currently enrolled at the Upper/Middle School campus, the 50 faculty/staff currently employed at the Lower School, and an increase of 20 additional faculty/staff members across the three divisions.

To help facilitate ingress to, egress from, and the flow of traffic on campus and to reduce the impact of the proposed development, Sidwell will implement a Transportation Management Plan that will consist of a Transportation Demand Management (TDM) Plan, an Operations Management Plan, and a Monitoring Plan. Each plan is summarized below:

TRANSPORTATION DEMAND MANAGEMENT

Overview

Traffic and parking congestion can be solved in one of two ways: 1) increase supply or 2) decrease demand. Increasing supply requires building new roads, widening existing roads, building more parking spaces, or operating additional transit service. These solutions are often infeasible in constrained conditions in urban environments and, where feasible, can be expensive, time consuming, and in many instances, unacceptable to businesses, government agencies, and/or the general public. The demand for travel and parking can be influenced by Transportation Demand Management (TDM) plans. Typical TDM measures include incentives to use transit or other non-auto modes of transportation, bicycle and pedestrian amenities, parking management, alternative work schedules, telecommuting, and better management of existing resources. TDM plans are most effective when tailored to a specific project or user group.

To determine an appropriate reduction that is both meaningful, in terms of reducing the school's impacts, and achievable, trip characteristic information from other private schools in the District were evaluated. This information is presented below in Table 1.

Based on this information, Sidwell should be able to significantly improve its AVO. If the Lower School achieves a 1.39 AVO with an improved carpool program, the Lower School could achieve a 15 percent reduction in trips. At an AVO of 1.60, the Lower School could achieve a 26 percent reduction in trips. Although the current AVOs at the Middle/Upper Schools are substantially higher than at the Lower School, an improved carpool program for the Middle/Upper Schools could also yield measurable reductions in trips. During the AM peak hour, the expected reduction would range from approximately nine percent (with an AVO of 1.39) to 21 percent (with an AVO of 1.6). During the PM peak hour, a more modest reduction would be realized. An approximate nine percent reduction would be expected with an increase in AVO to 1.6.

Table 1
Summary of Private School Information

	Grades	# of Students	Non-Auto Mode Split	Average Vehicle Occupancy (AVO)
Sheridan School				
Faculty/Staff	K – 8 th	230	30%	1.86
Students			18%	1.36
The British School				
Faculty/Staff	PreK – 12 th	491	32%	---
Students			23%	1.7 AM/1.57 PM
Saint Patrick's Episcopal Day School				
Faculty/Staff	PreK – 6 th	485	---	---
Students			1.5%	1.6
Maret School				
Faculty/Staff	K – 12 th	650	---	---
Students			15.2%	1.39
Sidwell Friends Lower School				
Faculty/Staff	PreK – 4 th	300	14%	---
Students			26%	1.19 AM/1.17 PM
Sidwell Friends Upper/Middle School				
Faculty/Staff	8 th – 12 th	860	22%	---
Students			14%	1.26/1.46

Additional reductions can also be realized due to the natural synergy of the site, which will allow families with students in multiple divisions to drop-off/pick-up at one campus as opposed to two campuses. Based on information provided by Sidwell, approximately 14 percent of Lower School families also have children in the Middle and/or Upper School.

Although Sidwell's student non-auto mode splits are in line with or slightly higher than the other schools shown in Table 1, Sidwell has, at the request of the community, developed a busing plan that will enable them to increase the non-auto mode split further. Specifically, Sidwell will run a shuttle to the Tenleytown Metro Station, continue to run its shuttle to Bethesda (though overtime the location of this shuttle may change depending on the geographical characteristics of its student population), and will run two additional bus routes. The exact location of the two bus stops will be determined based on the demand for service, which will be dependent on the geographical characteristics of the student population. It is anticipated that the routes may service Silver Spring and Capitol Hill.

Given the opportunities for improving carpooling, the synergy created by combining to separate campuses into one, and the proposed concept plan for busing, a 30 percent reduction was considered appropriate and achievable. As demonstrated in subsequent sections of this report, the 30 percent reduction also mitigates the impact of the proposed redevelopment.

Components of TDM Plan

Sidwell proposes the following strategies as part of their TDM plan:

General:

1. Designate a TDM coordinator who will be responsible for organizing, marketing, and accomplishing the tasks in the TDM plan and who will act as a liaison with DDOT.
2. Create a transportation section on the school's website with up-to-date information regarding transportation options available to students, parents/guardians, and employees.
3. Hold meetings with the community twice per year to garner feedback on traffic and parking related issues for the length of the performance monitoring program.
4. Provide a bike maintenance facility in the garage or other easily accessible area for students and faculty/staff.
5. Make showers and lockers available to students and faculty/staff who jog or bike to school.
6. Provide one 200V electric vehicle charging station in the parking garage.

Students:Rideshare

1. Provide carpool matching assistance for parents to increase the Average Vehicle Occupancy (AVO) for the school. Assistance programs would include:
 - Creation of an online, interactive map for parents to see what other Sidwell families live near them and are interested in carpooling, as well as provide contact information.
 - Register with and promote Commuter Connections School Pool Program to assist parents in finding other parents in their neighborhood to form carpools, walking groups, or biking groups.

Transit Provided by Sidwell

2. Provide a shuttle to the nearby Tenleytown Metro Station for faculty, staff, and students. The stop location will be subject to DDOT approval and require a Public Space Permit.
3. Provide a bus to Bethesda and two other off-site locations, as determined based on addresses of students taking the bus.
4. Explore a potential partnership with Bridj or other private shuttle/micro-transit company to provide transportation from areas that are not serviced by a school bus or public transportation.

Incentives

5. Provide transit/alternate commute incentives to encourage students to use non-auto modes of transportation to travel to school. Incentives would include:
 - Encourage District of Columbia students to take advantage of the School Transit Subsidy Program, which allows students at private schools to receive discounted transit passes for rail and bus;
 - Provide \$100 monthly SmarTrip cards to Virginia and Maryland financial aid students who take public transportation;

Outreach and Education

6. Provide outreach and education events to stress the importance of using non-auto modes of transportation and make information more readily available. Outreach and educational events would include:
 - Hold a "Transportation to School" event at the beginning of each semester, stressing the importance of public transportation, carpooling, biking, etc.;

- Participate in DDOT's Safe Routes to School Program – The program encourages students and their parents to walk and bicycle to school by examining conditions around schools and conducting projects and activities to improve safety and accessibility. The program also provides pedestrian and bicycle safety training in the classroom;
- Participate in Walk to School/Bike to School Day;
- Start weekly "Walking Fridays;"
- Promote walking/biking in communications with parents; and
- Have students track walking/biking and its benefits.

Faculty/Staff

Rideshare

1. Provide carpool matching assistance for faculty/staff to increase the Average Vehicle Occupancy (AVO) for the school. Assistance programs would include:
 - Creation of an online, interactive map for faculty/staff to see what other Sidwell employees live near them and are interested in carpooling, as well as provide contact information.

Transit Provided by Sidwell

2. Provide a shuttle to the nearby Tenleytown Metro Station for faculty, staff, and students. The stop location will be subject to DDOT approval and require a Public Space Permit.

Incentives

3. Provide transit/alternate commute incentives to encourage faculty/staff to use non-auto modes of transportation to travel to school. Incentives would include:
 - Provide \$135 monthly SmarTrip cards for faculty/staff who take public transportation;
 - Allow employees to set aside \$225/month in pre-tax funds through their paycheck for transit or vanpool expenses;
 - Enroll in Guaranteed Ride Home, which provides employees who regularly take transit, vanpool, carpool, walk, or bike to work with a reliable ride home when an unexpected emergency arises; and
 - Provide \$240 annually to faculty/staff who bike to campus the majority of the time.

Outreach and Education

4. Provide training for the faculty/staff at the beginning of each year to implement and enforce the TDM Plan.

OPERATIONS MANAGEMENT PLAN

In addition to the TDM plan, Sidwell will implement an Operations Management Plan for the Lower School to improve drop-off/pick-up procedures. The following are the components of the plan:

1. Expand the pick-up window at the Lower School from 15 minutes to 30 minutes to help reduce queuing and allow parents a longer amount of time to pick-up their child(ren).
2. Establish a clear drop-off/pick-up protocol for parents. The protocol will be as follows:
 - Drop-off/pick-up for the Lower School will occur on the Lower School site or in the new Shared/Middle School Loop adjacent to the tennis courts.
 - Traffic entering the drop-off/pick-up lane on the Lower School site will enter via 37th Street and exit via Upton Street. The 37th Street driveway will be open to general traffic only during drop-off/pick-up periods. At all other times, the driveway will be open only to service traffic.
 - Traffic entering the drop-off/pick-up circle adjacent to the Campus Center will enter via the existing service drive on Wisconsin Avenue and exit via the Fannie Mae/Sidwell/Post office signal on Wisconsin Avenue.
 - Parents/guardians will be assigned a drop-off/pick-up location and must use the assigned area. Parents/guardians will be given a color-coded tag. The color will correspond to their assigned drop-off/pick-up location. For parents picking up at the Lower School, the tag also will have a number, which will correspond to their student(s). The tag must be placed in the windshield of the vehicle picking up the student(s). A member of staff will note the number as the vehicle enters the pick-up line and radio the number back to the school as the vehicles enter campus. Staff at the school then will shepherd the appropriate students to the awaiting vehicles once they stop in the circle in front of the school or adjacent to the tennis courts (depending on their assigned location).
 - All parents who must leave their vehicle to drop-off/pick up students during regular drop-off/pick-up times, must park in the Upper School garage. Parents using the drop-off/pick-up lane at the Lower School must remain in their

vehicles and will drop-off/pick-up their student(s) when they stop in the circle in front of the school.

- Staff members will be stationed at each drop-off/pick-up location to direct traffic and to assist students in getting to the appropriate vehicle.

MONITORING PLAN

To ensure that the TDM and Operations Management plans are functioning as intended, Sidwell will conduct annual monitoring studies, which will be submitted to DDOT and ANC 3F.

- Elements of the Monitoring Study:
 - The number of vehicle trips generated by the school during the AM peak hour and PM School peak hour.
 - Traffic counts shall be conducted when Sidwell, DC Public Schools, and Congress are in session.
 - Counts shall be conducted during the month of October at the driveways to the school on a typical weekday (a Wednesday or Thursday) from 7:00 AM to 9:00 AM and from 2:30 PM to 4:30 PM. During the first year, counts shall be conducted in January, March, and May in addition to October. Counts shall be conducted on days when no adverse weather impacts travel conditions.
 - The number of trips generated by the school shall be determined as follows:
 - AM peak hour shall be determined by selecting the single highest hourly inbound plus outbound volume (for all driveways combined) between 7:00 AM and 9:00 AM.
 - PM School peak hour shall be determined by selecting the single highest hourly inbound plus outbound volume (for all driveways combined) between 2:30 PM and 4:30 PM.
 - A queue analysis to evaluate whether the Lower School, Middle School and Upper School drop-off/pick-up locations are accommodated in their respective designated locations.
 - The queue study shall be conducted when Sidwell, DC Public Schools and Congress are in session.
 - The queue study shall be conducted in October on a typical weekday (a Tuesday, Wednesday, or Thursday) from 7:00 AM to 9:00 AM and from 2:30 PM to 4:30 PM. During the first year, the queue study shall be conducted in January, March, and May in addition to October. The

queue study shall be conducted on days when no adverse weather impacts travel conditions.

- A mode split survey (conducted approximately one month after the start of the school year) to determine the mode of transportation for students and faculty/staff.
 - A list of TDM measures in effect at the time the study was conducted and the number of students enrolled and faculty/staff employed at the time the study was conducted.
- Trip Generation Goals:
- Sidwell has established a goal of reducing peak hour vehicular traffic by 30 percent through implementation of a TDM plan. The vehicular trip generation goals are provided in Tables 2 (for entire campus) and 3 (for Lower School only).

Table 2
Trip Generation Goals
All Divisions

Trip Type	AM			PM School		
	In	Out	Total	In	Out	Total
Existing Upper/Middle Schools	602	405	1,007	194	283	477
Existing Lower School	157	178	335	103	148	251
Subtotal – All Divisions	759	583	1,342	297	431	728
<i>TDM Reduction (30%)</i>	-228	-175	-403	-89	-129	-218
Net Vehicle Trips	531	408	939	208	302	510
<i>Trip Gen Goal – All Divisions</i>	939			510		

Table 3
Trip Generation Goals
Lower School Site Only

Land Use	AM Peak Hour			PM School Peak Hour		
	In	Out	Total	In	Out	Total
Existing Lower School	157	178	335	103	148	251
<i>Faculty/Staff to Garage</i>	-26	-4	-30	0	0	0
Subtotal Lower School Site	131	174	305	103	148	251
<i>TDM Reduction (30%)</i>	-39	-52	-91	-31	-44	-75
Lower School Trips with TDM	92	122	214	72	104	176
<i>Trip Gen Goal – Lower School</i>	214			176		

■ Sequencing of Monitoring Studies

- During the first year the Lower School is open, the monitoring will be conducted two times per semester.
- After the first year, the monitoring study shall be conducted during the Fall semester each year. If goals are not met during the Fall semester, a second monitoring study shall be conducted during the Spring semester of that year. If goals are met during the Fall semester, the Spring semester monitoring study will not be required.
- The monitoring study shall be conducted for a minimum of two consecutive years. In the event that the actual AM or PM School peak hour vehicle trip generation is less than the established Trip Generation Goals for 1,150 students (identified in the tables above) for two consecutive years, monitoring will be conducted biennially (every two years).
- In the event that the actual AM or PM School peak hour vehicle trip generation is less than the established Trip Generation Goals for two consecutive biennial studies, monitoring may cease until such time as Sidwell increases its student enrollment, as allowed below.
- Sidwell must demonstrate, through the monitoring studies, that Trip Generation Goals are met at an enrollment of 1,150 students for two consecutive years prior to increasing its student enrollment. After Sidwell has successfully demonstrated that the goals have been met for two consecutive years, the student enrollment may be increased by 50 students (to 1,200 students) and the number of faculty/staff may increase to 260 (from an opening day staff count of 250).
- Upon increase of the enrollment to 1,200 students, Sidwell shall continue with the annual monitoring studies for a minimum of an additional two years, measuring against the Trip Generation Goals.
- Once Sidwell demonstrates, through the monitoring studies, that the Trip Generation Goals at an enrollment of 1,200 students has been met for two consecutive years, the student enrollment may be increased by an additional 50 students (to 1,250 students).
- Upon increase of the enrollment to 1,250 students, Sidwell shall continue with the annual monitoring studies for a minimum of an additional two years, measuring against the Trip Generation Goals.
- In the event that the actual AM or PM School peak hour vehicle trip generation exceeds the established Vehicle Trip Generation Goals, Sidwell shall continue to perform the monitoring until the vehicle trip generation for the site is less than the established Vehicle Trip Generation Goals for two consecutive years. At such time, Sidwell will perform the monitoring study biennially. If the studies show that the goals continue to be met for

two consecutive biennial studies, monitoring may cease. Based on the proposed sequencing, Sidwell will perform a minimum of 11 monitoring studies over a minimum of 10 years, assuming they increase their cap by 100 students in that timeframe. If Sidwell does not increase their cap within the first six years, they will be required to perform a minimum of seven reports in six years and then would be required to resume monitoring reports once they increase their student cap.

- If the AM or PM peak hour Vehicle Trip Generation Goals is not met, Sidwell will include, in the monitoring study, additional TDM measures to be implemented prior to the next monitoring period. In addition, Sidwell will meet with DDOT to explore and develop new TDM strategies.