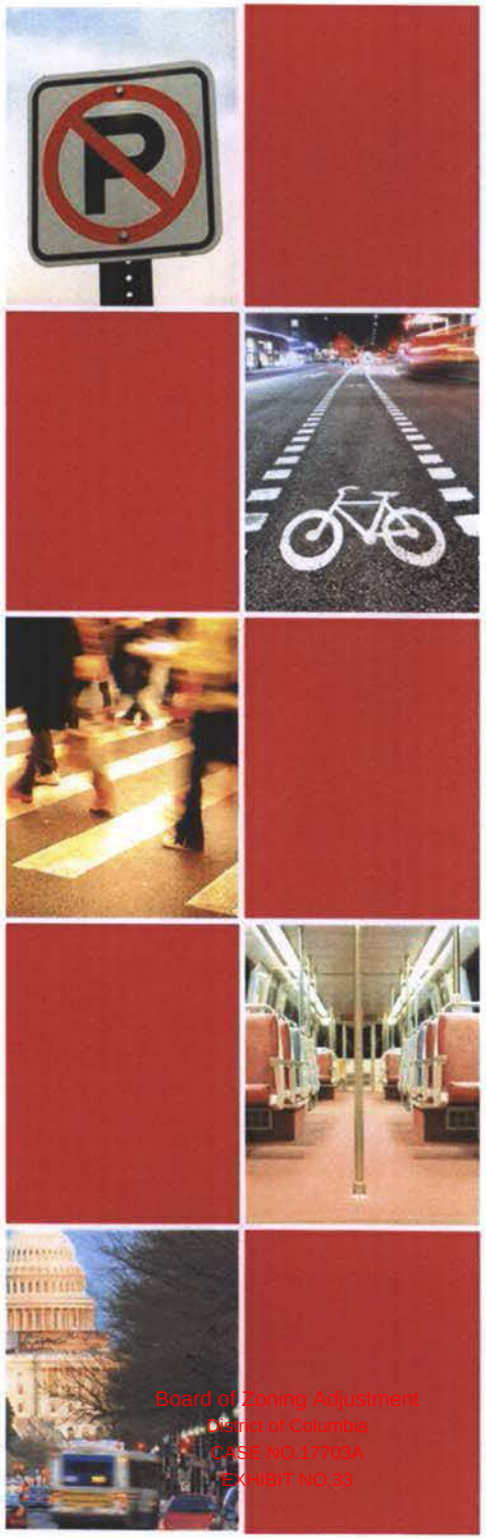
Sidwell Friends School Transportation Analysis

Presentation to the BZA

3-1-2016



WELLS + ASSOCIATES

Summary of Proposal

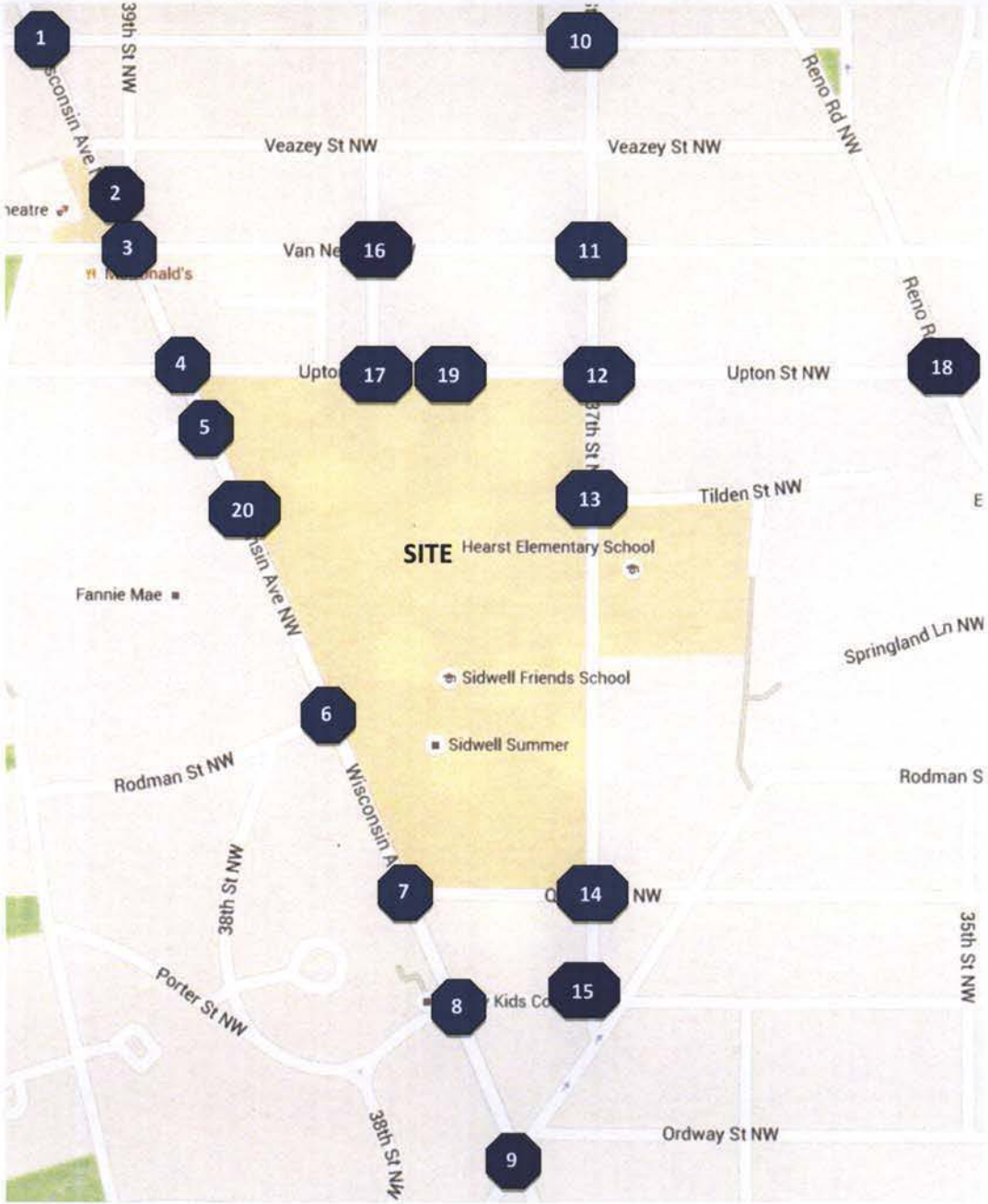
Component	Existing	Proposed
Number of Students	850 at Wisconsin Avenue campus 300 at Bethesda campus	1,250 at Wisconsin Avenue campus
Number of Faculty/Staff	190 at Wisconsin Avenue campus 50 at Bethesda campus	260 at Wisconsin Avenue campus
Parking	328 at Wisconsin Avenue campus 58 at Bethesda campus	348 at Wisconsin Avenue campus

Study Process Overview

- Preliminary Analysis to Inform Design
  - Extensive data collection at Lower School and Upper/Middle School Campuses
    - Vehicle Trip Generation
    - Queuing Needs
    - Parking Needs
- Scoping Process with DDOT
  - Meeting with DDOT on 9/24/15
  - Approved scope on 12/3/15
- Community Engagement Process
  - 13 meetings and conference calls to discuss transportation-related issues
- Traffic Study
  - Looked at potential impacts on surrounding neighborhood
  - Includes recommendations:
    - Traffic Operations (improvements to make traffic flow better)
    - Transportation Demand Management (strategies to reduce volume of traffic)
    - Operational Management (strategies to facilitate flow in and out of campus)

Study Process Overview – Study Area Map

1. Wisconsin Avenue/Warren Street,
2. Wisconsin Avenue/39th Street,
3. Wisconsin Avenue/Van Ness Street,
4. Wisconsin Avenue/Upton Street,
5. Wisconsin Avenue/Fannie Mae Driveway/Post Office Driveway/Sidwell Driveway,
6. Wisconsin Avenue/Rodman Street/Sidwell Driveway,
7. Wisconsin Avenue/Quebec Street,
8. Wisconsin Avenue/Porter Street,
9. Wisconsin Avenue/Idaho Avenue,
10. 37th Street/Warren Street,
11. 37th Street/Van Ness Street,
12. 37th Street/Upton Street,
13. 37th Street/Tilden Street/Washington Home Driveway,
14. 37th Street/Quebec Street,
15. 37th Street/Porter Street,
16. 38th Street/Van Ness Street,
17. 38th Street/Upton Street,
18. Upton Street/Reno Road,
19. Upton Street/Site Driveway, and
20. Wisconsin Avenue/Site Driveway.



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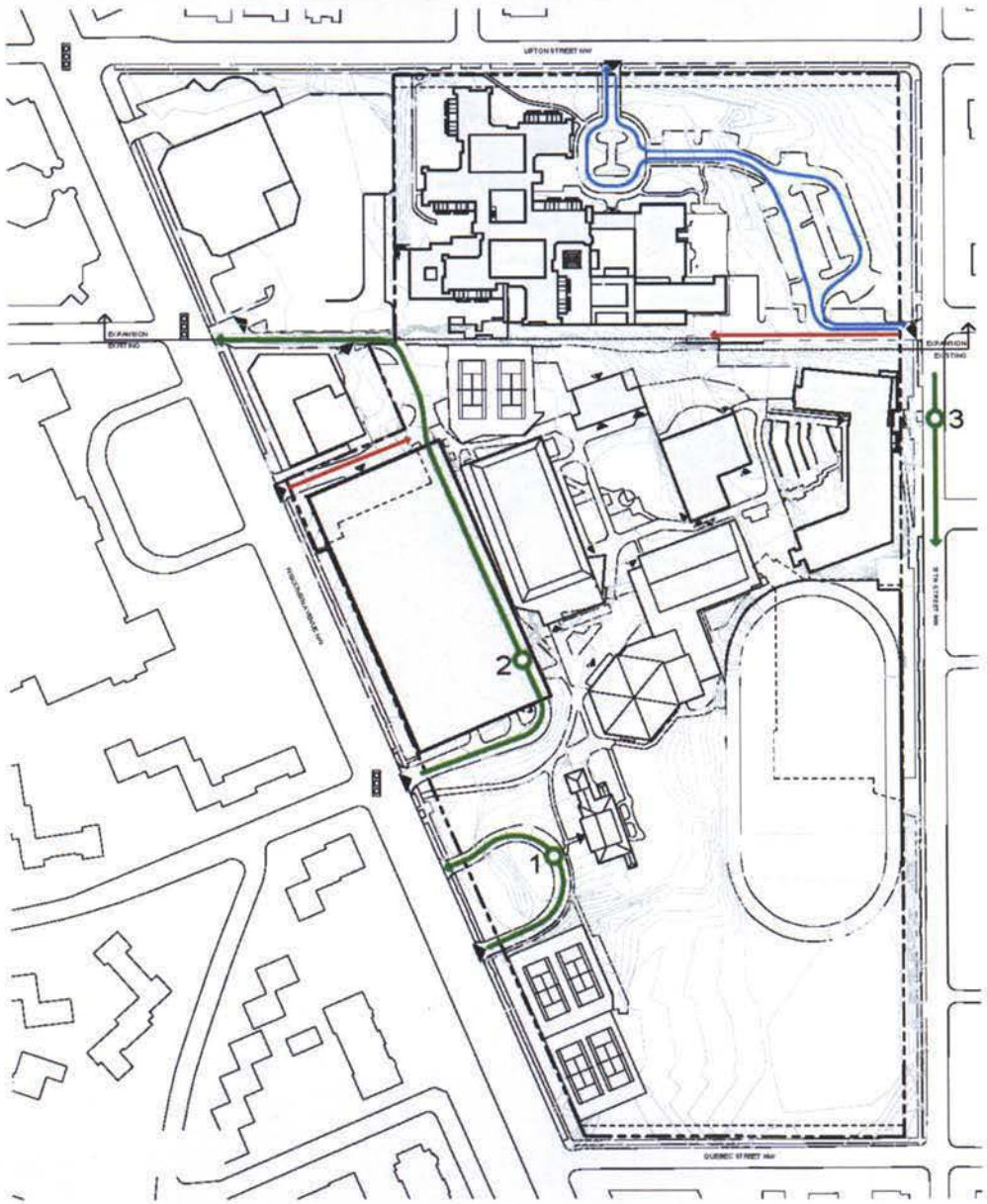
Site Access and Circulation - Existing

LEGEND:

- VEHICULAR ACCESS POINT
- BUILDING ENTRY
- TRAFFIC LIGHT
- PROPERTY LINE
- SETBACK LINE
- WASHINGTON HOME DRIVE
- SERVICE DRIVE
- SIDWELL - EXISTING DROP-OFF / PICK-UP ROUTE
- SIDWELL - EXISTING DROP-OFF / PICK-UP LOCATIONS
  1. ZARTMAN HOUSE
  2. UPPER SCHOOL
  3. MIDDLE SCHOOL



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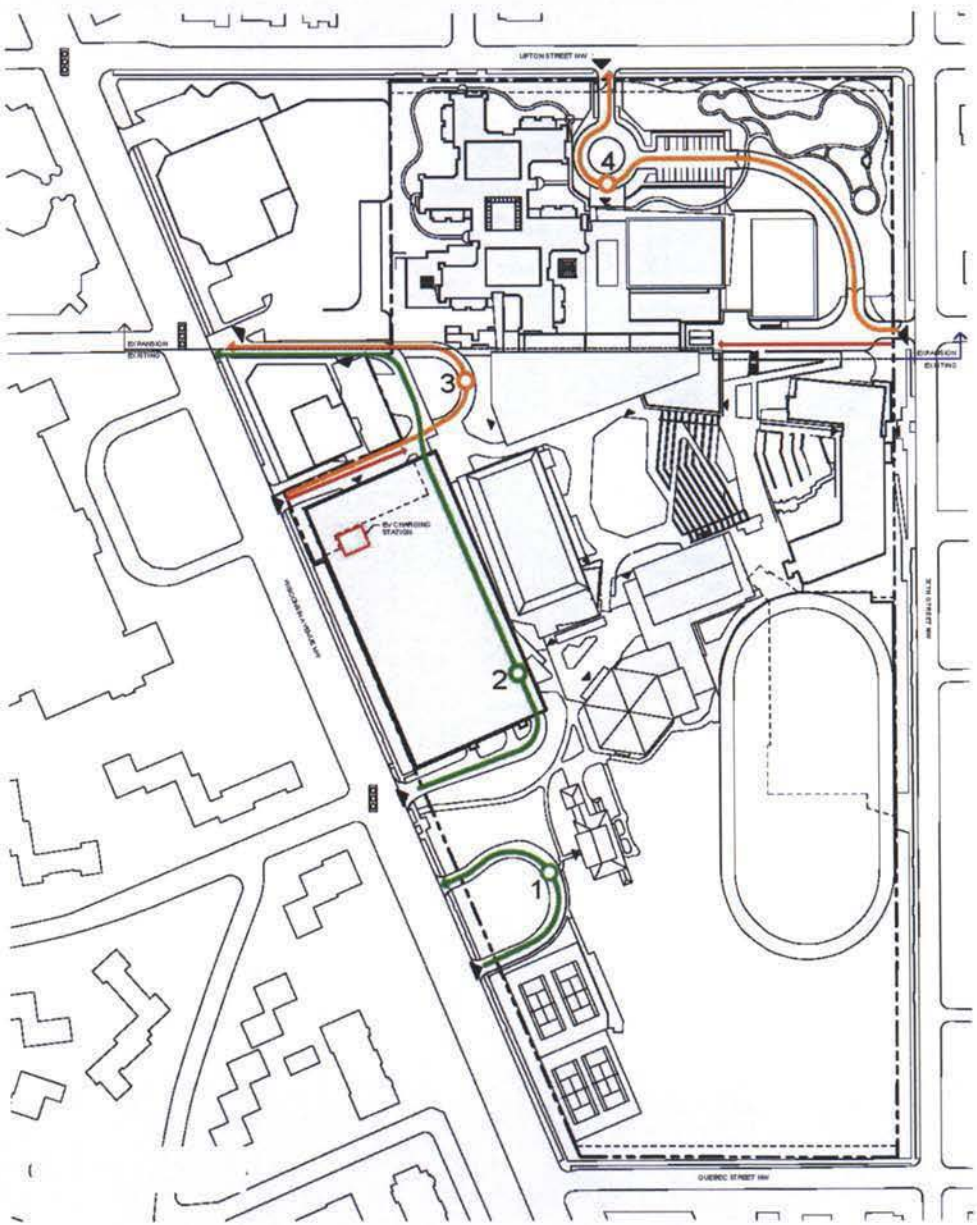
Site Access and Circulation - Proposed

LEGEND:

- VEHICULAR ACCESS POINT
- BUILDING ENTRY
- TRAFFIC LIGHT
- PROPERTY LINE
- SETBACK LINE
- SERVICE DRIVE
- SIDWELL - EXISTING DROP-OFF / PICK-UP ROUTE
- SIDWELL - EXISTING DROP-OFF / PICK-UP LOCATIONS
  - 1 ZARTMAN HOUSE
  - 2 UPPER SCHOOL
- SIDWELL - PROPOSED DROP-OFF / PICK-UP ROUTE
- SIDWELL - PROPOSED DROP-OFF / PICK-UP LOCATIONS
  - 3 NEW SHARED / MIDDLE SCHOOL
  - 4 NEW LOWER SCHOOL
- ELECTRIC VEHICLE CHARGING STATION

  Wall-mounted electric vehicle charging station to be provided in parking garage to accomodate two (2) cars



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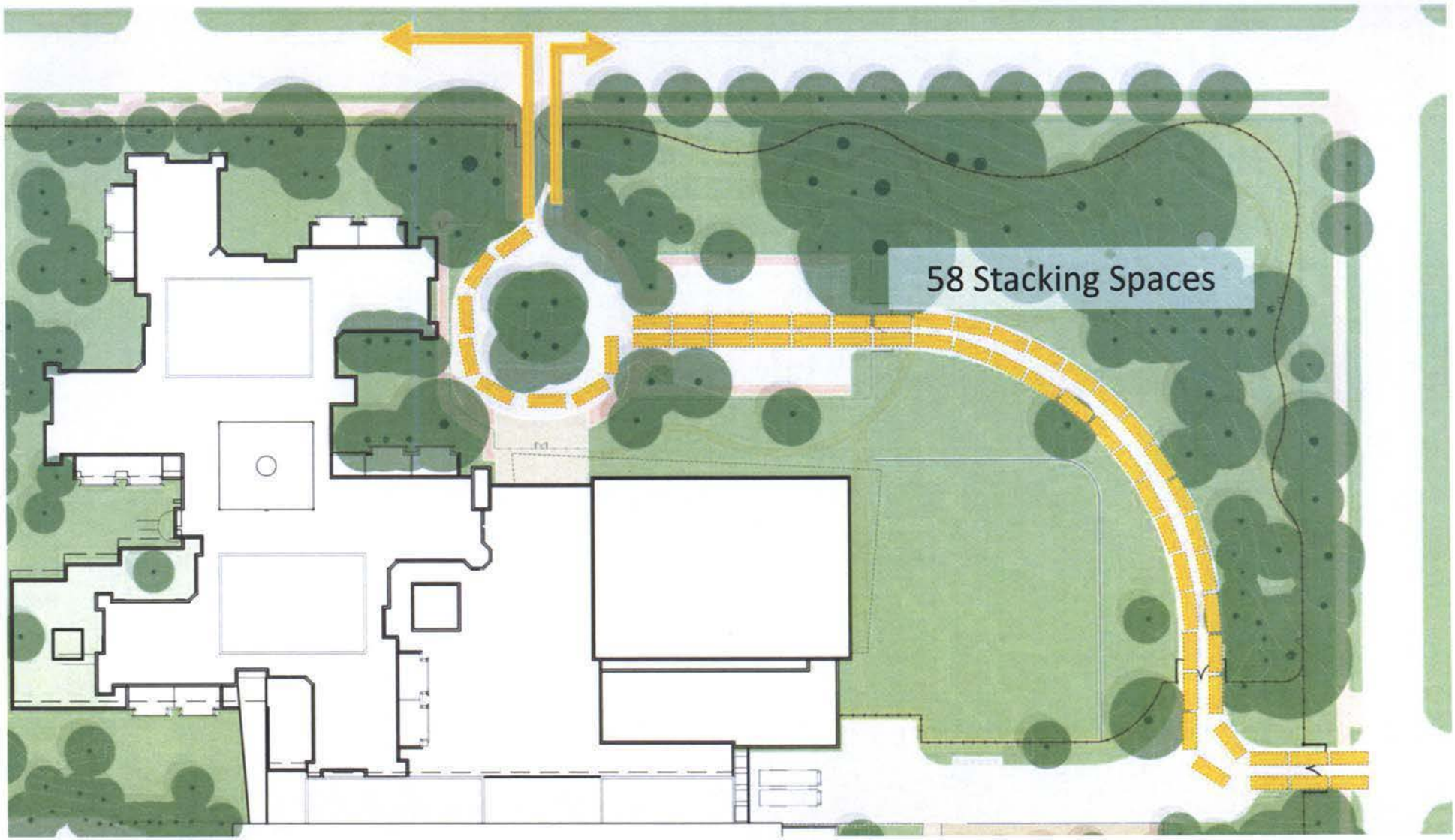
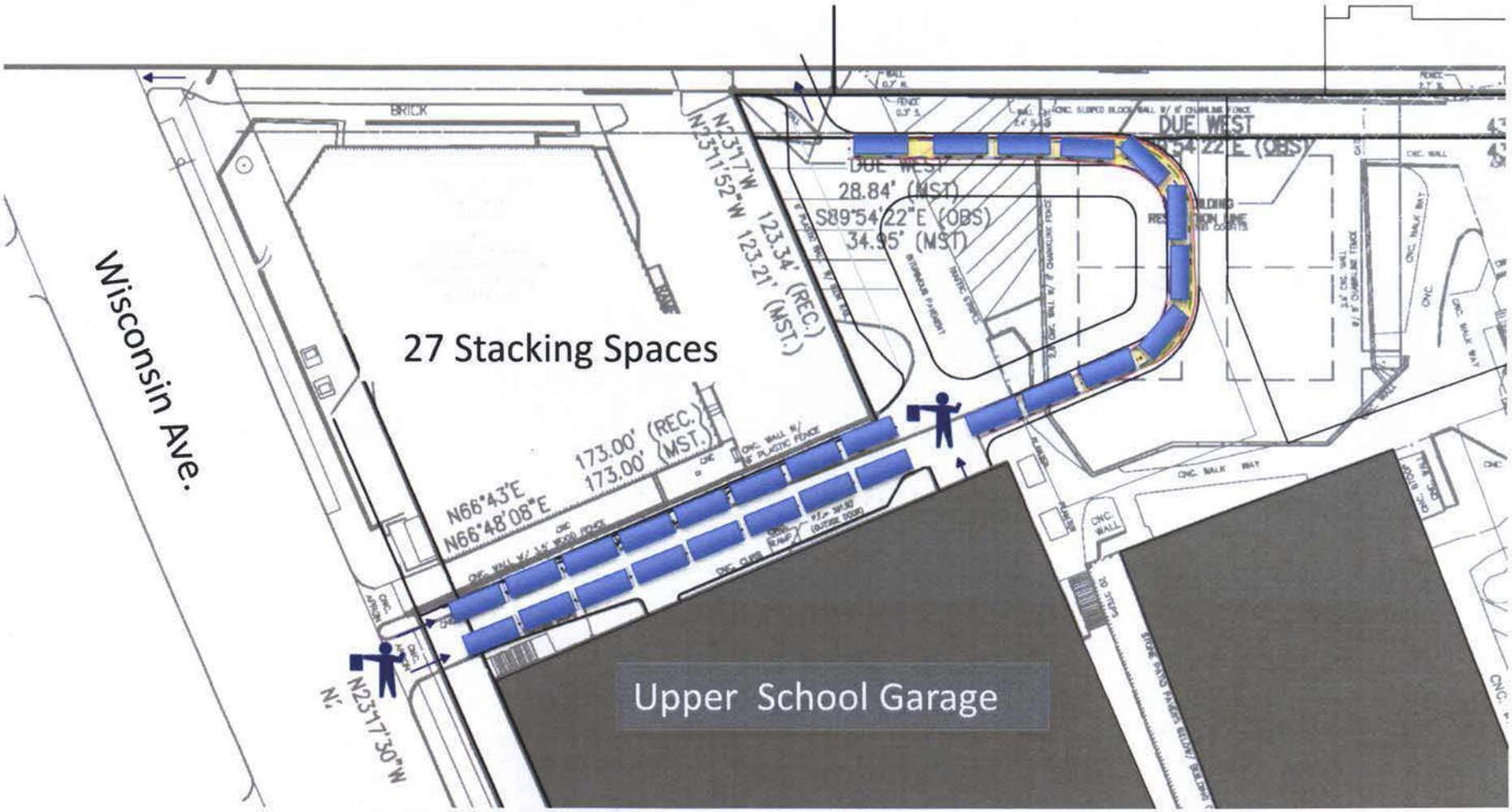
Site Access and Circulation - Lower School Pick-up/Drop-off



Site Access and Circulation - Proposed Shared Circle



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Trip Generation

Trip Type	AM			PM School		
	In	Out	Total	In	Out	Total
Existing Upper/Middle School Trips	602	405	1,007	194	283	477
Added Lower School Trips	+157	+178	+335	+103	+148	+251
Subtotal	759	583	1,342	297	431	728
Trips Added Due to Cap Increase	+67	+50	+127	+26	+37	+63
Trips Removed Due to TDM	-295	-225	-530	-115	-166	-281
Total School-wide Trips	*531*	*408*	*939*	*208*	*302*	*510*
Trip Gen Goal	***939***			***510***		

Transportation Management Plan

- ❑ Transportation Demand Management
- ❑ Monitoring Plan
- ❑ Operations Management Plan
- ❑ Loading Management Plan

Transportation Demand Management

❑ Goal

- ➢ A 30% reduction in trips across all divisions (campus-wide)
- ➢ A 30% reduction in trips to/from the Lower School
- ➢ Trip thresholds do NOT increase with increased enrollment above 1,150 students

❑ Strategies

- ➢ Designate a TDM coordinator
- ➢ Provide a shuttle to Tenleytown Metro
- ➢ Provide bus to Bethesda and two other locations
- ➢ Provide carpool matching assistance
  - Provide online, interactive map
  - Register with Commuter Connections School Pool Program
  - Provide preferential parking for carpools in the garage

Transportation Demand Management

❑ Demand Management Strategies (Continued)

➢ Provide Transit/Alternate Commute Incentives

- Employee Pre-Tax Transit Benefit
- Enroll in Guaranteed Ride Home
- Promote School Transit Subsidy Program
- Provide $100 monthly SmartTrip cards to Virginia and Maryland financial aid students who take public transportation
- Provide $135 monthly SmartTrip card for faculty/staff who take public transportation
- Provide $240 annually to faculty/staff who bike to campus the majority of time
- Make showers and lockers available to students and employees who bike and walk to work
- Provide bike maintenance facility on campus
- Provide 45 long-term bicycle parking spaces on campus
- Provide 20 additional short-term bicycle spaces on campus
- Provide approximately 10 short-term bicycle spaces in public space

Transportation Demand Management

❑ Demand Management Strategies (Continued)

➢ Outreach and Education

- Create a transportation section on the school's website
- Participate in programs that promote walking and biking to school
- Hold "Transportation to School" Events
- Participate in DDOT's Safe Routes to School Program
- Meet with community twice per year
- Provide a Transit Screen in the new Campus Center
- Pre-load iPads given to students with transportation apps

Monitoring Plan – Summary

- Sidwell will submit a Monitoring Study to DDOT and ANC 3F:
  - Number of trips generated by the school,
  - A queue analysis to ensure pick-up/drop-off operations are accommodated on-campus,
  - Based on the sequencing of the monitoring studies, a minimum of seven monitoring reports would be required over six years
  - Goals must be met for two consecutive years before Sidwell can increase student enrollment beyond 1,150

Operations Management Plan

❑ Strategies

- Expand pick-up window for Lower School from 15 to 30 minutes
- Drop-off/pick-up for Lower School will occur on Lower School site or in new circle adjacent to the new Campus Center
- Implement a system to match children with appropriate vehicle during afternoon pick-up
- Drop-off/Pick-up for Middle School will move to Wisconsin Avenue
- Drop-off/pick-up for Upper School will continue in the garage
- Implement a system to ensure parents/guardians are using their assigned pick-up location
- Provide traffic monitors to help manage traffic during drop-off/pick-up
- Employ an off duty police officer at 37th Street/Upton Street during drop-off/pick-up

Loading Management Plan – Summary

- Schedule deliveries such that capacity is not exceeded and do not coincide with drop-off/pick-up periods

Conclusions

- With the proposed recommendations, there would be no adverse impact to the surrounding neighborhood.
  - A robust TDM plan,
  - An aggressive Monitoring Plan,
  - An Operations Management Plan, and
  - A Loading Management Plan.
- The Applicant has agreed to the following per DDOT's request:
  - A TransitScreen in the new Campus Center,
  - Extend hours for community access to campus,
  - Provide a new connection for students to campus via the 37th Street entrance,
  - Incorporate compliance with TDM plan into the student handbook,
  - Meet with the neighborhood twice a year to discuss transportation-related issues,
  - Include a mode split survey in the monitoring reports,
  - Additional long-term and short-term bicycle parking,
  - A bike maintenance facility,
  - Work with DDOT during Public Space process to identify a potential future Capital Bikeshare Station on Campus,
  - Shower/changing facilities for students and employees,
  - A 200V charging station,
  - Six to ten designated carpool spaces in the garage,
  - Pre-install transportation related apps on iPads provided to students, and
  - Create a transportation section on the school's website.

Estimated Capital Costs = $455,000

Estimated Annual Costs = $684,000 – $890,000

Proposed Sidwell Mitigation Measures

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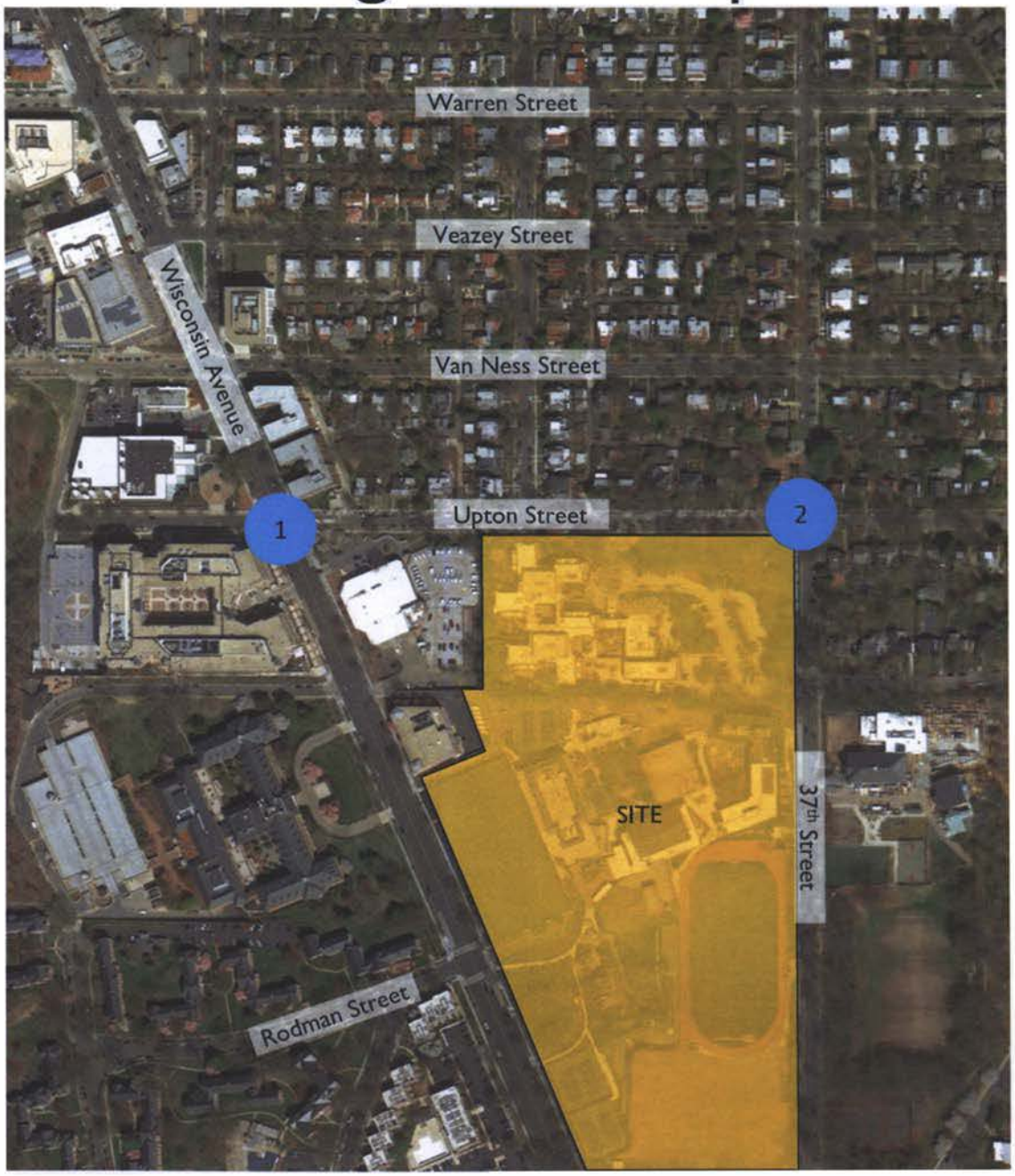
Outstanding DDOT Requests



Public Infrastructure Improvements

1. Implement recommended actions – potentially remove traffic diverter. **($45,000)**
2. Implement recommended actions – potentially install raised crosswalk or contribute toward raised intersection. **($20,000)**

Outstanding DDOT Requests

Public Infrastructure Improvements

3. Provide sidewalk on the west side of the street. **($16,000)**

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Outstanding DDOT Requests

Public Infrastructure Improvements

4. Provide a pedestrian pathway into the school property.

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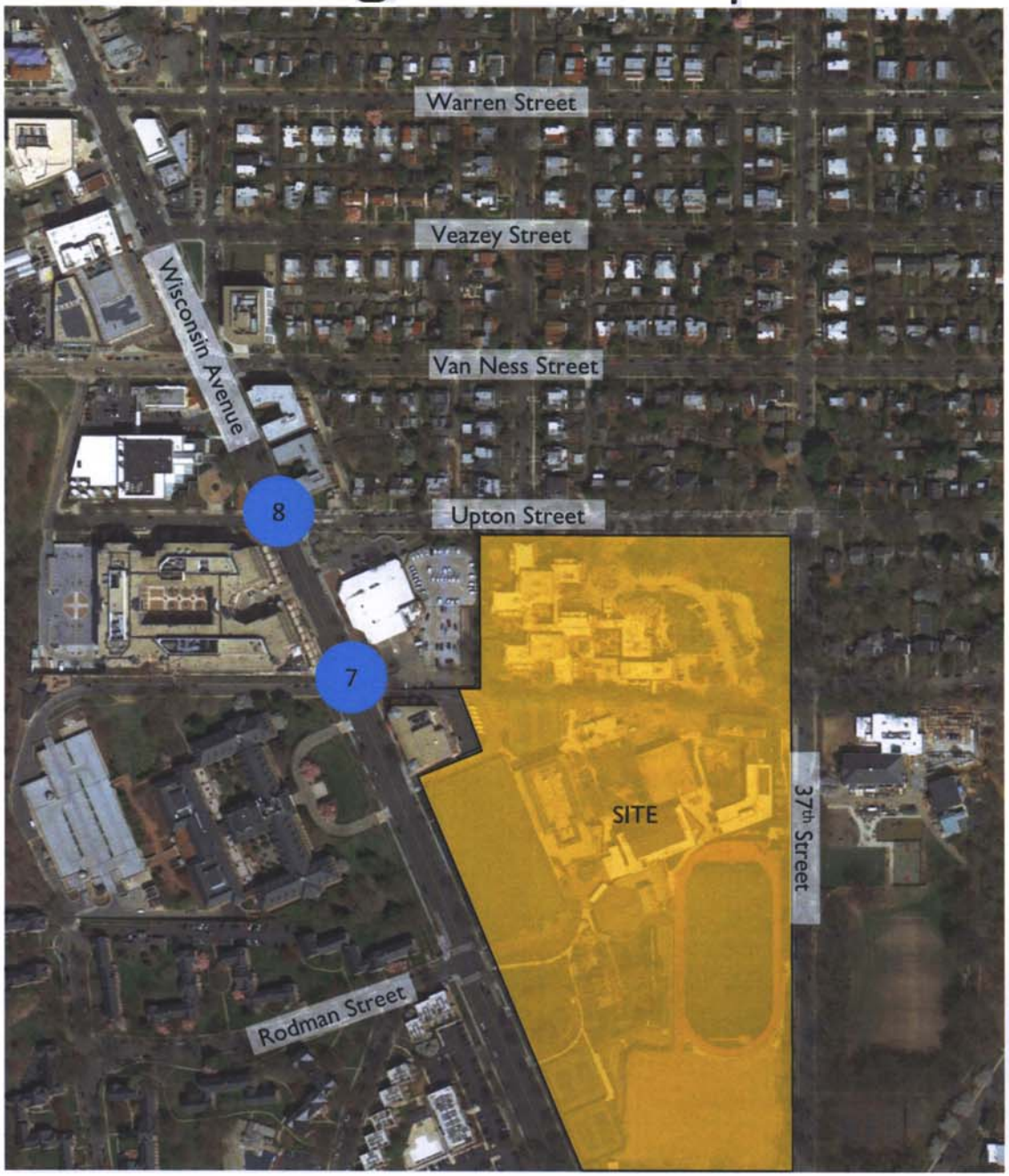
Outstanding DDOT Requests

Public Infrastructure Improvements

5. Stripe parallel line crosswalks, add detectable warnings, and add pedestrian signal heads on the eastern and western legs. **($40,000-$55,000)**

6. Stripe parallel line crosswalks on the eastern and western legs with adjusted stop bars and meeting ADA compatibility. Add detectable warnings on the eastern leg. **($15,000-$20,000)**

Outstanding DDOT Requests



Public Infrastructure Improvements

7. Evaluate and install "No Right Turn on Red 7AM – 7 PM" signs on the eastern and western legs. **($3,000)**

8. Evaluate and install "No Right Turn on Red 7AM – 7 PM" signs on the eastern and western legs. **($3,000)**

Outstanding DDOT Requests

Additional TDM Request

9. Administer a transit benefits program to cover all commuting transit expenses for all students who desire to ride transit.