

Appendix B

Summary of Previous Projects



To: Anna Chamberlin, DDOT
From: Jessica Juriga, PB
Date: May 25, 2010 (Revised May 28, 2010)
Subject: **RCW2 Livability Study**, Research and Document Review Summary Memorandum

The purpose of this memorandum (memo) is to provide a summary and overview of the work and studies that have recently been completed within the Rock Creek West II (RCW2) study area. Although most of the completed works have a narrower focus in terms of mode of transportation and/or geographic concentration, the information provided in this memo will be important in understanding the existing conditions in our study area.

The summaries represent the main recommendations and findings of each document to the extent that they are relevant to our study. Furthermore, most of the documents represented contain very detailed information and data that will not be represented in these summaries, but may be utilized in future project tasks.

The works and studies summarized in this memo include:

- District of Columbia Pedestrian Master Plan (2009)
- District of Columbia Bicycle Master Plan (2005)
- District of Columbia Strategic Highway Safety Plan (2007)
- DC's Truck and Bus Route System: Design and Implementation Report (draft 2010)
- Wisconsin Avenue Corridor Transportation Study (2005)
- Friendship Heights Transportation Study (2003 + 2005 Addendum)
- Connecticut Avenue Transportation Study (2003)
- Connecticut Avenue Pedestrian Action
- Safe Routes to School Washington DC

District of Columbia Pedestrian Master Plan (2009)

The vision of the District of Columbia Pedestrian Master Plan (DCPMP) is to ensure that *“Washington, DC will be a city where any trip can be taken on foot safely and comfortably, and where roadways equally serve pedestrians, bicyclists, transit users and motorists.”*

The main goal of the DCPMP is to improve the pedestrian environment throughout the District by:

- Reducing the number of pedestrians killed and injured in crashes with motor vehicles.
- Increasing pedestrian activity by making walking a comfortable and accessible mode of travel throughout all parts of the District.

The DCPMP incorporated an extensive public involvement process, which provided important public feedback regarding the pedestrian environment. In general, District-wide pedestrians are concerned with:

- Unsafe street crossings or intersections
- Poor motorist behavior
- Personal safety while walking
- Construction zones that block sidewalks
- Poor walking environments along major arterials

District-wide, the most common reasons cited for walking trips include:

- To access transit (Metro station or bus stop)
- To go to work
- To go shopping/run errands

District-wide, most common factors cited that create unsafe roadway crossings include:

- Driver behavior (failing to yield to pedestrians, speeding)
- Need for traffic lights to stop cars so pedestrians can cross
- Not enough time to cross the street
- No crosswalks

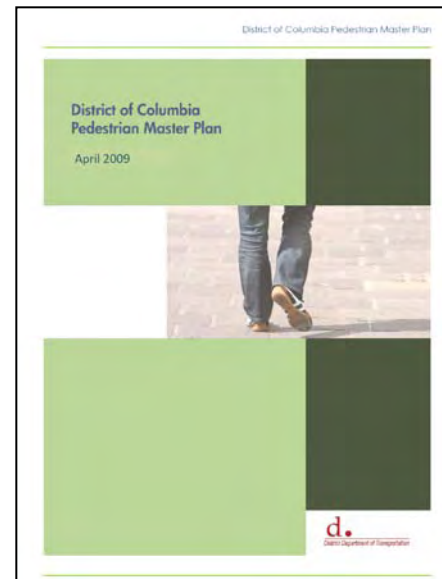


Figure 1: District of Columbia Pedestrian Master Plan



- Crossing distance is too long
- Concerns about personal safety

The DCPMP provided several objectives that were supported by numerous recommendations. These objectives included:

- Provide accessible, safe, and well-maintained pedestrian facilities along and across all streets.
- Institute policies and practices to ensure that every street in the District meets the needs of pedestrians of all abilities.
- Establish education, enforcement, and encouragement programs that support pedestrian travel.

The DCPMP does contain a range of information directly relevant to the RCW2 Livability study. It identifies Wisconsin Avenue (from Western Avenue to Woodley Road NW) and Connecticut Avenue (from Western Avenue to Calvert Street NW) as priority corridors that require improvements to the pedestrian environment.

The public involvement portion of the DCPMP also identifies the Friendship Heights Metro station area as one of the District destinations that requires most improvements to the pedestrian environment. Furthermore, the public involvement section reflects other concerns and comments relevant to the RCW2 Livability Study, including:

- “Overdevelopment in Friendship Heights area.
- DC exacerbates gridlock and causes frustrated motorists to cut through residential streets to avoid gridlock and causes vehicle and pedestrian accidents.
- Need to pay particular attention to intersections involving Washington’s diagonal streets (Avenues). Many of these intersections form pedestrian environments that are difficult to negotiate.
- Give the highest priority to safety of children and provide/install benches for people to sit on.
- New beige/grey stone/brick crosswalks without white painted lines (grids even better) don’t get drivers’ attention to [watch] out for pedestrians.”

District of Columbia Bicycle Master Plan (2005)

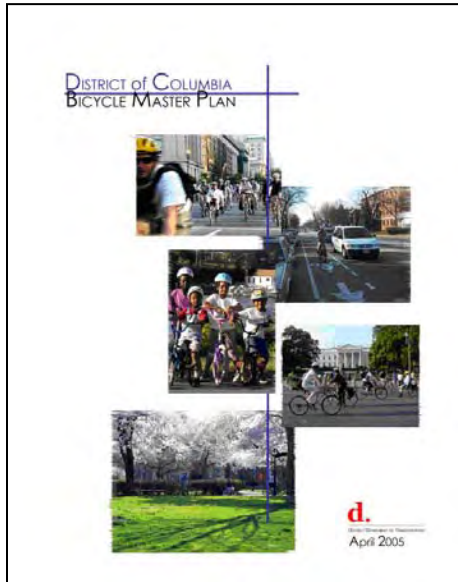


Figure 2: District of Columbia Bicycle Master Plan

The District of Columbia Bicycle Master Plan (DCBMP) aims to enhance the image of a growing, bicycle-friendly city. The DCBMP develops guidelines to establish high-quality bicycle facilities and programs that will provide safe and convenient bicycle transportation. Similar to the DCPMP, this plan's vision is to also become an essential component in the broader initiative to create a sustainable, multi-modal transportation system in the nation's capital.

The DCBMP suggests that the District hosts a large pool of potential bicycle users; close to 37percent of DC households do not have access to a motor vehicle and approximately 275,000 residents live in households without an automobile or are too young to have a legal driver's license.

The DCBMP evaluates and presents the state of the existing District-wide bicycle infrastructures and identifies the issues and locations that require improvements. Building upon these findings, the DCBMP further provides goals and corresponding detailed recommendations, which are outlined below:

- Goal 1: More and better bicycle facilities.
- Goal 2: More bicycle-friendly policies.
- Goal 3: More bicycle-related education, promotion, and enforcement

In relation to the RCW2 Livability Study, the DCBMP suggests that, in general, less than two percent of the commuters in the study area utilize bicycle as their preferred mode of transportation for their commute. The existing conditions inventory of the DCBMP presents that most of the bicycle infrastructures in the study area are signed bicycle routes (no sharrows or bike lanes), including those on Massachusetts Avenue, Nebraska Avenue, Albermarle Street, River Road, and 36th Street NW.

The DCBMP also proposes new infrastructure, including:

- Bicycle lanes on:
 - Reno Road
 - Tilden Street
 - North section of 36th Street NW
 - Linnean Avenue
- Multi-use trails on:
 - Massachusetts Avenue
 - Nebraska Avenue

District of Columbia Strategic Highway Safety Plan (2007)

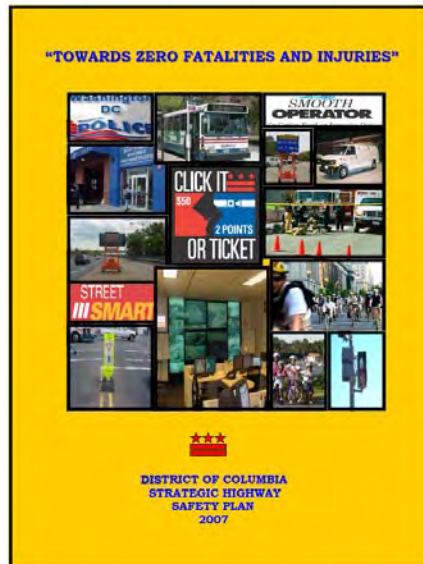


Figure 3: District of Columbia Strategic Highway Safety Plan

As a first step in the process of developing a District-wide Strategic Transportation Safety Plan, the District of Columbia developed a Strategic Highway Safety Plan (SHSP), which fulfills designated SAFETEA-LU requirements.

The SHSP develops a comprehensive framework that helps identify key transportation safety needs and guide investment decisions to improve the District transportation system for all users.

Utilizing the 2005 District crash data and national rates, provided by the National Highway Traffic Safety Administration (NHTSA), as benchmarks the SHSP aims to reduce both fatality and injury rates by 50 percent by the year 2025.

In order achieve its goals the SHSP identifies five Critical Emphasis Areas (CEAs) that play key roles in creating safe transportation environments. The SHSP also provides recommended improvements for each of these CEAs.

CEA 1 – High Risk Drivers

The Strategic Plan identifies that a significant portion of traffic accidents are caused by high-risk drivers, which include:

- Aggressive Drivers
- Impaired Drivers
- Drivers without adequate competency and licensing (usually under age of 25 or over the age of 65)

Some of the suggested strategies to reduce the number of high risk drivers on the road include:

- Implement high-visibility enforcement
- Technology and enforcement:
 - Red-light running and speed cameras
 - Driver feedback speed display devices
- Increase use of new technology

CEA 2 – Pedestrian and Bicyclist Safety

According to DDOT's crash data there are approximately 600 pedestrian and 265 bicycle collisions every year in the District. Data collected between 2001 and 2005 represent an upward trend in collisions for



both mode of transportation, where in 2005 there were 780 pedestrians injured (16 fatalities) and 200 cyclists injured (three fatalities).

The analysis further presents that most of the pedestrian and bicyclist collisions occurred during the evening rush hours (approximately 3:30 p.m. to 7:30 p.m.).

Suggested strategies to improve pedestrian and cyclist safety include:

- Implement targeted pedestrian and cyclist safety enforcement campaign.
- Form community partnership to promote pedestrian and cyclist safety, especially at problem locations.
- Stream line analysis/implementation of treatments (5E's) for improvements at location of high pedestrian and cyclist risk.
- Implement effective traffic calming methods.
- Increase, improve, and maintain pedestrian and cyclist infrastructures.
- Improve multi-modal access and safety at all public transit facilities.
- Improve walking environments around schools.

CEA 3 – Engineering/Facilities Infrastructure

The SHSP advises to improve design standards for infrastructures that are relevant to the most common traffic collision patterns in the District, including collisions involving:

- Run-off road
- Fixed object
- Signalized Intersections
- Unsignalized Intersections
- Head on and across median
- Work zones

Suggested strategies to improve design for safety include:

- Provide more obvious signs, pavement markings, rumble strips, and/or surface treatments.
- Provide clear and effective guidelines regarding location and removal of fixed objects (e.g. trees and utility poles) taking into consideration factors such as sight distance.
- Provide increased enforcement of intersection violations, improved driver visibility, and improved traffic control and operations.
- Provide effective traffic calming strategies.

CEA 4 – Special Vehicles

The SHSP identifies three special vehicle types:

- Large Trucks



- Motorcycles
- Buses

Unfortunately, crashes involving these vehicle types often pose increased risk of serious or fatal injuries and/or are high visibility crashes.

To improve safety involving these vehicle types, the SHSP suggestion include:

- Develop and implement comprehensive safety plans corresponding to these special vehicles.
- Develop a commercial vehicle and bus route system.

CEA 5 – Special Target Area

The special target area discussed by the SHSP comprises of emergency management services (EMS) and occupant protection. Both improving EMS operation and enforcing occupant protection systems, such as seatbelts, can avoid preventable death and disability, to limit the severity of the injury and the suffering caused by it, and to ensure the crash survivor's best possible recovery.

The SHSP's recommendations addressing improvement to the special target areas include:

- Ensure proper and high quality EMS training and certification programs.
- Improve EMS operations by enhancing communications systems and coordination among hospitals and emergency respondents.
- Improve response times to crash scenes.
- Implement high-visibility enforcement of seatbelt usage.
- Educate and implement focused campaigns regarding the usage of seatbelts.



DC's Truck and Bus Route System: Design and Implementation Report (draft 2010)

The report presents a city-wide truck and bus route system for the District of Columbia that improves the management and monitoring of truck and bus traffic. The primary goal of the report was to balance the commercial and logistical needs of the District with the quality of life of its citizens, which will maintain the vitality of the city and further encourage its future growth.

After numerous evaluation and analysis, the report designates specific routes as part of the District's truck and bus route system, which will limit the city's motor carriers to several primary routes that will ease the flow of traffic, reduce maintenance of roads, and improve the operational efficiency of the city's transportation networks.

According to the report the following designations were used to represent the permitted use of the roads by trucks and buses:

Primary Route: this designation indicates the road is a major arterial roadway that meets technical standards, can handle high truck traffic volumes and/or that serve major truck and bus destinations. Additionally, the road may serve a highly specific functional need identified in field observations.

Restricted Route or Restricted Area: this designation indicates a road or area may not be used by trucks or buses for any purpose due to security reasons, inadequate capacity or quality of life concerns for residents.

Charter Bus Route Only: this designation indicates roads that may only be used by charter/tourist buses and are mandated by current DC Government regulations.

The report also explains that "roads in the District of Columbia that have neither a Primary Route or Restricted Route designations may have trucks and or buses travel on them, but only for an official business need. All trucks or buses which must travel on a non-designated road must take the most direct access road to their destination, conduct their business (i.e. deliver a package) and take the most direct road back to a Primary Route for travel through the rest of the city."

Within the RCW2 study area the following roads are classified as primary routes:

- Western Avenue
- Massachusetts Avenue
- Nebraska Avenue
- Wisconsin Avenue
- Connecticut Avenue

Truck restricted routes, which allow deliveries only, in or related the RCW2 study area include:

- Albemarle Street (between Nebraska Avenue and Connecticut Avenue)
- 41st Street NW (between Nebraska Avenue and Van Ness Street NW)
- 43rd Street NW (between Military Road and Jennifer Street NW)



Wisconsin Avenue Corridor Transportation Study (2005)

The main goals of the study are to examine existing and future transportation conditions, to identify present and future issues, and to determine short-term and long-term traffic management and infrastructure improvements to address the issues.

The objectives set to fulfill these goals include:

- Reduce traffic congestion, especially during peak A.M. and P.M. travel hours and mid-day Saturday.
- Improve pedestrian and traffic safety.
- Resolve parking demand and supply issues in favor of residents.
- Protect surrounding residential streets from traffic impacts stemming from the major roadways.

The report provides detail information on the Wisconsin Avenue corridor, including:

Corridor Characteristics:

- 2.84 mile corridor traversing the study area in a northwest-southeast direction, stretching from Fessenden Street to Whitehaven Parkway.
- North of Calvert Street NW, Wisconsin Avenue is a two-way, six-lane, undivided roadway.
- South of Calvert Street NW, Wisconsin Avenue is a two-way, four-lane, undivided roadway.
- The posted speed limit along Wisconsin Avenue is 30 miles per hour (mph) from Fessenden Street to Garfield Street, decreasing to 25 mph south of Garfield Street.

Transportation Issues:

- Five major arterial roadways intersecting Wisconsin Avenue were observed in the study, including: River Road, Nebraska Avenue, Massachusetts Avenue, Garfield Street, and Calvert Street NW.
- The main transportation related concerns and issues presented include pedestrian safety, cut-through traffic, truck/bus noises, speeding, parking, u-turns, queuing/back-ups, and the potential for additional traffic associated with new developments.
- The following areas have the highest volume of pedestrian movements:
 - Between and including Brandywine Street and Tenley Circle
 - Between and including Van Ness Street and the Fannie Mae Office Building Entranceway/Friendship Post Office Entranceway intersections (Rodman/Upton Street)
 - Between Newark Street and Hall Place

**Traffic Volume:**

- Wisconsin Avenue and the major intersecting arterials (Nebraska and Massachusetts Avenues) serve significant demands of through/commuter traffic. Wisconsin Avenue weekday traffic ranges from 27,350 vehicles per day (south of Massachusetts Avenue) to 36,000 vehicles per day (south of Tenley Circle).
- The Saturday and Sunday average daily traffic (ADT) volumes along the corridor are relatively uniform, with daily volumes in the range of 30,920 and 25,770, respectively.
- Wisconsin Avenue weekday ADT volumes are generally higher than the Saturday volumes, except for the segment situated just south of Massachusetts Avenue where the Saturday volumes are marginally higher.
 - Constant delays were observed in the northbound movement along Wisconsin Avenue at the Garfield Street and Massachusetts Avenue intersections, and in the Tenley Circle and Whole Food at the Tenleytown areas. However, travel speed generally increased after the Brandywine intersection where traffic speeds up going downhill.
 - For southbound movement, delays were frequent in the Tenley Circle area, and at the Van Ness Street, Massachusetts Avenue, and Garfield Street intersections. Travel speed generally increases south of Calvert Street where traffic speeds up going downhill.
- The weekday morning and afternoon peak-hours were from 7:45 to 9:00AM and from 5:15 to 6:30 P.M.. The Saturday traffic peak was observed between 12:15 and 1:45 P.M..
- Large vehicles:
 - Wisconsin Avenue carries 50 to 180 heavy trucks per day, which is less than one percent of the average daily traffic along Wisconsin Avenue. The heavy truck volume was higher along Nebraska Avenue near Tenley Circle. Nebraska Avenue at Tenley Circle carried almost double the heavy truck volume recorded for Wisconsin Avenue at Tenley Circle.
 - Light truck (e.g., FedEx, UPS deliveries, etc.) volume along Wisconsin Avenue ranged between 700 and 1,000 trucks per day which represented two (2) to 3.5 percent of total traffic along the corridor.
 - Over 100 buses per day were recorded on Wisconsin Avenue within the study area. Approximately 500 buses per day were recorded along Nebraska Avenue west of Tenley Circle.



Parking:

- Parking is permitted on both sides of the road along the majority of Wisconsin Avenue during off-peak periods and prohibited during peak periods in the predominant flow direction.
- Most resident comments with regard to parking fall into one of four major areas of concerns:
 - Insufficient number of on-street parking spaces available in some residential areas.
 - Commuters, shoppers or restaurant patron parking on local neighborhood streets.
 - Difficulty in finding parking spaces along Wisconsin Avenue when residents need to make a quick stop.
 - The effect of parking on emergency services.

The study summarizes the transportation issues and the recommended improvements using the following figures (Figures 4-6):

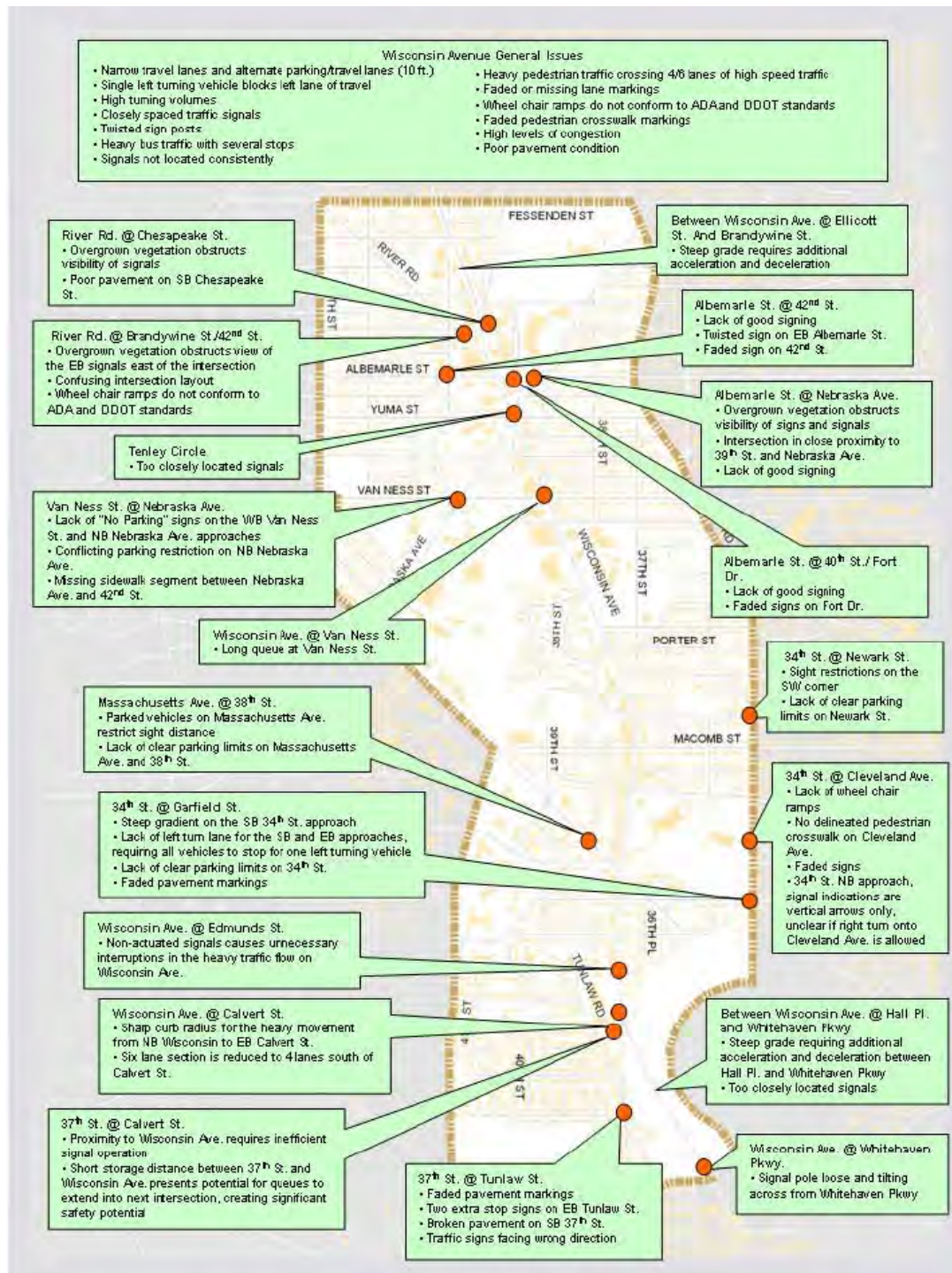


Figure 4: Wisconsin Avenue Corridor - Summary of Transportation Issues

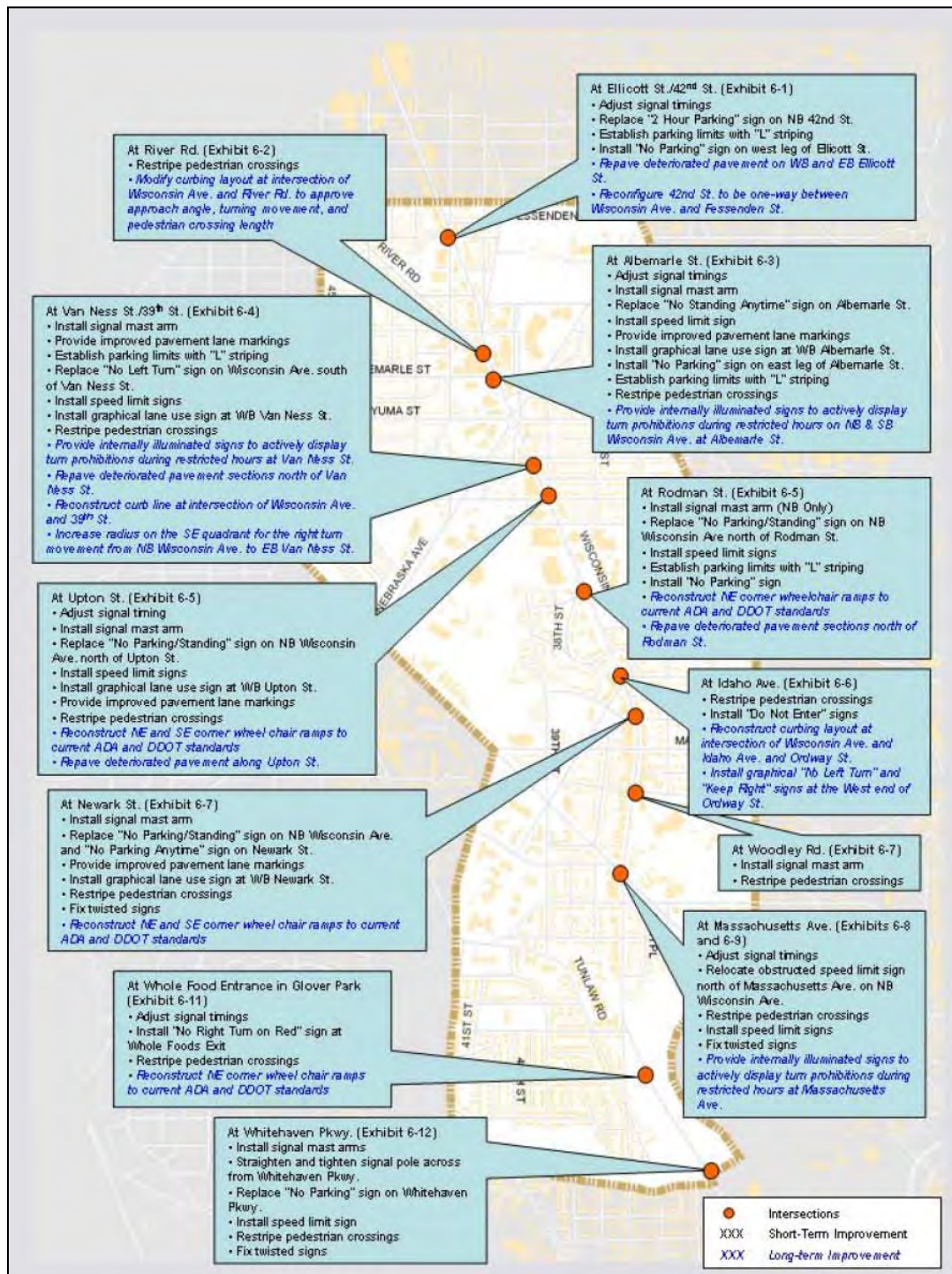


Figure 5: Wisconsin Avenue - Summary of Recommended Improvement 1 of 2

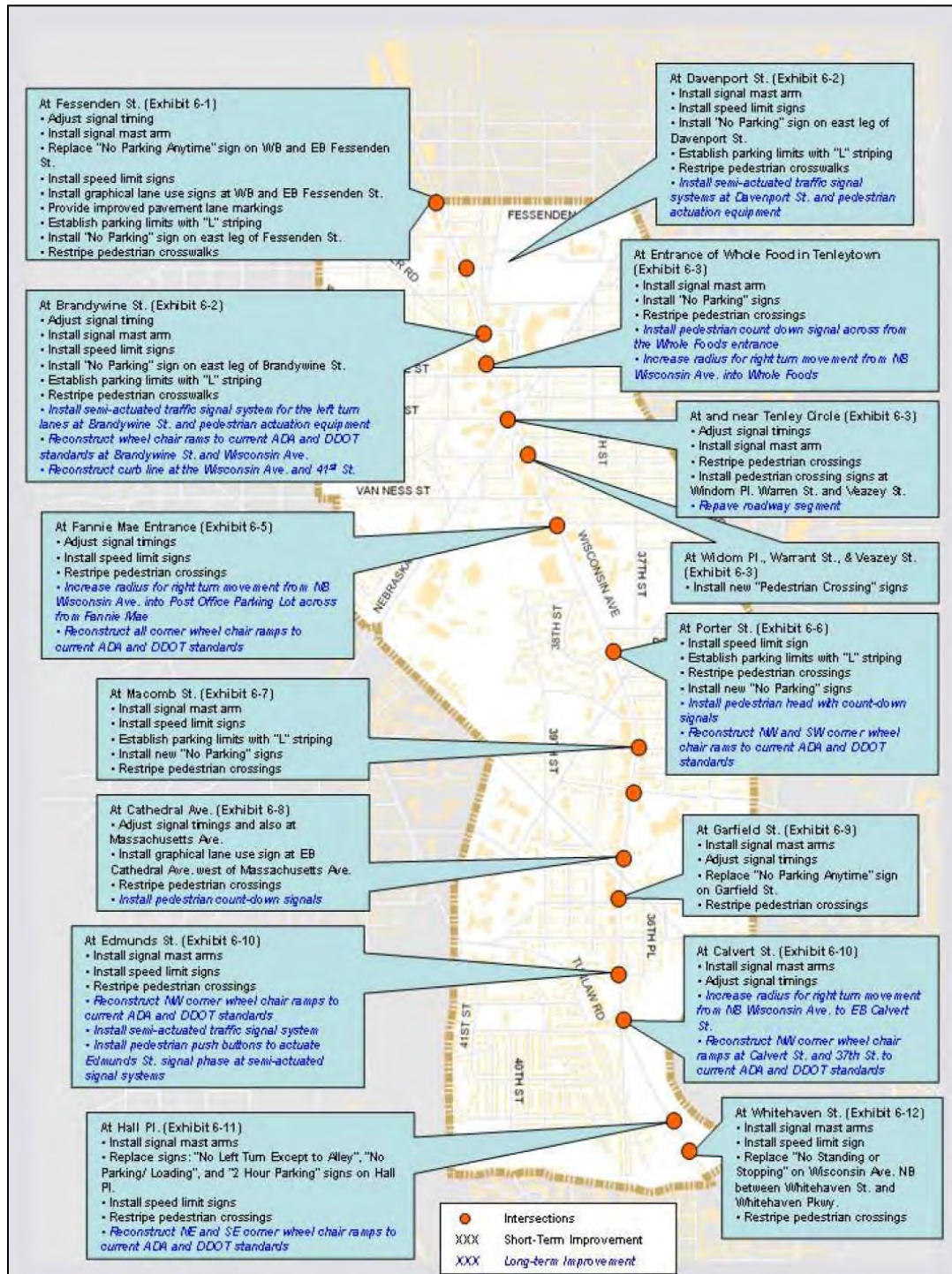


Figure 6: Wisconsin Avenue - Summary of Recommended Improvements 2 of 2



Friendship Heights Transportation Study (2003 + 2005 Addendum)

The main goals of this study are to examine existing and future transportation conditions to identify present and future issues, and to determine short-term and long-term traffic management and infrastructure improvements to address the issues.

The objectives set to fulfill the study goals include:

- Reduce traffic congestion, especially during peak A.M. and P.M. travel hours and mid-day Saturday.
- Improve pedestrian and traffic safety.
- Resolve parking demand and supply issues in favor of residents.
- Protect surrounding residential streets from traffic impacts stemming from the major roadways.

The report provides detail information on the Friendship Heights study area, including:

Study Area Characteristics:

- The study area is bounded by the following streets:
 - Western Avenue to the north
 - 41st Street NW to the east
 - Fessenden Street NW to the south
 - 45th Street NW to the west
- The study identified three major travel corridors within the study area:
 - Wisconsin Avenue
 - Western Avenue
 - Military Road

Public Transportation Issues:

- Washington Metropolitan Area Transit Authority (WMATA) provides rail and bus services in the Friendship Heights area. Ride On, the Montgomery County transit service, also operates a bus service on the Montgomery County side of the Friendship Heights community.
 - There are a total of five Metro entrances and exits: three in the District of Columbia and two in Montgomery County.
 - Six WMATA bus routes and two Ride On routes operate in Friendship Heights, all utilizing Wisconsin Avenue and Western Avenue.
- Based on the 2002 Metrorail Passenger Survey (note there is a more recent survey available) the majority of Metrorail users walk to Friendship Heights station and a significant portion access the station by WMATA or Ride On buses.



- Based on observation during the study period, less than 50 percent of the 30 bicycle racks and approximately seven percent of the 22 lockers provided by WMATA at the Friendship Heights station are utilized.

Traffic Volume and Speed:

- The study identified Wisconsin Avenue as the road with the highest traffic volume in the study area (more than 28,000 vehicles per day).
- The study identified Western Avenue as the road with the second highest traffic volume in the study area (approximately 24,000 vehicles per day).
- The study did not detect speeding as a significant issue (except on River Road). Factors contributing to the controlled speed includes:
 - The neighborhood environment
 - The steady traffic volumes
 - The narrow lane configurations
- The most significant queuing occurs along Military Road (approaching 41st Street NW) during the P.M. peak hours.
- The study identified the morning and afternoon peak hours were from 7:45-8:45 A.M. and from 5:15-6:30 P.M. respectively.
- A significant number of light and heavy trucks were found traveling the study area:
 - The majority of them utilized Military Road, Wisconsin Avenue, and/or Western Avenue.
 - All three roads shared similar proportions of heavy trucks compared to the total vehicular volume (about 108 to 275 heavy trucks per day).
 - Military Road carried the highest proportion of light trucks (ranging from 276 to 333 light trucks per day).

Safety:

- The study identified that the most crash-prone intersections within the study area are:
 - Wisconsin Avenue and Jenifer Street NW
 - Wisconsin Avenue and Western Avenue NW
 - Wisconsin Avenue and Fessenden Street NW
 - Military Road and 42nd Street NW
- The highest volume pedestrian activity were identified as:
 - Wisconsin Avenue between Garrison Street NW and Western Avenue
 - Approximately 219 jaywalkers were observed during a two-hour midday period along Wisconsin Avenue (between Western Avenue and Jenifer Street)
 - Western Avenue between Jenifer Street NW and Wisconsin Circle



- Intersection of Military Road and 43rd Street NW

Parking:

- The demand for parking exceeds estimate parking capacities along Wisconsin Avenue and adjacent streets.
- Approximately one to two out of three vehicles parked on 43rd Street NW, 42nd Place NW, Jenifer Street NW, and 42nd Street NW (between Military Road and Garrison Street) violated parking regulations.
- Double and illegal parking of delivery trucks and other vehicles on Wisconsin Avenue and Military Road is prominent, especially around the commercial district. These violations contribute to delays in the traffic flow and endanger pedestrian safety.

The study summarizes the transportation issues and the recommended improvements as seen in Figures 7-10.

The Friendship Heights Transportation Study Addendum (FHTSA) was completed in 2005 with the intention to:

- Adjust future traffic conditions evaluated in the 2003 study to accommodate new anticipated development in the Friendship Heights area.
- Examine existing and future transportation conditions and adequate recommendations to improve transportation operations on River Road at the intersections with Western Avenue and 46th Street NW/Garrison Street NW.

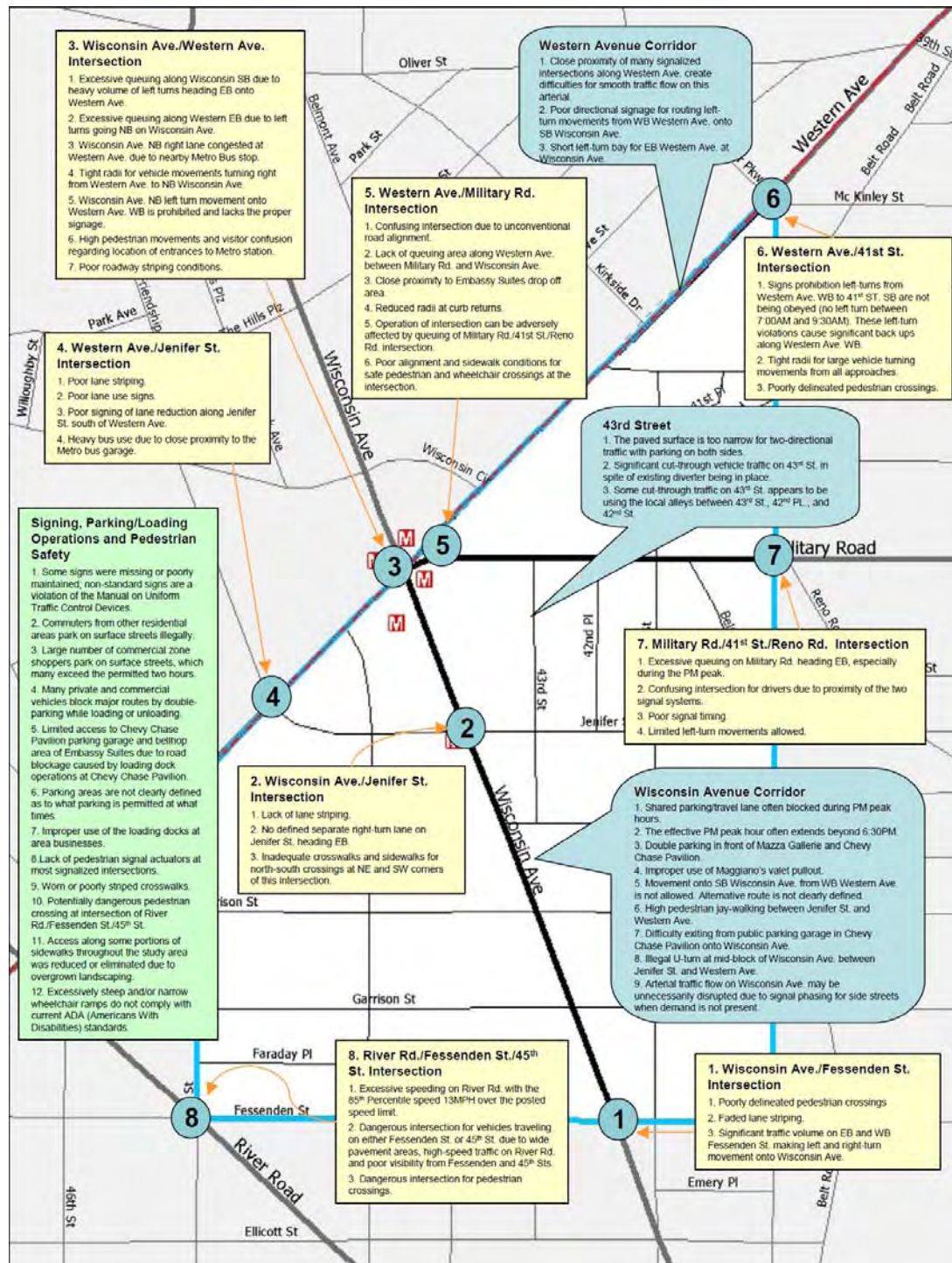


Figure 7: Friendship Heights - Summary of Transportation Issues

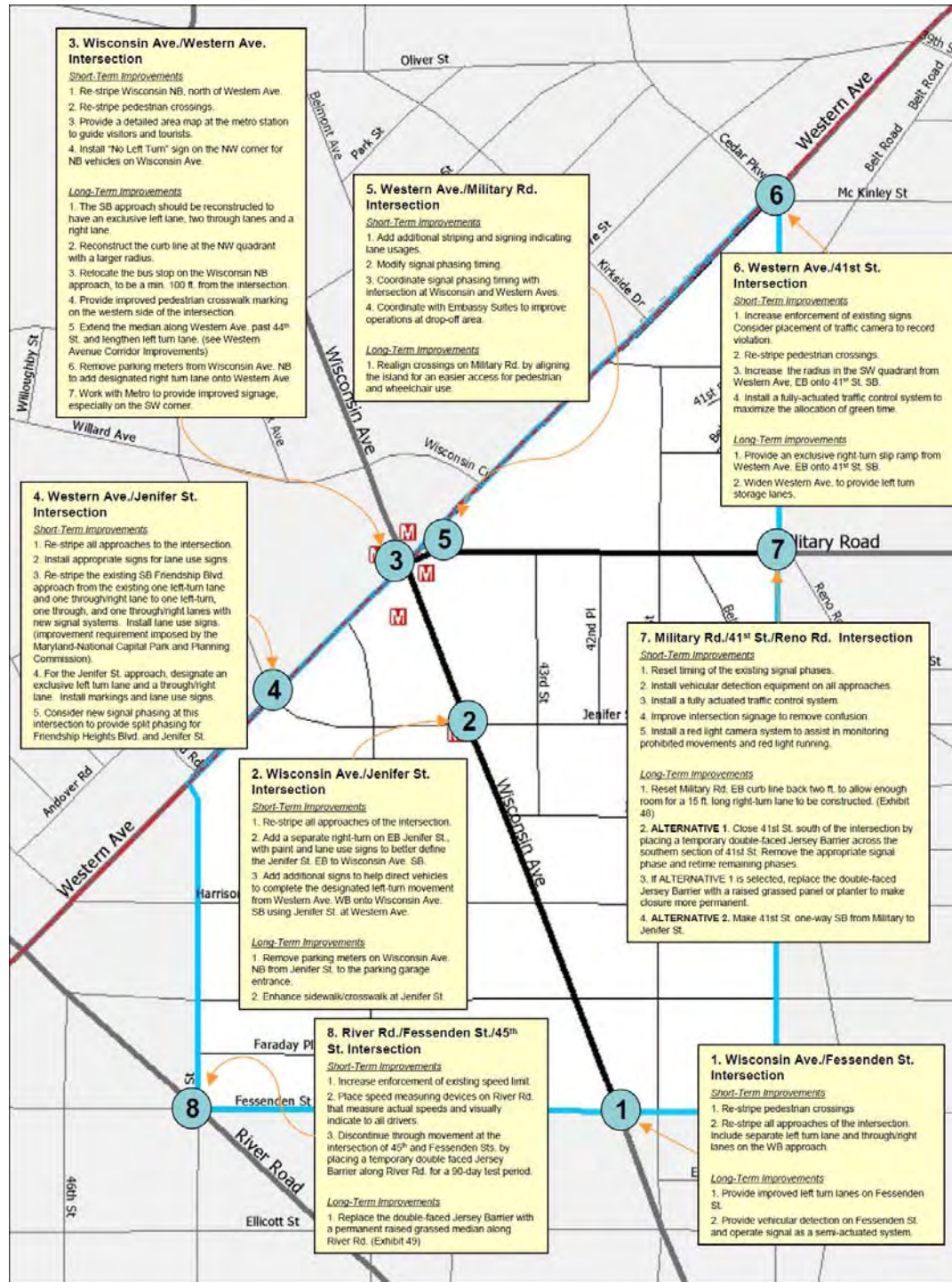


Figure 8: Friendship Heights - Summary of Transportation Recommendations at Intersections

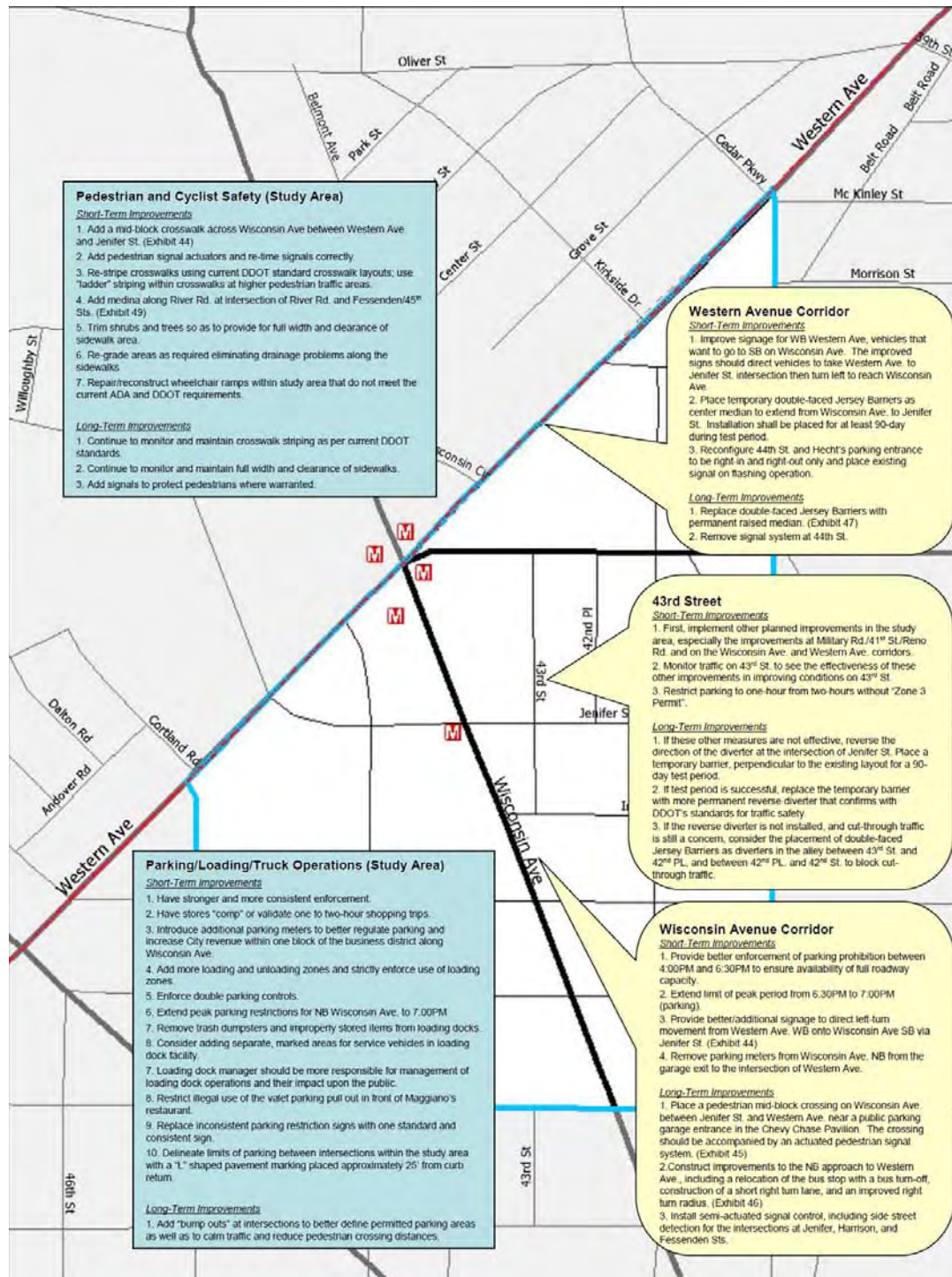


Figure 9: Friendship Heights - Summary of Transportation Recommendations for Roadways, Pedestrian Safety, and Parking

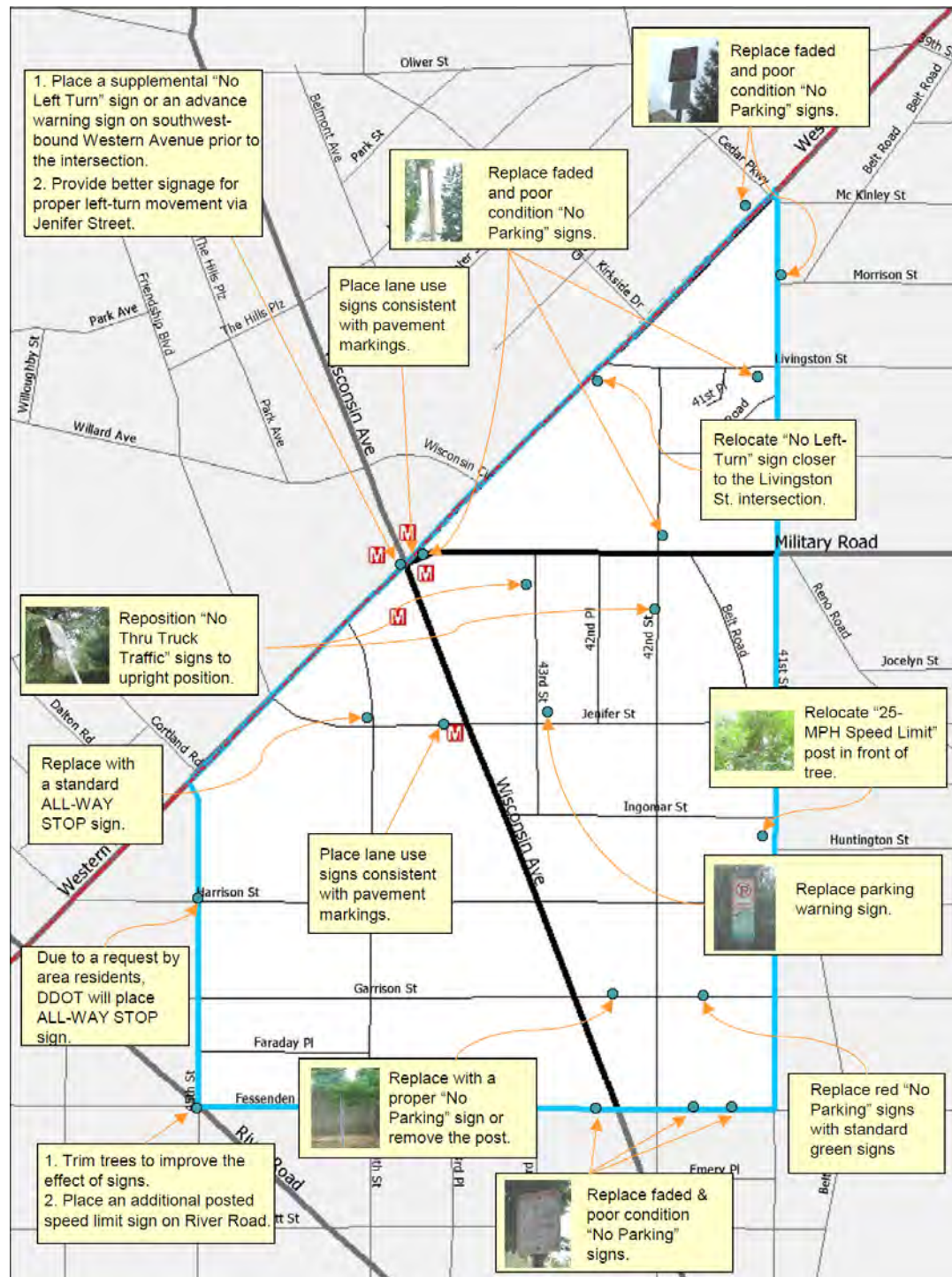


Figure 10: Friendship Heights - Summary of Transportation Recommendations for Signage



Connecticut Avenue Transportation Study (2003)

This study evaluates the transportation conditions in the Van Ness area of Connecticut Avenue in response to the concerns brought up by the area residents.

The main goals of the study include:

- Assess existing traffic conditions in the study area.
- Develop recommendation to improve mobility, traffic safety and compliance with speeding regulations, and pedestrian and bicycle safety.

The entire Connecticut Avenue Transportation Study (CATS) area falls within the RCW2 study area. The CATS area is bounded by:

- Albermarle Street to the north
- Tilden Street to the south
- Reno Road to the west
- Linnean Avenue to the east

The CATS present a detail existing conditions evaluation, which include:

Turning Movements:

- Turning movement counts were performed at 13 intersections within the study area.
- Traffic counts were highest on Connecticut Avenue in the A.M. peak period; the total daily traffic count was approximately 35,000 – 40,000 vehicles.

Travel Speed:

- Average A.M. and P.M. Peak period travel times and speeds were presented (Figures below).
- The study team found that light timing along Connecticut Avenue favored higher speeds in the peak direction of the peak periods

Travel Characteristics:

- Origin-Destination survey found that Connecticut Avenue was the most travelled road within the study area.
- It was also presented that most of the vehicles transiting had Maryland tags.

Crash Data:

- The study investigate crash data for arterials, collectors, and local streets within the study area using data from 1999-2001.
- Connecticut Avenue had 90 percent of all accidents.
- Connecticut Avenue and Tilden Road was identified as the most crash-prone intersection.
- Pedestrian accidents were only detected on Connecticut Avenue.

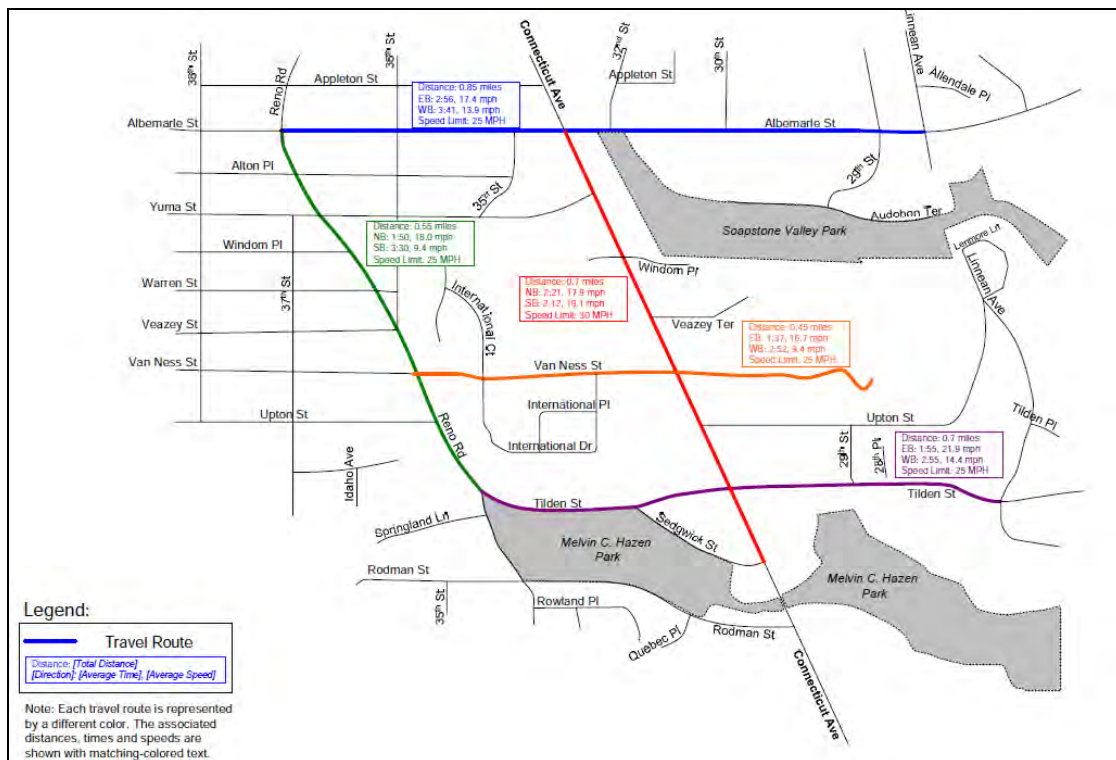


Figure 11: A.M. Peak Period Travel Times and Speeds

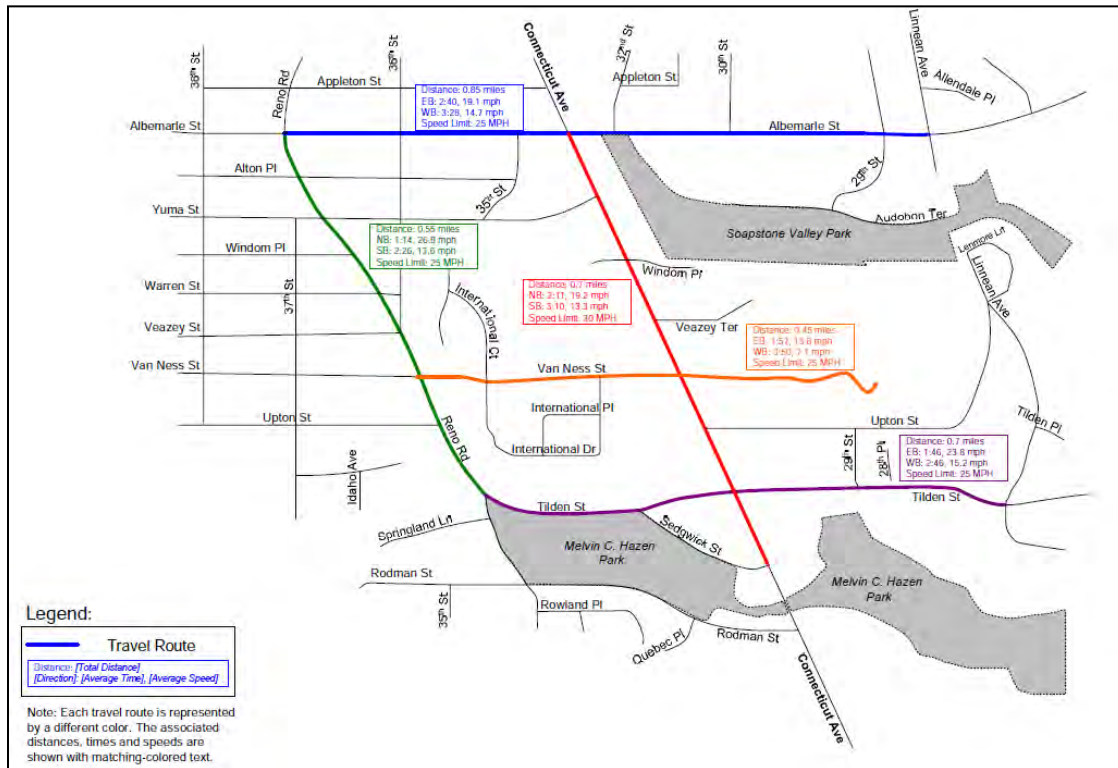


Figure 12: P.M. Peak Period Travel Times and Speeds

The study summarizes the transportation issues with the following paragraph:

"The Study Team identified a wide variety of existing and forecast transportation issues. Transit issues included the problem of buses running along Connecticut Avenue not being able to remain on schedule due to downstream traffic congestion. Pedestrian issues included lack of sidewalks at critical locations, poor condition or missing ADA access ramps, and lack of pedestrian signals. Parking issues included a lack of parking enforcement. Traffic operations issues included congestion along major roadways and at critical intersections, speeding, cut-through traffic, lack of turn lanes at selected intersections and non-optimized signal timings."



The CATS provides many recommendations for 23 different locations within the study area. Summarized below are the more important recommendations. This list does not include pedestrian-related recommendations, as the currently in progress Connecticut Avenue study will supersede any pedestrian-related recommendations from this study. Here are the summarized recommendations from the CATS:

- Area-wide traffic signal optimization (Appendix I goes into more detail, including detailed pedestrian timings).
- Connecticut Avenue:
 - Discussion of protected left-turn lights at several intersections.
 - Remove parking between 6:30 and 7 p.m.
 - Implement a system of overhead lane controls, improve signage.
 - Prohibit left turns from Upton onto Connecticut.
 - Construct westbound left turn lane on Tilden at Connecticut Avenue intersection.
- Van Ness Street:
 - Construct turn lanes at Reno Road.
 - Consolidate UDC driveways operations to improve operations and safety.
- 36th Street:
 - Make 36th Street one-way southbound between Yuma Street and Reno Road.
 - Close 36th Street between Reno Road and Warren Street.
- Yuma Street:
 - Install all-way stop signs at intersection with 35th Street.



Connecticut Avenue Pedestrian Action



The Connecticut Avenue Pedestrian Action (CAPA) is a community group formed to promote and create safer pedestrian environments along Connecticut Avenue. They identify the following issues as the main barriers in creating a pedestrian friendly Connecticut Avenue:

- Dangerous crosswalks
- Inadequate signal timing for pedestrian to cross streets at traffic lights
- Motorists speeding
- Motorists not yielding to pedestrians

CAPA has so far performed several pedestrian audits along Connecticut Avenue and the work is ongoing. The RCW2 Livability Study will coordinate and work with the CAPA throughout the project, being careful not to overlap efforts.

DC Safe Routes to School

The DC Safe Routes to School Program (SFRS) works to improve the ability of elementary and middle school students to walk and bicycle to school safely. The purposes of the program are:

- To enable and encourage children, including those with disabilities, to walk and bicycle to school.
- To make bicycling and walking to school a safer and more appealing transportation alternative, thereby encouraging a healthy and active lifestyle from an early age.
- To facilitate the planning, development and implementation of projects and activities that will improve safety and reduce traffic, fuel consumption and air pollution in the vicinity (approximately two miles) of primary and middle schools (Grades K-8).

Murch Elementary School Program

The Ben Murch Safe Routes to School program outlines the school's intentions in creating a more sustainable and safer environment for students and the community to walk and bike. The school's SFRS plan established four goals:

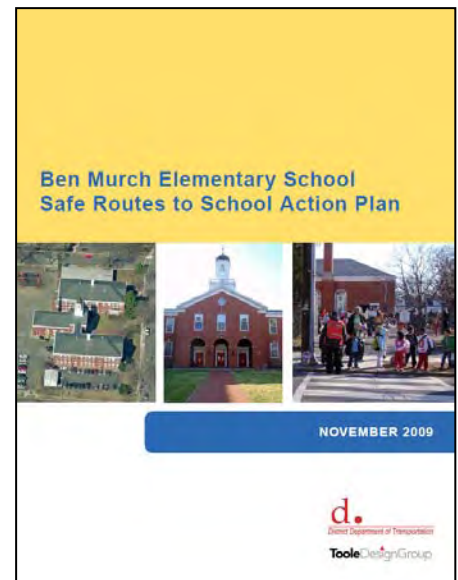
- Increase the number of children walking and biking to school.
- Increase students' understanding of the link between their everyday actions to the broader community and the world.

- Give students exercise every day by increasing opportunities for kids to have fun while being healthy.
- Decrease car traffic volume before and after school.

By evaluating field observations, results from surveys and waling audits, and public input, the plan identifies issues and problems at specific locations, such as inadequate speed limits, inadequate crossing time at signalized intersections, inadequate sidewalk facilities due to numerous curb-cuts, and inadequate pedestrian crossing facilities.

These problems were addressed in the plan with different types of recommendations, which included:

- Engineering Recommendations
- Non-infrastructure Recommendations: include best practice education, encouragement, enforcement and evaluation strategies.
- 18-Month SRTS Activity Calendar: includes priority strategies (all E's) identified by the SRTS team to be pursued within 18 month of this report.



Furthermore, the engineering and non-infrastructure recommendations were targeted to achieve concrete milestones at short (within two years), medium (within five years), and long (longer than five years) term periods.

The recommendations are shown in the pages that follow.

The program received federal funding and in its success was recognized the next year by earning the 2009 James L. Oberstar Award for Safer Routes to School.

Pace Car Program:

The Pace Car program educates drivers of the effects their motor vehicles have on neighborhood and encourages drivers to travel within the speed limit. The 2007 pilot program targeted three schools located in the District's Ward 3 and in 2009, 10 schools in the District participated in the program.

Other Schools SFRS Programs:

Currently, the Deal Middle School located within the RCW2 study area is working on its SFRS plan, and Janney Elementary School has also expressed interest in starting the program in the fall of 2010.