

Lower Georgia Avenue
Transportation and Streetscape Improvements

December 2007

Lower Georgia Avenue

Final Report



Lower Georgia Avenue Transportation and Streetscape Improvements Final Report – December 2007

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A. Executive Summary



Figure A-1: Existing Conditions on Georgia Avenue

Project Overview

The District Department of Transportation (DDOT) commissioned a detailed study of strategic transportation improvements that could improve multimodal mobility in the Georgia Avenue corridor, while enhancing the public realm with a consistent and attractive streetscape. DDOT is committed to making major transportation investments and improvements along the corridor, including improvements to the streetscape and the public realm. DDOT and other District agencies wish to prioritize transit, economic development, overall safety, and in particular, pedestrian and bicyclist needs along the corridor.

Active collaboration and involvement with the community has been crucial for developing a consensus vision for the multimodal transportation design and management plan for Georgia Avenue presented in this document.

Major Study Goals

- Provide a mechanism to create a comprehensive understanding of the current and future transportation system
 - Develop an overall street alignment
 - Determine the curb dynamics
 - Support the needs and growth of the local business
- Develop a transportation management and right-of-way plan that supports expanded economic development and local mobility.
- Develop transportation options that are conducive to an urban university campus environment.
- Determine impacts of changes to Georgia Avenue on efficiencies and multimodal performance of other roads in the study area system.
- Determine efficient strategies (parallel streets, Georgia Avenue retail) to develop bus rapid transit or streetcar service along the corridor.
- Develop a plan that supports the needs and desires of the business, residential, and institutional communities.

Executive Summary

- Develop a plan to address pedestrian street crossing hazards at intersections and encourage greater pedestrian convenience and appeal.
- Examine modes of transportation such as bicycling, walking, and mass transit and how these may impact lane configurations, safety, and parking along the corridor.
- Provide options for resolving narrow sidewalks and tree spaces on Georgia Avenue and Sherman Avenue.
- Develop a plan that will serve as the guide for the implementation of streetscape, transit, safety, and adjacent roadway improvements.

Study Area

This project examined a specific portion of the entire Georgia Avenue Great Streets corridor: Georgia and Sherman Avenues from Florida Avenue NW to New Hampshire Avenue NW. Understanding that improvements to this segment will have implications for communities along the corridor and throughout the city, DDOT also studied the impacts on adjacent corridors and communities.

Project Boundaries (See figure A-2)

- New Hampshire Avenue NW to the north
- Florida Avenue NW to the south
- The Reservoir/4th Street NW to the east
- Sherman Avenue NW to the west



Figure A-2: Lower Georgia Avenue Study Area



Figure A-3: Example of the Possible Future Vision for an Urban Area

Revitalization Vision for Lower Georgia Avenue

A context-sensitive transportation network that balances Georgia Avenue and Sherman Avenue should modify the character of each street. The critical aspects of this “revitalization vision” for the study area are its multimodal quality and genuine reflection and response to the changing context of the area. This study aspires to make Georgia and Sherman Avenues great places for walking, commerce, and casual interaction while effectively accommodating traffic.

The rich history of the Georgia Avenue corridor has been erased from the public realm. While physically improving mobility in the corridor, the vision is to implement improvements that draw on its African-American heritage. In particular, the historic Howard University area should be celebrated and evoked in the streetscape along Georgia Avenue between Florida Avenue and Barry Place. The entire corridor can and should be a cultural destination, with a steady rhythm of distinctive places all the way to New Hampshire Avenue. These distinctions will be made through a consistent and dignified palette of streetscape features. In addition, the Georgia Avenue and Florida Avenue intersection is an opportunity for a gateway into this cultural/historic destination.

To create a distinctive and dignified corridor, the design opportunities for Georgia Avenue were informed by the following concepts:

Balanced

The transportation strategy balances travel and transportation opportunities on Georgia and Sherman Avenues.

Distinctive

Both streets should have a special character that identifies them as distinctive and great places for walking, shopping, socializing, commerce, and moving traffic.

Walkable

Each thoroughfare should be inviting and walkable while drawing on the area’s African-American heritage, particularly the historic Howard University.

Executive Summary



Figure A-4: Existing Pedestrian Conditions in the Lower Georgia Avenue Area Near the Howard University Bookstore

Safe, Efficient Operation

Design changes should be implemented to improve walkability, foster cultural and historical identity, create gateways, define corridor entrances, and ensure the efficient and safe operation of all modes of travel.

Project Findings

Traffic

- Double-parked vehicles along the corridor block turns, impede pedestrians, and obstruct buses.
- Traffic signal phasing at Georgia Avenue and Park Road creates vehicle conflicts.
- Lane widths between Barry Place and Florida Avenue result in inefficient traffic operations.
- Vehicles turning left at Bryant Street and Florida Avenue create queuing that blocks through-movement vehicles.

Pedestrians

- Walkability varies considerably on both Georgia and Sherman Avenues, ranging from good to very poor.
- Some sidewalks cannot be easily widened because buildings are built up to the sidewalk.
- Many intersections have crosswalks but no traffic signals, and some have no crosswalks at all.

Bicycles

- Bicycles travel on Georgia Avenue with traffic.
- Bicycle travel is heavy east to west crossing the Georgia Avenue corridor at Columbia Road and Harvard, W, and V Streets.

Transit

- The 70 and 71 buses carry about 20,000 riders every day through the corridor.
- The cross-town H routes carry thousands of residents to and from work.
- Rapid bus service could reduce travel time by 16 percent.
- Buses are often blocked by double-parked vehicles.
- A reduction of lane widths in the lower section of the corridor hinders bus travel.

Urban Design

- Georgia Avenue from Florida to New Hampshire Avenues is not one place, but several large segments with a number of smaller focal points within each segment.
- Businesses north of Harvard Street appear to serve neighborhood needs.
- Businesses south of Harvard Street appear to serve Howard University and Howard University Hospital.
- Georgia and Sherman Avenues represent different street types and several different functions.
- Sidewalk pavement, lighting fixtures, and street furnishing are inconsistent along the corridor.
- The corridor contains no clear identification of its significance to African-American culture.



Figure A-5: Georgia Avenue Today

Recommended Improvements

Executive Summary



Figure A-6: Recommended Roadway Section for Georgia Avenue near Howard University

Improvements that could be phased in as funding becomes available were considered. Short-term, lower-cost improvements were prioritized.

Basic improvements

- Mill and overlay pavement
- Re-stripe travel lanes and crosswalks
- Install striping or pavement treatment at designated parking lanes
- Stripe shared lane markings (sharrows) for cyclists, per the Manual of Uniform Traffic Control Devices (MUTCD) recommendations
- Install tree boxes/grates
- Improve landscaping
- Install consistent street furniture (trash cans, benches, bicycle racks)
- Optimize traffic signal timing
- Add countdown pedestrian signals at signalized intersections
- Increase parking enforcement along Georgia Avenue
- Add on-street parking on northbound 4th Street near the Macmillan Reservoir to substitute for parking removal along Georgia Avenue
- Work with Howard Town Center and other developments to allow public parking in their developments

These basic improvements would provide consistency for drivers, pedestrians, and cyclists and should minimize conflicts among them. These improvements would not result in an increase in automobile speeds and therefore would not subject pedestrians and bicyclists to more dangerous conditions,

More extensive improvements, such as bulb outs (extensions of the sidewalk into the roadway), will further enhance the public realm and help achieve the Great Streets nature of the corridor. More extensive improvements must include improved bus service for a highly transit-dependent population. These longer-term improvements anticipate the future Georgia Avenue will have by providing residents with safe, convenient, and comfortable pedestrian

access to retail and entertainment uses along and adjacent to the corridor.

Achievement of these objectives, however, does require a trade-off with the loss of some parking spaces. Fortunately, with the extension of W and Bryant Streets, lost parking spaces can be easily regained. In addition, new developments, such as Howard Town Center, can more conveniently supply public parking. Similar strategies have proven successful in Bethesda, Rosslyn, and Ballston.

The perceived value of parking to retailers must be balanced with a future population willing to walk to their shops.

Georgia Avenue from Florida Avenue to W Street

- Add gateway treatment at Georgia Avenue-Florida Avenue intersection (special crosswalk paving, artwork/sculpture)
- Remove parking along both sides of the street to promote efficient traffic operation
- Widen travel lanes for safe travel of vehicles
- Reconfigure lanes at Georgia Avenue-Florida Avenue intersections
- Remove hedge on east sidewalk to eliminate confined feel for pedestrians
- Improve crosswalk striping at V Street
- Install pedestrian signage at Florida Avenue and W Street

Georgia Avenue from W Street to Barry Place

- Remove parking along both sides of street to promote efficient traffic operation
- Widen travel lanes for safe travel of vehicles
- Improve crosswalk striping at W Street
- Add special crosswalk paving at Bryant Street and Barry Place
- Widen sidewalks at Georgia Avenue between Bryant Street and Barry Place
- Relocate curb cuts for McDonald's from Georgia Avenue to Barry Place
- Remove excessive trash cans on Georgia Avenue between Bryant Street and Barry Place
- Install pedestrian signage at Bryant Street and Barry Place



Figure A-7: Recommended Roadway Section for Georgia Avenue North of Columbia Road

Executive Summary



Figure A-8: Recommended Roadway Section for Sherman Avenue

Georgia Avenue from Barry Place to Euclid Street

- Add curb extension to support transit usage at Howard Place
- Install special crosswalk paving at Howard Place
- Improve crosswalk striping at Euclid Street
- Remove parking lane from Howard Place to Barry Place
- Add dedicated right-turn lane from southbound Georgia Avenue onto Barry Place
- Add art (e.g., mural, painting) on wall in front of Euclid Street
- Install pedestrian signage at Howard Place

Georgia Avenue from Euclid Street to Columbia Road

- Remove pipe barriers between Euclid Street and Columbia Road
- Create gateway treatments at Harvard Street and Columbia Road
- Remove unnecessary street signs
- Improve pavement in alleys

Georgia Avenue from Columbia Road to New Hampshire Avenue

- Improve crosswalk striping at Irving Street and Park Road
- Install lighted crosswalks at Lamont Street and Morton Streets
- Install pedestrian signage at Irving Street, Lamont Street, and Park Road
- Revise traffic signal phasing at Park Road to split-phase side street operations

Sherman Avenue Corridor-Wide Improvements

- Widen sidewalks along corridor
- Install four-foot bicycle lanes along corridor
- Reduce number of travel lanes from two in each direction to one in each direction
- Add landscaped median with cut-outs for dedicated left-turn lanes

Sherman Avenue from U Street to Florida Avenue

- Add pedestrian crosswalk at V Street

Sherman Avenue from Florida Avenue to Euclid Street

- Construct two-lane roundabout at Sherman Avenue and the extended Bryant Street
- Add pedestrian signage at Barry Place and Euclid Street

Sherman Avenue from Euclid Street to New Hampshire Avenue

- Construct two-lane roundabout at Sherman Avenue and Park Road
- Add pedestrian signage at Irving Street and Park Road

Recommended Streetscape Elements

Intersections

- Decorative street print pattern crosswalk with African motif at key intersections
- Bump-out sidewalk areas to improve pedestrian safety
- Secondary Intersections (all other intersections)
 - Standard painted ladder crosswalk
 - Bump-out sidewalk areas to improve pedestrian safety
 - Poured-in-place concrete wheelchair ramps

Roadway Surfaces

- Special roadway surface at Howard Town Center (V Street to Barry Place)
- Standard black asphalt for standard roadway surfaces
- Parking lanes with LID treatment
- Dedicated bus lane with red-colored asphalt roadway surface and stamped texture



Figure A-9: Streetscape Improvements for Georgia Avenue at Bryant Street

Executive Summary



Figure A-10: New Linear Entrance at Banneker Park

Sidewalk Surfaces

- Concrete sidewalks for Georgia Avenue corner pavers

Street Trees and Plantings

- Continuous tree pits where possible
- Ornamental fence for tree pit protection
- Tree pit ground cover
- Ornamental trees and plantings in planting beds at select corner “mini-park” locations and at select wide sidewalk areas

Street Furniture

- Trash receptacles – standard DDOT; to be located in curb zone
- Benches – standard DDOT; to be located in curb zone
- Bicycle racks – standard U-shape bike racks to be located in curb zone or bump out zone
- News paper corrals – stackable corrals; to be located in curb zone.
- Street lights – teardrop standard at intersections, double Washington globes from Florida Avenue to Gresham Place, and single Washington globe from Gresham Place to Otis Place.
- Parking meters – multi-space devices for on-street parking
- Bus shelters

Special Streetscape Elements

- Linear street park at Banneker Park, with 24-foot sidewalk setback into park and retaining walls that double as seating
- Cultural heritage and interpretive elements
- Historic signage
- Walk of Fame: commemorative plaques located from Fairmont Street to Barry Place
- Public art opportunities
- Accent gateway elements at Florida Avenue
 - Decorative bollards located at curb edge
 - Building lighting from street light poles
- Accent gateway elements at key Howard University entrances
- Decorative flags and flag poles at Howard Place and Fairmont Street

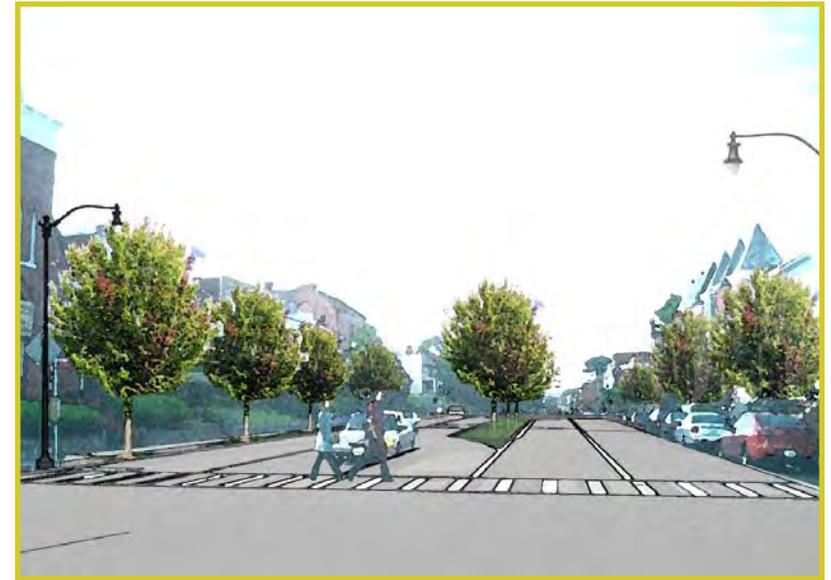


Figure A-11: New Look for Sherman Avenue

Introduction & Background

- B. Introduction
 - i. Project Goals
 - ii. Project Timeline
 - iii. Report Organization
- C. Study Area
- D. History
 - i. History of the Corridor
 - ii. Comprehensive Plan
 - iii. Previous Studies Completed in Study Area

B. Introduction

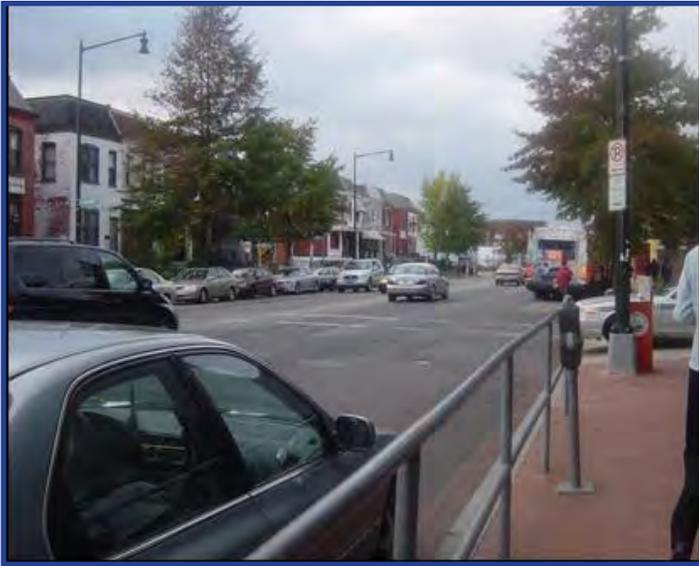


Figure B-1: Existing Conditions in the Lower Georgia Avenue Study Area

Georgia Avenue NW is a multimodal corridor striving to meet multiple demands: frequent transit service, heavy pedestrian traffic, rush-hour commuters, local auto destinations, cross-commuting bicyclists, and recurrent business deliveries. A limited right-of-way in the lower portion of the corridor serves as a bottleneck to vehicles. Pedestrian facilities are narrow and generally insufficient for demand. Bicycle facilities are nonexistent despite demand. Currently, the efficient and reliable mobility of all travel modes is compromised. This in turn presents a challenge to future development and economic expansion. The Georgia Avenue commercial corridor is part of a grid system in which primarily residential streets provide parallel routes. Efforts are now under way to reduce the impacts of auto traffic on these residential corridors.

Georgia Avenue is also in the midst of change. The Deputy Mayor for Planning and Economic Development and the Office of Planning have designated Georgia Avenue for major rezoning and redevelopment to transition the blighted community to a major destination for the city and its residents. As part of the redevelopment efforts, DDOT commissioned an in-depth examination of Georgia Avenue to improve current transportation conditions and to facilitate expanded local economic development and mobility. Since the current transportation conditions result in unacceptable mobility and movement, any additional impacts on Georgia Avenue would be equally unacceptable. DDOT is committed to making major transportation investments and improvements along the corridor, including improvements to the streetscape and the public realm, and to prioritize transit, economic development, overall safety, and, in particular, pedestrian and bicyclist needs along the corridor.

The purpose of the Lower Georgia Avenue Transportation and Streetscape Improvements Study is to develop a consensus vision for a multimodal transportation design and management plan that is supported and agreed upon by the community. The concept design should help create a vibrant, diversified corridor and commercial neighborhood while improving the efficiency of movement of all modes through this principal arterial as part of a city and regional transportation system. This report represents the work to date on this effort and presents the recommended transportation design and management plan for a revitalized Lower Georgia Avenue.

Introduction

Major Study Goals

Major study goals for the Lower Georgia Avenue Transportation and Streetscape Improvements Study are listed below:

- Provide a mechanism to create a comprehensive understanding of the current and future transportation system
 - Develop an overall street alignment
 - Determine the curb dynamics
 - Support the needs and growth of local businesses
- Develop a transportation management and right-of-way plan that supports expanded economic development and local mobility.
- Develop transportation options that are conducive to an urban university campus environment.
- Determine impacts of changes to Georgia Avenue on efficiencies and multimodal performance of other roads in the study area system.
- Determine efficient strategies (parallel streets, Georgia Avenue retail, etc) to develop bus rapid transit or streetcar service along the corridor.
- Develop a plan that supports the needs and desires of the business, residential and institutional communities.
- Develop a plan to address pedestrian street crossing hazards at intersections, and encourage greater pedestrian convenience and appeal.
- Examine the impact of bicycling, walking, and mass transit on lane configurations, safety, and parking along the corridor.
- Provide options for resolving narrow sidewalks and tree spaces on Georgia Avenue and Sherman Avenue.
- Develop a plan that will serve as the guide for the implementation of streetscape, transit, safety, and adjacent roadway improvements.



Figure B-2: Intersection Conditions Near the Howard University Hospital

Great Streets Program

The Great Streets Program is similar to many seminal planning efforts that have helped make Washington, DC a world-class city. It is poised to redefine critical neighborhood streets as the centers of their communities and help expand the city's vitality by distributing new benefits equitably. Soon many of the neighborhood retail streets including the Great Streets program will be among the city's best places to live, work, play, and invest. All in all, these Great Streets will provide an impetus for bringing population back to Washington, generating commerce, creating jobs, expanding the District's tax base, and improving the quality of life for its residents. These corridors extend more than 20 miles and impact half the District's residents in 50 different neighborhoods. The first round of Great Streets corridors are targeted, in part, because of the well-organized community infrastructure and networks in place. All Great Streets corridors have long been a priority for their local neighborhoods. Neighborhood stakeholders advocated for improvement to these corridors through strategic neighborhood action plans (SNAPs) and other priority-setting initiatives. Active, organized neighborhood associations, or civic groups, help guide and participate in streetscape improvements. The corridors targeted by the Great Streets program have historically lacked the level of investment enjoyed by other prominent streets in the District. The targeted corridors also correspond to areas targeted under other city programs and initiatives, such as: **ReSTORE DC Main Streets, the Home Again initiative, public safety Hot Spots, and New Communities**

Great Streets bring together all these programs.

The goals of the Great Streets Program are as follows:

1. Improve the quality of life in neighborhoods along Great Streets corridors, by improving public safety, physical appearance, and personal opportunity
2. Support local demand for goods and services through economic development
3. Expand mobility choices and improve safety and efficiency of all modes of travel
4. Attract private investment through the demonstration of a public commitment to Great Streets communities



Figure B-3: Example of Great Streets Amentiy Area



Introduction

Project Timeline

This study represents the first phase in a three-phased approach to implement improvements for the Lower Georgia Avenue corridor. Phase 1, scheduled from Fall 2006 to Summer 2007 is the major study efforts and the development of the transportation management plan and the preferred concept design. Phase II will be the beginning and completion of the design for Lower Georgia Avenue and will extend from Fall 2007 to Spring 2008. Phase III represents the construction of the major improvements for the Lower Georgia Avenue corridor, which is anticipated to begin in Fall 2008. Overall, DDOT has committed more than \$6 million for investments on Georgia Avenue and wants to implement improvements quickly.



Figure B-4: Georgia Avenue near Wonder Plaza

C. Study Area



Figure C-1: Aerial View of Study Area

The Lower Georgia Avenue Transportation and Streetscape Improvements Study area is bordered by Sherman Avenue to the west, New Hampshire Avenue to the north, Florida Avenue to the south, and the McMillan Reservoir/4th Street to the east.

Geographically, the study area is within Ward 1 and overlaps the Advisory Neighborhood Commission area (ANC), 1A north of Columbia Road, and ANC 1B south of Columbia Road. Neighborhood clusters include Mount Pleasant, Columbia Heights, Park View, Howard University, Le Droit Park, and Cardozo/Shaw. The study area is approximately one mile north of the downtown and monumental core of Washington DC.

Public services within the study area include two recreation centers: Banneker Community Center on Georgia Avenue and Parkview Community Center on Otis Place. Fire Station 4 on Sherman Avenue serves the study area along with a post office on Georgia Avenue. Schools in the area include Benjamin Banneker High School on Euclid Street and Bruce Monroe Elementary School on Georgia Avenue.

Howard University and Howard University Hospital are the major employers within the study area. The student population at Howard University is more than 11,000. The hospital has served as the nation's largest hospital serving the African-American community for more than 140 years. Both the university and the hospital attract a large volume of pedestrians.

The corridor is served by both the Washington Metropolitan Area Transit Authority's (WMATA) Metrobus and Metrorail service. Metrobus routes provide service on Georgia Avenue, Sherman Avenue, New Hampshire Avenue, Irving Street, and Columbia Road. The Georgia Avenue-Petworth Metrorail Station located at New Hampshire and Georgia Avenues provide rail service on the Green and Yellow lines. The Shaw-Howard University Metro Station just south of the study area also provides access to the Green and Yellow lines.

The study area is shown in Figure C-1.

D. History



Figure D-1: Historic Photos of Georgia Avenue

History of Georgia Avenue

Mid-20th century disinvestment and neglect have taken their toll on the corridor. Commercial establishments, which once thrived on the patronage of the residences and institutions around them, declined as competition from suburban retail grew, local residential populations declined, and American travel behavior turned more toward the convenience of the private automobile and away from the traditional modes of walking, biking, and transit.

The Georgia Avenue streetcar line was replaced by bus service in the 1930s, and by the 1960s the street had become a major automobile thoroughfare, oriented more toward shuttling commuters between Maryland and downtown Washington, DC than supporting and strengthening the local neighborhoods and retail establishments. Long-standing communities are represented along the corridor, as are more recent Caribbean, Latino, and African immigrant communities. This variety is unique in the city.

Howard University, the first university open to African-Americans in the south, is located in the heart of the study area. The university continues to be an important source for African-American history and culture.

Metrail services were implemented in phases along the corridor, beginning with the opening of the Shaw and U Street Stations in 1991 and the Petworth Metro Station in 1999. Transit connectivity, however, remains inadequate north of the Petworth Station and improved intermodal connectivity between rail and bus is needed. One important new transit element in the corridor, designed to enhance the speed of trips both along and through the corridor, is the Metro Extra enhanced bus service, which began in spring 2007.

Howard University

Howard University, a historical black university is a Carnegie Doctoral/Research University in Washington, DC, established in 1867 by congressional order. Notable alumni include Nobel Laureate Toni Morrison, Supreme Court Justice Thurgood Marshall (Howard University Law School), Ossie Davis, Debbie Allen, Roberta Flack, Claude Brown, Shaka Hislop, Stokeley Carmichael, Richard Smallwood, and Phylicia Rashad.

Howard University grants more Ph.Ds to African-Americans than any other university in the United States.

Much of Howard's early funding came from endowment, private benefaction, and tuition. An annual congressional appropriation administered by the Secretary of the Interior also funded the school. Today, it is a member school of the Thurgood Marshall Scholarship Fund. From its outset, the university was nonsectarian and open to people of both sexes and all races. Howard has graduate schools of law, medicine, dentistry, and divinity, in addition to its undergraduate program. The enrollment in 2003 was approximately 11,000, including 7,000 undergraduates. The university's football homecoming activities serve as one of the premier annual events in Washington.

Howard University has played an important role in American history and the civil rights movement on a number of occasions. Alain Locke, Chair of the Department of Philosophy and the first African-American Rhodes Scholar, authored *The New Negro*, which helped usher in the Harlem Renaissance. Ralph Bunche, the first Nobel Peace Prize winner of African descent, served as chair of the Department of Political Science. Stokely Carmichael, (also known as Kwame Toure), a student in the Department of Philosophy, coined the term "Black Power" and worked in Alabama, as a voting rights activist. Historian Rayford Logan served as chair of the Department of History, E. Franklin Frazier served as chair of the Department of Sociology, and Sterling Allen Brown served as chair of the Department of English.

After being refused admission to the then whites-only University of Maryland School of Law, Thurgood Marshall, a young Lincoln University graduate, enrolled at Howard University School of Law instead. There he studied under Charles Hamilton Houston, a Harvard Law School graduate and leading civil rights lawyer who at the time was dean of Howard's law school. Houston took Marshall under his wing, and the two forged a friendship that would last for the remainder of Houston's life and forever change America. Howard University was the site where Marshall and his team of legal scholars from around the nation prepared to argue the landmark *Brown v. Board of Education* case.



Figure D-2: Founders Library on the Campus of Howard University is an Iconic Building that has Been Declared a National Historic Landmark

History

The DC Comprehensive Plan

Role of the Comprehensive Plan

The DC Comprehensive Plan provides a framework for the growth and revitalization of the city. It includes detailed maps and policies for the physical development of the District of Columbia and addresses social and economic issues that affect and are linked to the development of the city and its citizens. The plan allows the community to predict and understand the course of future public actions, as well as shape private-sector investment and activities. It allows the District to ensure that its resources are used wisely and efficiently and that public investment is focused in areas where it is needed most. The Comprehensive Plan provides guidance on the choices necessary to make the District a better city.

It should be noted that no single person or organization is in a position to make decisions that encompass the Comprehensive Plan. Many residents, governmental agencies, businesses, institutions, and leaders have helped shape the plan.

The Comprehensive Plan is the critical long-term planning document that underpins the Lower Georgia Avenue Study analysis. Since the last update in 2006 smaller, more focused planning efforts have expanded upon the Comprehensive Plan, giving it more texture. The Lower Georgia Avenue Study is informed by the plan's large and small efforts and seeks to design improvements to achieve the general desires of the plan.

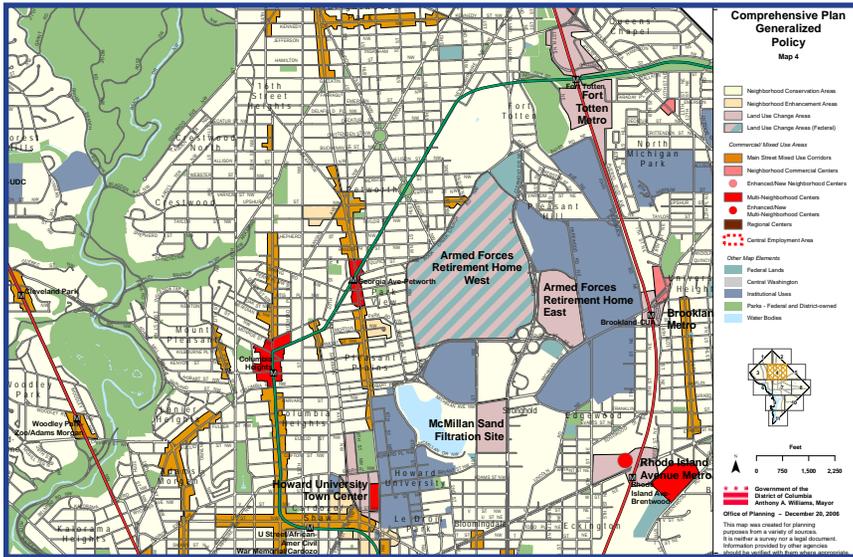


Figure D-4: Comprehensive Plan Policies for Georgia Avenue

Previous Studies Completed in the Study Area

The primary mission of the Lower Georgia Avenue Transportation and Streetscape Improvements project is to synthesize the past planning work in the corridor into a coherent design. The team reviewed past studies listed in Figure D-4 and extracted the general objective and specific transportation-related findings.

Overall, planning documents such as the Great Streets Framework, the DUKE plan and the SNAP plans emphasize using transportation infrastructure enhancements to demonstrate public support and attention to the area, in order to draw new economic investment. The Rapid Bus Study details specific locations where bulb-outs can improve passenger boarding, and signal timing/prioritization can improve travel times. It also suggests dedicated transit lanes for improved service.

Georgia Avenue is going through a transformation. The community along this distinctive street has participated in extensive public meetings and has communicated its vision and objectives in various studies. In order to focus on design principals, the specific design recommendations in each study were identified and considered as the team developed designs for transportation and streetscape alternatives. These improvements are the first step in Georgia Avenue realizing its potential to be a Great Street.

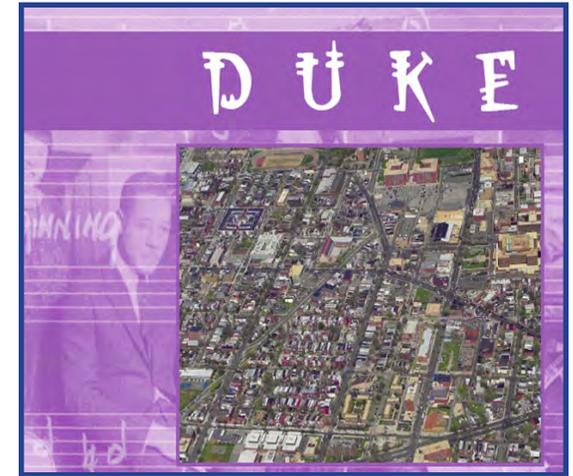


Figure D-4: Cover of the DUKE Report, one of the Previous Studies Reviewed for this Report

History

Table D-1: Previous Studies in the Study Area

Study	General Key Finding	Key Findings Related to Georgia Avenue Study
Great Streets Framework Plan	Streetscape recommendations, transit recommendations, traffic recommendations	<ul style="list-style-type: none"> • Base study of the Lower Georgia Avenue Study • Suggests ROW specifications (based on 4 different sections of the corridor) • Pedestrian facility improvements identified • Bicycle route proposed • Rapid Bus Lines suggested for the study area (suggests headway times also) • Planting and tree strips suggested in different areas of the corridor • Free standing and intersection art proposed
Sherman Avenue Strip Map	Specific streetscape and transportation findings	<ul style="list-style-type: none"> • Provides ROW specifications for the corridor • Curb dynamics and curb extensions suggested • Sidewalk widening • New bus shelter location recommendations • Additional parking lanes recommendations • Left turn lane addition recommendations within corridor • Green space, landscape, and low shrubs suggested • Stop signs and do not enter signs suggested within the study area
Bicycle Master Plan	Facilities recommendations	<ul style="list-style-type: none"> • Designated bicycle lanes given (4th Street, Columbia Road, Harvard Street, U Street, V Street, W Street, and T Street) • Bicycle Plan Route within study area identified; Streets include: Lamont Avenue, Kenyon Street, and New Hampshire Avenue
DUKE Draft Development Framework for a Cultural Destination District	Parking, public realm, transit-oriented development, pedestrian, and bicycle related actions	<ul style="list-style-type: none"> • Road extension proposed within study area (W Street and Bryant Street from Georgia Avenue to Florida Avenue) • Creation of an African-American Cultural Destination suggested • Coordination of transportation improvements with rapid transit for the corridor suggested
New Hampshire Avenue Local Traffic Study	Specific streetscape, ROW findings	<ul style="list-style-type: none"> • Reduction of the road width of Georgia and New Hampshire Avenues by installing medians suggested • Sidewalk, bulb out, "Share the Road" signs, and high visibility crosswalk installations suggested for the study area • Elimination of parking suggested in areas within the study area • Elimination of left turns suggested in intersections within study area • Tree and hedge replacement suggested
Rapid Bus Study	Bus streetscape findings Curb dynamic findings	<ul style="list-style-type: none"> • Curb extensions suggested • Passenger amenity areas suggested
Georgia Avenue/Petworth Transit Area Revitalization	Specific traffic, parking, transit, key intersections, pedestrian, bicycle, and public realm findings	<ul style="list-style-type: none"> • Speed reductions and traffic calming measures suggested • Sidewalk widening, pedestrian improvement and signal installation • Addition of bicycle racks suggested for areas in the study area • Elimination of bus bay along the west side of Georgia Avenue suggested
Uptown Destination District	Parking, transit, transit-oriented development, pedestrian, bicycle, and public realm actions	<ul style="list-style-type: none"> • Creation of a walkable district suggested • Suggestion of designing of public places for programmable activities suggested for study area
Howard University Master Plan	Traffic/Parking Modifications	<ul style="list-style-type: none"> • Parking management and pricing strategies suggested • Parking assignment percentage for Howard University suggested (10 percent of total parking supply) • Modification of on-campus vehicle circulation patterns • Inclusion of left, right and thru lanes suggested for Sherman Avenue at Euclid Avenue suggested • Exterior lighting improvements on Georgia Avenue and on campus
Transit Alternatives Report	Transit improvement findings	<ul style="list-style-type: none"> • Need for more time efficient transit identified for the study area
U Street Transportation and Streetscape	Parking modification findings, traffic and streetscape modifications/recommendations	<ul style="list-style-type: none"> • Parking removal and parking additions suggested within the study area • Green space and landscape improvements identified thru the corridor

Project Process

- E. Public Participation
 - i. Process
 - ii. Public Meetings

- F. Corridor Revitalization Vision and Guidelines
 - i. Great Streets Plan
 - ii. Corridor Vision Plan

E. Public Participation



Figure E-1: Citizens Attending a Lower Georgia Avenue Community Meeting

Public Participation Process

A comprehensive effort was made to engage local businesses and the residential community in the Lower Georgia Avenue Transportation and Streetscape Improvements Study between June 2006 and May 2007. Using a community-based planning approach, extensive outreach was conducted with stakeholders to encourage participation and invite their opinions, concerns, and ideas. The public information component was interactive and overseen by a Steering Committee consisting of a cross-section of community, civic, and business leaders. Seven meetings were held, and meeting summaries were prepared and distributed broadly via direct mail, online, and at public library displays. Considerable effort was made to ensure that communications were clear, transparent, and inclusive.

The following outreach was conducted to engage the community:

- A. Door-to-door distribution of meeting notices and face-to-face contact with every business along the Lower Georgia Avenue corridor was made prior to each of the three community meetings.
- B. Three thousand fliers were hand-delivered to residents between 4th Street and Sherman Avenue and between Florida Avenue and New Hampshire Avenue prior to each of the three community meetings. Presentations were made at ANC 1A Community Meetings.
- C. Presentations were made at ANC 1A community meetings.
- D. Telephone outreach was conducted to members of the Steering Committee and key individuals to build attendance at each Steering Committee and community meeting. Those contacted included the following:
 - Advisory Neighborhood Commissioners for ANC 1A and ANC 1B
 - Key civic and community organizations representing non-English speaking residents
 - Educational, cultural, faith, and nonprofit organizations
 - Georgia Avenue business leaders
 - Small business owners and local developers



Figure E-2: Citizens Participate at the Design Workshop in which Residents were Given a Chance to Consider Changes in the Corridor

E. Pre-event publicity was generated through media advisories and follow-up media outreach, which included the following media outlets:

- | | |
|---------------------------------|--------------------------|
| The Washington Post | NewsChannel 8 |
| WJLA - TV 7 ABC | WUSA - TV 9 CBS WOL-AM |
| Satellite One | XM Radio |
| WTOP Radio | WHUR |
| WMMJ | WTTG-TV 5 FOX |
| ABC Radio | Radio One |
| Clear Channel | WMAL Radio |
| WPFW | WRC -TV 4 NBC |
| Current Newspapers | El Tiempo Latino |
| El Pregonero | La Nacion |
| Hispanic Link | Hill Rag |
| The Intowner | Washington Afro-American |
| Korean Times | Asian Fortune |
| Capital Community News | The Common Denominator |
| The Washington Business Journal | Washington Informer |
| Capitol Spotlight | |

- F. Media relations were coordinated with Councilmember Jim Graham’s office, DDOT Director Emeka Moneme’s office, and DDOT’s Public Information Officer, Erik Linden. Pre-event notices appeared in The Washington Post’s District Weekly, the Northwest Current, and the Washington Informer. Public service announcements (PSAs) were made on Channels 4 and 16 and WPFW.
- G. Channel 16 provided day-of-event and post-event media coverage and aired each community meeting and workshop for five days.
- H. A photographic record was made of each community meeting and workshop.
- I. Copies of each Steering Committee and community meeting summary were available at the Petworth and Martin Luther King Jr. Libraries and on DDOT’s website.

Public Participation

Public Meetings

The comprehensive community engagement for the study resulted in broad awareness and community participation. Several community leaders applauded DDOT for engaging local businesses and residents to participate in the early design process. The following public meetings were held:

October 10, 2006	30 people attended the initial Steering Committee meeting.
November 14, 2006	70 people participated in the Community Workshop.
December 6, 2006	20 people attended the Steering Committee meeting.
January 27, 2007	100 people participated in the Community Design Workshop.
May 22, 2007	60 people participated in the Community Open House and Design Presentation.

Comments and concerns of business owners who were unable to attend these meetings were obtained during door-to-door outreach. Some owners expressed concerns that their businesses would be adversely affected by the redevelopment of Georgia Avenue during construction and by a reduction in available on-street parking. The study addressed these concerns during its final design and proposal for off-street, garage parking.



Figure E-3: DDOT Director Emeka Moneme Interacts with Residents at a Community Meeting

F. Corridor Revitalization Vision & Guidelines

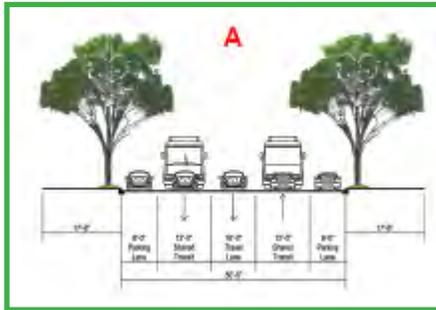


Figure F-1: Section A of Proposed Great Streets Cross Section

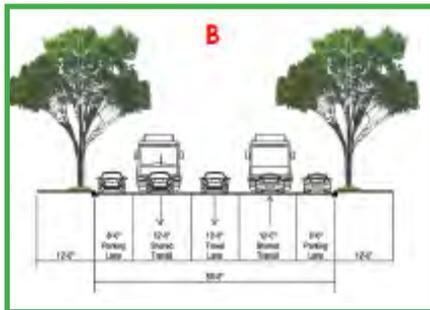


Figure F-2: Section B of Proposed Great Streets Cross Section

Great Streets Plan

The Great Streets Framework Plan developed transportation recommendations for each corridor, defined in three modal parts: pedestrian/bicycle, transit, and vehicular. These recommendations were used as the foundation for the concept design.

Right-of-Way (ROW) Configuration

The illustrations for Sections A through D show the options for the right-of-way configurations created by the Great Streets Framework Plan. Sections A and B illustrate two travel lanes southbound (toward the downtown Washington DC area), and a single lane northbound (toward the Silver Spring, Maryland, area). Options C and D each show two travel lanes in both the northbound and southbound directions, with no transit lane designation. For Section A, one of the southbound travel lanes is designated as a shared transit lane, and the other would be a single travel lane. The only travel lane in the northbound direction for this section is a shared transit lane. Section B differs from Section A in the amount of right-of-way allocated for streetscape (12 feet on each side of the street). The right-of-way is 50 feet for both Sections A and B. All sections include an 8-foot-wide parking lane in each direction.

- ROW Option 1 – Rapid Bus Improvements
Section A and B, the improvements create an asymmetrical configuration with travel lanes
- ROW Option 2 – Streetcar Improvements
Curbside transit stops would require the streetcar to maneuver into a travel lane from the shared transit lane.

Pedestrian facilities

The Great Streets Plan recommends that bulb outs be constructed at intersections adjacent to bus stops and dedicated parking lanes. In addition, high visibility crosswalk improvements were suggested for areas along the corridor. For Section B only, the sidewalk would be widened two feet on each side.

Corridor Revitalization Vision & Guidelines

Bike facilities

Suggested bicycle uses for the corridor include the following:

- Facilitate bicycle use at the southern end of the corridor by a signed bicycle route on 6th Street from K Street to U Street. The route would continue on 4th and 5th Streets between T Street and Columbia Road.
- At the northern end of the corridor, 13th Street would serve as a signed bicycle route from Harvard Street to Piney Branch Road. Existing bicycle lanes on Piney Branch Road are recommended to be extended to 13th Street in the Bicycle Master Plan. Harvard Street and Columbia Road provide directional connectivity between the two routes.

Vehicle/Parking facilities

Signal coordination and transit signal prioritization should be reviewed and improvements implemented as necessary to provide an efficient and effective corridor for all modes of traffic. For all sections, left-turn pockets should be striped at intersections where no bulb-outs are planned.

Right-of-Way Option 1 – Rapid Bus

- Parking lanes would be provided along the entire length of the corridor, and the provision for off-street parking at retail locations would encourage pedestrian use of the area once their vehicle has been parked.
- Traveling southbound into downtown, two travel lanes would be maintained the entire length of the corridor.
- Sections A and B would have one travel lane from downtown, transitioning to two travel lanes in Sections C and D.

Right-of-Way Option 2 – Streetcar

- Parking lanes would be provided along the entire length of the corridor, with the exception of Section C, where parking would be restricted during peak periods.
- Off-peak travel lanes would be restricted to a single lane in each direction, as shown in Section C.

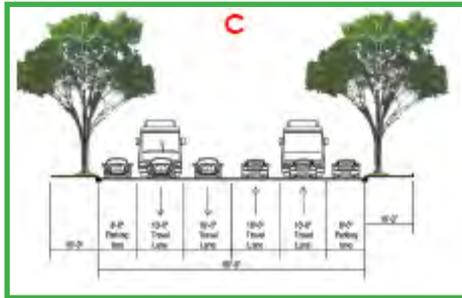


Figure F-3: Section C of Proposed Great Streets Cross Section

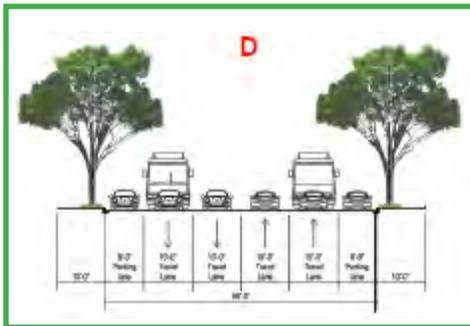


Figure F-4: Section D of Proposed Great Streets Cross Section



Figure F-5: A Confluence of Several Attractive Design Elements

Corridor Vision

Great streets rarely happen by accident; great streets require vision, knowledge, and implementation to make them happen. The vision stated in the Great Streets Framework Plan for 7th Street, Georgia Avenue is as follows:

“Providing a direct connection from Downtown Silver Spring and Downtown Washington, DC, Georgia Avenue is a very urban corridor. Major Educational, Institutional and Cultural destinations line the Corridor. High quality enhanced transit shuttles patrons to the Distinct and varied retail and employment centers separated by expanded residential neighborhoods. Inspiration for design is drawn from the rich cultural diversity.”

The vision also includes creating a context-sensitive transportation network with Georgia and Sherman Avenues serving as focus corridors where improvements would be made to make each street a great place for walking, commerce, casual interaction, and transportation.

In addition, the vision includes making Georgia Avenue a walkable, inviting multimodal corridor that draws on its African-American heritage, particularly the historic Howard University, to create a cultural destination along Georgia Avenue between Florida Avenue and Barry Place. The vision includes transitions to distinctive places north along Georgia Avenue to New Hampshire Avenue that take advantage of the Georgia Avenue/Florida Avenue intersection to create a gateway into this cultural and historical destination.

Distinctive and dignified themes and objectives for design opportunities for Georgia Avenue are as follows:

- Walkability
- Cultural/historical destination
- Gateway
- Efficient operation of all modes

Corridor Revitalization Vision & Guidelines

Design Guidelines and Elements

Walkability

The goal is to promote walkability by providing a comfortable and safe pedestrian experience along Georgia and Sherman Avenues. The best streets are pleasant for pedestrians. They contain destinations for those walking and prioritize their needs such that vehicles are slowed to allow safer and more comfortable pedestrian crossings.

Distinctive and complementary design elements:

- Improved crossings
- Alternative paving materials, including permeable unit pavers
- Striping
- Signage
- Wide sidewalks
- Landscaping
- Barriers removed (piping removed)
- Tree grates/fences/boxes – replaced or repaired
- Benches
- Good maintenance

Alternative Paving Materials

Alternative pavement materials provide opportunities for spatial definition and the recognition of special areas. They should be thoughtfully selected and arranged so as to achieve the following:

- Fulfill functional, safety, and durability requirements: Pavement materials should be of high quality, durable, and low maintenance. The furnishing zone in retail areas should be of permeable unit pavers when possible.



Figure F-6: Examples of Improved Pedestrian Crossings

- Support and express the design theme: The design, color, and materials of visible pavement should fulfill its supporting role as an important visual element of the overall design theme. Numerous designs are possible.
- Emphasize special areas: Special paving is highly effective at delineating spatial relationships and calling attention to focal areas.

Specific Recommendations

Pedestrian design elements for this project have been categorized into the following three areas:

- Gateway improvements
- Transit-oriented improvements to improve, ease, and enhance the walk/transit transition. Crossings should be safe or shortened.
- Overall pedestrian activity – design elements should enhance pedestrian activity in the area.

Table F-1: Intersections where Opportunities Exist for Pedestrian Enhancements

	Gateway	Transit-Oriented	Enhanced pedestrian activity
Georgia Avenue at Florida Avenue	*		*
Georgia Avenue at W Street			*
Georgia Avenue at Barry Place / Bryant Street			*
Georgia Avenue at Irving Street		*	*
Georgia Avenue at Lamont Street		*	*
Georgia Avenue at Park Road		*	*
Georgia Avenue at Howard Place		*	*



Figure F-7: Examples of Alternative Paving Materials

Corridor Revitalization Vision & Guidelines

Planned pedestrian improvements at the following key intersections should be reviewed to ensure appropriate pedestrian enhancements are made:

- Sherman Avenue and Barry Place
- Sherman Avenue and Euclid Street
- Sherman Avenue and Irving Street
- Sherman Avenue and Park Road

Opportunity Segments along Georgia Avenue for Pedestrian Enhancements

Florida Avenue to W Street

This section of sidewalk is six feet wide, which typically is sufficient for pedestrian activity. However, a hedge adjacent to the sidewalk creates a confined feel for pedestrians. This section would benefit from pedestrian treatments, organized street furniture, and more space for pedestrian activity. This segment should emphasize the cultural destination and guide pedestrians to Howard University and Howard University Hospital, as well as other important destinations.

W Street to Barry Place

Currently this segment confines pedestrians and has high volumes of traffic (all transportation modes). Organized street furniture and improved pedestrian flow are needed. The segment should emphasize the cultural destination and guide pedestrians to Howard University and Howard University Hospital as distinct and important destinations.

Barry Place to Euclid Street

This segment presents existing obstacles for multimodal transportation, including a high chain-link fence on the west side of Georgia Avenue and a wall on the east side. The landscaping and planting should create variety and evoke Howard University. Streetscape design elements should be rescaled to create a pedestrian path through art and landscape. The heritage and distinctive design elements mentioned above should be continued, but they should transition to design elements appropriate for residential and small businesses along this segment.



Figure F-8: Street Furniture and Distinctive Plantings



Figure F-9: Examples of Wide Sidewalks with Landscaping

Euclid Street to Columbia Road

This segment contains several curb cuts for driveways. In addition, the existing pedestrian environment has varying sidewalk widths and contains barriers (pipe railings). Small businesses and retail are located in this segment. The pedestrian realm needs to be improved by removing the pipe railings, unnecessary street signs and sidewalk obstacles, enhancing pedestrian crossings, and potentially narrowing lane widths to extend the sidewalk and shorten pedestrian crossings. Alleys should be improved so deliveries can be moved off of Georgia Avenue.

Columbia Road to New Hampshire Avenue

This segment should continue the distinctive theme of the corridor but vary the design elements to reflect the design of New Hampshire Avenue and be consistent with the priorities and intersection design expressed in the New Hampshire Avenue traffic study.

Cultural/Historical Destinations

The streetscape should reflect, serve, and enhance the cultural and historical destination.

Distinctive and Complementary Design Elements:

- Architectural continuity
- Detailed design and quality construction
- Cultural heritage plaques and signs
- Street furniture
- Alternate paving materials
- Plantings and landscaping – provide outstanding opportunities for spatial definition and the positive expression of landscape character
- Public art
- Bike rack design that evokes the African-American cultural theme of the corridor
- Pedestrian-only walkway/plaza street
- Transit shelters and facilities with cultural and historical design
- Greenspace

Corridor Revitalization Vision & Guidelines

Cultural/Historical Destination – Opportunity Areas:

- An opportunity exists at the Sherman/Florida/Bryant intersection to create a complementary gateway with a public art/performance space/small park space. Events would not be programmed; rather this would be a space where the community can gather for outdoor music, arts and crafts exhibits, and games.
- An opportunity exists for a pedestrian-only walkway or plaza street, which would serve as a promenade for pedestrians along the potential extensions of Bryant and W Streets.

Opportunity areas should be focused at the following locations (see Figure F-12):

- A. Sherman/Florida/Bryant Avenues area
- B. Segment from Florida Avenue to Barry Street
- C. Segment from Barry Street to Euclid Street

Figures F-13 and F-14 represent the DUKE plan's vision for Georgia Avenue from Florida Avenue to Rhode Island Avenue. The DUKE Plan seeks to guide future development strategically by capitalizing upon the historic context of Georgia Avenue to restore this area into a contemporary uptown neighborhood with 18-hour destinations. The DUKE Plan helped to create a vision for part of Lower Georgia Avenue, and is consistent with DDOT's vision for Lower Georgia Avenue.



Figure F-10: Distinctive Lighting Elements



Figure F-11: Cultural Heritage Plaque



Figure F-12: Opportunity Area of the Lower Georgia Avenue Corridor

Corridor Revitalization Vision & Guidelines

Efficient Operation of All Modes

Multimodal operations should support the corridor as a vibrant cultural and historical destination as well as a walkable place. Transit and emergency vehicles must be able to operate efficiently.

Distinctive and Complementary Design Elements:

- Modify lane configurations and geometry to accommodate all modes of transportation
- Coordinate potential geometry changes with transit signal prioritization, depending on analysis and modification
- Ensure efficient operations and design for transit (including express bus) and emergency vehicles
- Consolidate driveways and eliminate curb cuts where possible
- Side streets: add bike-detected loops to give bikes sufficient time at crossings
- Maximize on-street parallel parking and identify opportunities for diagonal parking cutouts, where possible
- Identify opportunities for pedestrian refuge island(s), where appropriate

Intersection Alternatives and Operations Analysis:

- Roundabout at Florida and Sherman Avenues
- No left turn from Georgia Avenue to Florida Avenue
- Dedicated left lane on Georgia Avenue to Bryant Place
- Pedestrian signal timings review for sufficiency and adjustment at key pedestrian crossings
- Pedestrian Signal Timing – providing pedestrian two second head start at key pedestrian crossings



Figure F-16: Various Bicycle Rack Designs

Corridor Alternatives and Modeling Scenarios:

- Remove parking between Florida Avenue and Bryant Avenue
- Provide Transit-only lane
- Provide Transit and turning-only lanes
- Review Howard Town Center model and assumptions
- Analyze origin-destination – high-quality, high-capacity corridor may support development goals of the place versus regional traffic passing through the corridor

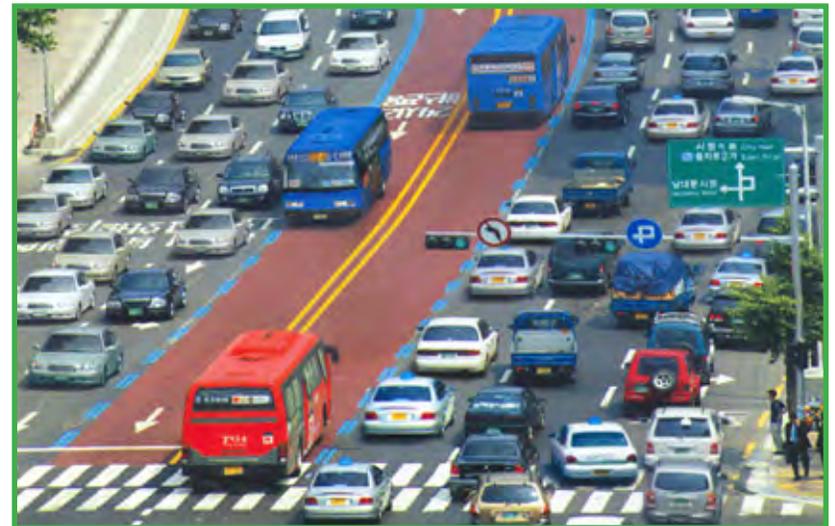


Figure F-17: Examples of Transit-Only Lanes in Practice

Existing Conditions

- G. Land Use
 - i. Existing Land Use and Development
 - ii. Proposed Land Use and Development

- H. Existing Conditions - Transportation
 - i. Description of the Corridor
 - ii. Overview of Study Intersections
 - iii. Traffic Conditions
 - iv. Parking Conditions
 - v. Transit Facilities
 - vi. Pedestrian and Bicycle Facilities
 - vii. Safety

- I. Existing Conditions - Public Realm
 - i. Sidewalks
 - ii. Lighting
 - iii. Street Furnishings
 - iv. History and Culture

G. Land Use

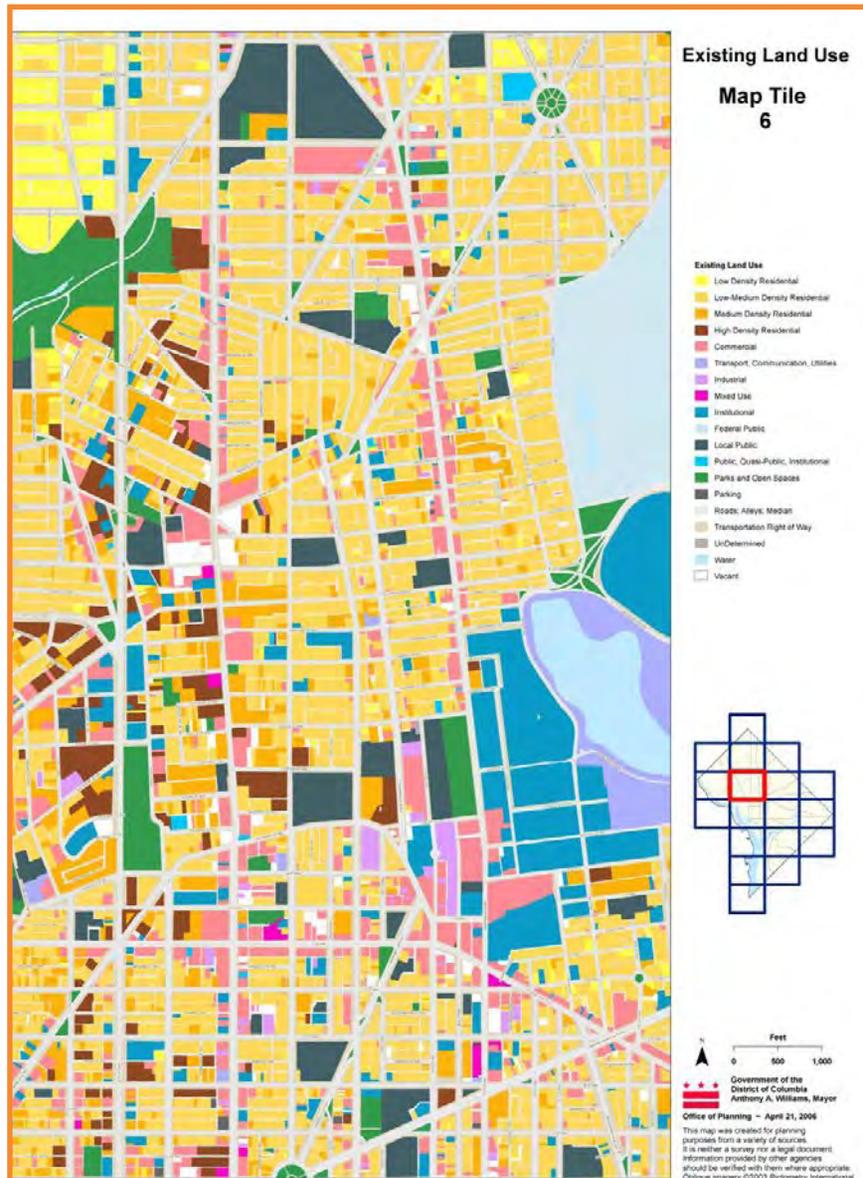


Figure G-1: Existing Land Use in the Lower Georgia Avenue corridor

Existing Land Use and Development

Traveling north along Georgia near the intersection of Florida Avenue, land use is primarily institutional around Howard University, Howard University Hospital, and Banneker High School. A cluster of retail businesses are located at Barry Place, including a fast-food restaurant drive-through, and Bryant Street, including a number of small retail shops, a coffee shop, and a university bookstore.

From the vicinity of Euclid Street traveling north, the west side of Georgia Avenue comprises small retail establishments, including take-out restaurants, a health food store, a video rental, barbershops, automotive repair, and convenience stores. The east side of Georgia Avenue contains university buildings until approximately Hobart Street where small retail businesses are located.

Proposed Land Use and Development

Overlay Zoning

The Office of Planning proposed that the zoning commission add a new commercial overlay zone for the Georgia Avenue/Petworth Metro Station area. This zoning overlay for Georgia Avenue is part of a strategy to attract investment, create jobs, and enhance the corridor's image.

Land Use

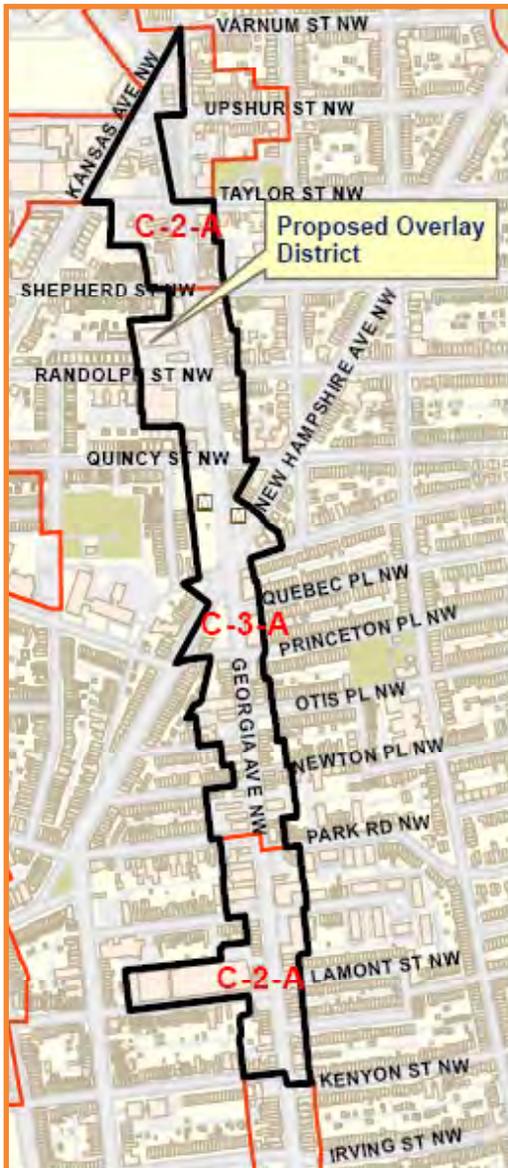


Figure G-2: Planned Overlay Zoning District for Lower Georgia Avenue

The following objectives of the overlay district were outlined in a memorandum from the Office of Planning to the Zoning Commission (November 2006):

- Implement the goals of the Great Streets Framework
- Encourage additional residential uses
- Encourage improved commercial uses
- Provide common design standards

Proposed Development

Several new developments are slated for construction along Georgia Avenue, which would transform the corridor into a series of neighborhood cores with vibrant and diverse retail centers and higher quality multifamily residential developments. Examples of these developments include the Georgia Avenue/Petworth Metrorail station area, the Columbia/Harvard intersections, and Howard Town Center.

Mixed-use development is being constructed near the Georgia Avenue/Petworth Metrorail station area with 148 condominiums and 17,000 square feet of retail. A mix of high-density residential development and local retail services is proposed near the Columbia/Harvard intersections. Howard University will develop a significant portion of its land into a residential, office, and retail center to be called Howard Town Center, which will include more than 300 apartments, 72,000 square feet of retail including a high-end grocery store, and 500 public parking spaces.

Developments proposed or under-construction are shown in Figures G-5 and G-6.



Figure G-3: Georgia Avenue/Petworth Metrorail station Development

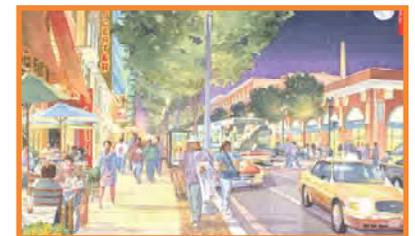


Figure G-4: Howard Town Center Development

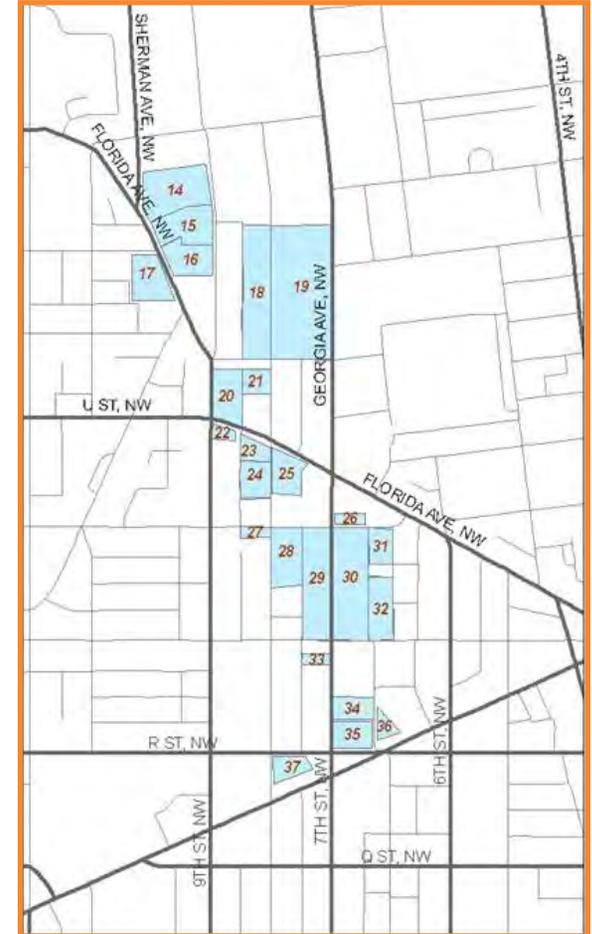
Figure G-5: Northern Portion of Study Area

1. 4136 Georgia Avenue
2. The Residences at Georgia Avenue - 4100 Georgia Avenue NW
3. 4000 Block West - Georgia Avenue NW
4. 3910-3912 Georgia Avenue NW
5. 3800 Block West - Georgia Avenue NW (Safeway Site)
6. 3800 Block East - Georgia Avenue NW
7. Petworth Metro - 3700 Block Georgia Avenue NW
8. 3600 Block Georgia Avenue NW
9. 3600 Block Georgia Avenue NW
10. 3500 Block East - Georgia Avenue NW
11. 3400 Block East - Georgia Avenue NW
12. Lamont Lofts Phase II - 3300 Block Georgia Avenue NW
13. Lamont Lofts Phase I - 701 Lamont Street NW



Figure G-6: Southern Portion of Study Area

14. Howard Town Center Phase I - 2100 Block Georgia Avenue NW
15. Atlantic Plumbing Properties
16. The Florida - 9th Street & Avenue NW
17. The Rhapsody - 2120 Vermont Avenue NW
18. Atlantic Plumbing Properties
19. Howard Town Center Phase I - 2100 Block Georgia Avenue NW
20. Housing Finance Agency Site
21. Atlantic Plumbing Properties
22. WMATA - Shaw-Howard University Parcels
23. WMATA - Shaw-Howard University Parcels
24. 1900 Block 8th Street NW
25. WMATA - Shaw-Howard University Parcels
26. Dunbar Theatre Apartments
27. NCRC Parcel
28. Cleveland Elementary School
29. Howard University - Temporary Offices
30. Broadcast Center One
31. Howard Theatre - 629 T Street NW
32. Wonder Bread Building
33. NCRC Parcel
34. United House of Prayer - Adjacent Land
35. NCRC Parcel
36. NCRC Parcel
37. Watha T. Daniel Shaw Neighborhood Library



H. Existing Conditions - Transportation



Figure H-1: Georgia Avenue Near New Hampshire Avenue

Description of the Corridor

Overview of Major Streets in the Study Area

Georgia Avenue

Georgia Avenue (US 29), runs north-south and continues into Maryland where it becomes MD 97. Georgia Avenue is classified as a primary arterial and is part of the National Highway System. It connects Washington DC to I-495 and is one of the 19 primary emergency evacuation/event routes (E routes) in the District, as well as a snow emergency route. The 2002 average annual weekday traffic (AAWT) on Georgia Avenue was 21,400 vehicles.

The posted speed limit is 30 miles per hour (mph) within the study area. Georgia Avenue has two travel lanes in each direction with parallel parking along the curb. The major land use is commercial with some residential.

Florida Avenue

At the southern boundary of the study area, Florida Avenue is a principal arterial. The western terminus of Florida Avenue is at P Street and 23rd Street. The eastern terminus is at H Street, NE and Maryland Avenue NE. In the study area, Florida Avenue carries three westbound lanes and two eastbound lanes between Sherman Avenue and Georgia Avenue. The 2002 AAWT was 27,500 vehicles.

New Hampshire Avenue

New Hampshire Avenue is a minor arterial that begins at the Kennedy Center and extends northeast into Maryland where it becomes MD 650. In the study area, New Hampshire Avenue carries two lanes in each direction with parallel on-street parking. The posted speed limit is 30 mph within the study area.

Sherman Avenue

Sherman Avenue runs north-south from its northern terminus at New Hampshire Avenue to its southern end at Florida Avenue. It is a four-lane roadway with on-street parallel parking. Due to utility work, southbound Sherman Avenue is currently reduced to one lane between



Figure H-2: Georgia Avenue Facing North

Kenyon Street and Irving Street and between Girard Street and Fairmont Street. Parking along the street within the above portions is restricted between 7:00 a.m. and 6:00 p.m. for different days. The posted speed limit is 25 mph. The 2002 AAWT on Sherman Avenue was 16,000 vehicles.

Columbia Road

Columbia Road is one-way westbound with two travel lanes from Park Road to Connecticut Avenue. On-street parking is allowed on both sides of the street. The 2002 AAWT was 4,500 vehicles. Curb parking on the south side of the street is restricted to residents with a Zone 1 permit. Parking for others is limited to two hours between 7:00 a.m. and 8:30 p.m., Monday through Friday. On the north side of the street, parking is restricted between the hours of 7:00 a.m. and 4:00 p.m., Monday through Friday. The major land use along Columbia Road is residential.

Harvard Street

Harvard Street is one-way eastbound from 16th Street to 5th Street. The 2002 AAWT was 5,000 vehicles. Parking on both sides of the street is permitted for residences with a Zone 1 permit. For all others, parking is restricted to two hours between 7:00 a.m. and 8:30 p.m., Monday through Friday on the north side of the street, and between 9:30 a.m. and 4:00 p.m., Monday through Friday on the south side of the street.

Irving Street

Irving Street is one-way eastbound from Adams Mill Road to Park Road. East of Park Road, this street carries two-way traffic. The 2002 AAWT was 7,000 vehicles. Between Sherman Avenue NW and Georgia Avenue NW parking is permitted on the north side of the street. However, the majority of this section is restricted to Zone 1 permit holders. Parking for all others is limited to two hours between 7:00 a.m. and 8:30 p.m. Monday through Friday. A short segment (30 feet) on the north side of the street at the east end is restricted to three-hour parking between 7:00 a.m. and 6:30 p.m. Monday through Friday. On the south side of the street, parking is restricted between 7:00 a.m. and 6:30 p.m. Monday through Friday.

Kenyon Street

Kenyon Street is one-way westbound from Park Road to 14th Street. The 2002 AAWT was

Existing Conditions - Transportation

5,100 vehicles. On the south side of the street, parking is restricted to Zone 1 permit holders. Parking for all others is limited to two hours between 7:00 a.m. and 8:30 p.m. Monday through Friday. On the north side, parking is restricted between 7:00 a.m. and 9:30 a.m. and 4:00 p.m. to 6:30 p.m. Monday through Friday.

Collector Roads

The remaining streets within the study area are collector roads and are as follows: Otis Place, Newton Place, Morton Street, Lamont Street, Hobart Place, Gresham Place, Girard Street, Fairmont Street, Euclid Street, Barry Place, V Street, 8th Street, and 9th Street.

Overview of the Study Intersections

Traffic (vehicle, pedestrian, and bicycle) data were collected at the following 13 intersections:

- Georgia Avenue at New Hampshire Avenue
- Georgia Avenue at Park Road
- Georgia Avenue at Irving Street
- Georgia Avenue at Harvard Street
- Georgia Avenue at Barry Place
- Georgia Avenue at Bryant Street
- Georgia Avenue at W Street
- Georgia Avenue at Florida Avenue
- New Hampshire Avenue at Spring Road
- New Hampshire Avenue at Monroe Street / Park Road / Sherman Avenue
- Sherman Avenue at Kenyon Street
- Sherman Avenue at Columbia Road
- Florida Avenue at Vermont Avenue

Georgia Avenue at New Hampshire Avenue is a six-leg intersection. The additional two legs of the intersection are formed by Rock Creek Church Road. The Rock Creek Church



Figure H-3: Florida Avenue Facing West

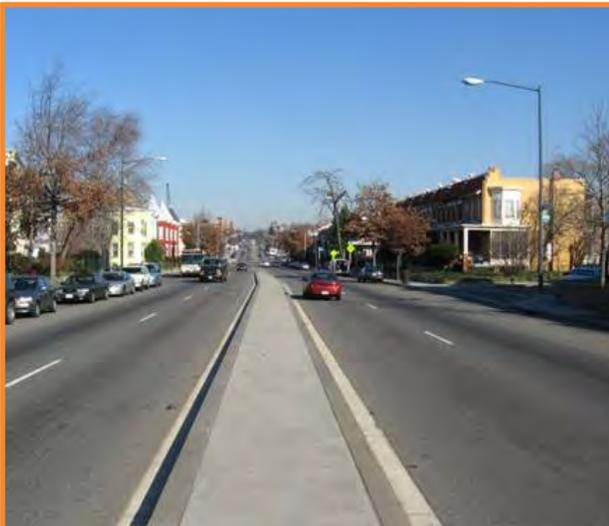


Figure H-4: New Hampshire Avenue Facing Northeast

Road legs are one-way, leaving the intersection in opposing directions. The intersection is signal-controlled with two-phase movements: Georgia Avenue followed by New Hampshire Avenue. Pedestrian crossings are marked on all approaches. Both New Hampshire Avenue and Georgia Avenue are four-lane roadways. A painted median separates traffic on New Hampshire Avenue. The Georgia Avenue-Petworth Metrorail station and adjacent bus stops generate pedestrian volume at this intersection.

Georgia Avenue at Park Road is an offset intersection. The intersection is controlled by a traffic signal with two-phase movements. Pedestrian crosswalks are marked on all approaches with pedestrian signal indications.

Georgia Avenue at Irving Street is a three-phase signal-controlled intersection with a leading left-turn phase southbound. Irving Street is one-way eastbound. Pedestrian indications and marked crosswalks are provided for all crossings. The eastbound approach of Irving Street contains rumble strips to slow traffic.

Georgia Avenue at Harvard Street is a skewed intersection with the east approach of Harvard Street intersecting Georgia Avenue at a 30-degree angle. Harvard Street is one-way eastbound with two lanes. The intersection is controlled by a two-phase traffic signal with pedestrian indications and marked crosswalks.

Georgia Avenue at Barry Place is a “T” intersection controlled by a three-phase traffic signal. A northbound left-turn arrow follows the Georgia Avenue through movement. Barry Place has a one-lane approach eastbound. Pedestrian signal indications and marked crosswalks are provided for all crossings. The intersection is one of the highest pedestrian volume intersections in the study area.

Georgia Avenue at Bryant Street is a “T” intersection controlled by a two-phase signal. Bryant Street is one-way eastbound. Pedestrian signal indications and marked crosswalks are provided for all crossings.

Georgia Avenue at W Street is a “T” intersection controlled by a two-phase signal. W Street is one-way westbound. Pedestrian signal indications and marked crosswalks are provided for all crossings.



Figure H-5: Sherman Avenue Facing North

Existing Conditions - Transportation



Figure H-6: Sherman Avenue at Monroe Street and Park Road

Georgia Avenue at Florida Avenue is controlled by a three-phase signal with a protected southbound left-turn phase. Pedestrian signal indications and marked crosswalks are provided for all crossings. This intersection has the highest pedestrian and bicycle volumes in the study area. Two bus stops are located on the southwest and northeast corners of the intersection. Two additional bus stops are on each side of Florida Avenue.

New Hampshire Avenue at Spring Road / Princeton Place currently is a stop-controlled intersection, although it has been signal-controlled in the past. New Hampshire Avenue operates freely, and the Spring Road approach is controlled by a stop sign. No vehicles approach the intersection via Princeton Place because it is one-way eastbound leaving the intersection.

New Hampshire Avenue at Sherman Avenue / Monroe Street / Park Road is a five-leg intersection controlled by a two-phase signal. The fifth leg, Park Road, carries one-way traffic westbound out of the intersection. Pedestrian signal indications and marked crosswalks are provided for all crossings.

Sherman Avenue at Kenyon Street is a four-leg intersection with Kenyon Street limited to one-way westbound traffic. A two-phase signal controls intersection movements. No pedestrian signal indication is provided, but marked crosswalks are located at all crossings.

Sherman Avenue at Columbia Road is a signal-controlled intersection with two-phase movement. Columbia Road is one-way westbound. Pedestrian phases are provided for all crossings.

Florida Avenue at Vermont Avenue is a “T” intersection controlled by a two-phase signal. Left turns are prohibited from northbound Florida Avenue onto Vermont Avenue. No pedestrian signal indication is provided for this intersection. Crosswalks are marked across Vermont Avenue and Florida Avenue on the north side of the intersection.

Traffic Conditions

Data Collection and Analysis

Turning-movement counts were collected for mid-day peak, PM peak, and Saturday (SAT) periods at 13 intersections. Seven-day automatic vehicle speed and classification counts were recorded at four locations. A parking inventory and parking-demand survey were conducted, along with a limited origin-destination study. Crash data was obtained from DDOT.

Turning Movement Volumes

Manual turning movement counts were conducted on Tuesday, Wednesday, or Thursday from 11:00 a.m. to 2:00 p.m. for the midday counts and 3:30 p.m. to 6:30 p.m. for the PM peak counts. Saturday counts were conducted on non-holiday Saturdays from 10:00 a.m. to 2:00 p.m. The counts included vehicle, pedestrian, and bicycle movements. Turning-movement data were also obtained from a previous New Hampshire Avenue traffic study, which did not include pedestrian or bicycle volumes. The mid-day, PM, and Saturday peak hour volumes are shown in Figures H-8 through H-10.

The turning-movement volume data indicate that the PM peak volumes are higher than mid-day peak volumes for all of the study intersections. The intersection of Georgia Avenue at Barry Place, located near Howard University, has the highest Saturday vehicle volume.

Areas adjacent to Howard University and Howard University Hospital, as well as the intersection of Georgia Avenue at Florida Avenue, have the highest pedestrian activity in the study area.

The highest bicycle volume is at the intersection of Georgia Avenue and Florida Avenue during the PM peak and SAT peak periods.



Figure H-7: Sherman Avenue Near Florida Avenue

Existing Conditions - Transportation

Figure H-8: Mid-day Peak-Hour Intersection Volumes

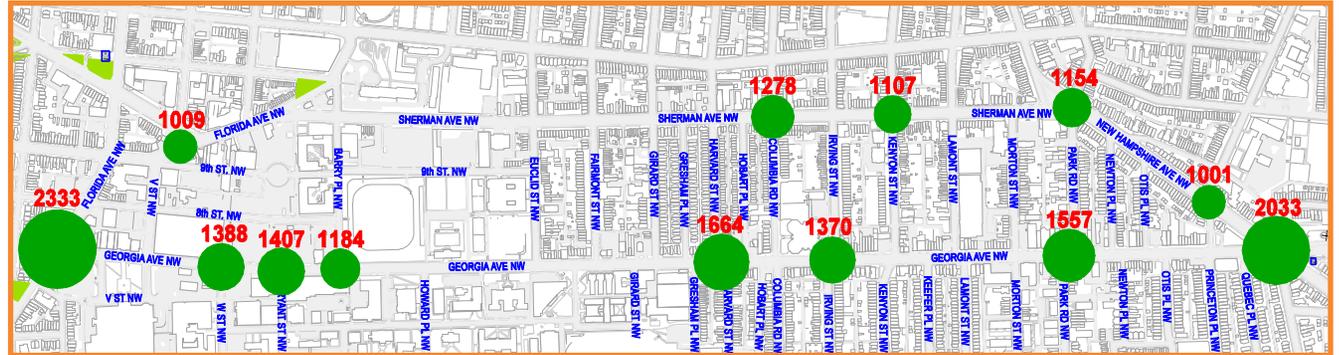


Figure H-9: PM Peak-Hour Intersection Volumes

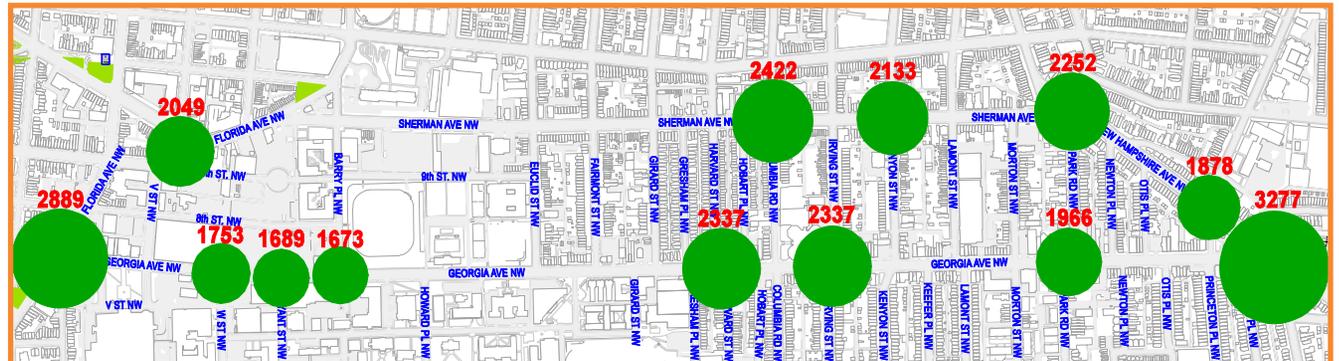


Figure H-10: Saturday Peak-Hour Intersection Volumes

