OPPORTUNITIES & ISSUES

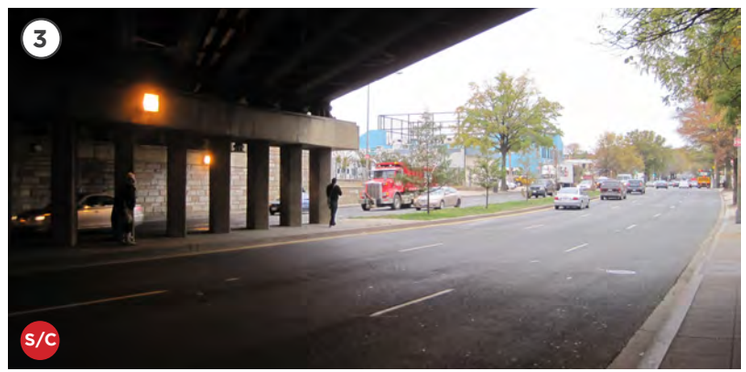
Rhode Island Avenue, NE is an important thoroughfare in the District of Columbia in terms transportation infrastructure and economic development, as described in the project introduction. Unfortunately, for pedestrians the functional capability of the Avenue is disjointed, in places unsightly, and perceived to be lacking in safety. The most prevalent issues identified via physical investigation and voiced by residents during the Open Houses include:

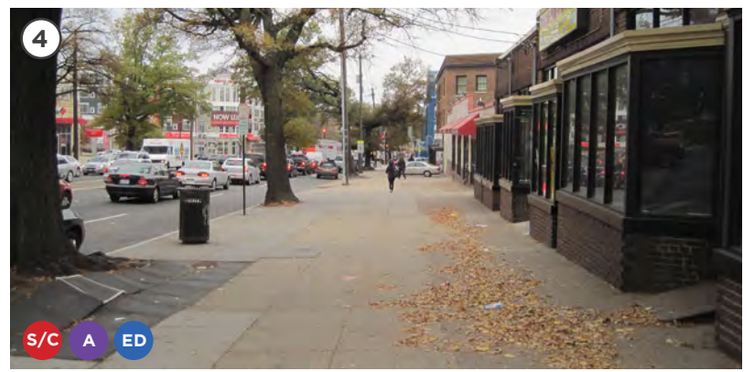
- Insufficient sidewalk space and lighting thereof
- Lack of public amenities such as street furniture that would improve streetscape character and aesthetics
- Inadequate use of green open space and improper maintenance of existing street trees
- Frequently “drab” architecture

This list is not comprehensive. See the map and corresponding photographs that follow for a brief explanation of other issues and opportunities found during the design team’s investigation. The current study and streetscape plan respond to many of these issues. A detailed list of the goals and recommendations that respond directly to the identified issues are included in the Project Scope (page 20).

Potential areas of improvement identified include:

- S/C Perception of safety/comfort
- A Aesthetics
- ED Economic development
- MA Multimodal access

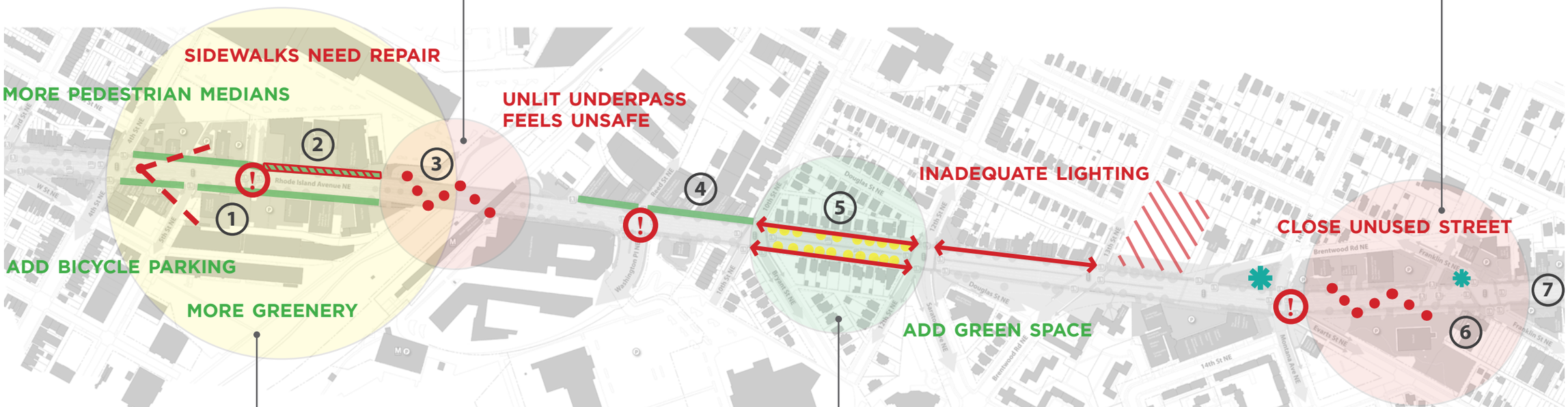




Dark and narrow sidewalks below underpass, and no connection to trail/shopping to north.

Area lacks consistent building frontage and pedestrian use, stricken with heavy impervious areas adjacent to Rhode Island Avenue, NE.

Streets trees are minimal and in bad shape. A couple of awkward triangular intersections between streets occur.



CONTINUED ON PAGE 19

High-speed automobile zone due to slope of street. techniques for traffic calming.

Consider opportunities to use wide sidewalks for increased pedestrian space and stormwater management / extend and plant medians.

No overhead utilities - implement larger trees.

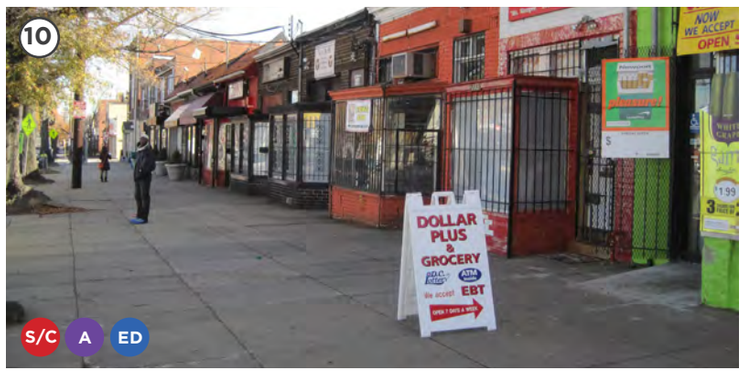
Narrow sidewalks with granite wall edge.

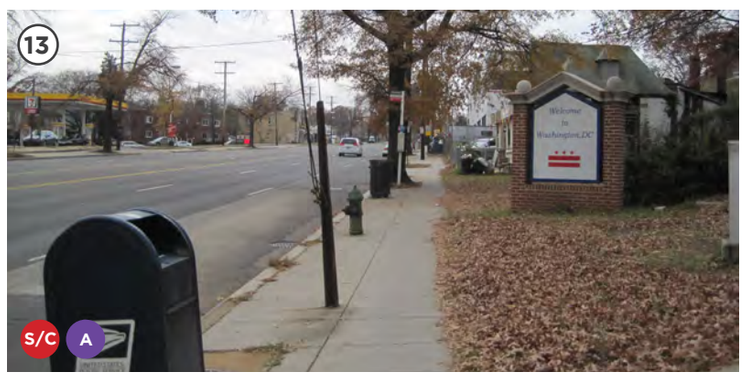
Consistent residential building frontage and spacing of mature street trees. Trees, however, affected by overhead utilities. Concrete median the length of the block is prime space for planting.

LEGEND

- Busy Intersection
- NPS Lots (Undevelopable)
- Wide, Undefined View
- Consistent Tree Canopy
- Dangerous Pedestrian Crossing
- Narrow Sidewalk
- Wide Sidewalk
- Private Infringement on Public Space

(See previous page for location #7)





Traditional retail space, wide sidewalks, medians and parallel parking make this section readily viable for the creation of intimate pedestrian areas, outside eating opportunities, stormwater management techniques, and business investment.

Has the potential to be a catalyst for the future growth and enhancement of Rhode Island Avenue, NE

Unsightly and unwelcoming entrance into DC and onto Rhode Island Avenue, NE. Potential for implementation of new gateway signage and bright and lively median plantings.

CONTINUED FROM PAGE 17

Wide, undefined views due to the lack of a consistent line of street trees and building frontage.

Creates an unwelcome pedestrian atmosphere.

Narrow sidewalks with granite wall edge.

Consistent residential building frontage and spacing of mature street trees. Slopes downward to west impacting travel speed and pedestrian safety.

LEGEND

- Busy Intersection
- NPS Lots (Undevelopable)
- Wide, Undefined View
- Consistent Tree Canopy
- Dangerous Pedestrian Crossing
- Narrow Sidewalk
- Wide Sidewalk
- Private Infringement on Public Space

Design Process

PROJECT SCOPE

There are seven Key Goals/Recommendations described here and eight Key Guidelines illustrated on the following page. These were devised to help the design team navigate towards appropriate design solutions within the confines of the existing project area and the proposed project budget.

SIDEWALK PAVING ENHANCEMENTS

Newly paved sidewalks with opportunities for widening will help to beautify pedestrian space and enhance flow.

SITE FURNISHINGS ENHANCEMENTS

Like many great streets, public amenities such as benches, bus shelters, and trash receptacles, will be offered to improve the quality of pedestrian space.

LOW IMPACT DEVELOPMENT (LID)

Stormwater management strategies and environmentally friendly planting practices will be applied where applicable.

STREET TREE MANAGEMENT / STREET TREE PLANTING

Retaining lively, mature trees and mitigating root problems is a key goal. This should be balanced with a new selection of properly sized and placed street trees.

PLANTING OPPORTUNITIES / GREEN MEDIANS

Greening in both medians and planters with drought-resistent will create an aesthetically pleasing, dynamic street that responds to seasonal changes and is environmentally sensitive.

ENHANCEMENT OF FOCAL AREAS

Focal areas are the catalysts for future initiatives. They provide opportunities for a variety of vibrant new uses to encourage a lively public life.

IDENTIFICATION OF PUBLIC ART OPPORTUNITIES

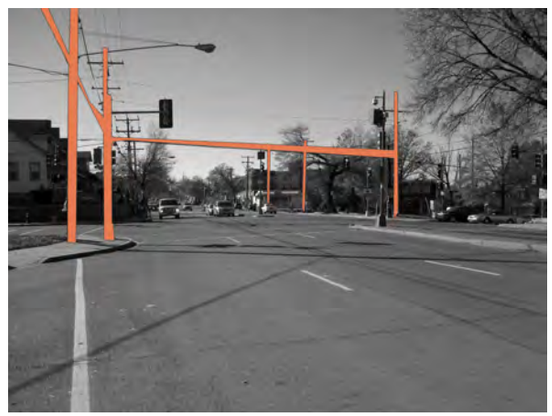
Rhode Island Avenue, NE can be uniquely identified by gateways, gathering spaces, and focal areas marked with local art and art installations.

1 | RETAIN EXISTING CURBLINES AND EXPAND SIDEWALKS TO MEET OR EXCEED DDOT STANDARDS

2 | RETAIN EXISTING WALLS

3 | MANAGE EXISTING CURB CUTS: ENHANCE OR REMOVE

4 | RETAIN OVERHEAD UTILITY WIRES AND LIGHT POLES

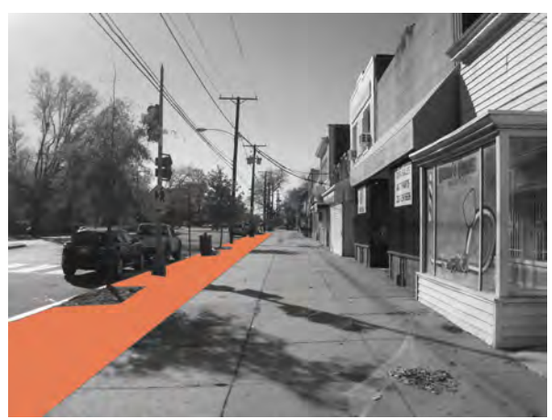


5 | UPGRADE EXISTING CONCRETE MEDIANS

6 | RETAIN EXISTING MATURE TREES AS LONG AS POSSIBLE

7 | UTILIZE AREAS WHERE PRIVATE ENCROACHMENT INTO PUBLIC RIGHTS-OF-WAY HAS OCCURRED

8 | IDENTIFY AND MAXIMIZE AREA FOR LID STRATEGIES



DESIGN ALTERNATIVES

Two master plan design alternative concepts were developed from the information discovered during the corridor study process, including input received at the meetings held with the Community Advisory Committee (CAC), DDOT, and the general public. The conceptual plans (shown right) were designed in preparation for Open House #2, where residents and users of Rhode Island Avenue, NE would have the opportunity to "vote" for which master plan alternative they believed best met their needs.

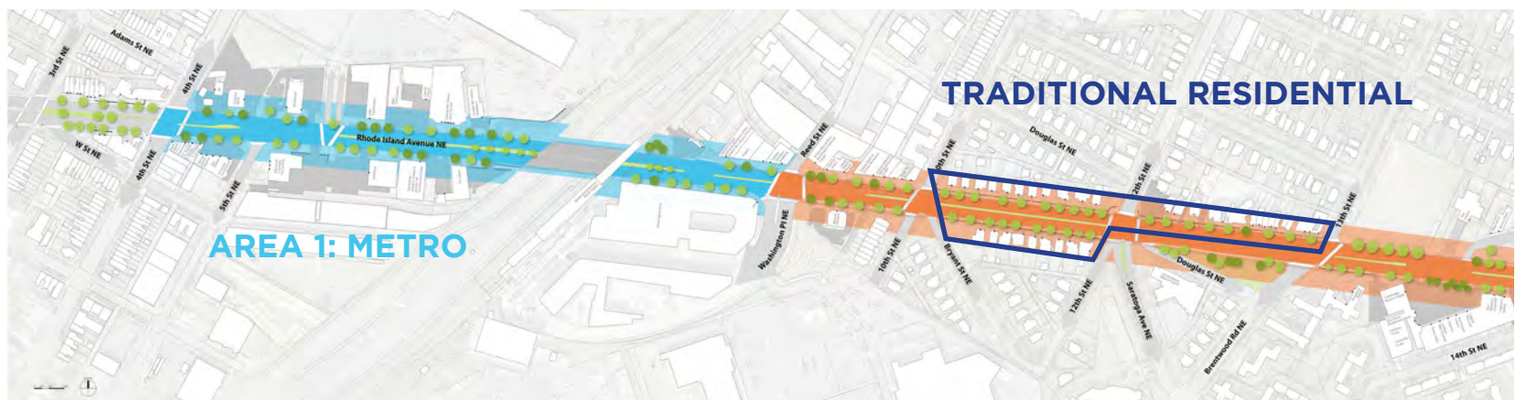
Alternative 1 reflects the idea that standard DDOT design treatments (see Design Toolkit on page 24) along the entire corridor would help to alleviate or improve the streetscape character and aesthetics in a consistent manner.

Alternative 2 places more emphasis on the opportunities present in the distinct character zones. In this concept, while the majority of the corridor would be treated with standard DDOT design treatments, the design proposed three areas where distinct design treatments should be used to emphasis the zone's importance along the avenue, and therefore provide impetus for future enhancement. The Metro focal area was chosen for its current and potential future development around the Metrorail stop. The Village area was chosen for its "traditional retail" building character as a catalyst for economic development. Lastly, the Gateway area was chosen for its importance as the entrance to the District of Columbia via Rhode Island Avenue, NE.

There was overwhelming support for Alternative 2 at the second open house, with which both the design teams and DDOT concurred. As a result, Alternative 2 was chosen as the framework for the final streetscape plan phase.

ALTERNATIVE 1 | CONSISTENT STANDARD DESIGN TREATMENTS THROUGHOUT

ALTERNATIVE 2 | STANDARD DESIGN TREATMENTS THROUGHOUT + DISTINCT DESIGN TREATMENTS IN 3 FOCAL AREAS




TRADITIONAL RESIDENTIAL
AREA 2: VILLAGE
AREA 3: GATEWAY
Rhode Island Avenue NE
Brentwood Rd NE
Hamlin St NE
Irving St NE
Jackson St NE
Kearny St NE
Hoover Rd NE
Monroe St NE
Newton St NE
Otis St NE
Eastern Ave NE
Franklin St NE
Girard St NE
Evarts St NE
Montana Ave NE
Mills Avenue NE
Thayer St NE
Central Ave NE
South Dakota Ave NE

DESIGN TOOLKIT

STANDARD DESIGN TREATMENTS

CROSS-WALKS

BUS SHELTERS

TRASH RECEPTACLES

FLEXI-PAVE

SIGNAGE (Main Street/BID)

LID PLANTERS

PAVING

SCORED AND BRUSH-FINISHED CONCRETE

BENCHES

PLAINWELL BENCH

LIGHTING (Area 1: Metro)

ACORN PEDESTRIAN LIGHT

BIKE RACKS

BLACK U-RACK

GATEWAY SIGNAGE

STONEWORK WITH SIMPLE SIGNAGE

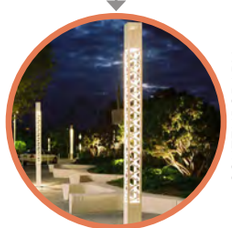
PLANTERS

CONTINUOUS SOIL PANEL PLANTERS

STANDARD + DISTINCT FOCAL AREAS DESIGN TREATMENTS

TINTED CONCRETE WITH AGGREGATE

BENCH INCORPORATED INTO PLANTER WALL

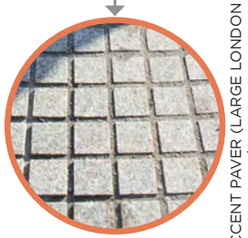


CONTEMPORARY PEDESTRIAN-SCALE LIGHT

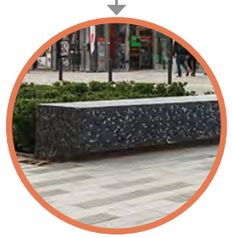
STAINLESS, CIRCLE BIKE RACK

GATEWAY FEATURE AT NIGHT

LID PLANTER WITH DESIGN AND PLANTING ENHANCEMENTS



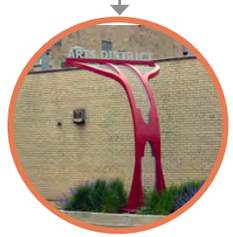
ACCENT PAVER (LARGE LONDON PAVERS AND/OR COBBLESTONE)



SIMPLE STONE BENCH

BOLD MEDIAN OR SCULPTURAL LIGHTING

WHIMSICAL BIKE RACK, CUSTOMIZED TO LOCATION



BOLD GATEWAY "ART"

BUILDING-RELATED LIGHTING (by Building Owners)

GATEWAY MEDIAN PLANTING

PUBLIC ART (Metro Underpass, by others)

The design toolkit on this page reflects the design suggestions for the two design alternatives shown on the previous spread.

The streetscape elements encircled in grey (left) were suggestions for the standard treatment areas of the alternatives. These are primarily DDOT standards.

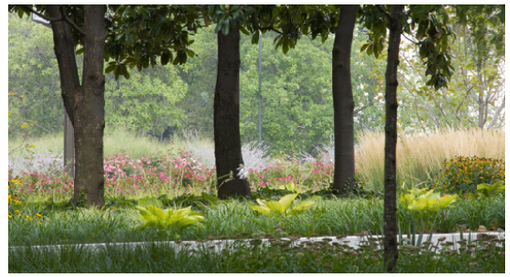
In the second alternative, there are three distinct focal areas. The images encircled in orange (below) are concepts showing how these areas may be enhanced.

PLANTING LOCATIONS

EXISTING GREEN SPACE

- Sloping hillsides adjacent to the Metro
- Triangle parks owned by DDOT, either fully planted or planted in pockets around open lawn
- Possible partnership to add some planting to National Park Service (NPS)-owned triangles





STORMWATER MANAGEMENT PLANTERS

- Perfect opportunities for lush, vibrant planting
- Since planters are depressed, there are no concerns of soil compaction from pedestrians
- Can create vegetated buffers to shelter pedestrians from the busy adjacent street



CONTINUOUS SOIL PLANTERS

- Street trees thrive when they have ample room to grow and extend their roots into the soil of adjacent planters
- Larger tree boxes also allow room for tough shrubs and groundcovers



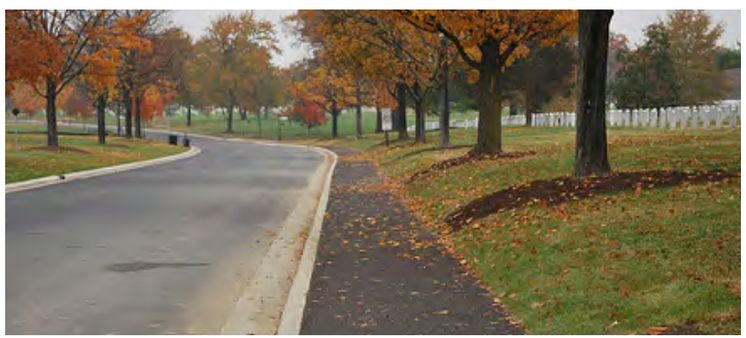
MEDIANS

- Medians that are currently constructed of concrete can be replaced with planters and a curb
- Tough shrubs, grasses and perennials provide green relief amongst all the roadway asphalt



LID OPPORTUNITIES

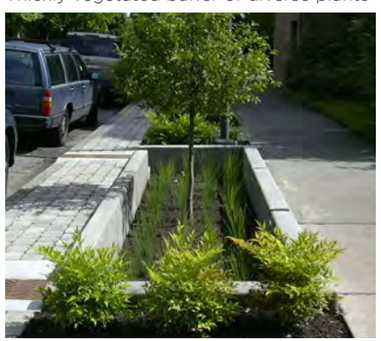
FLEXI-PAVE PERMEABLE PAVING



Flexi-Pave is recommended for use in areas where the sidewalk is squeezing between existing mature trees and a wall. This material prevents compaction of the soil and also allows nutrients and water to reach the trees roots.

STORMWATER PLANTER

Thickly vegetated buffer of diverse plants



Planter and permeable-paver 'bridge'

Planter with low fence

Planters that temporarily collect rainwater from impervious surfaces are useful in reducing the volumes and velocity of stormwater that would typically feed directly into a storm sewer after a large rain event.

CONTINUOUS SOIL PLANTER

Trees need ample soil to grow into large, heathy specimens. Connecting and extending the soil in planters beneath pedestrian paving allows for a design with both healthy trees and ample pedestrians paving.

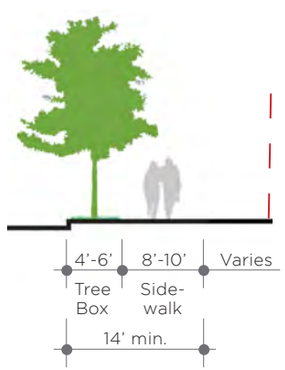
As the streetscape design for Rhode Island Avenue, NE progressed, it became clear that the development of the area between the existing back of sidewalk and the right-of-way (beyond the edge of the existing sidewalk) was crucial to creating a successful, cohesive, inviting streetscape design and meeting DDOT's sidewalk width standards.

Currently, sidewalks are in poor condition and many are not wide enough to accommodate the flow of heavy pedestrian–or increased–foot traffic. Input from the community indicated an overall lack of adequate paving, lighting, vegetation, and furnishings that have made the pedestrian experience unpleasant at best, and hazardous at worst. However, without utilizing the public right-of-way (ROW), opportunities for addressing these conditions would be significantly restricted. Many of the ROW areas are presently covered by asphalt parking lots or compacted turf/dirt. There are also physical encroachments (fences, walls, curbs) that flank the sidewalk, effectively constraining the public space to a narrow sidewalk width. These conditions and general treatment recommendations are indicated below.

CONDITION 1 |
NO BARRIERS AT EDGE OF WALK

CURRENT SIDEWALK WIDTH | PUBLIC R.O.W.

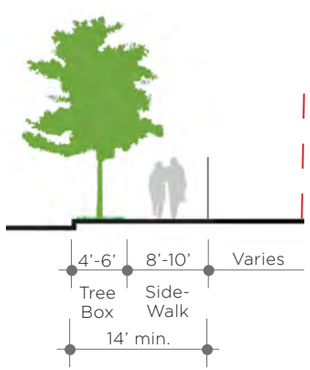
PROPOSED CONDITIONS



RECOMMENDATIONS:
- Utilize the area from back of curb to ROW in the new streetscape design
- Maximize sidewalk width (8'-10' clear area in mixed-use and commercial development areas)

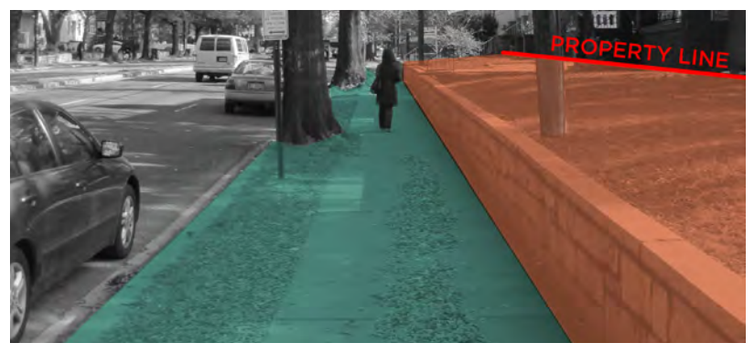
CONDITION 2 |
FENCES AT EDGE OF WALK

CURRENT SIDEWALK WIDTH | PUBLIC R.O.W.

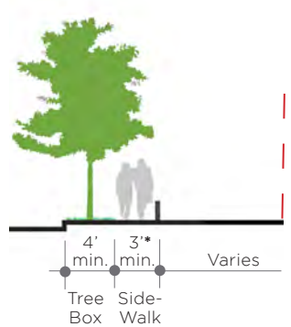


RECOMMENDATION:
- Remove or relocate fences along the edge of sidewalk, then follow recommendations for Condition 1

CONDITION 3 |
WALLS AT EDGE OF WALK



CURRENT SIDEWALK WIDTH | PUBLIC R.O.W.



* 3' is minimum sidewalk width. 6-10' is ideal in residential areas.

RECOMMENDATIONS:
- Retain existing walls in residential blocks
- Consider full or partial removal of walls along edge of sidewalk in mixed-use and commercial development areas

CURB CUTS

The prevalence of curb cuts within the Rhode Island Avenue, NE project area (approximately 125) increases pedestrian and vehicle conflicts. The curb cuts inhibit the smooth and continuous flow of pedestrian traffic, as well as constrain the location of street trees, tree boxes, and other streetscape features. Curb cuts also increase vehicular conflicts. After an examination of the use, placement, and size of these curb cuts, the design team concluded that four typical conditions could be identified, each with a recommendation for treatment.

CONDITION 1: CURB-CUTS ALLOWING VEHICULAR PARKING ON THE SIDEWALK/IN THE PUBLIC ROW

In Condition 1, the existing curb cuts have allowed patrons to park their vehicles in front of a building, but within the sidewalk right-of-way. In this case, the curb cuts allow illegal parking and increase the chance for pedestrian injury. The recommendation is to completely remove these curb-cuts.

CONDITION 2: CURB-CUTS LEADING INTO SIDEWALKS WHERE NO VEHICULAR PARKING EXISTS

Similar to Condition 1, these curbs-cuts may have been created when parking was available beyond the sidewalk, however, today they lead directly into the sidewalk right-of-way with where no parking exists beyond. These curb-cuts are unused and no longer needed. The recommendation is to completely remove these curb-cuts.

CONDITION 1 |
CURB CUTS ALLOWING
AUTOMOBILE PARKING ON SIDEWALK

CONDITION 2 |
CURBS CUTS LEADING INTO
SIDEWALK WHERE NO PARKING EXISTS

RECOMMENDATION:

- Completely remove curb cuts that do not lead to legal parking spaces

CONDITION 3 |
MULTIPLE CURB CUTS
LEADING INTO A SINGLE PROPERTY

RECOMMENDATION:
- Study the possibility of closing unnecessary curb cuts

CONDITION 4 |
CURB CUTS ARE NOT
IN COMPLIANCE WITH DDOT MAXIMUM OF 24'

RECOMMENDATION:
- Bring curb cut widths into compliance with DDOT standards (24' max.)

CONDITION 3: MULTIPLE CURB-CUTS LEADING INTO A SINGLE PROPERTY

Where multiple curb-cuts lead into a single property, the result is often that one or more go unused (and, in fact, the total vehicular parking capacity is decreased). They also allow rapid and unsafe movement of automobiles from Rhode Island Avenue, NE to secondary streets, as cars can use the curb-cuts to cut through. This both places pedestrians in harm's way and increases the potential for conflicts between vehicles. The recommendation is to close or remove unnecessary curb-cuts. A careful study of these situations on a case-by-case basis is advised.

CONDITION 4: CURB-CUTS NOT IN COMPLIANCE WITH DDOT STANDARDS

The maximum two-way curb-cut allowed by DDOT Standards is 24' wide, unless broken by a 6' pedestrian median. The design team found fifteen circumstances where curb-cuts were larger than the maximum allowance. The recommendation is to reduce these curb-cuts to 24'.

The streetscape plan (page 40-47) reflects the proposed recommendations. All existing curb-cuts will meet DDOT standards for curb radii, curb slope, and width. The elevation of the sidewalk when it crosses the curb-cut driveway must be flush to indicate that priority is given to the pedestrian.

TREES & TREE BOXES

The large Willow Oaks that currently flank Rhode Island Avenue, NE on their march towards the center of the city are a key component of the corridor's aesthetic quality. Unfortunately, many of the trees have suffered from poor planting conditions or from severe pruning, which diminishes the "grand allee" impact.

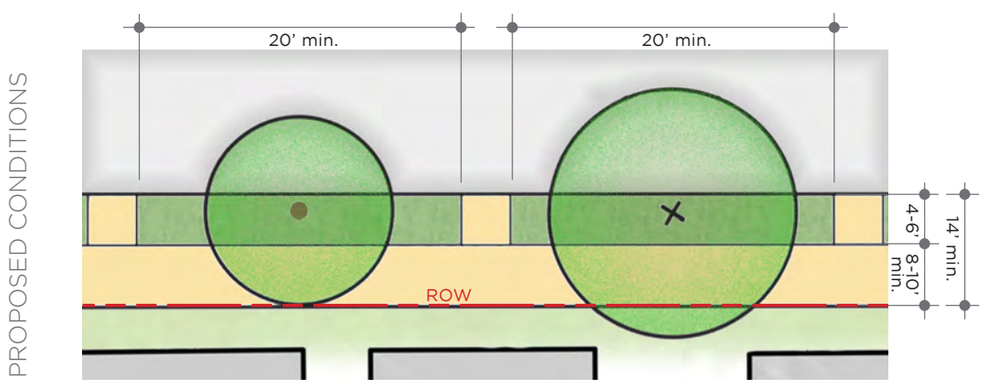
In the streetscape plan, the first response was to retain trees and improve adjacent conditions for as many existing trees as possible. After more analysis, it became clear that there were few opportunities to improve adjacent conditions. To ensure a lush, green canopy, some trees will need to be removed, though others will be planted to result in an overall gain in street trees.

The graphics on this spread show existing tree conditions and corresponding treatment recommendations.

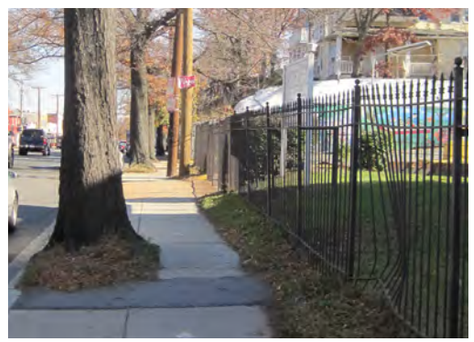
CONDITION 1 |
TREE BOXES WITH NO BARRIERS AT EDGE OF WALK

RECOMMENDATIONS:
- Remove or relocate fences as needed
- Lengthen tree box to 20' min.
- Widen tree box to 4-6'*
- Widen walk to 8-10' min.*

*Minimum combined width of tree box and sidewalk is 14'

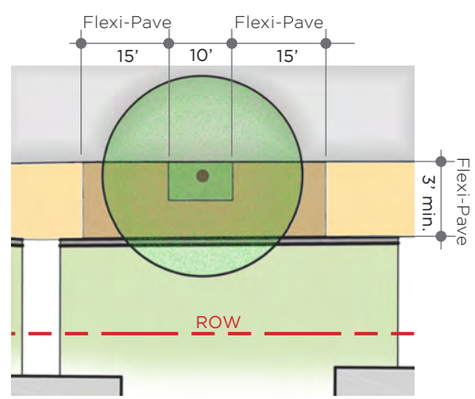


CONDITION 2 |
TREE BOXES WITH FENCES AT EDGE OF WALK



CONDITION 3 |
TREE BOXES WITH WALLS AT EDGE OF WALK

RECOMMENDATIONS:
- Lengthen tree box to 10' and extend with Flexi-Pave 15' on both sides
- Repave sidewalk with Flexi-Pave
- Widen tree box and walk only if clear walk can remain 3' wide min.



CONDITION 4 |
TREES AND CONFLICTS WITH POWER LINES

SEVERELY-PRUNED TREES UNDER POWER LINES

MODERATELY-PRUNED TREES NEXT TO POWER LINES

NO TREES UNDER POWER LINES

RECOMMENDATIONS:

- Consider natural form when selecting new trees (e.g., vase-shaped may be more appropriate than a tree with a strong central leader)
- Plant only medium size trees under power lines and consider smaller forms of traditional large trees
- Choose medium size trees with spreading form to provide shade and aesthetic value while having fewer conflicts with power lines
- Implement early structural pruning of medium size trees close to power lines to help avoid conflicts while maintaining tree health and appearance

STREET TREE SPECIES:

LARGE (40' HEIGHT)

Ginkgo biloba - Ginkgo
Gymnocladus dioicus - Kentucky coffee tree
Liquidanbar styraciflua - Sweetgum
Metasequoia glyptostroboides - Dawn redwood
Quercus nuttalli - Nutall oak
Quercus phellos- Willow oak
Taxodium distichum - Bald cyprus
Tilia cordata - Linden
Ulmus americana 'New Harmony' - American elm

MEDIUM (20' - 40' HEIGHT)

Cercis canadensis - Redbud
Ginkgo biloba 'Autumn Gold' - Autumn gold ginkgo
Gleditsia triacanthos 'Shademaster' - Honey locust
Koelreuteria paniculata - Golden rain tree
Magnolia virginiana - Sweetbay magnolia
Syringa reticulata - Japanese tree lilac
Nyssa sylvatica 'Wildfire' - Black gum
Zelkova serrata 'Green Vase' - Zelkova

PROPOSED CONDITIONS

MEDIUM-SIZED TREES UNDER POWER LINES
SHRUBS & PERENNIALS IN MEDIUM

LARGE TREES OPPOSITE POWER LINES
SHRUBS & PERENNIALS IN MEDIUM

LARGE TREES WHERE NO POWER LINES ARE PRESENT
SHRUBS & PERENNIALS IN MEDIUM

PAVING MATERIALS

CONCRETE*

- The primary paving material for Rhode Island Avenue, NE will be poured in place concrete. The color of the concrete should be tinted a warm Blonde Tan color (top)
- In focal areas (Metro, Village, and Gateway) small aggregate can be added to the concrete (bottom)

FLEXI-PAVE

- Flexi-Pave will be used in “pinch point” areas where the walk is squeezed between existing mature trees and a wall (top)
- Recommended color is Earl Grey (bottom)

COBBLESTONE PAVING

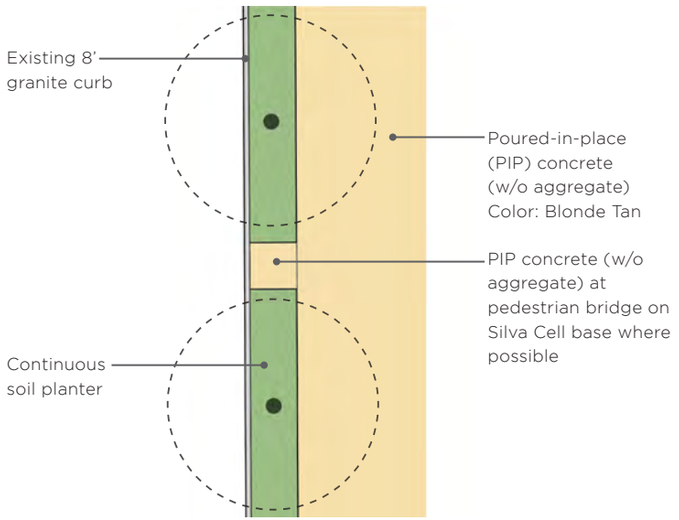
- At continuous-soil planters, cobblestone paving should be used as the edging material. This treatment is not only for aesthetics, as it also can discourage pedestrians from walking in planters.
- Cobblestone paving can be tumbled (top) or smooth cut (bottom)

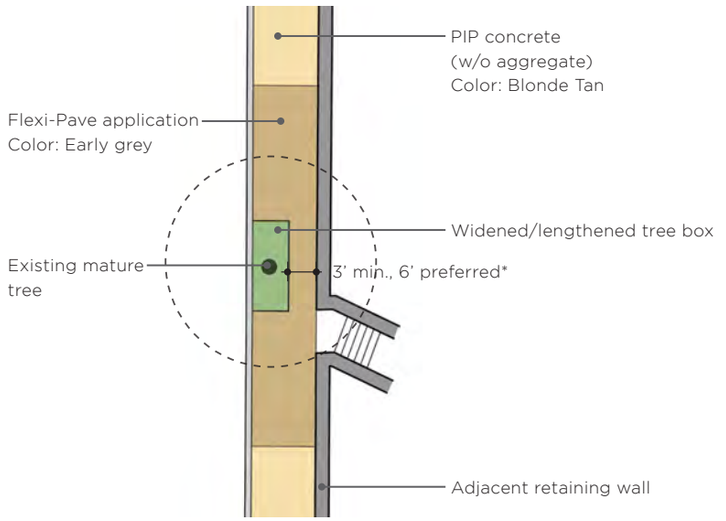
GRANITE PAVER

- A granite accent paver is recommended for use as the “step-out” material between LID stormwater planters and the back edge of the curb
- The granite paver should also be used as a border for the planter

*These recommendations are in keeping with Great Streets Design Guidelines/commercial streetscape standards

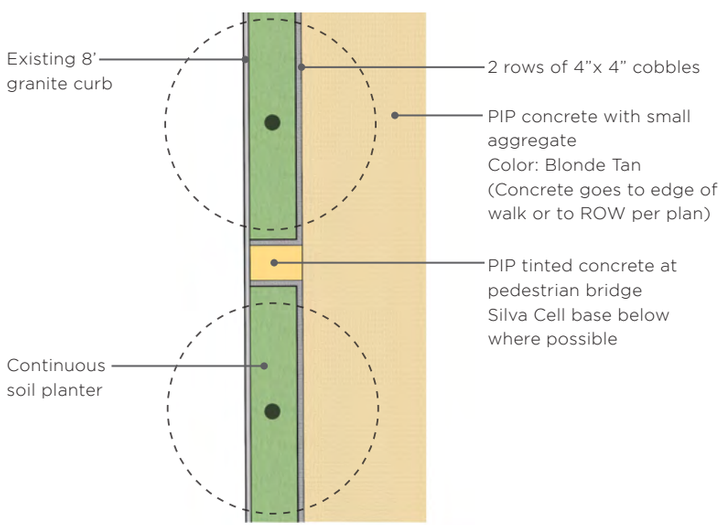
PAVING STANDARDS OF NON-FOCAL AREAS



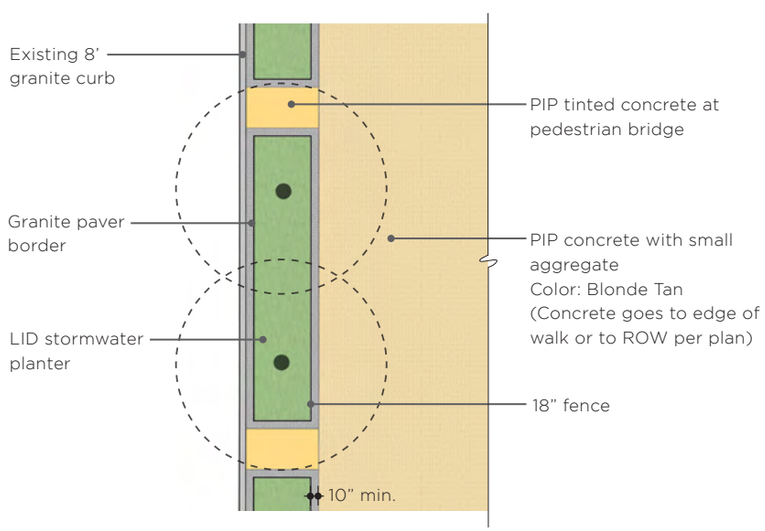


*Notching of walls should be considered if necessary to create min. sidewalk width

PAVING STANDARD OF METRO & GATEWAY AREAS



PAVING STANDARDS OF VILLAGE AREA



There are five typical paving conditions that have been designed for Rhode Island Avenue, NE. The two paving plan details on the left are typical paving conditions in the non-focal areas, and are comprised of standard DDOT materials. Tinted poured-in-place concrete is shown for typical sidewalk use throughout, while a Flexi-Pave application is suggested for use around existing mature trees as necessary.

The paving patterns featured below are typical paving conditions used in the Metro, Gateway, and Village. The Metro and Gateway incorporate a tinted poured-in place-concrete with small aggregate and cobble paver bands around the perimeter of continuous soil planters. In the Village, poured-in-place concrete with small aggregate is also used, but with a granite paver accent to surround the LID planters.