

# Southwest Ecodistrict Initiative Public Scoping Meeting #4

## Development Scenarios

National Capital Planning Commission  
District Office of Planning  
Washington, DC

July 26, 2011

**Meeting Purpose:**

*To share and obtain public input on the land use, urban design, and sustainability framework for a range of revitalization scenarios, including the future character and experience along 10<sup>th</sup> Street, SW and the Overlook at Banneker Park.*

**Agenda**

**Welcome and Project Introduction** 6:45 p.m.

*Elizabeth Miller, NCPC*

**Presentation** 7:00 p.m.

*Otto Condon, ZGF Architects*

**Questions, Comments, Discussion** 7:30 p.m.

**Adjourn** 8:30 p.m.

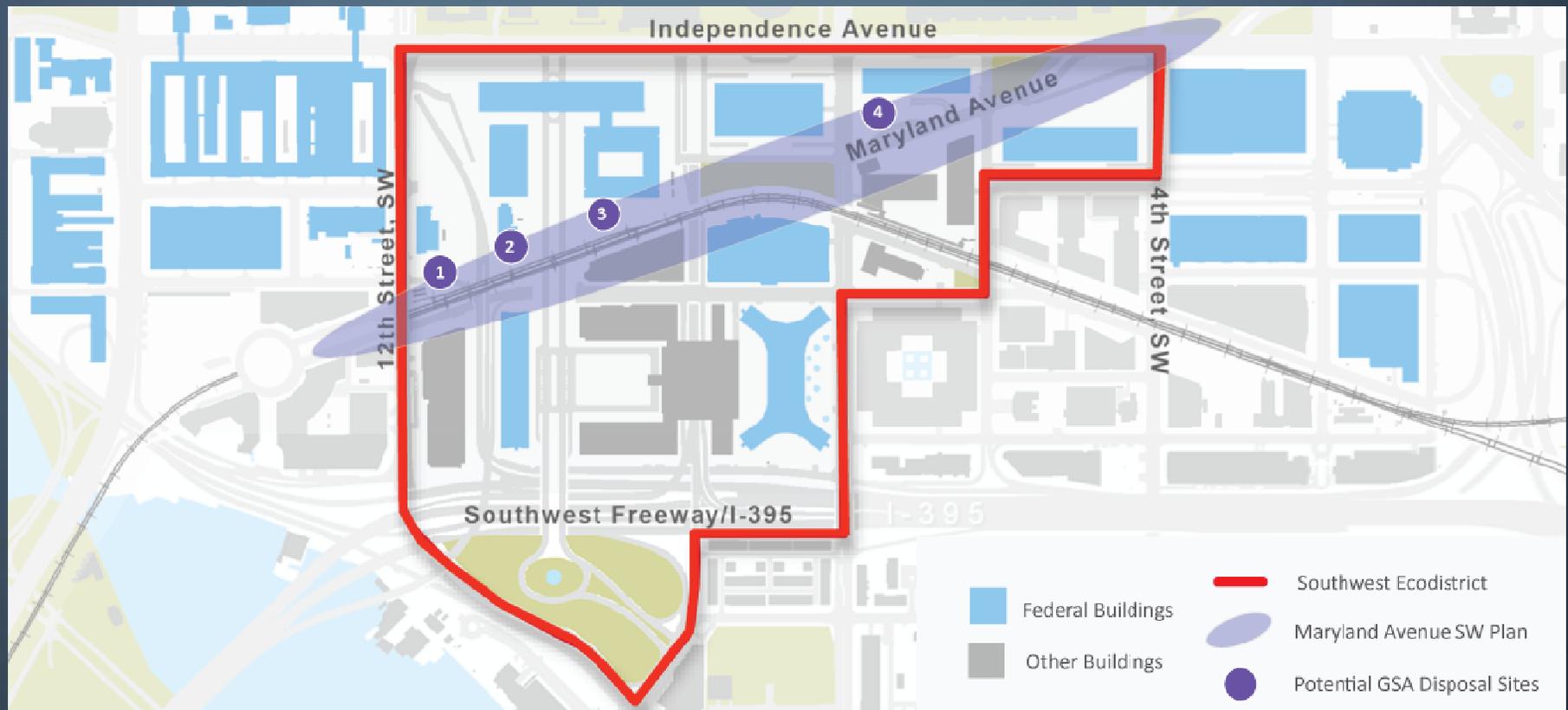
## One plan: 2 components

### SW Ecodistrict

Sustainability and  
Urban Design Recommendations

### Maryland Avenue, SW Plan

Maryland Avenue Decking and  
Infill Development Recommendations



## SW Ecodistrict Mission Statement:

Establish an Ecodistrict that transforms the 10th Street and Maryland Avenue corridors into vibrant well-connected places to commemorate, visit, work, and live in a manner that creates a national showcase of sustainability through innovation, technology, and design.

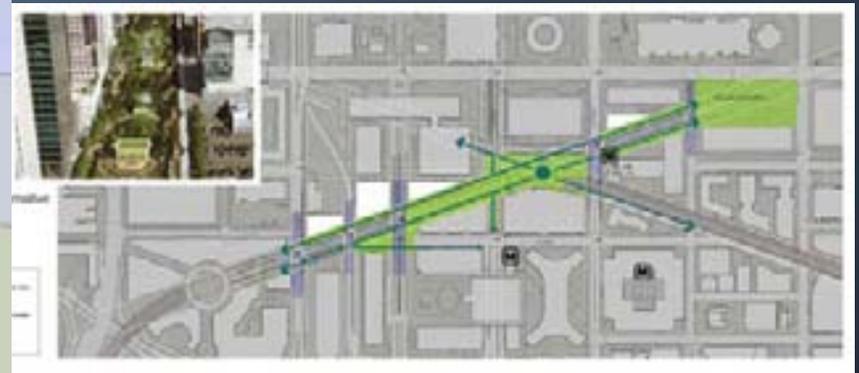
## Goals:

- Create a Livable Community, Workplace, and National Cultural Destination
- Create a National Showcase of Sustainability
- Ensure Mobility To, From, and Within the Area for all Modes of Travel
- Create a Healthy Urban Ecosystem



## Maryland Avenue SW Plan

1. Identify the best land-use mix.
2. Identify reconstruction alternatives for the Avenue.
3. Create an overall sustainability framework.
4. Create urban design and public realm guidelines.
5. Identifies approaches that connect the Avenue to transit.





## Who uses the study area today?

### Office

60,000 office workers



### Residential

0 housing units

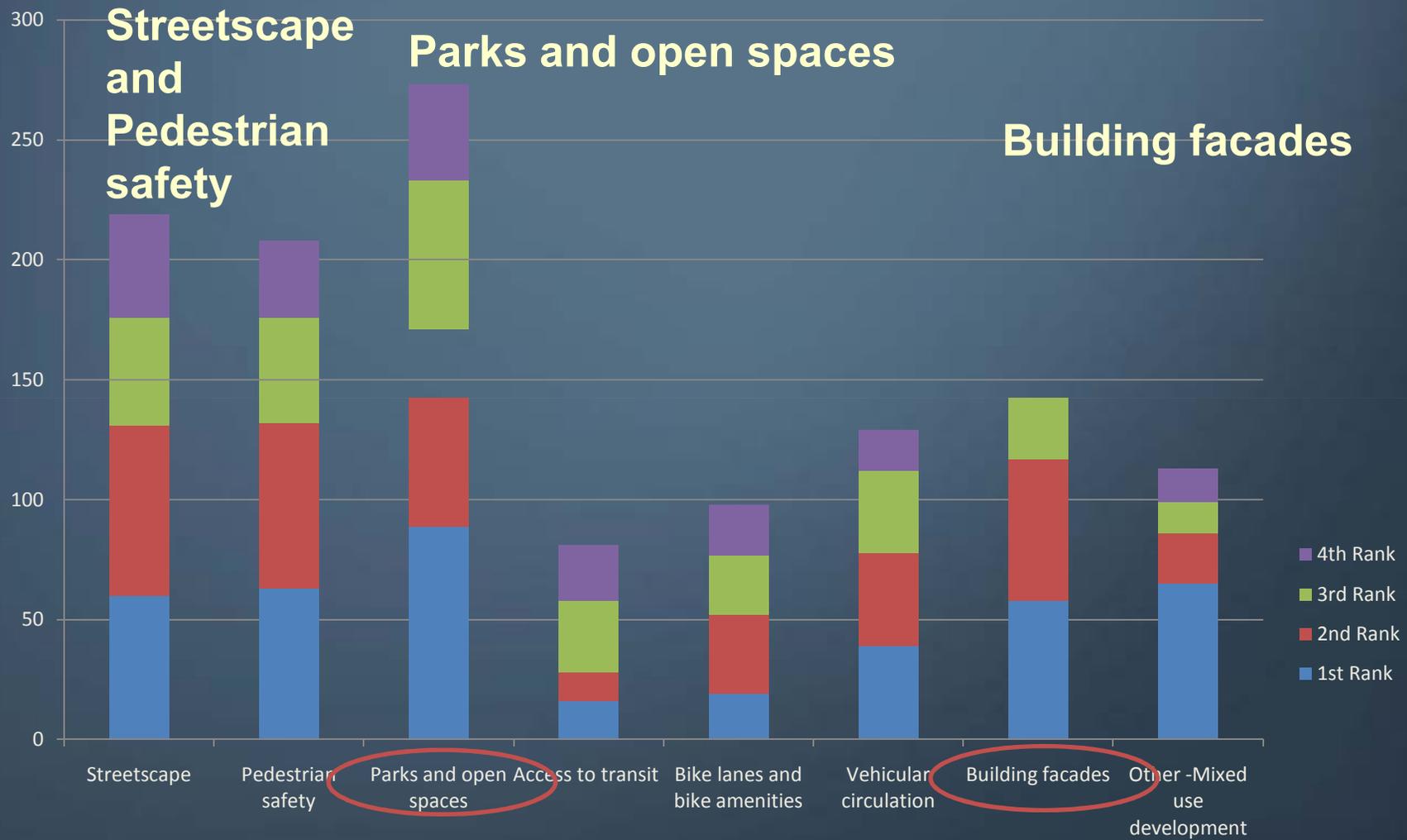
6,000 housing units in broader Southwest



### Tourism

22 million visitors to National Mall

# What physical enhancements are most needed here?



### What USES are missing in the study area?

- Personal services (e.g. dry cleaner, bank, medical, drug store)



- Entertainment and cultural (e.g. museums, monuments, theater, public art)



- Grocery



- Restaurant and cafe



- Park and open space



- Residential



- Hotel



- Retail shop (e.g. bookstore)



### What PUBLIC REALM improvements are most needed?

- Streetscape (e.g., sidewalks, benches, street trees, wayfinding, public art)



- Pedestrian safety (e.g., lighting, clearly defined street intersections, walk signal timing, painted crossings)



- Passive parks and open spaces (e.g., benches, shade trees, landscaping, public art)



- Access to transit (e.g., transfers, signage, bus stops/shelters, entrances)



- Bike lanes and bike amenities (bike racks, Capital Bikeshare)



- Vehicular circulation (e.g., parking, travel lanes, highway access)



- Building facades (e.g., signage, entrances, storefronts)



**Improve the streetscape;  
add more green and shade**

**Increase mix of uses, such as residences,  
retail and visitor and education centers, etc.**

**Open up visual connection to the  
Smithsonian Castle**

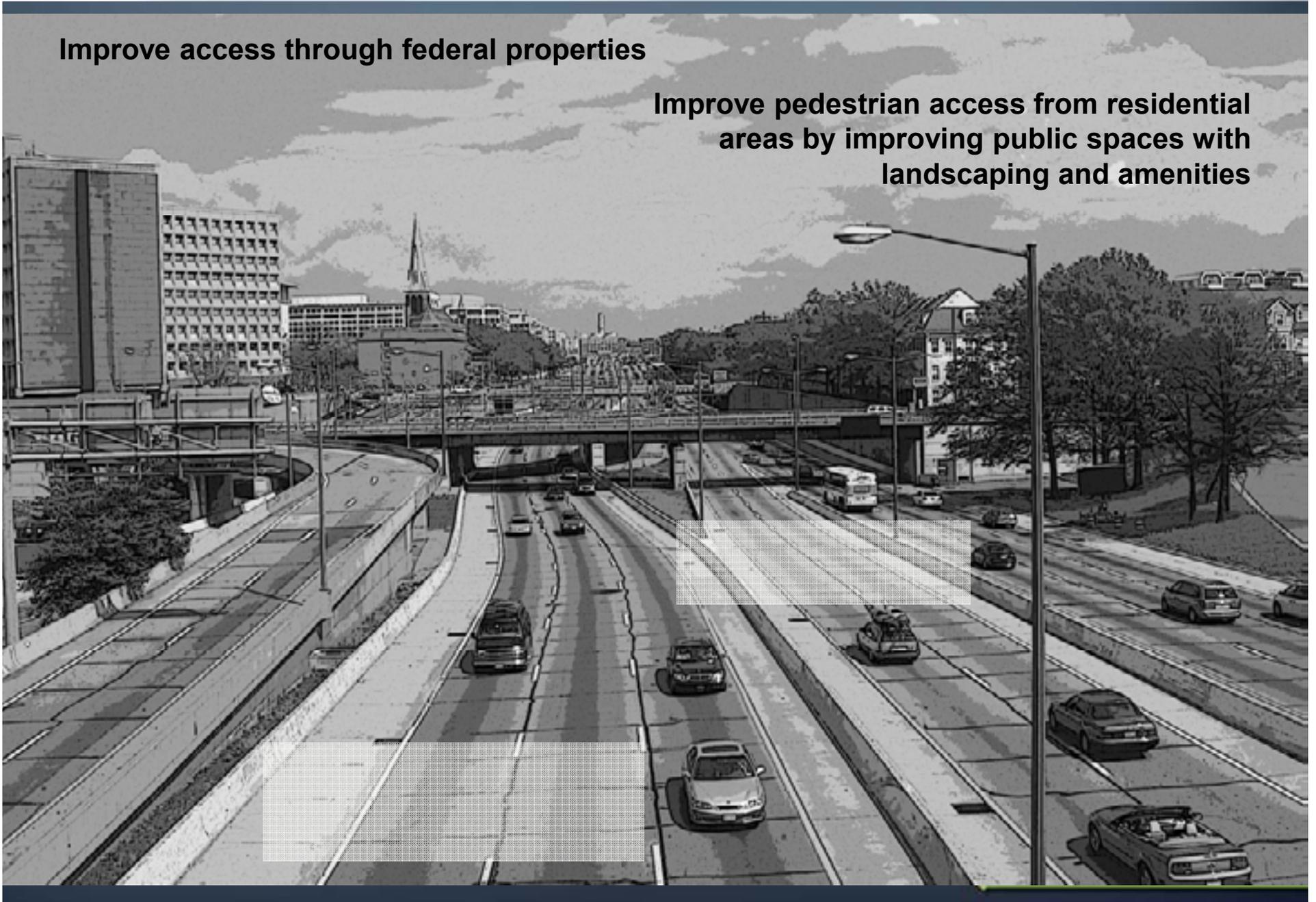
**Improve pedestrian experience with amenities**

**Provide more amenities that that will  
draw nearby residents and visitors from  
the Mall, such as events, cultural walks,  
restaurants and other services**

**Prioritize spaces for  
pedestrians and bicyclists  
while accommodating the car**

**Improve access through federal properties**

**Improve pedestrian access from residential areas by improving public spaces with landscaping and amenities**



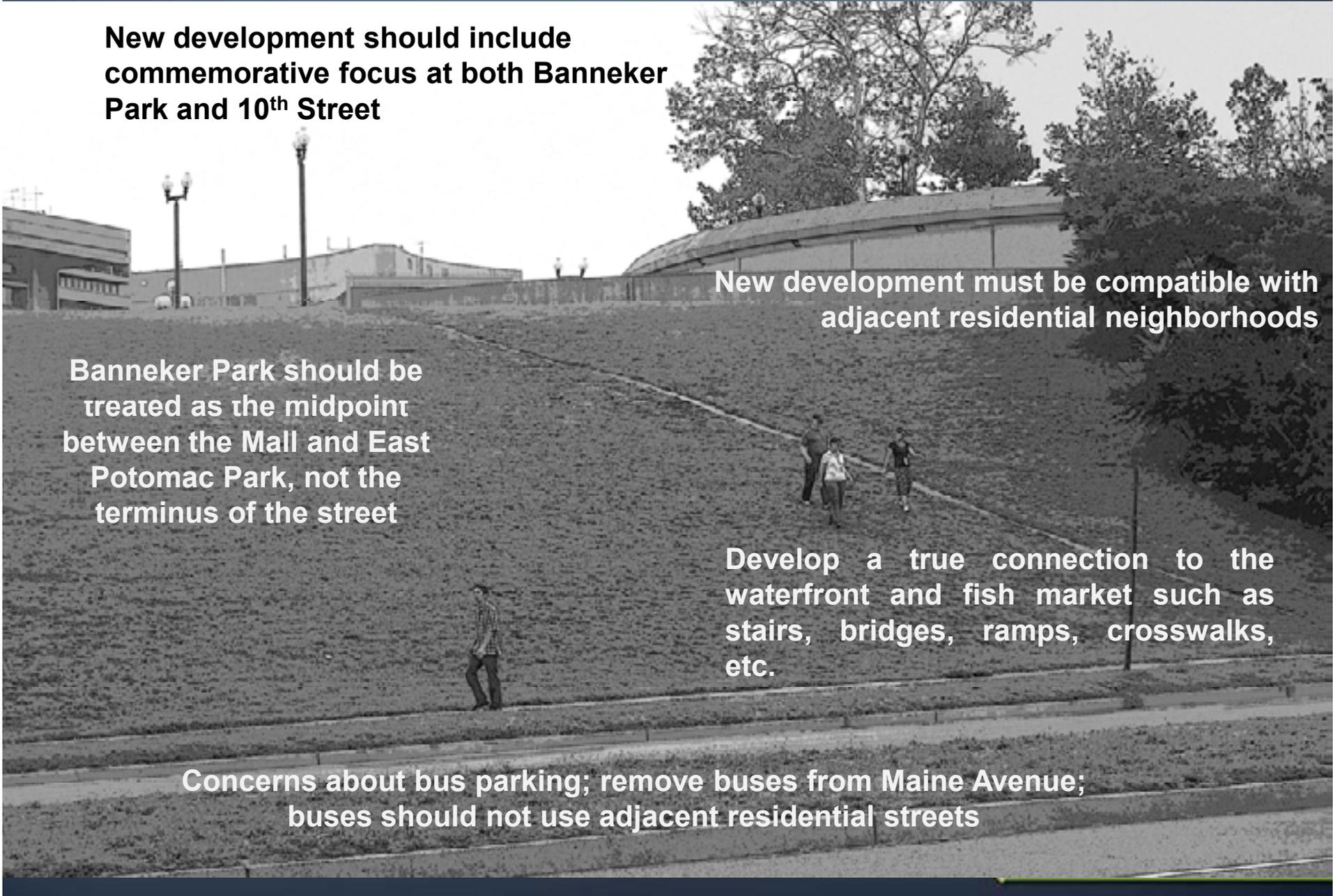
**New development should include commemorative focus at both Banneker Park and 10<sup>th</sup> Street**

**New development must be compatible with adjacent residential neighborhoods**

**Banneker Park should be treated as the midpoint between the Mall and East Potomac Park, not the terminus of the street**

**Develop a true connection to the waterfront and fish market such as stairs, bridges, ramps, crosswalks, etc.**

**Concerns about bus parking; remove buses from Maine Avenue; buses should not use adjacent residential streets**



**Use solar-powered  
street lights to  
minimize energy use**

**Make all sustainability  
improvements very  
visible so people know  
this is an EcoDistrict**

**Capture rain water in  
fountain reservoirs for  
watering trees/greenery**

**More trees and landscaping are needed to  
reduce the urban heat island effect**

**Grow "green walls" along  
the unsightly concrete  
buildings and put gardens  
on the roofs**

**Create areas within streets,  
sidewalks and parks to capture  
and treat stormwater runoff**

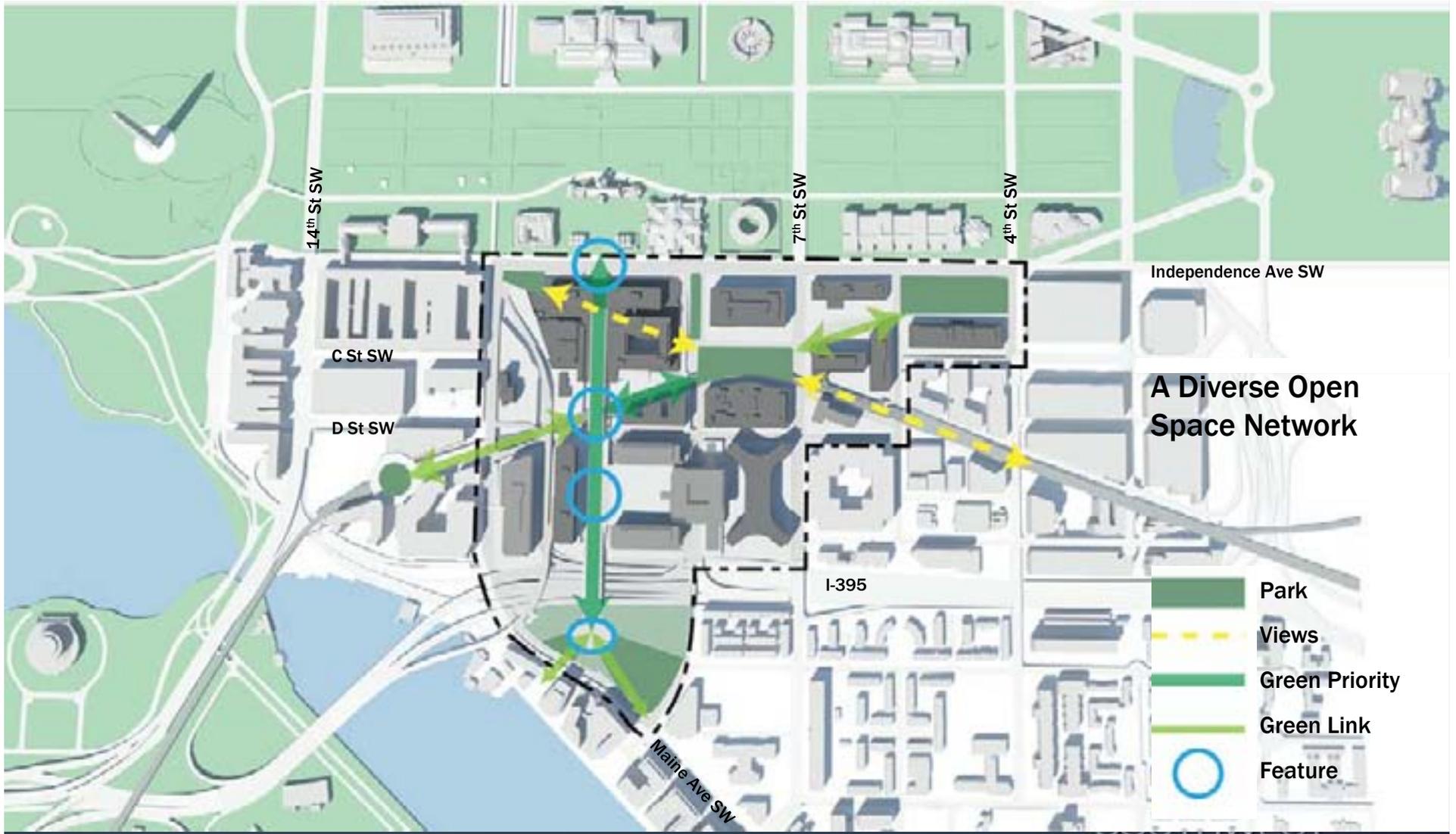


## The Framework for Revitalizing the Precinct into a Sustainable Community

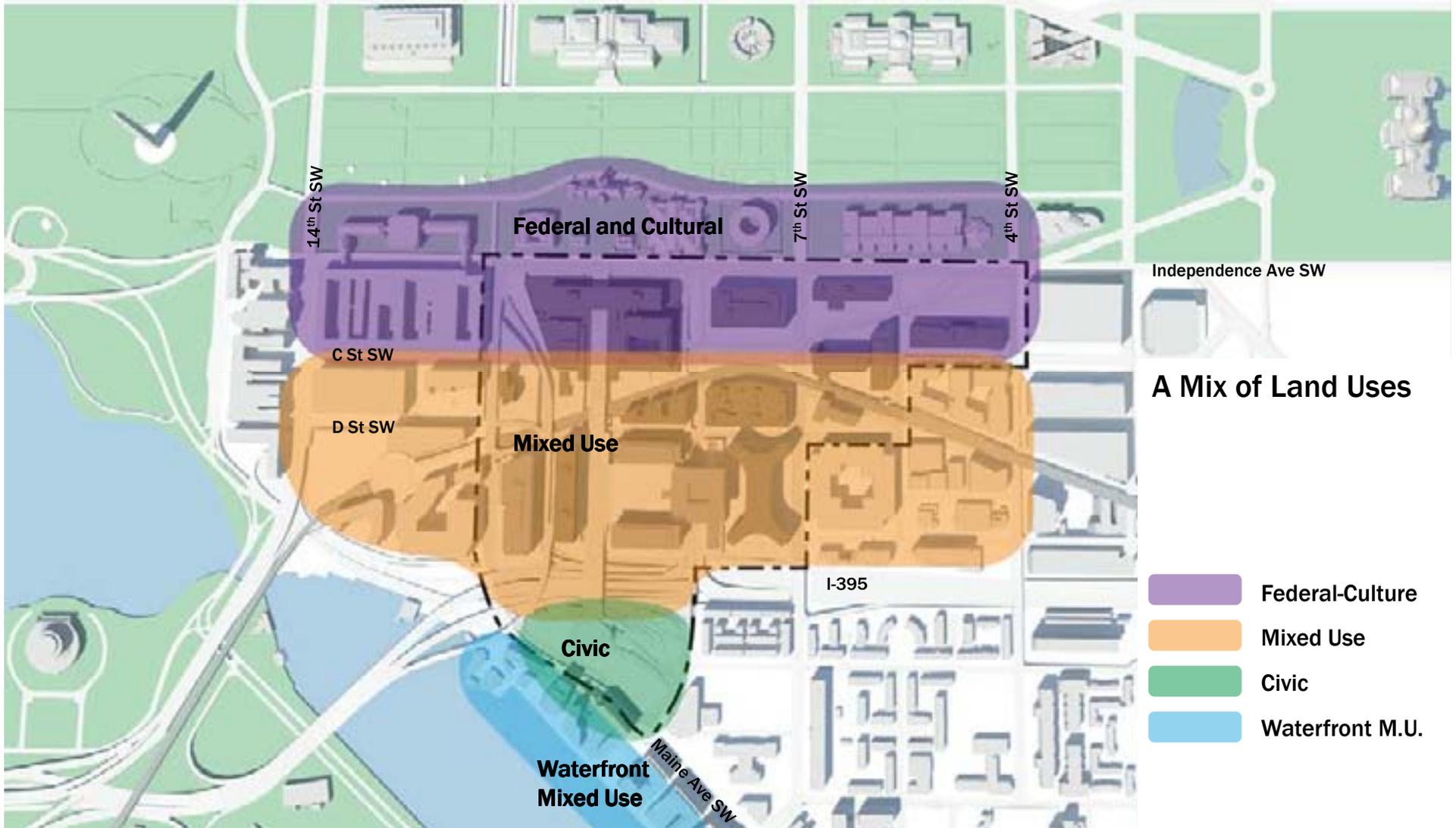
**Review Urban Design and Sustainability Framework and Strategies  
and seek public input on**

- Urban Design Framework – Open Space, Land Use and Connectivity
- Energy Reduction and Generation Strategies
- Potable Water Conservation and Reuse
- Stormwater Management

# Open Space



# Land Use



# Cultural

14<sup>th</sup> St SW

7<sup>th</sup> St SW

4<sup>th</sup> St SW

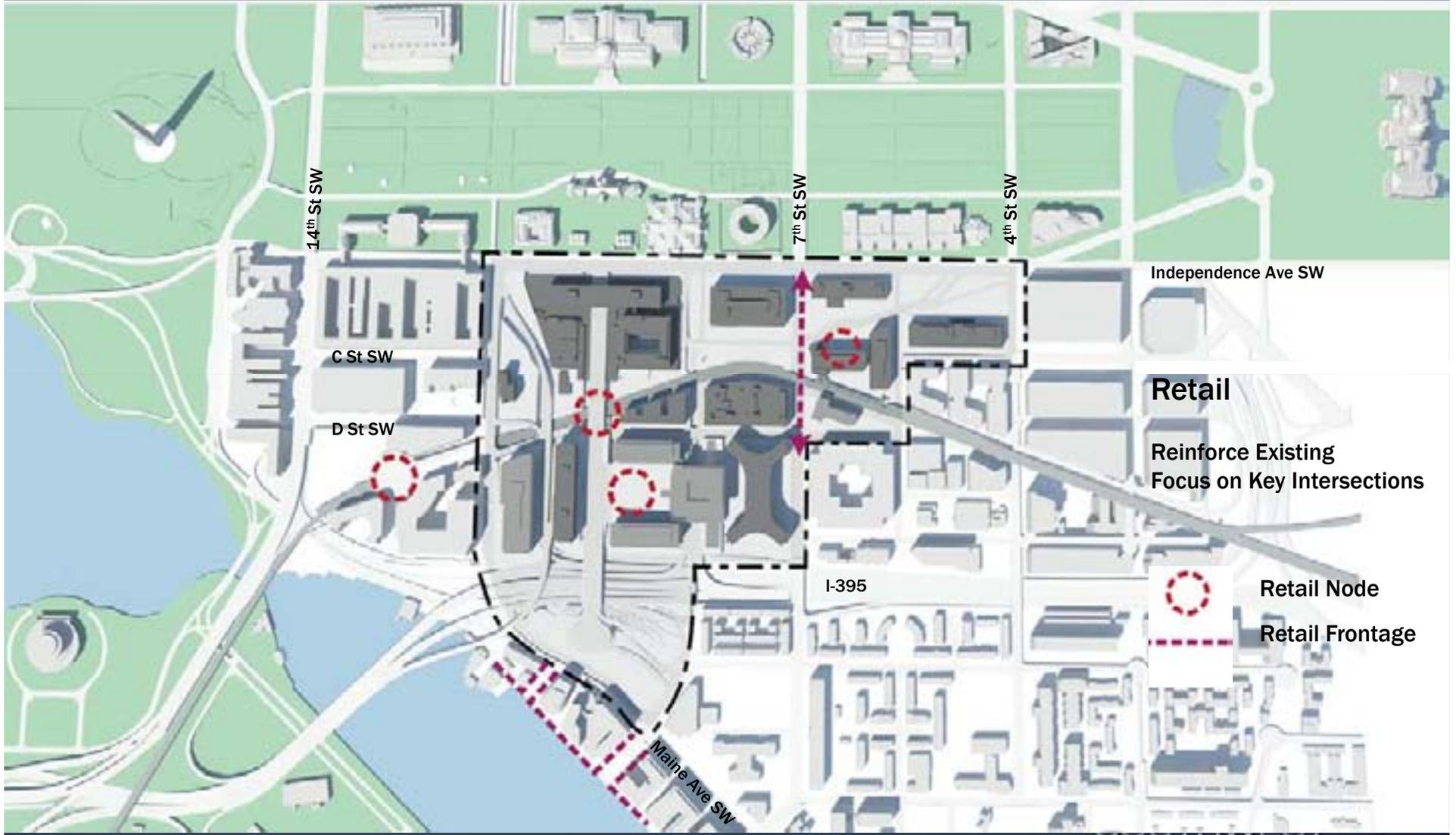
Independence Ave SW

C St SW





# Retail

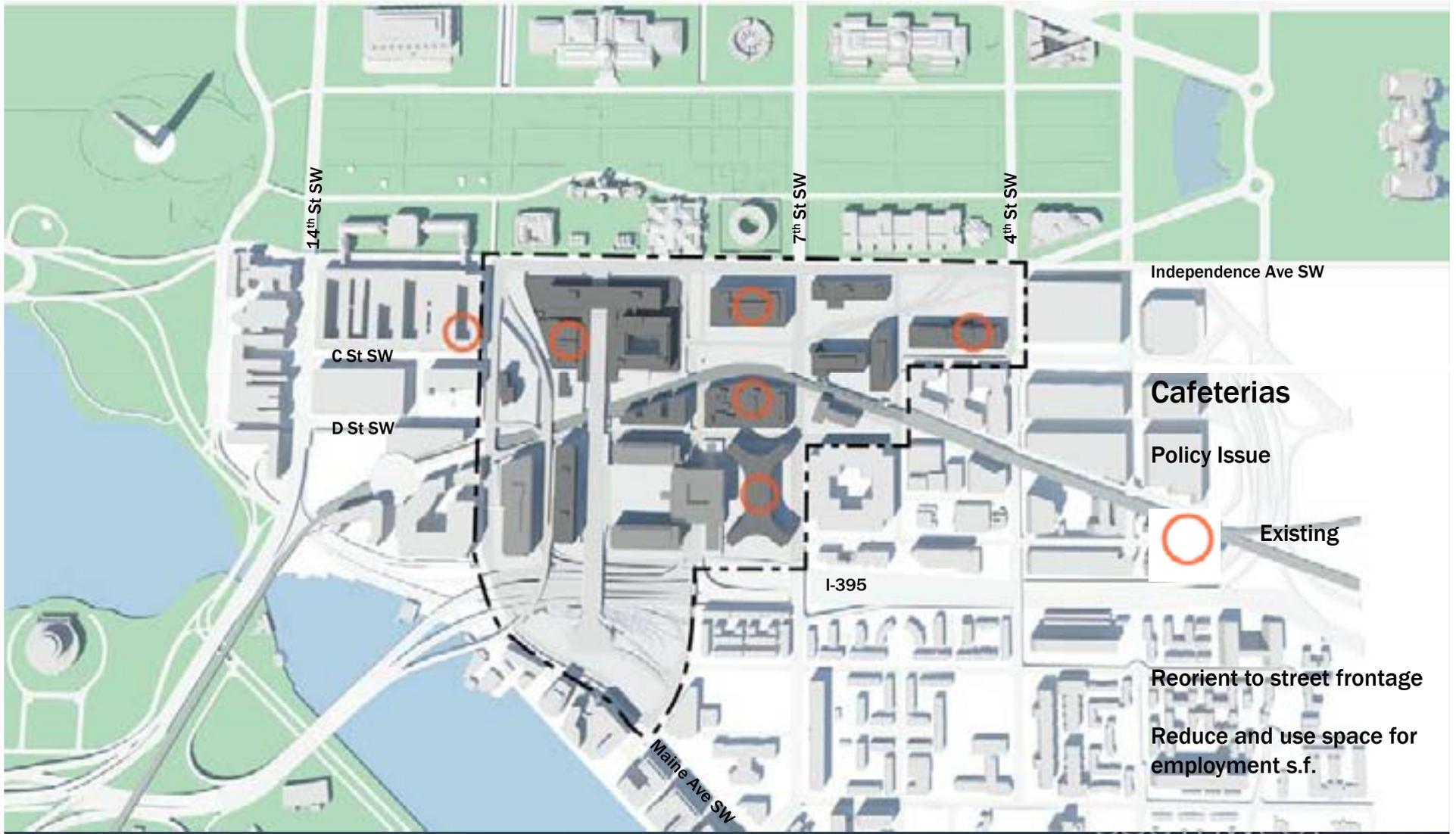


**Retail**

Reinforce Existing  
Focus on Key Intersections

Retail Node  
Retail Frontage

# Cafeterias



# Street Character

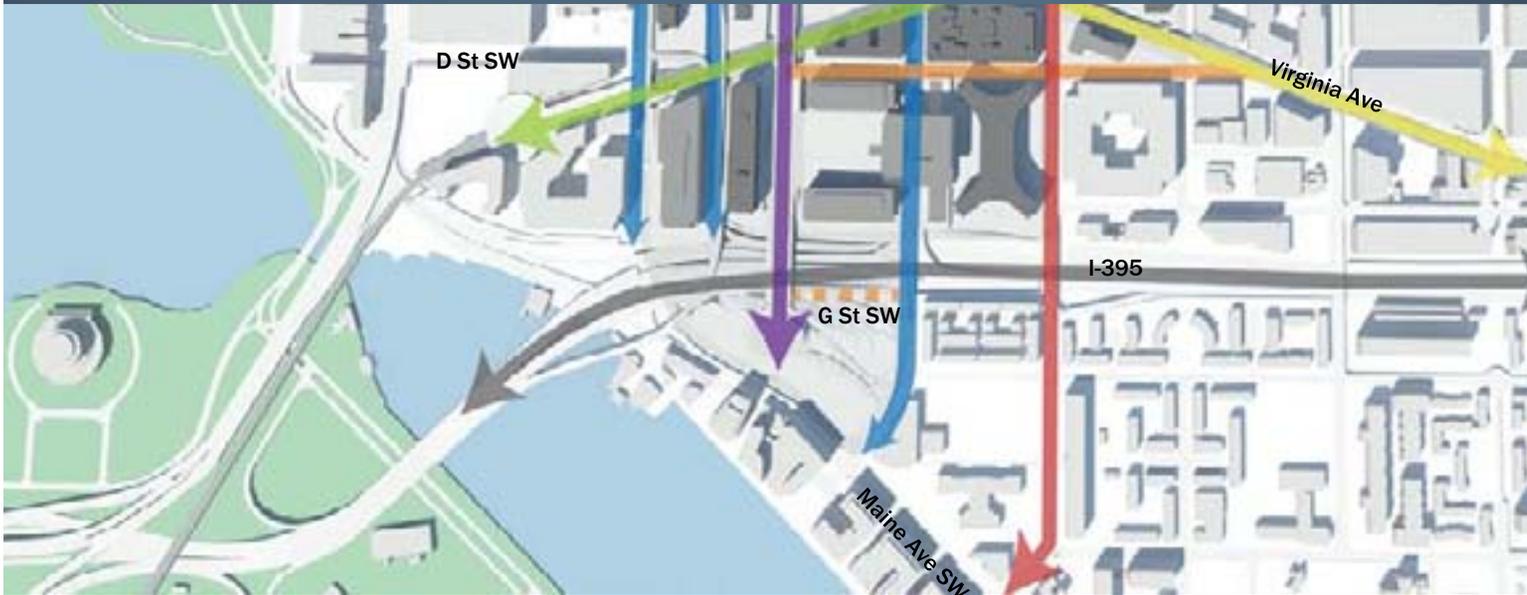
14<sup>th</sup> St SW  
 12<sup>th</sup> St SW  
 10<sup>th</sup> St SW  
 9<sup>th</sup> St SW  
 7<sup>th</sup> St SW  
 6<sup>th</sup> St SW  
 4<sup>th</sup> St SW

Independence Ave SW

C St SW

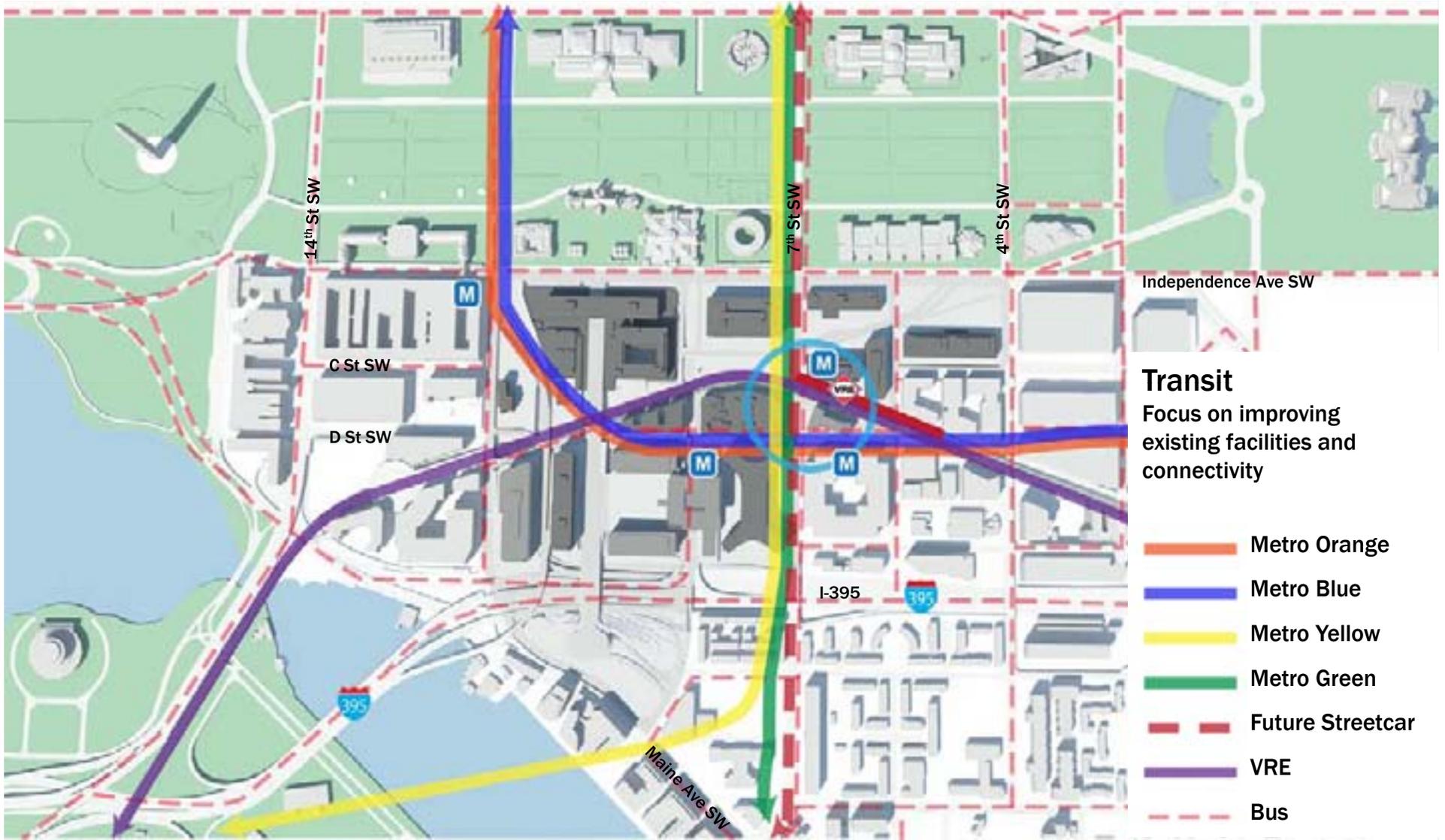
Maryland Ave

## Street Character Define Hierarchy



- Monumental
- Civic
- View
- L'Enfant
- City
- Local
- Freeway
- Fwy Access

# Transit



## Transit

Focus on improving existing facilities and connectivity

- Metro Orange
- Metro Blue
- Metro Yellow
- Metro Green
- Future Streetcar
- VRE
- Bus

## The Sustainability Framework

### Energy



Minimize Energy Use and  
Reduce Carbon Emissions

#### DISTRICT STRATEGIES

- Cogeneration/Microgrids

#### BUILDING STRATEGIES

- Prototype Framework
- On-site Renewables

## Low Carbon / High Efficiency Energy



Wind Turbine

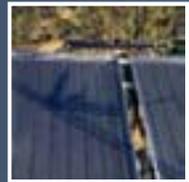


Solar Energy

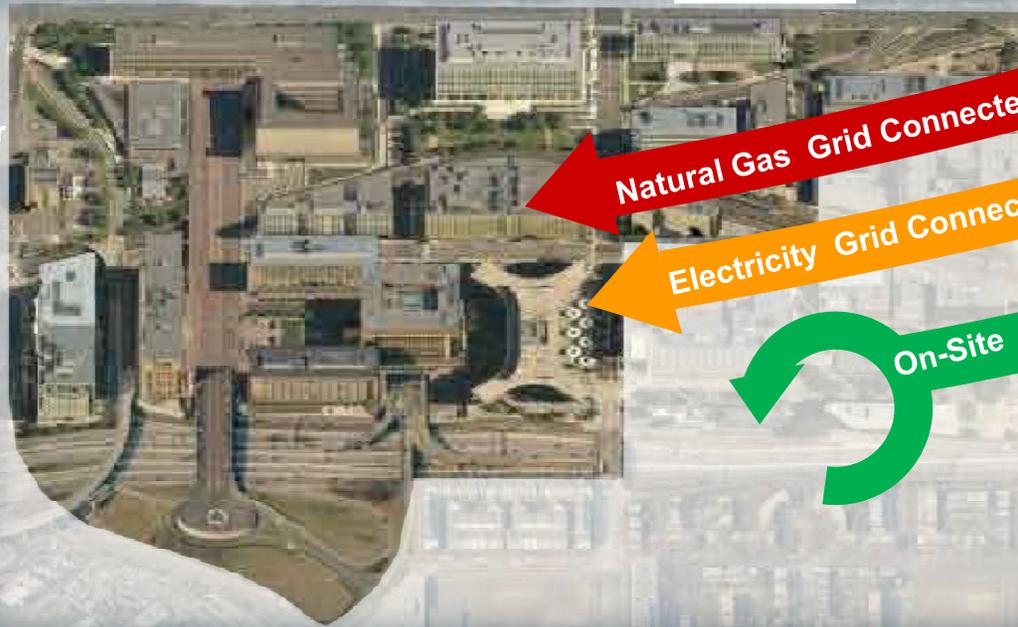
Bio-gas Plant



District Co-generation



Solar Hot Water



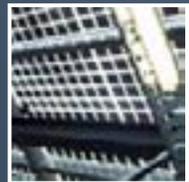
Natural Gas Grid Connected Gas (MBH)

Electricity Grid Connected power (MV)

On-Site Generated power to grid



Wind Energy



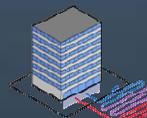
Photovoltaics



Roof Mounted PV



Water Heat Rejection



Ground Source Heat Rejection



District Heat



Central Utility Plant



Renewable Power Purchase Agreement

# Reduce Energy Demand



Appropriate  
Building  
Orientation



Energy  
Star  
Equipment



Natural  
Ventilation



Efficient  
Lighting



Daylight  
Penetration



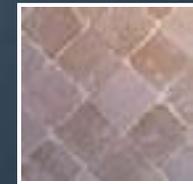
Green  
Roof



Reflective  
Roof



Optimized  
Building  
Shading



Light Colored  
Paving Material



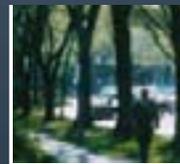
High  
Performance  
Glazing



Underfloor  
Ventilation

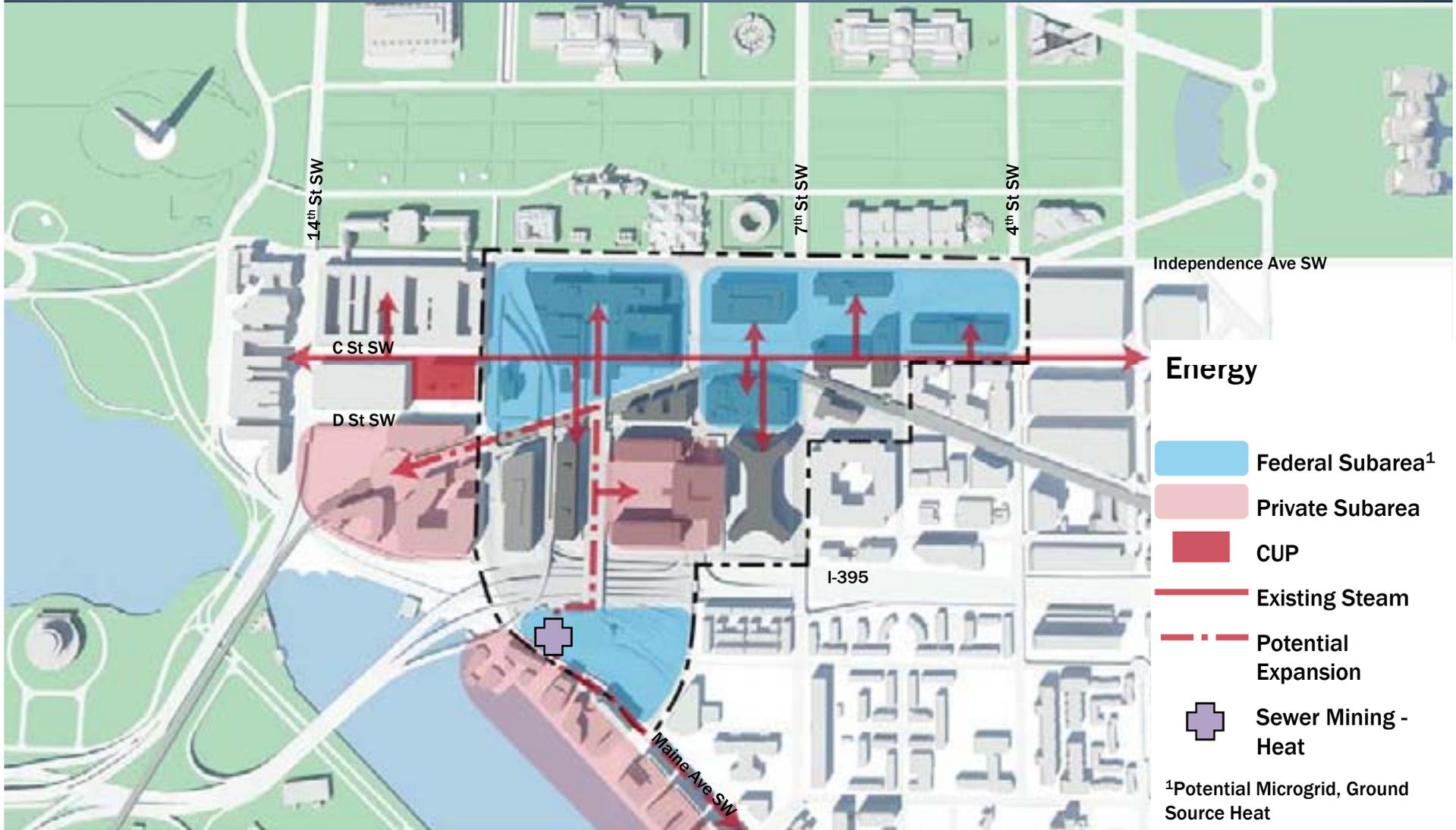


Central Utility Plant

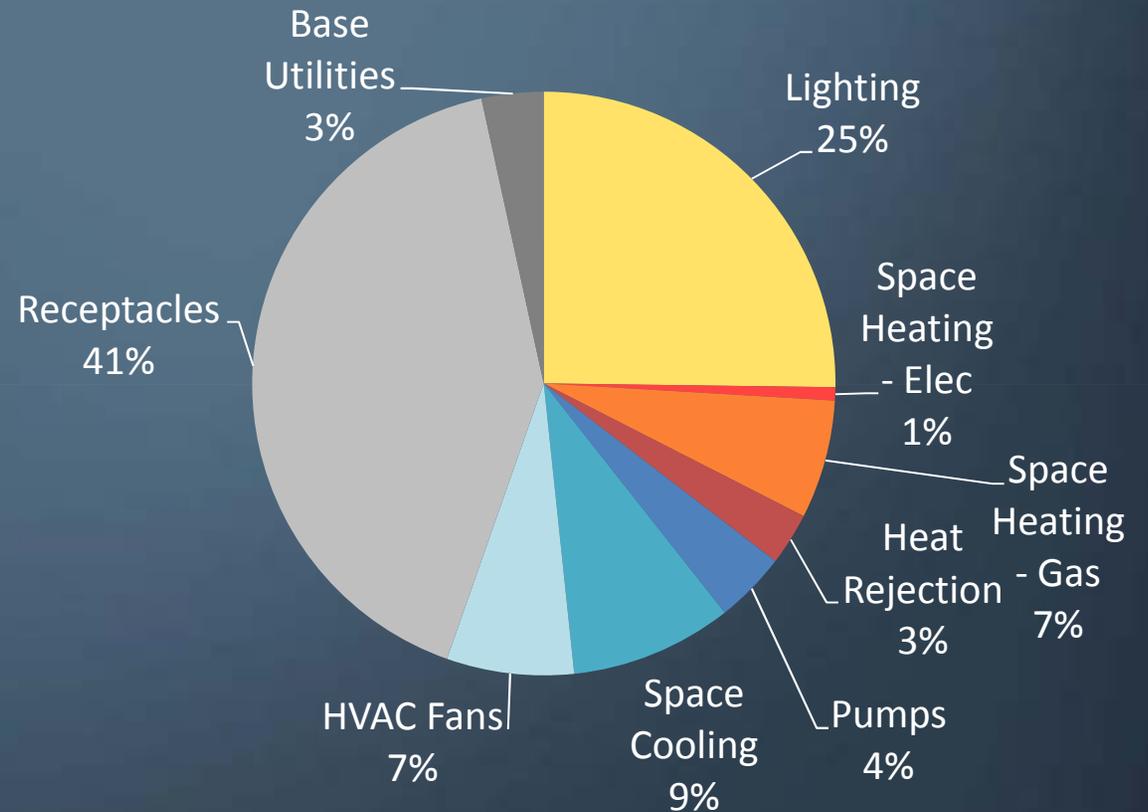
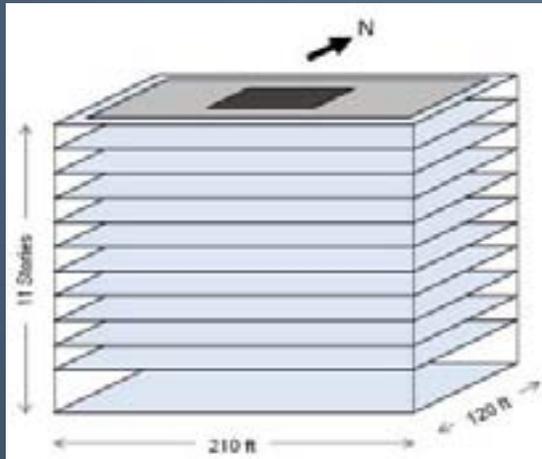


Shaded  
Walkways

# Energy



# Sample of Typical Office Energy Use – Washington DC



## Preliminary Rehab Strategy – FAA Orville Wright

| Building Properties |                           |
|---------------------|---------------------------|
| Occupancy           | 2,586                     |
| Area                | 1,114,224 ft <sup>2</sup> |
| Floors              | 12                        |
| Year Built          | 1963                      |
| Electricity         | 22,208,880 kWh/year       |
| Construction Type   | High Mass, Low insulation |

| Results                      |   |
|------------------------------|---|
| Expected Energy Use          | 15,700,000  |
| % Over Expected              | 29.3%   |
| Main Culprits in Large Loads | Poor glazing, insufficient insulation, old HVAC equipment |
| Recommendations              | Upgrade Façade and replace HVAC equipment                 |

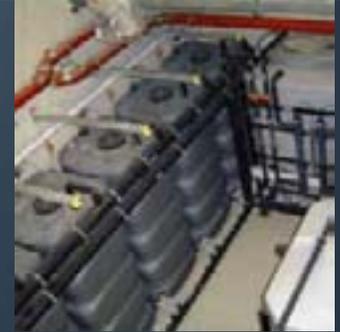
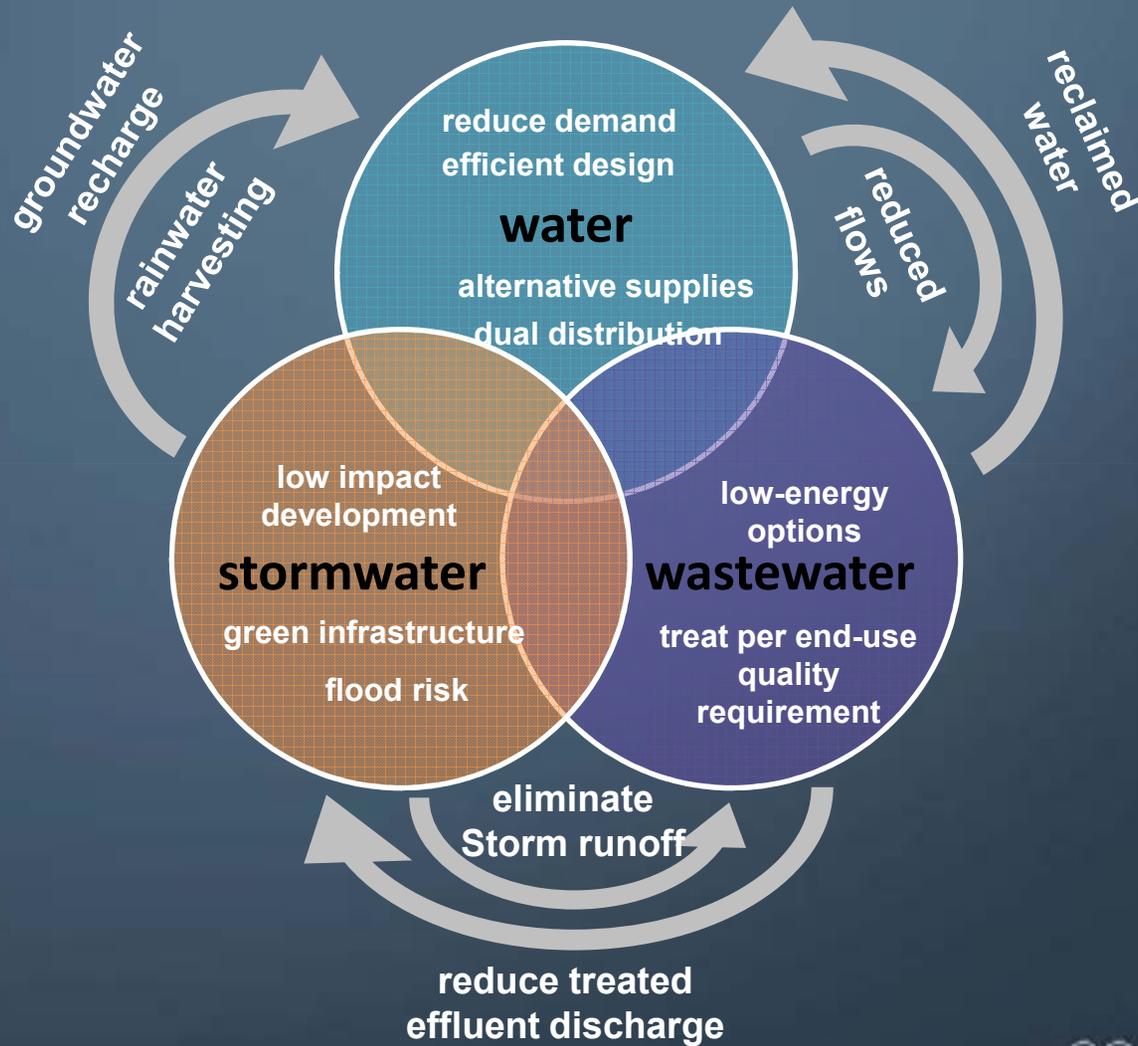


## New Buildings

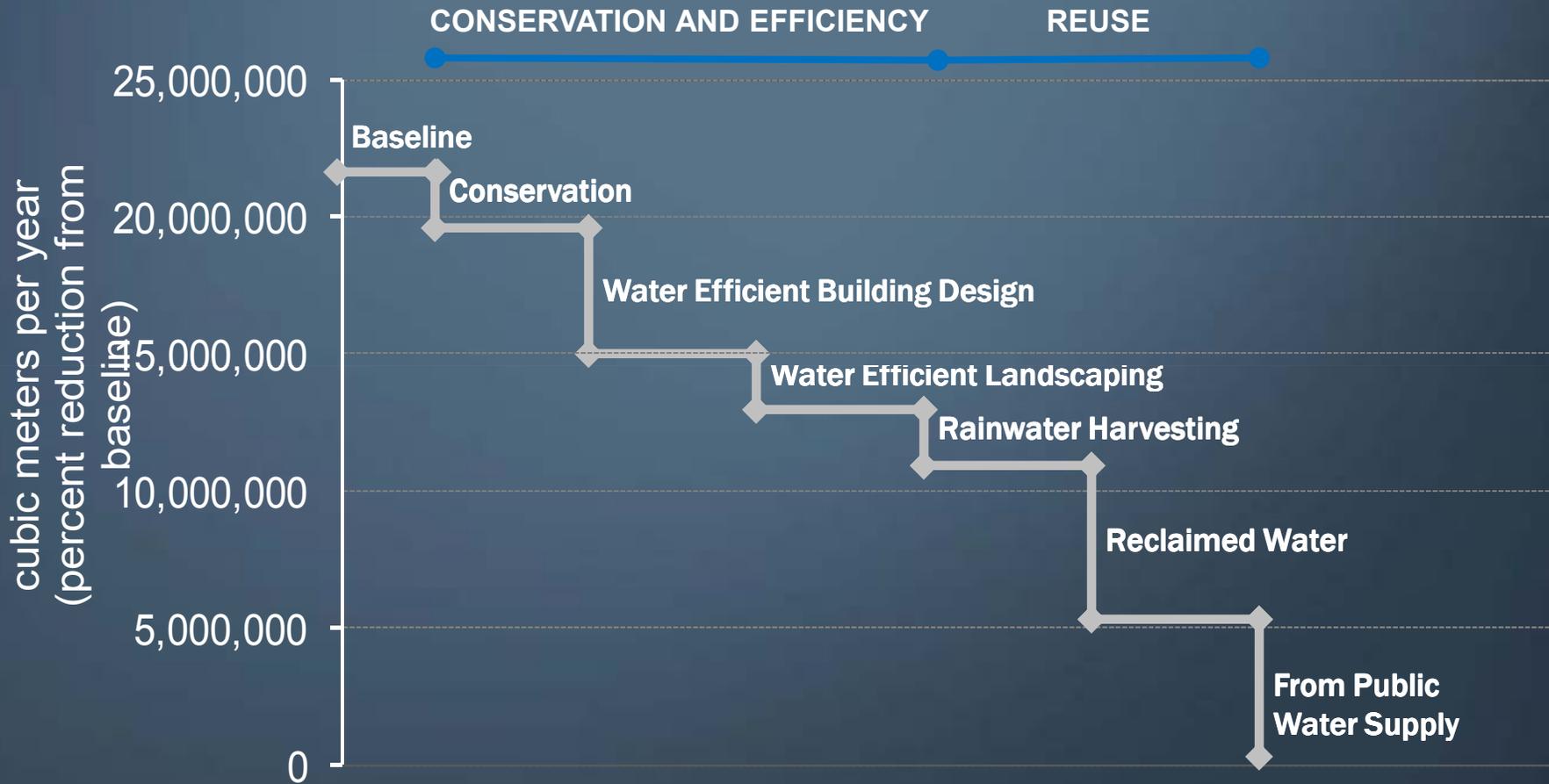
### 1. ZERO-NET ENERGY

- Post 2020 All New Construction Shall Achieve Net Zero Energy by 2030
- 15% of Agency Buildings meet Guiding Principles by 2015
- New buildings shall consume 30% less energy than ASHRAE Standards
- Major Renovations shall consume 20% below 2003 baseline

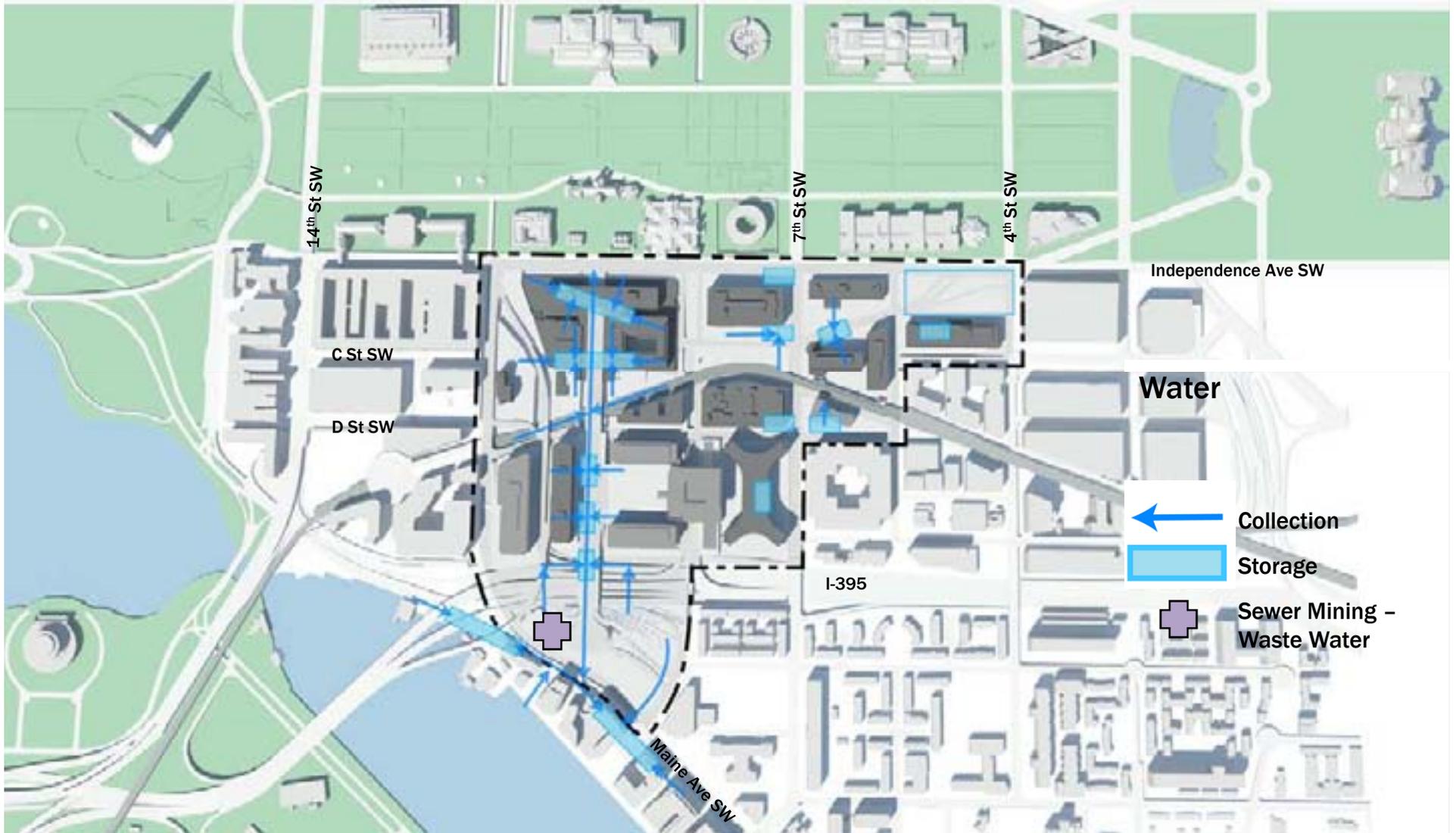
# Boundary-Setting Integrated Water Systems



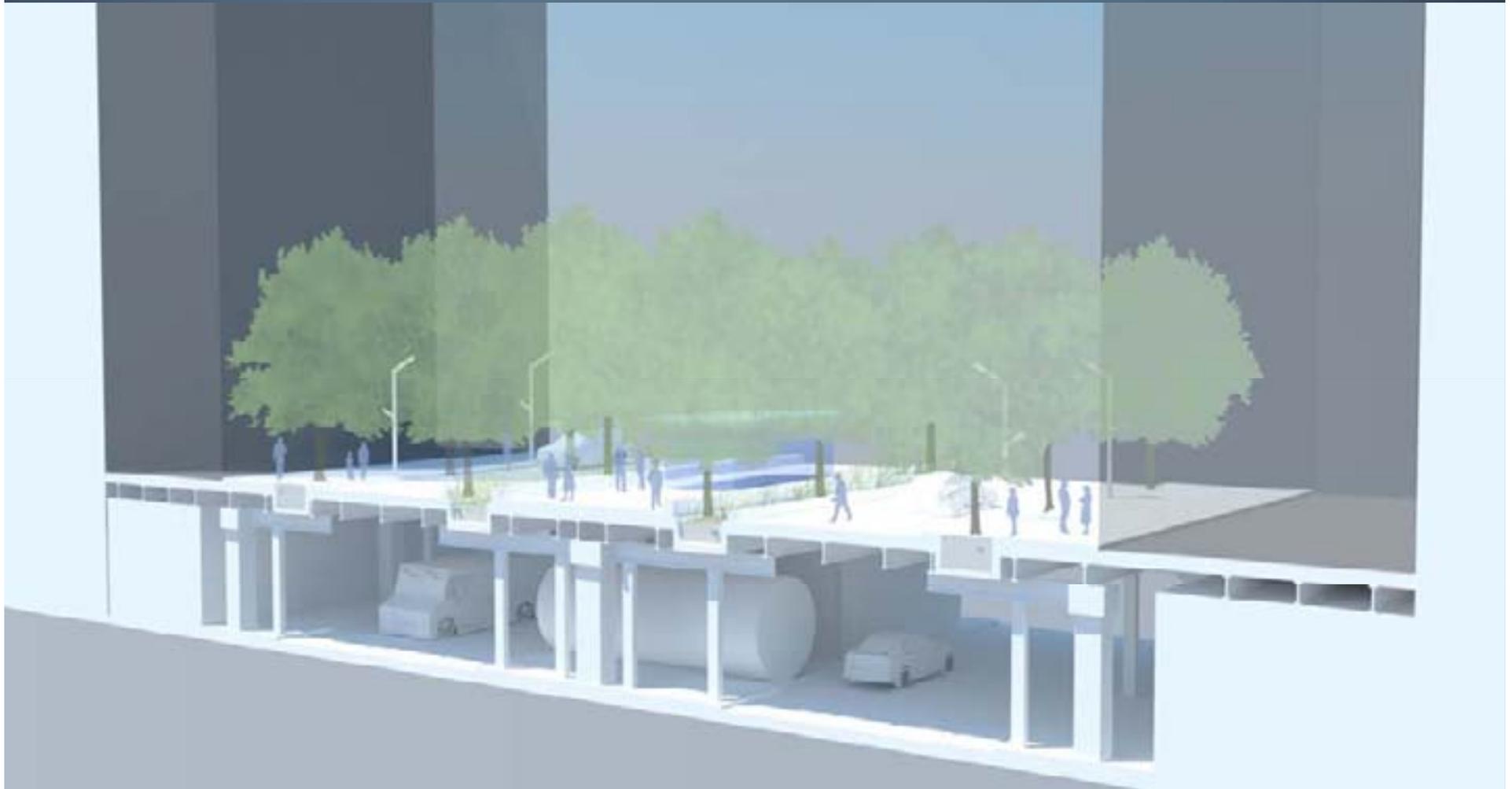
# Self-Sufficiency in Water Use - Water Management Hierarchy



# Water



# Integrating Water Management



## Wrap up and Next Steps

- Summarize Key Discussion Points
- Next Steps
  - Sustainability and Costs and Benefits Analysis
  - Recommendations
  - Task Force Review (October 2011)
  - Public Comment (October 2011)

## Public Comments will be accepted through August 12, 2011

Online: <http://swecodistrict.ideascale.com>

Email: [www.swecodistrict@ncpc.gov](mailto:www.swecodistrict@ncpc.gov)

Mail: Southwest Ecodistrict Task Force  
c/o Elizabeth Miller  
National Capital Planning Commission  
401 9th Street, NW, Suite 500  
Washington, DC 20004

# Development Scenarios

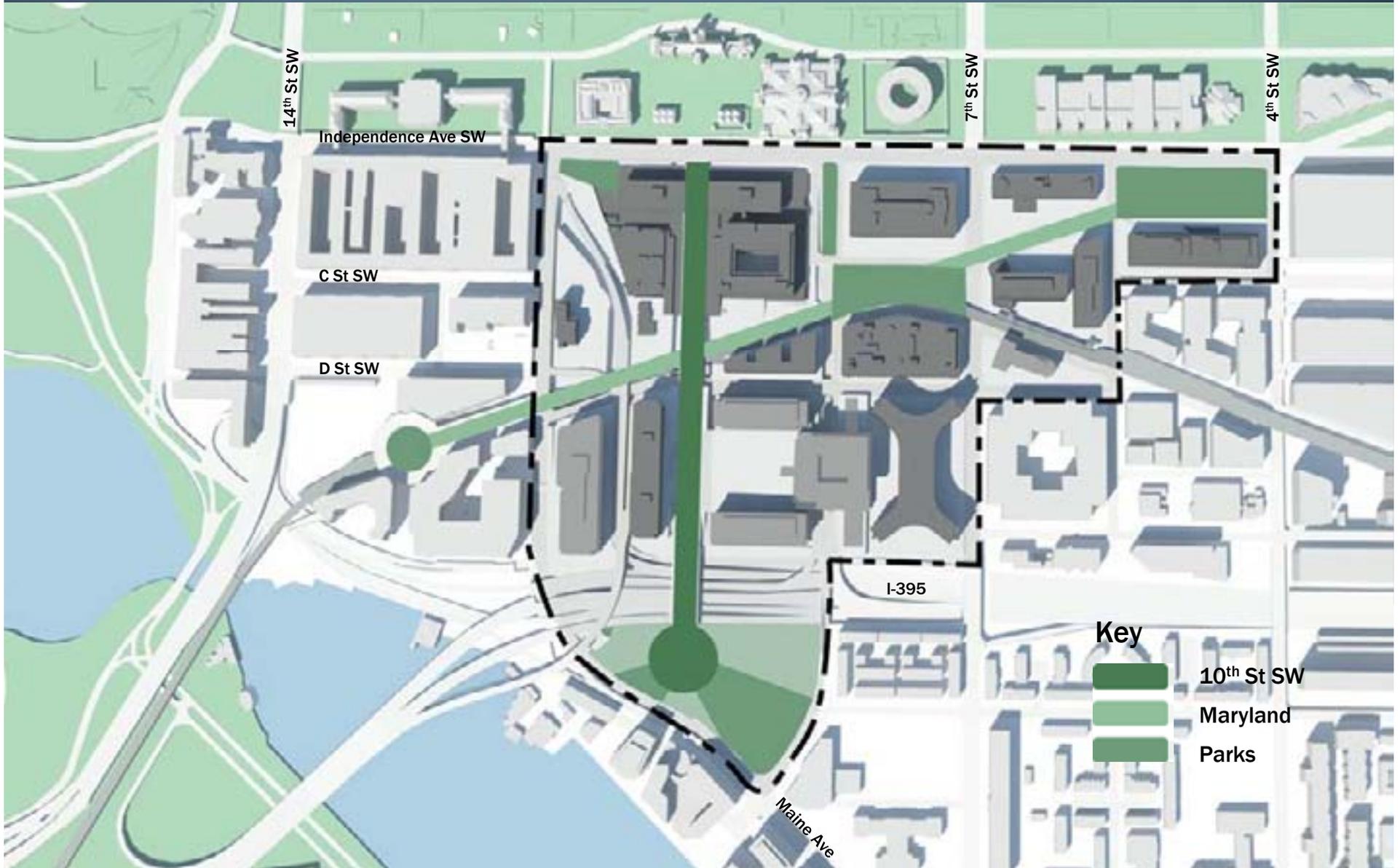
## Focus on:

- Rehabilitation
- Redevelopment
- Repurpose
- Infill (included in all scenarios)

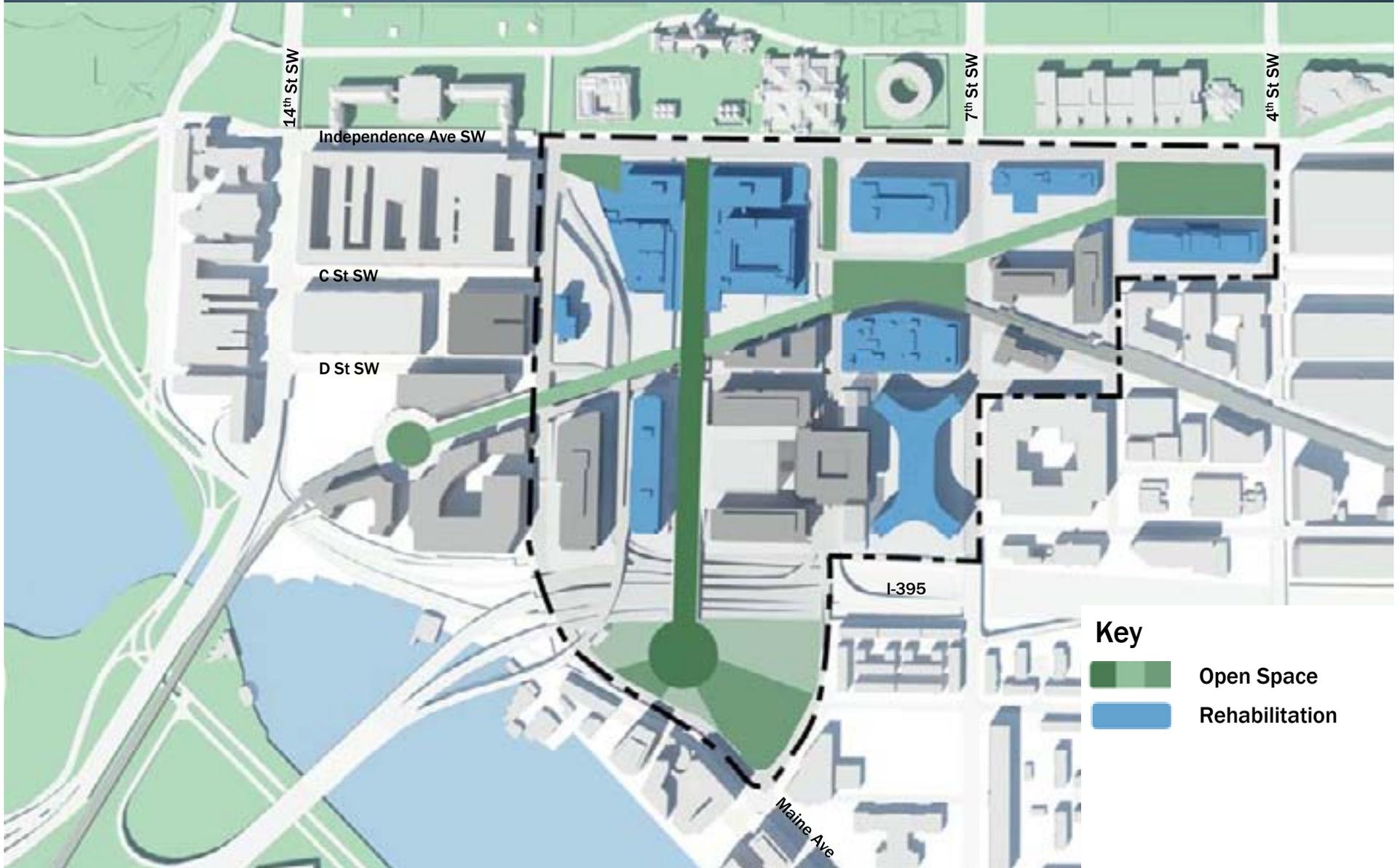
## Scenarios illustrate:

- development intensity, use mix and connectivity

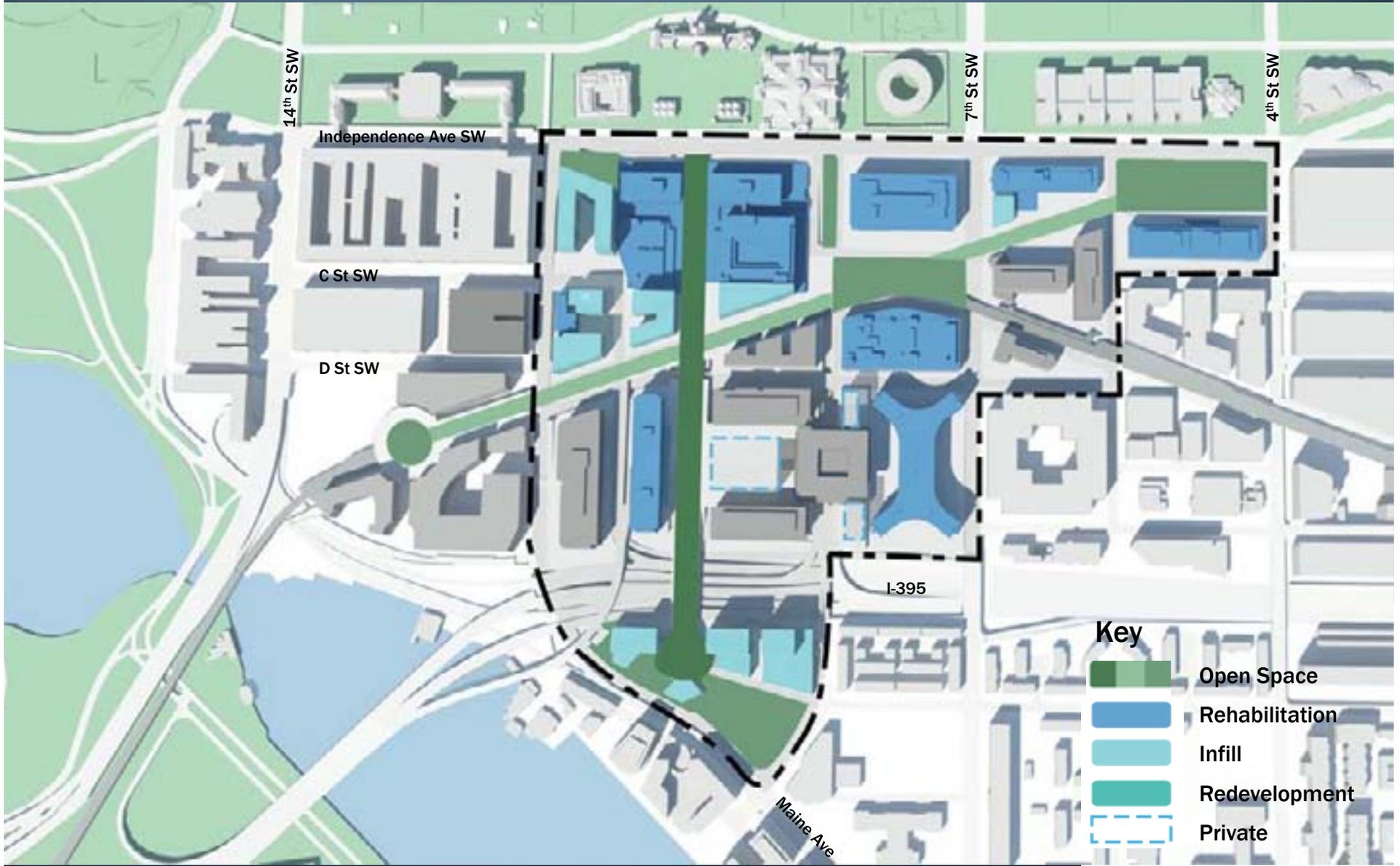
# Rehabilitation Focus – Open Space



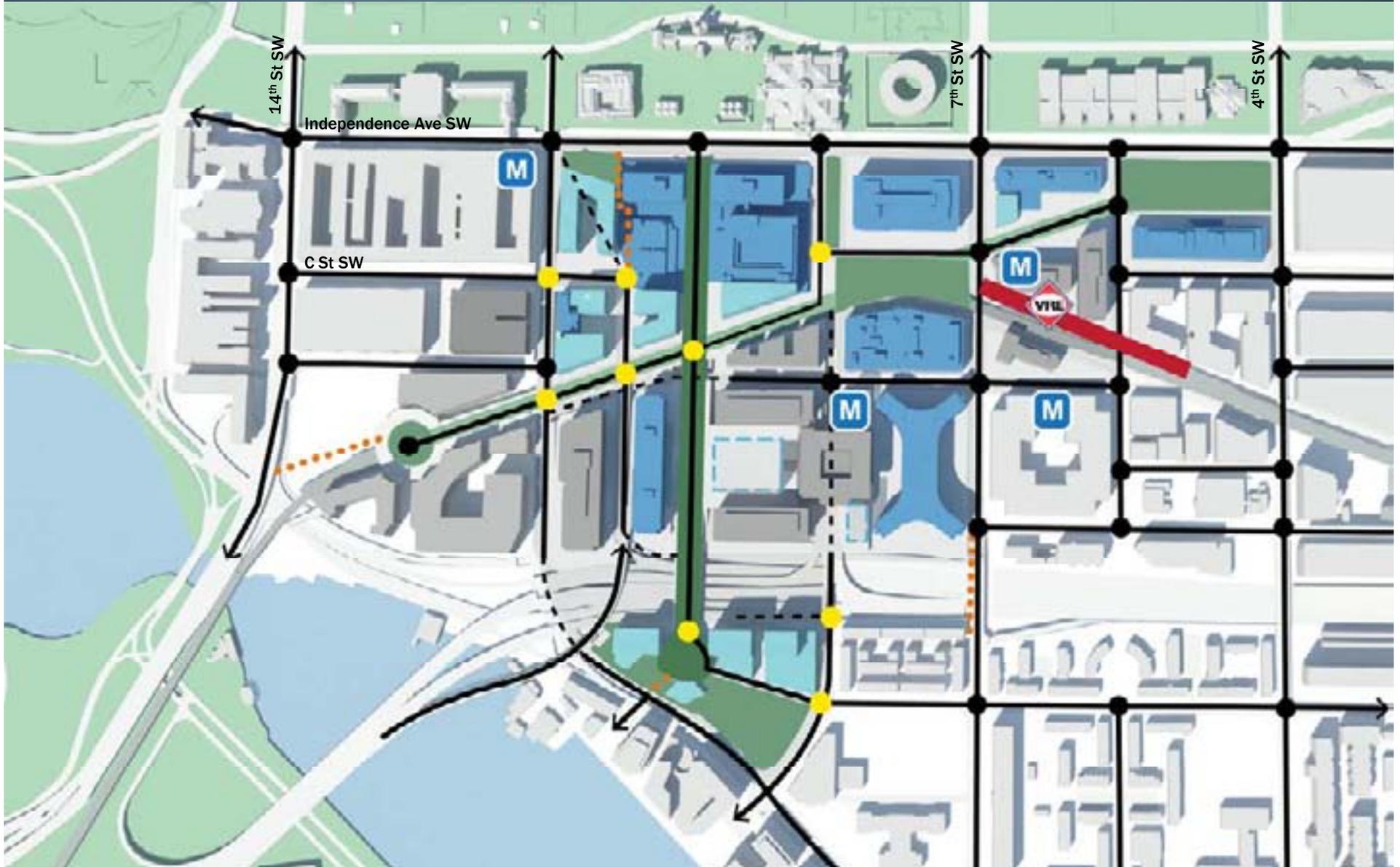
# Rehabilitation Focus – Rehab of Federal Properties



# Rehabilitation Focus – Potential Infill



# Rehabilitation Focus – Development and Connectivity



# Rehabilitation Focus – Potential Build-out



**Key**

- Rehabilitation
- Infill

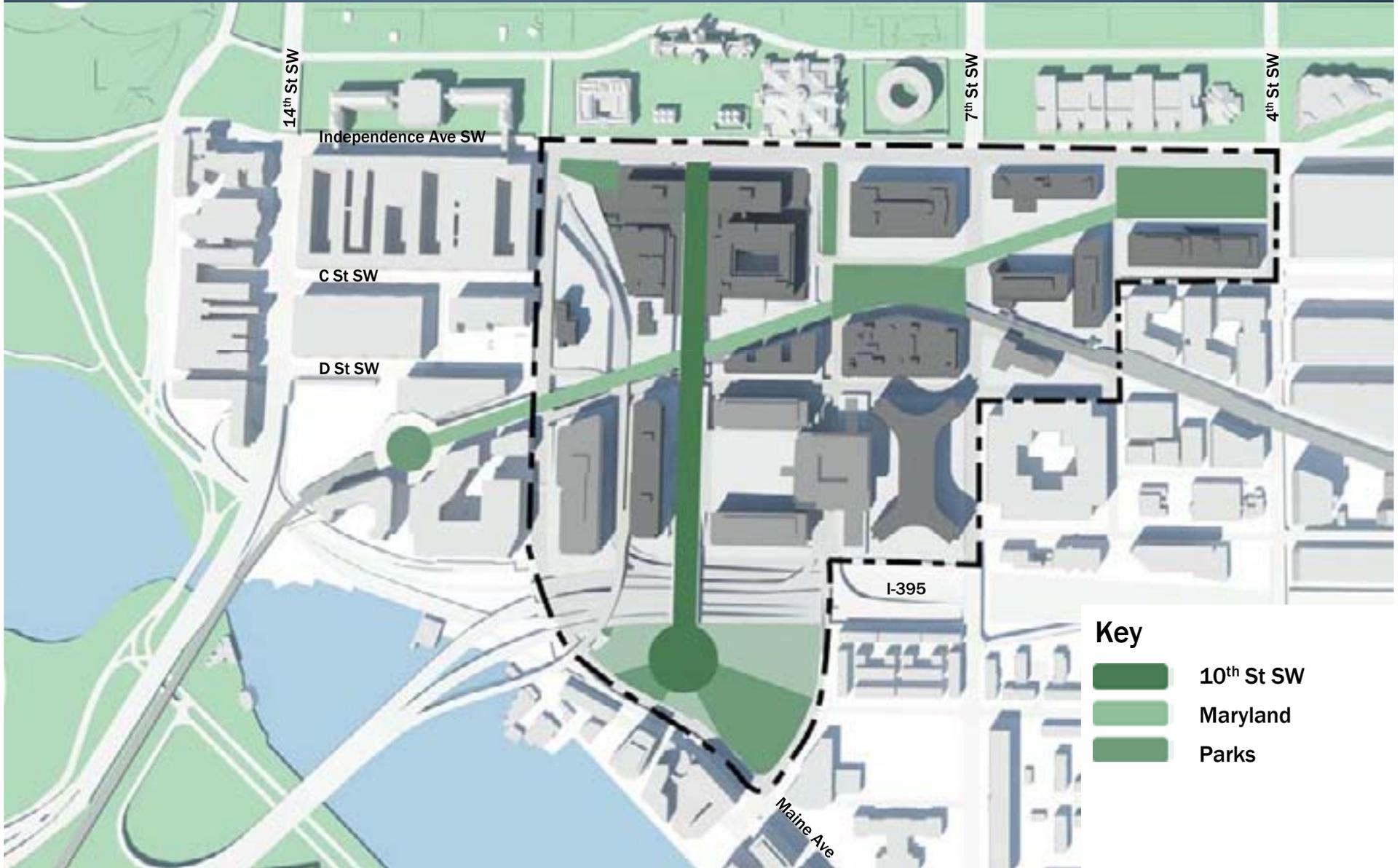


# Development Scenarios

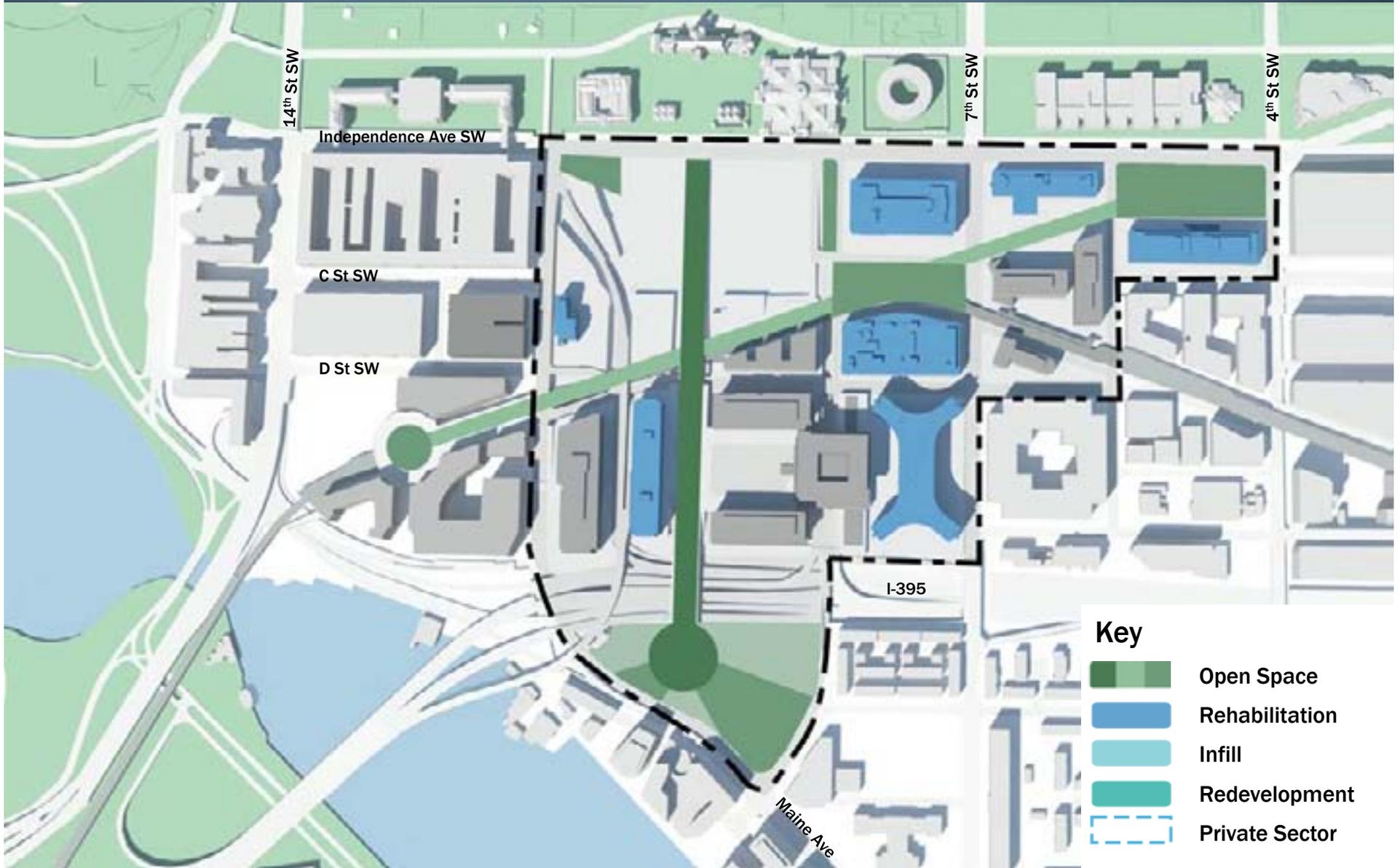
## Redevelopment Focus

### Potential Larger Sites

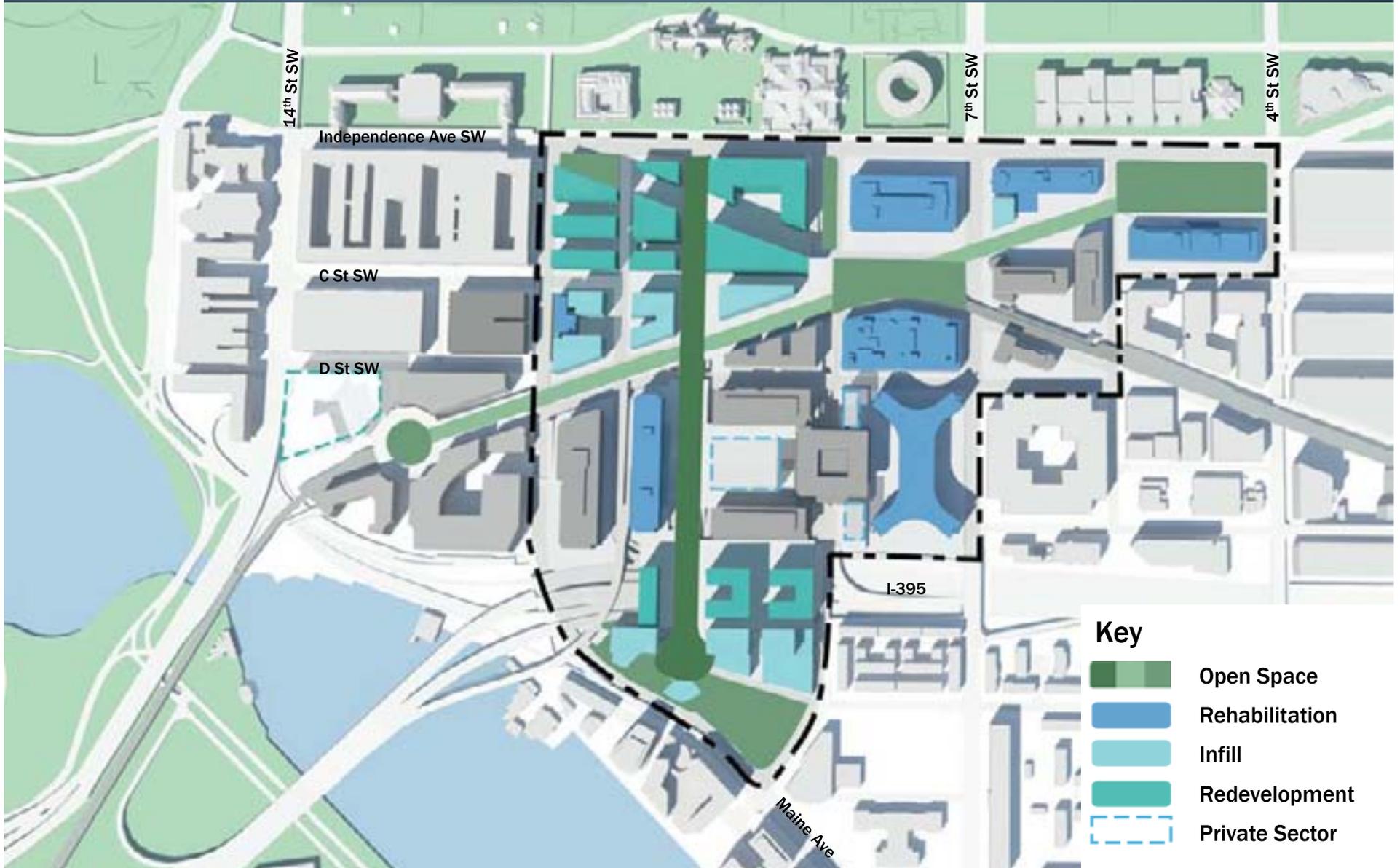
# Redevelopment Focus - Open Space



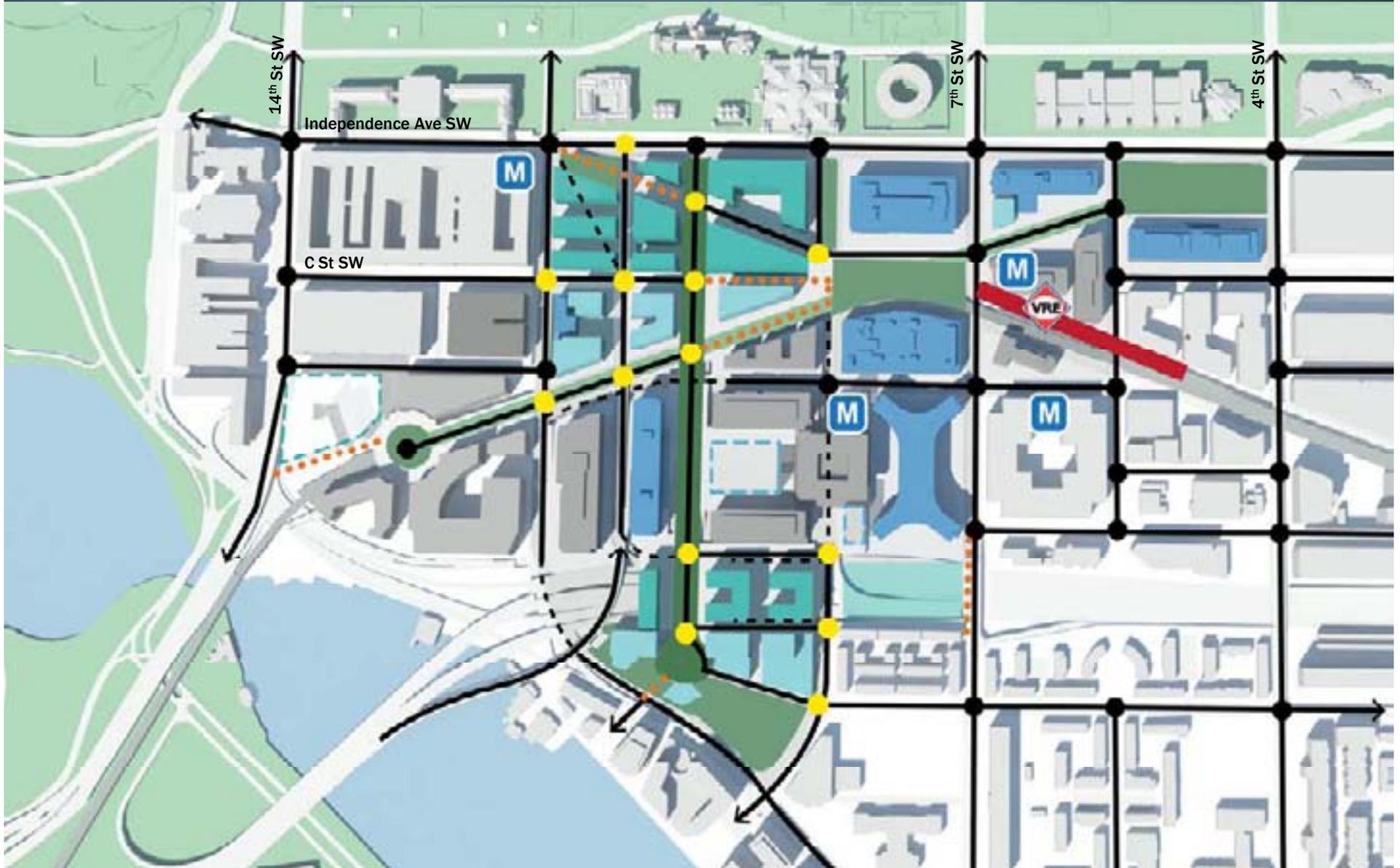
# Redevelopment Focus – Rehab of Federal Properties



# Redevelopment Focus – DOE, Freeway & Infill



# Redevelopment Focus – Development & Connectivity



# Redevelopment Focus



**Key**



Rehabilitation



Infill



Redevelopment



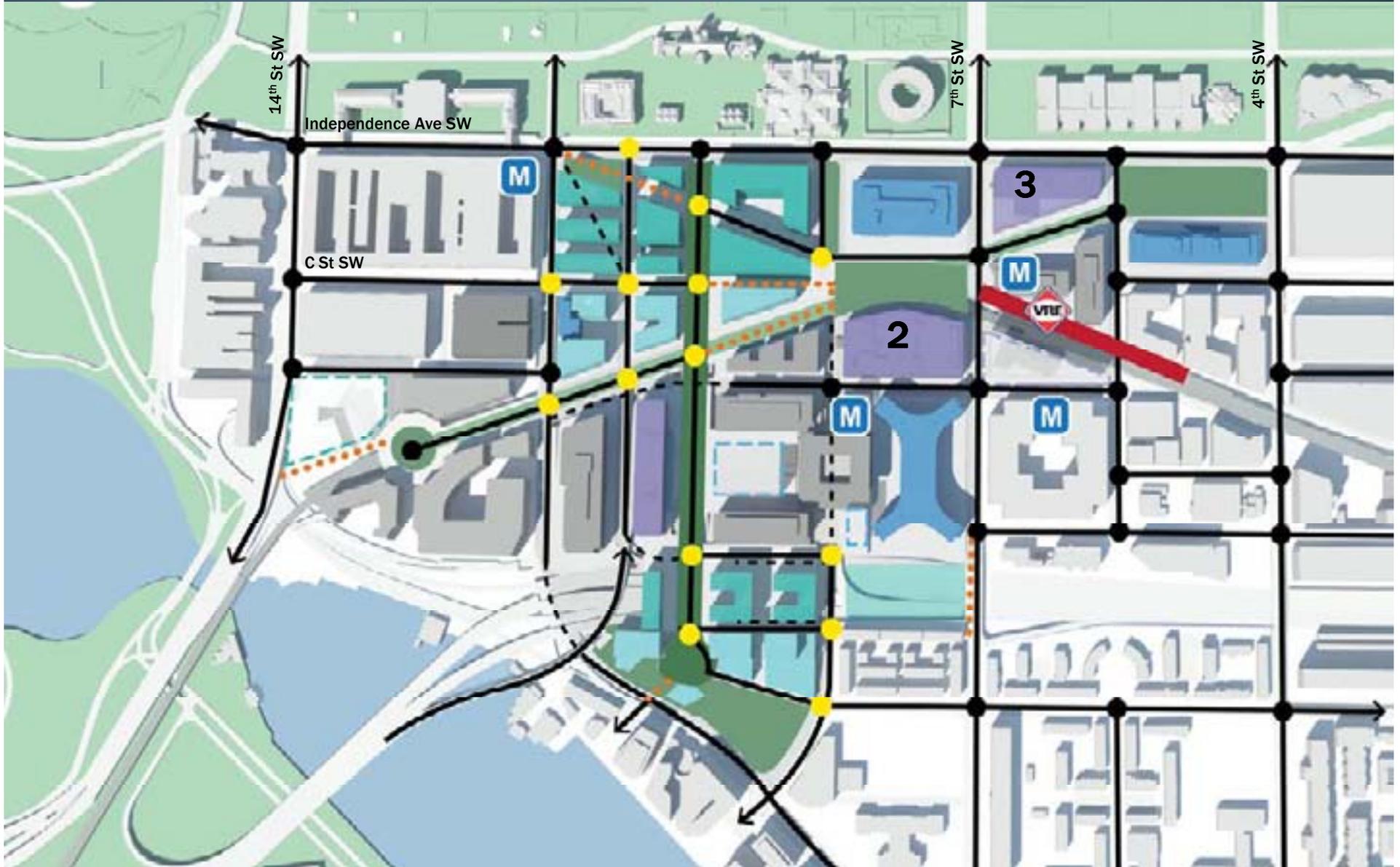


# Development Scenarios

## Repurpose Focus

Potential Adaptive Reuse / Change of Use

# Repurpose Focus –USPS (1), GSA-ROB (2), FAA Wilbur Wright (3)



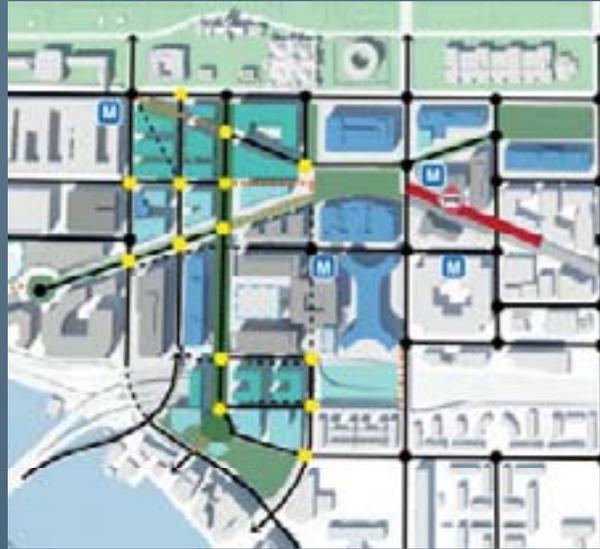
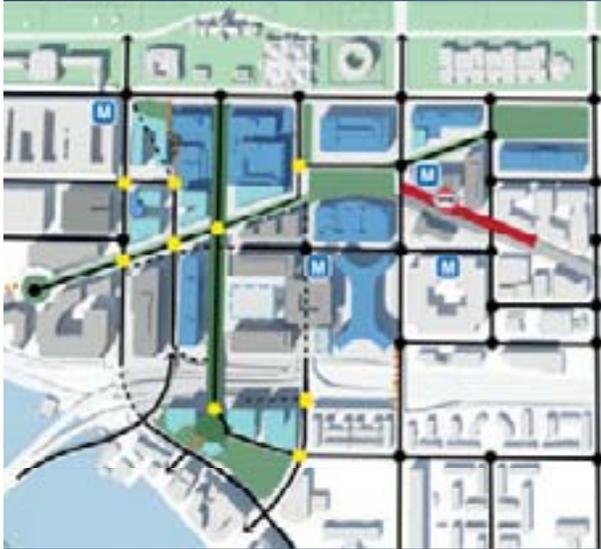
# Repurpose Focus – GSA-ROB, USPS, FAA Wilbur Wright



Key

- Rehabilitation
- Infill
- Redevelopment
- Repurpose

# Comparison



## Rehabilitation Focus

Rehabbed Sites 7  
 Infill Sites Maryland/Overlook  
 Redevelopment -  
 Repurposed -  
 Added Connectivity  
 Addition of Mixed Use Infill

## Redevelopment Focus

6  
 Maryland/Overlook  
 DOE / Freeway  
 -  
 Virginia Avenue / C St  
 Infill / Redevelopment

## Repurpose Focus

3  
 Maryland/Overlook  
 DOE / Freeway  
 3  
 Virginia Avenue / C St  
 Infill/Redevelopment/Repurpose

# Existing Condition



|                       |        |
|-----------------------|--------|
| Total SF              | 10.9 M |
| Federal Office        | 7.9 M  |
| Private Office        | 2.65 M |
| Cultural              |        |
| Residential/<br>Hotel | 0.27 M |
| Retail                | 39,500 |
| Employees             | 21,717 |
| Residents             |        |

# Comparison



## Rehabilitation Focus

|                   |               |
|-------------------|---------------|
| Additional SF     | 2.1 - 2.4 M   |
| Federal Office    | 0.7 - 0.8 M   |
| Private Office    |               |
| Cultural          | 0.7 - 0.8 M   |
| Residential/Hotel | 0.7 - 0.8 M   |
| Retail            | 70,000        |
| Employees         | 3,500 - 4,000 |
| Residents         | 840 - 960     |

## Redevelopment Focus

|                   |                |
|-------------------|----------------|
| Additional SF     | 3.3 - 3.9 M    |
| Federal Office    | 1.1 - 1.3 M SF |
| Private Office    |                |
| Cultural          | 1.1 - 1.3 M    |
| Residential/Hotel | 1.1 - 1.3M     |
| Retail            | 100,000        |
| Employees         | 5,500 - 6,500  |
| Residents         | 1,320 - 1,560  |

## Repurpose Focus

|               |             |
|---------------|-------------|
| Additional SF | 0.6 - 1.0 M |
|               |             |



# Focusing In

## 10<sup>th</sup> St., SW and the Overlook

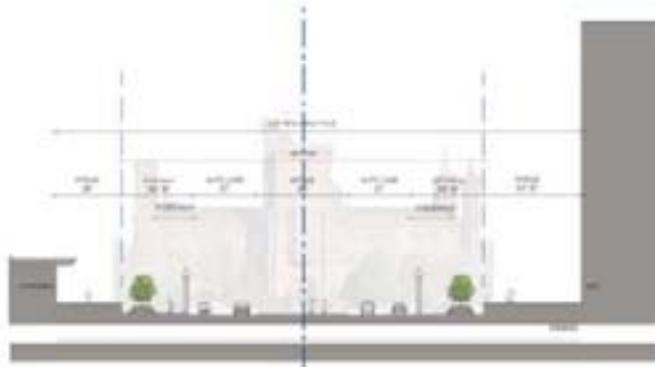
## 10<sup>th</sup> Street SW - Goals



- Develop a **sense of place** for 10th Street
- Promote **mix of uses** along street edges
- Define a series of **diverse open spaces**
- Reprioritize space within the street ROW to accommodate **pedestrians and bikes**
- Provide **flexible programmable spaces** to attract visitors and residents
- Highlight sustainability, **increase vegetation and storm water functions** along the corridor for environmental benefits
- **Leverage infrastructure improvements** along 10th St to support future improvements

# 10<sup>th</sup> St. SW Existing

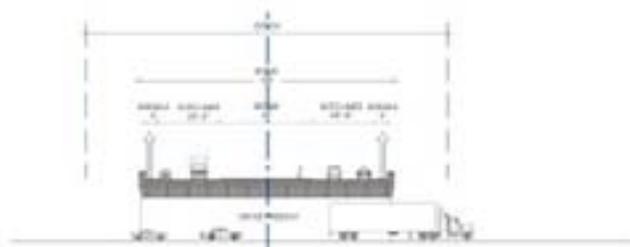
Section at Forrestal Site



Section at L'Enfant Plaza



Section at SW Freeway

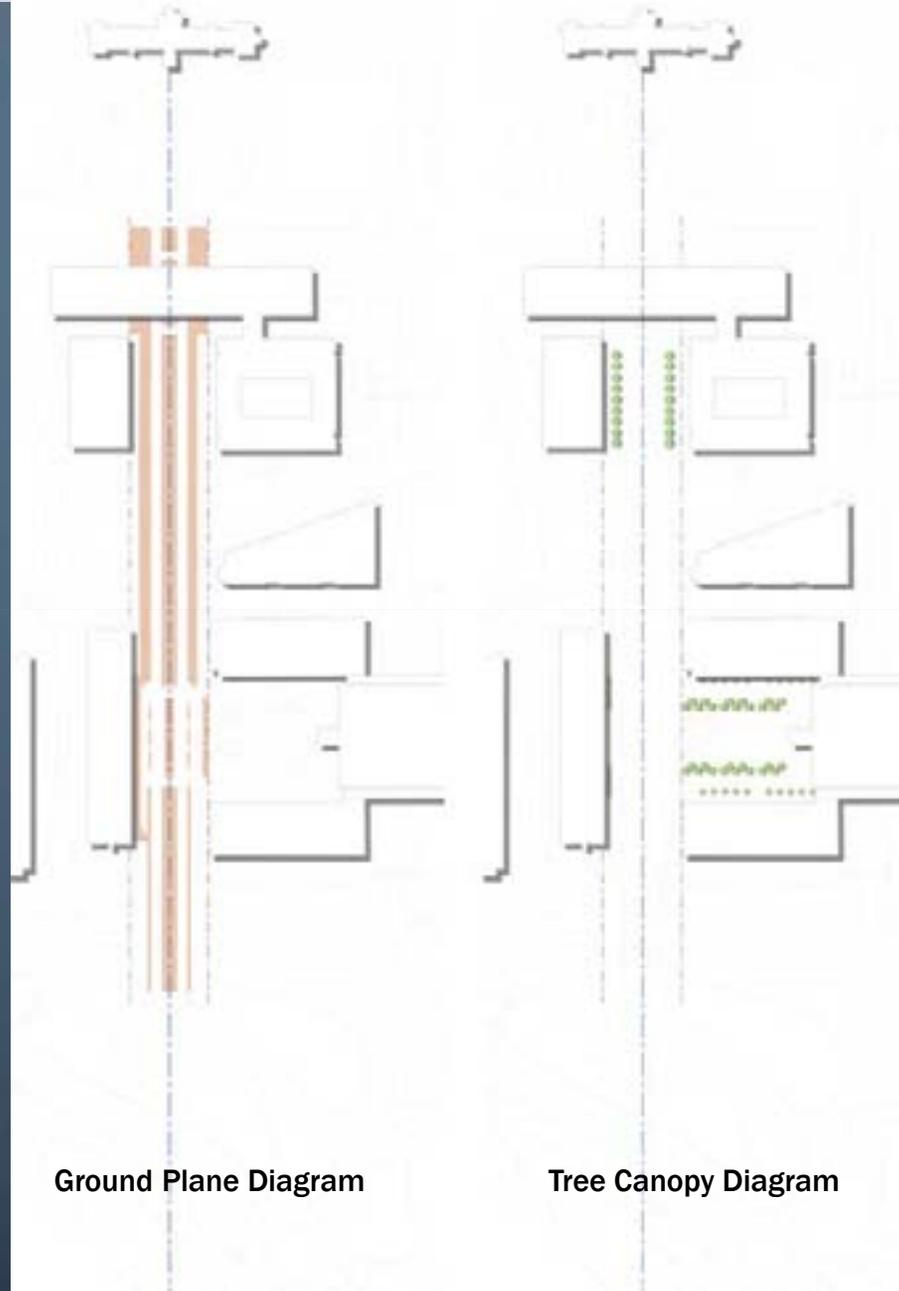


# 10<sup>th</sup> St SW Existing

Forrestal Site

L'Enfant Plaza

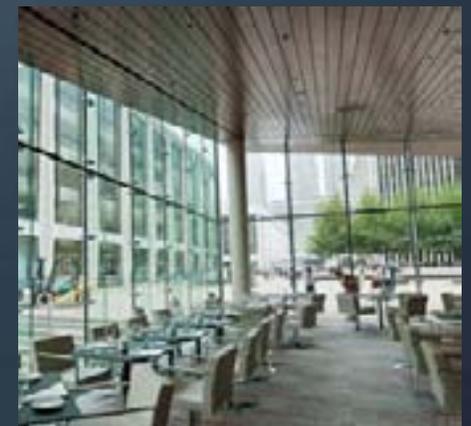
SW Freeway



Ground Plane Diagram

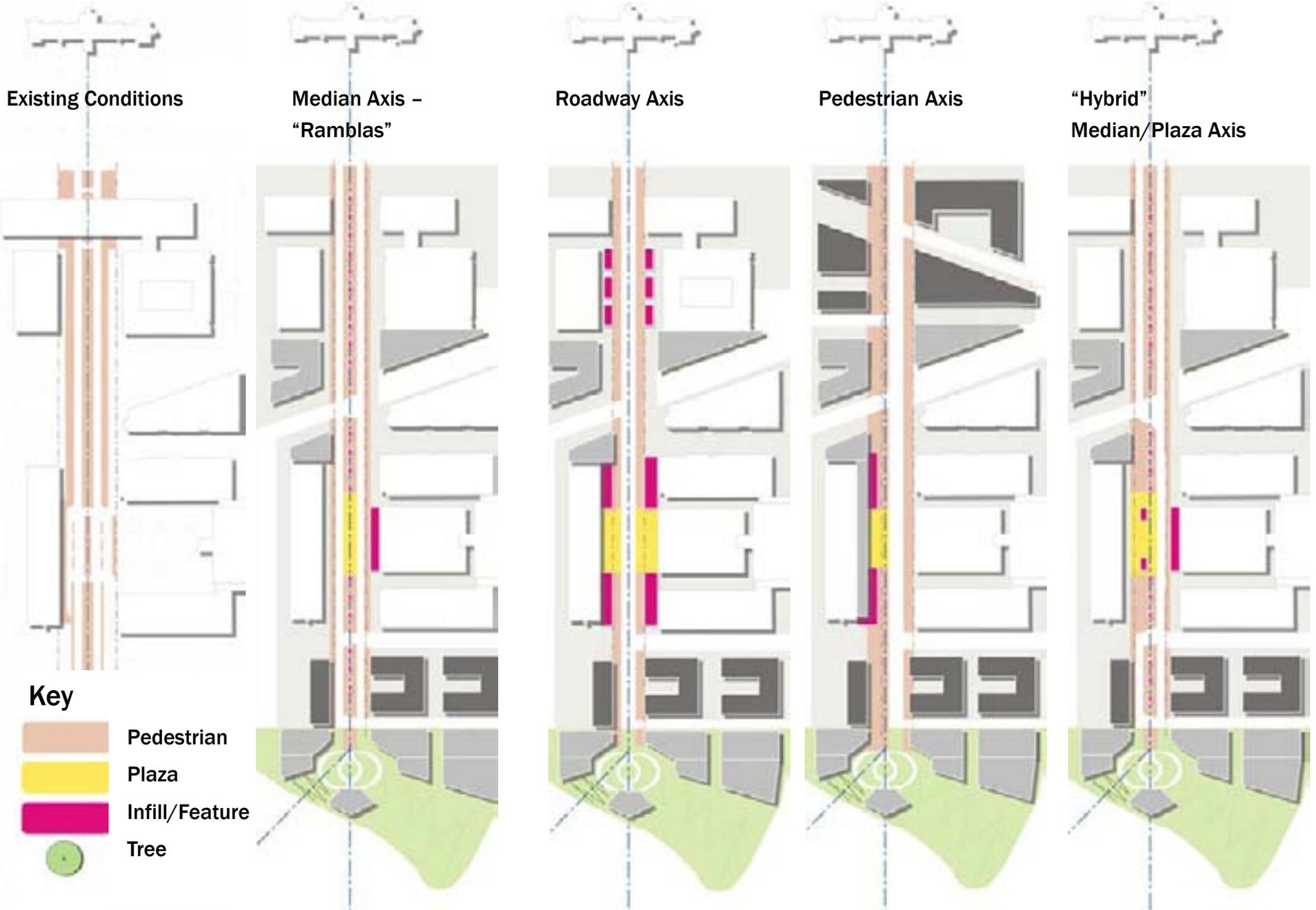
Tree Canopy Diagram

# 10<sup>th</sup> St. SW – Potential Infill Structures



# 10<sup>th</sup> Street SW – Landscape Interventions





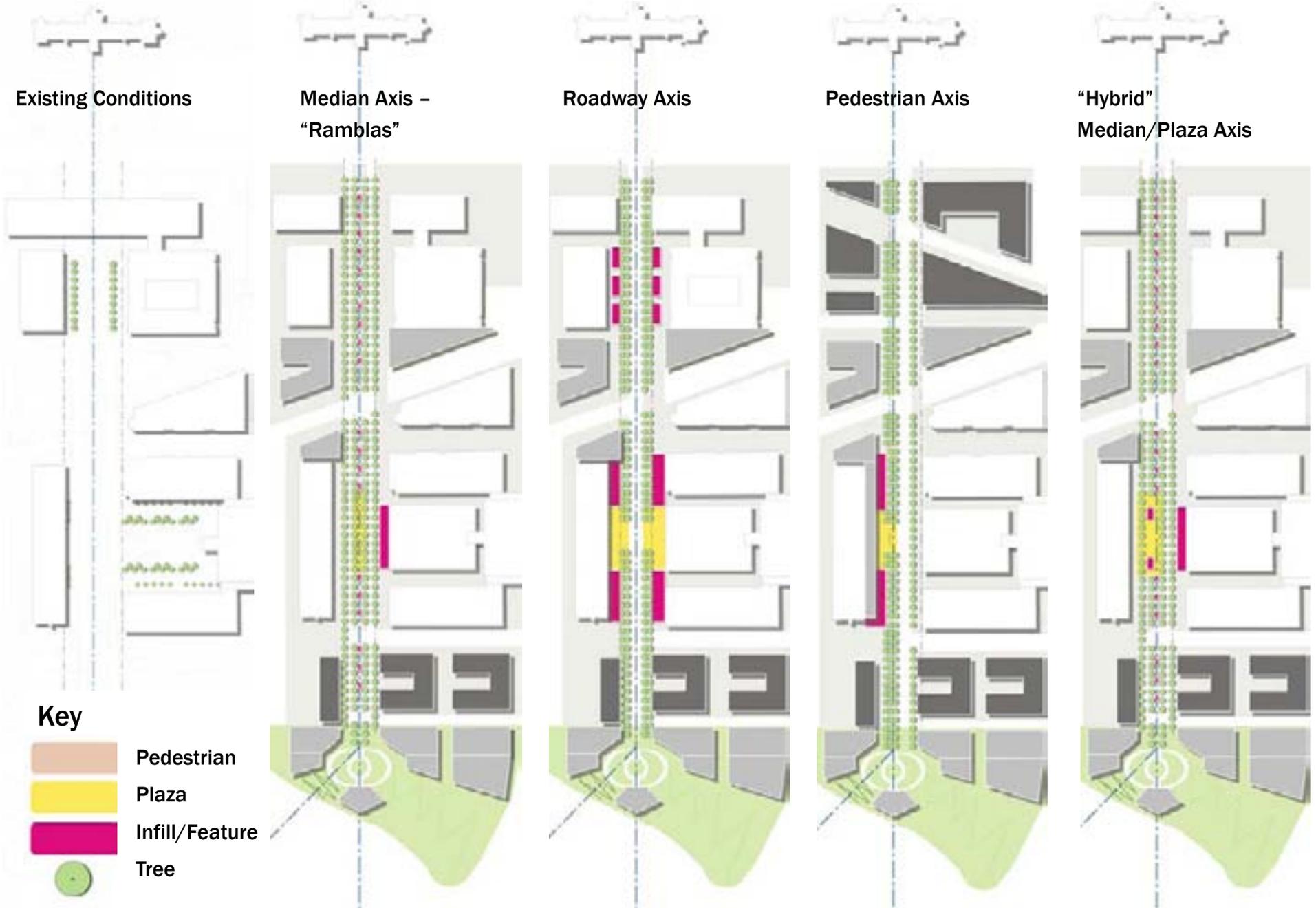
Existing Conditions

Median Axis -  
"Ramblas"

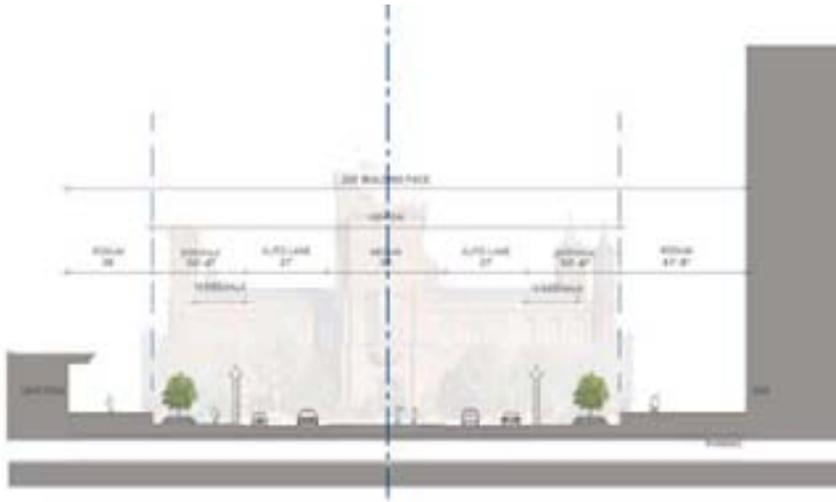
Roadway Axis

Pedestrian Axis

"Hybrid"  
Median/Plaza Axis



## Section at Forrestal Site



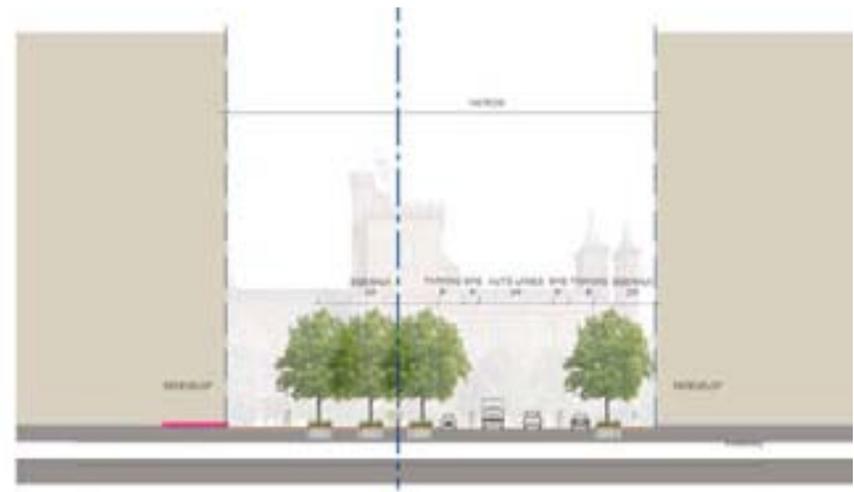
Existing Condition



Median Axis "Ramblas"  
"Hybrid" Median/Plaza Axis (Similar)



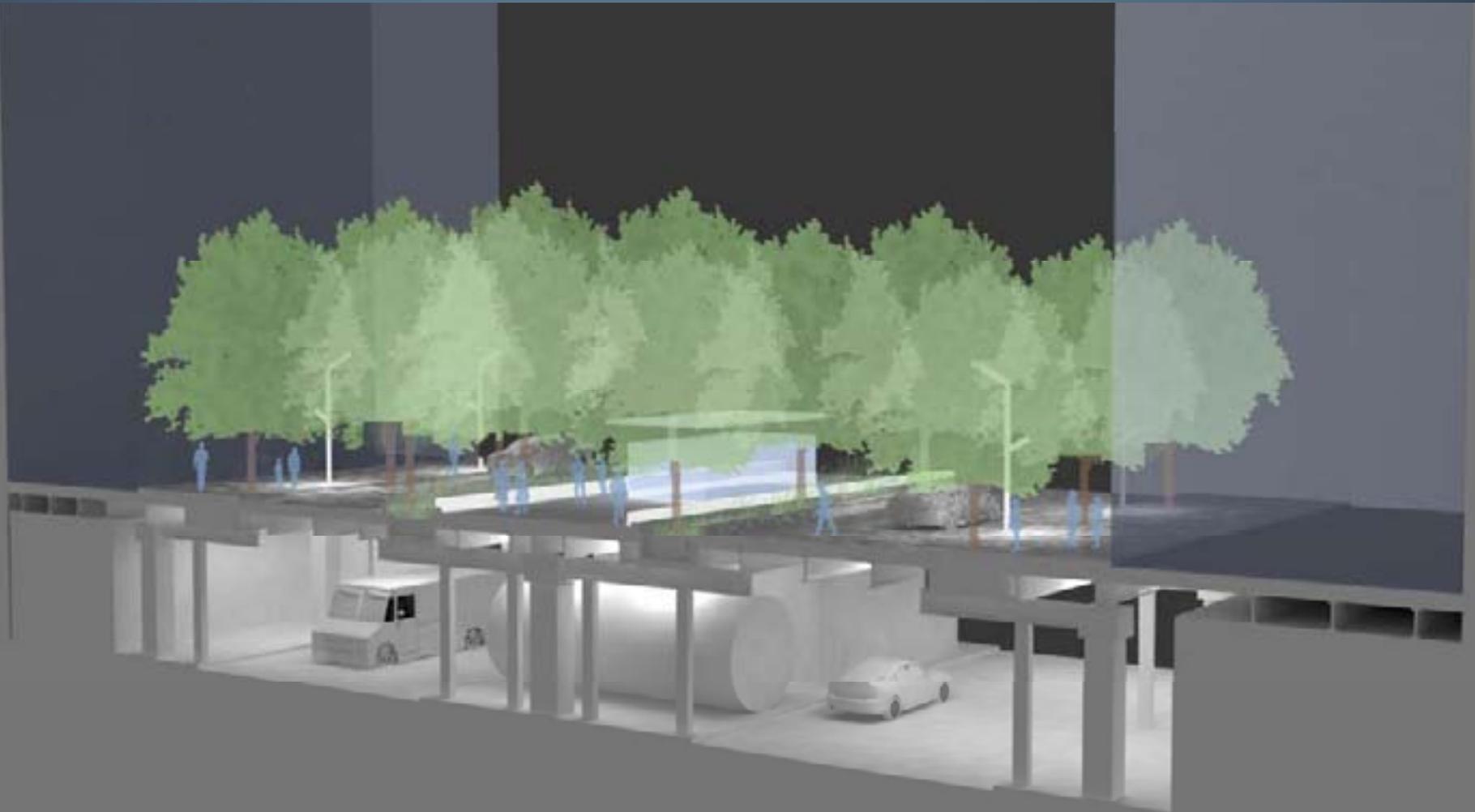
Roadway Axis



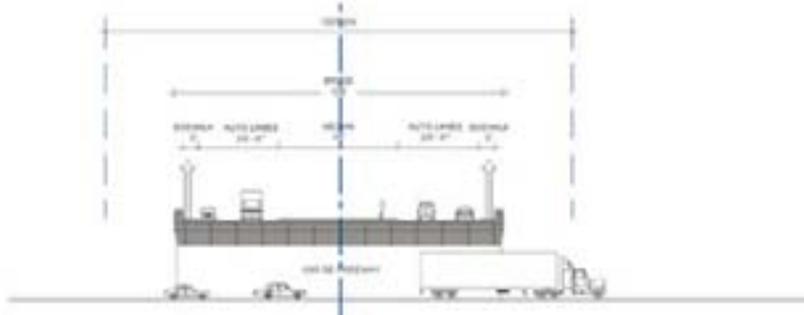
Pedestrian Axis



# 10<sup>th</sup> St. SW – Enhanced Landscape and Stormwater



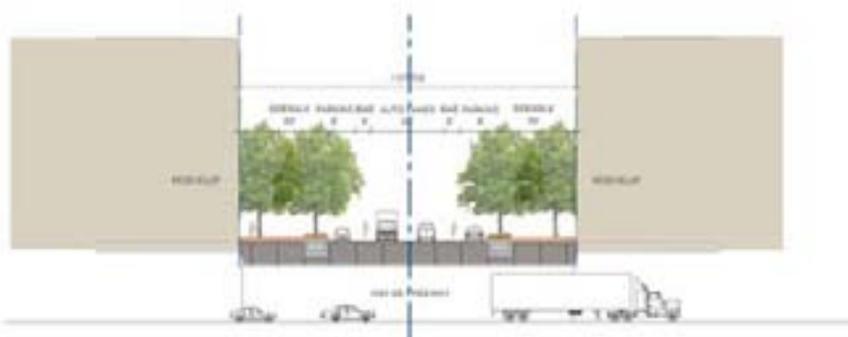
# Section at Southwest Freeway



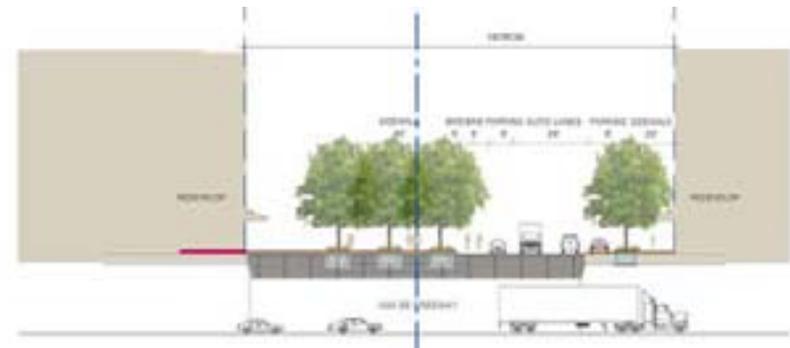
Existing Condition



Median Axis "Ramblas"  
"Hybrid" Median/Plaza Axis (Similar)



Roadway Axis



Pedestrian Axis

# The Overlook



# The Overlook

## Monumental Core Framework Plan

- Identified Issue – Reliance on freeway lid for new focal point and future development
- Banner recognition
- Waterfront redevelopment identified need to create certainty for future connectivity
- Recommendation - define existing fountain area location as “Focal Point”



Framework Plan proposal for the 10th Street corridor.



Spectacular fountains can engage adults and children alike (Atlanta, GA)



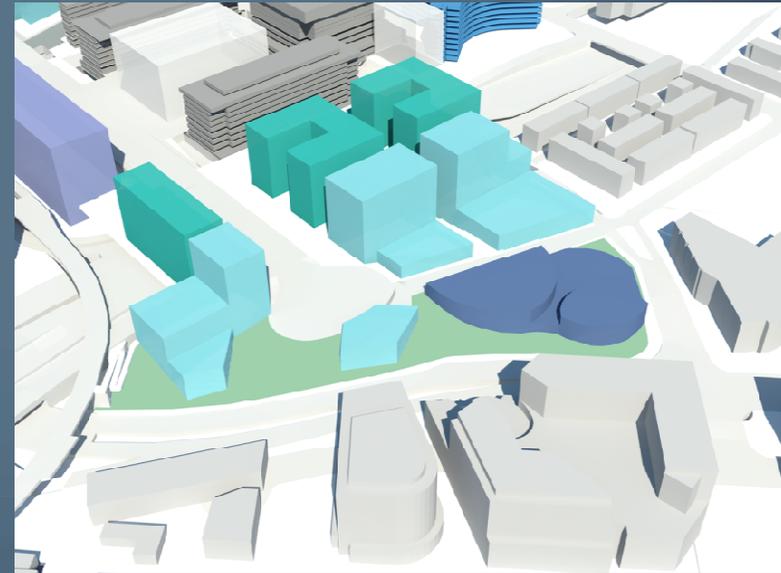
Grand stairs can be destinations for people-watching. (Rome, Italy)

## The Overlook – Civic Development



“Minimum” Buildout

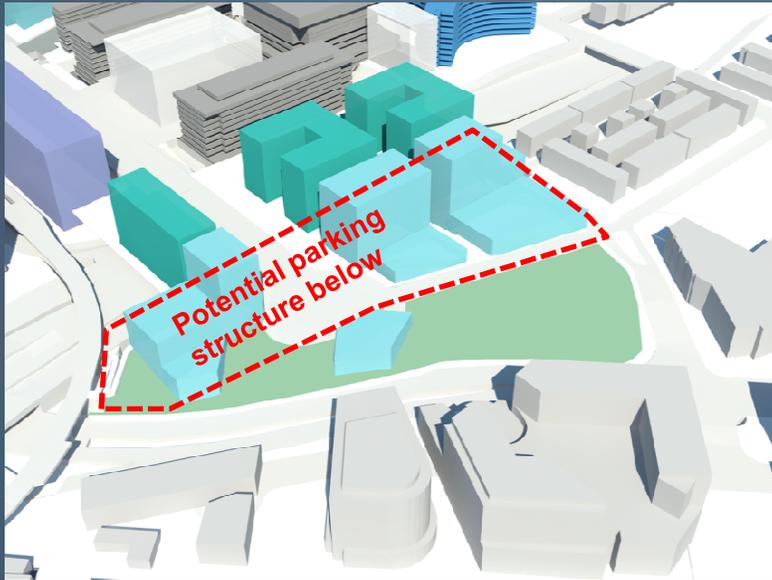
- Potential Feature/Memorial at 10<sup>th</sup> St SW Axis
- Civic/Cultural Buildings adjacent to Freeway (with potential parking zone below)
- Landscape features connection to waterfront



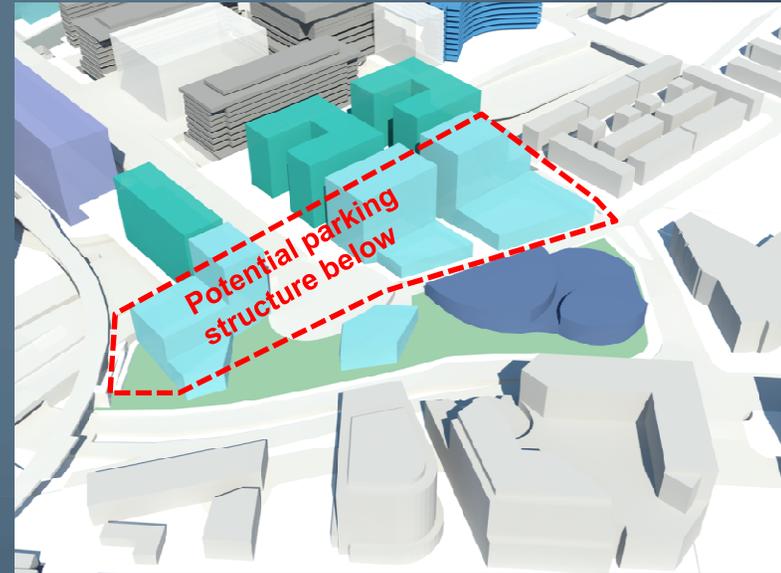
“Maximum” Buildout

- Potential Feature/Memorial at 10<sup>th</sup> St SW Axis
- Civic/Cultural Buildings adjacent to Freeway (potential parking zone below)
- Civic/Cultural Building near 9<sup>th</sup> Street intersection
- Landscape features connection to waterfront

# The Overlook – Potential Parking



“Minimum” Buildout Potential Parking



“Maximum” Buildout Potential Parking



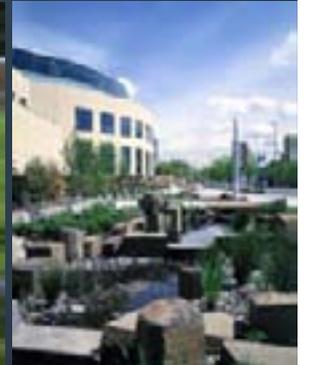
Controlled Access

# The Overlook –



View East along Maine toward Landscape Access

View West from 9<sup>th</sup> and Maine toward Overlook



## A Sketch View – An Identifiable District



## Green Roofs and Photovoltaics

- Green roofs reduce ambient temperature, thereby reducing the operation temperature of the PV system and increasing the efficiency of electricity generation
- Shade provided by PV panels promotes plant growth and species diversity

