

NAME: \_\_\_\_\_  
DATE: \_\_\_\_\_  
BOOK #: \_\_\_\_\_

# Port Covington

**PRESENTATION TO THE URBAN  
DESIGN & ARCHITECTURE  
REVIEW PANEL**

February 18, 2016



# **HANOVER STREET & WEST END DISTRICTS**

## Introduction

**CAROLINE PAFF**  
Sagamore Development  
Vice President

## **PRIOR ACTIONS**

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January 7, 2016

Port Covington Masterplan:  
Introduction Action: Continued

## **RELATED PROJECTS**

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June 25, 2015

301 East Cromwell Street - Sagamore Spirit Distillery:  
Final Action: Recommend approval with comments

January 28, 2016

East Waterfront Park:  
Schematic Action: Recommend approval with comments

January 28, 2016

Under Armour Masterplan:  
Introduction Action: Recommend approval with comments

## URBAN DESIGN GOALS

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Create a sense of arrival and make it a destination.

Make strong connections between uses, ecology and people.

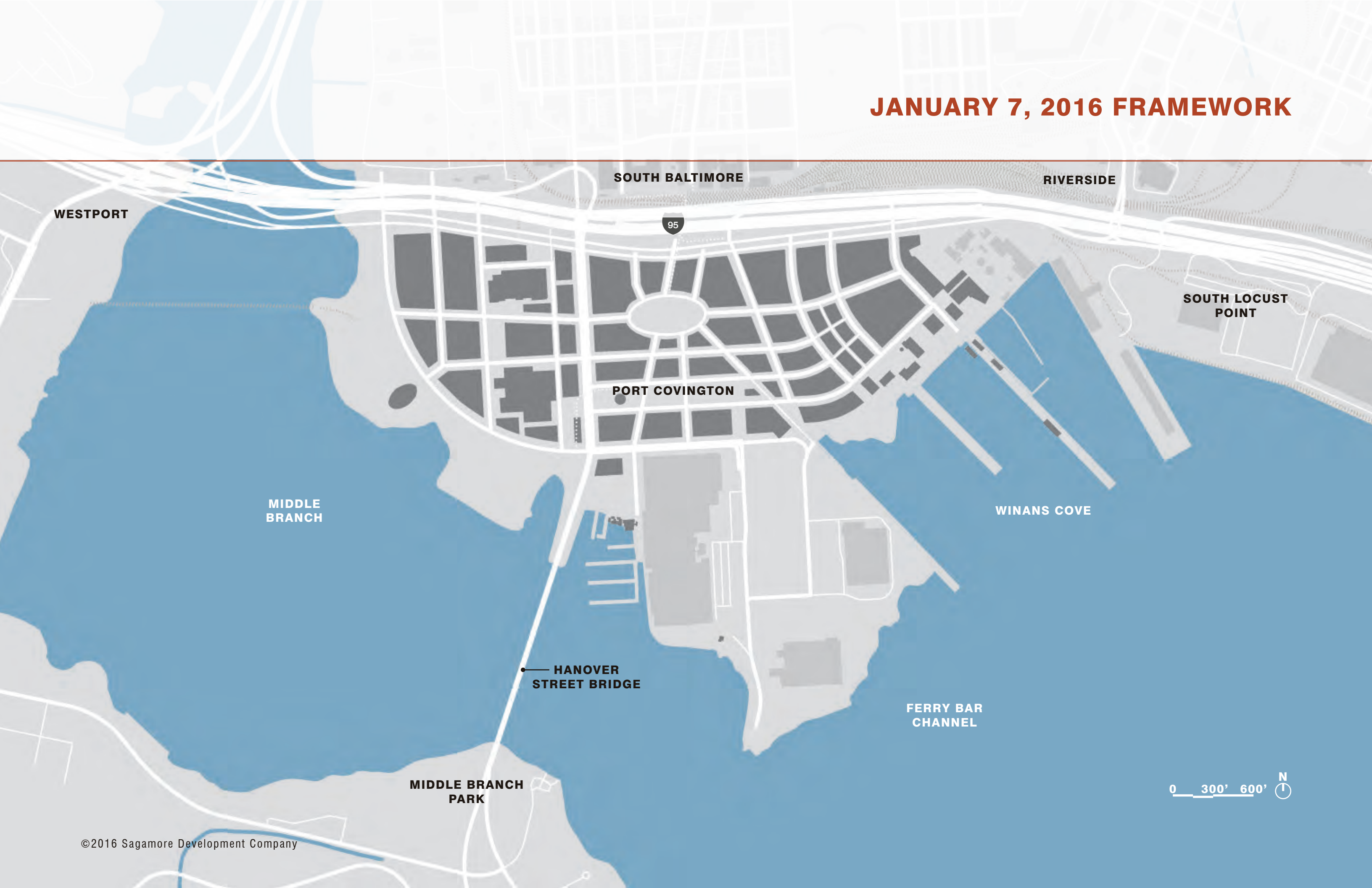
Induce multi-modal behaviors through great design and investment in the public realm.

Make it walkable.

Include multiple points of view to ensure diversity and plan resiliency.

Innovate.

# JANUARY 7, 2016 FRAMEWORK



SOUTH BALTIMORE

RIVERSIDE

WESTPORT

95

SOUTH LOCUST POINT

PORT COVINGTON

MIDDLE BRANCH

WINANS COVE

HANOVER STREET BRIDGE

FERRY BAR CHANNEL

MIDDLE BRANCH PARK

0 300' 600' N

## JANUARY 7, 2016 PANEL COMMENTS

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Balance public access and ecology to protect continuity of both.

Look at East-West connectivity using Cromwell and Hanover.

Strengthen each important axis with a receiver; use the parks to reinforce the focal points, vistas and connective elements.

Well-defined building types will create neighborhoods allowing for the spectrum of public to private experiences.

Break up some of the blocks on the edges of the plan.

Plan for transformation of spaces and uses.

Maintain visibility from the highway.

## PRESENTATION OVERVIEW

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**EXISTING CONDITIONS** - Addison Palmer, STV Incorporated

**HANOVER STREET & WEST END DISTRICTS** - David Manfredi, Elkus Manfredi Architects

**ECOLOGICAL CONTEXT** - Chris Streb, Biohabitats

**CONCEPT LANDSCAPE PLAN** - Michael Blier, Landworks Studio Inc.

**MULTI-MODAL APPROACH** - Barbara Mosier, STV Incorporated  
RJ Eldridge, Toole Design Group



# **HANOVER STREET & WEST END DISTRICTS**

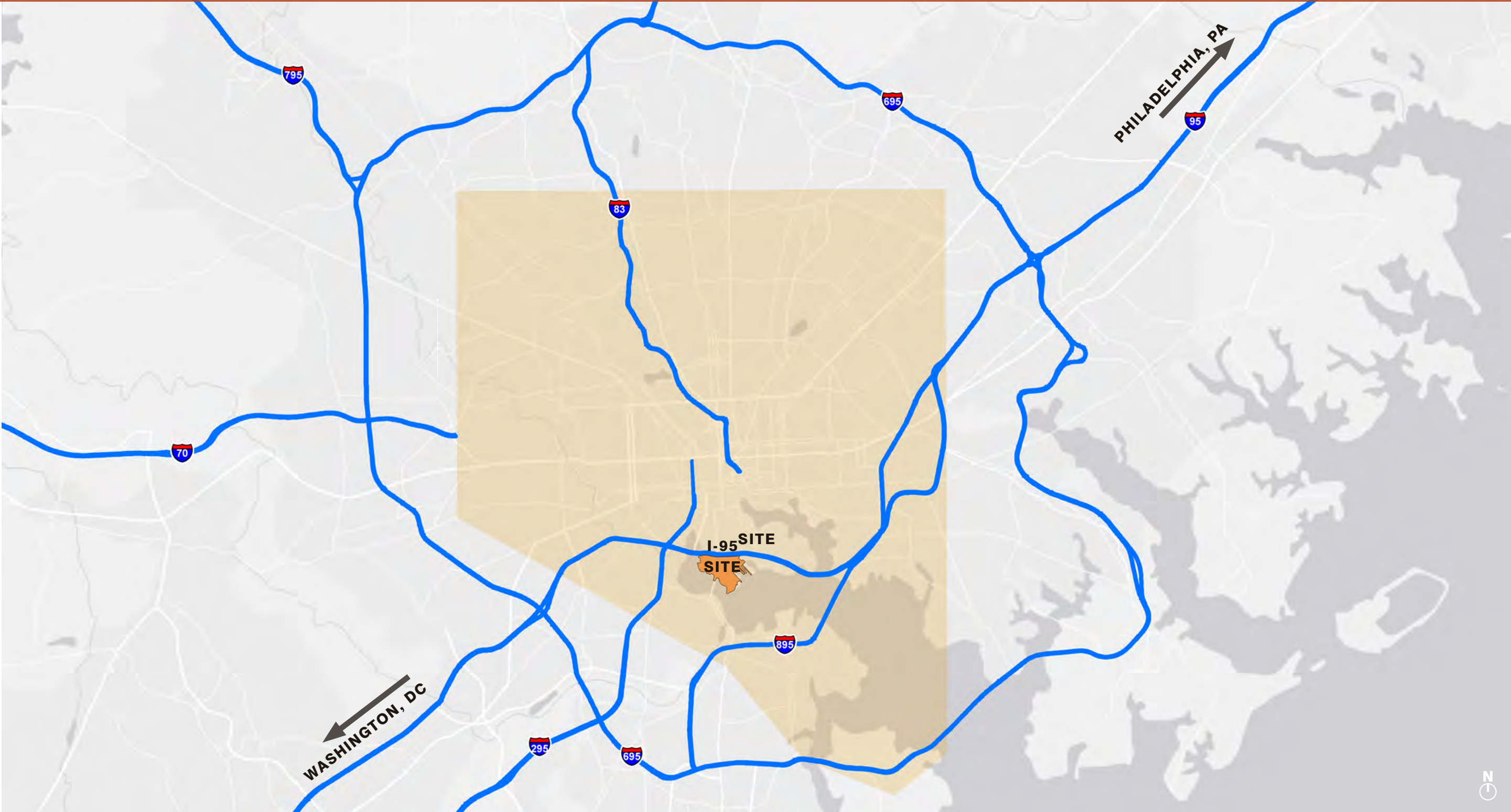
## Existing Conditions

ADDISON PALMER, RLA, LEED AP

STV Incorporated  
Regional Manager



# REGIONAL CONTEXT MAP



# EXISTING CONDITIONS



SPRING GARDEN SWING BRIDGE

SWANN PARK

SCHUSTER CONCRETE

AFP

ALLIED WASTE

CITY GARAGE

WEST COVINGTON PARK

NICK'S FISH HOUSE

LOCKE INSULATORS

MIDDLE BRANCH OF THE PATAPSCO RIVER

BALTIMORE SUN

SAGAMORE SPIRITS

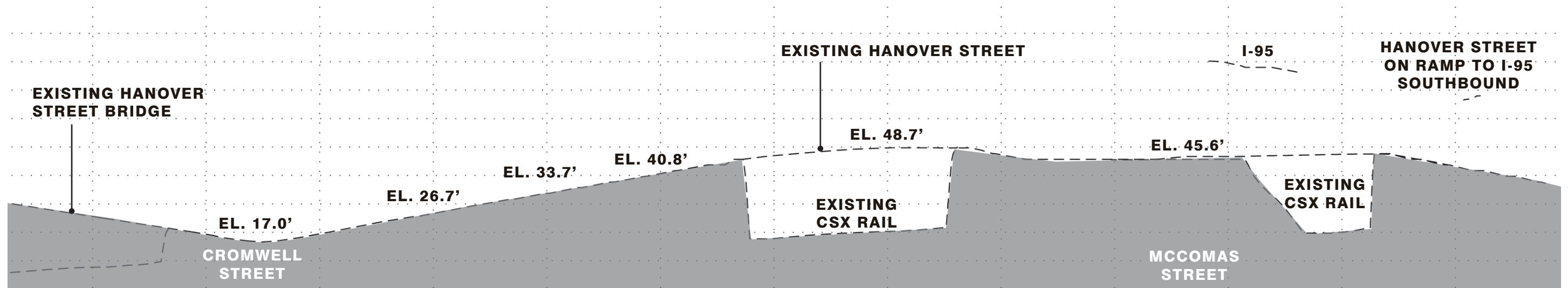
CROMWELL STREET

WINANS COVE

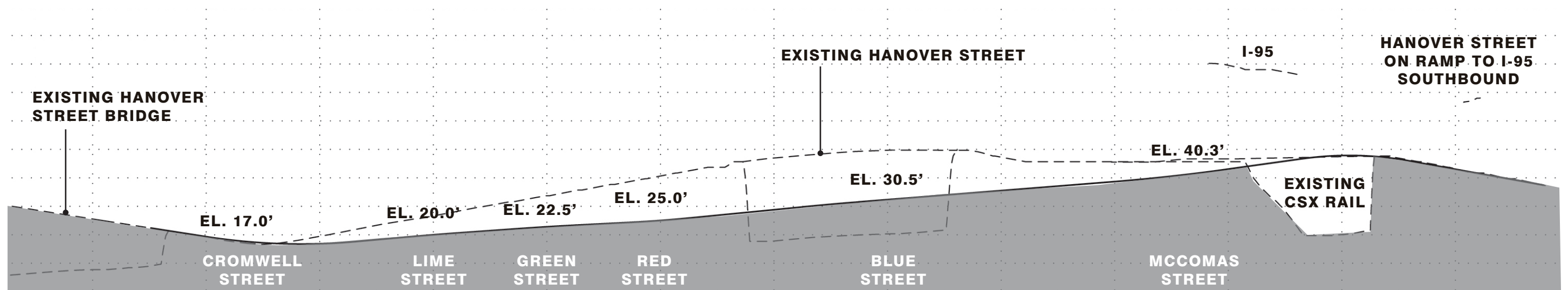
SOUTH LOCUST POINT

HANOVER STREET BRIDGE

# HANOVER STREET EXISTING & PROPOSED PROFILES



EXISTING HANOVER STREET PROFILE




PROPOSED HANOVER STREET PROFILE

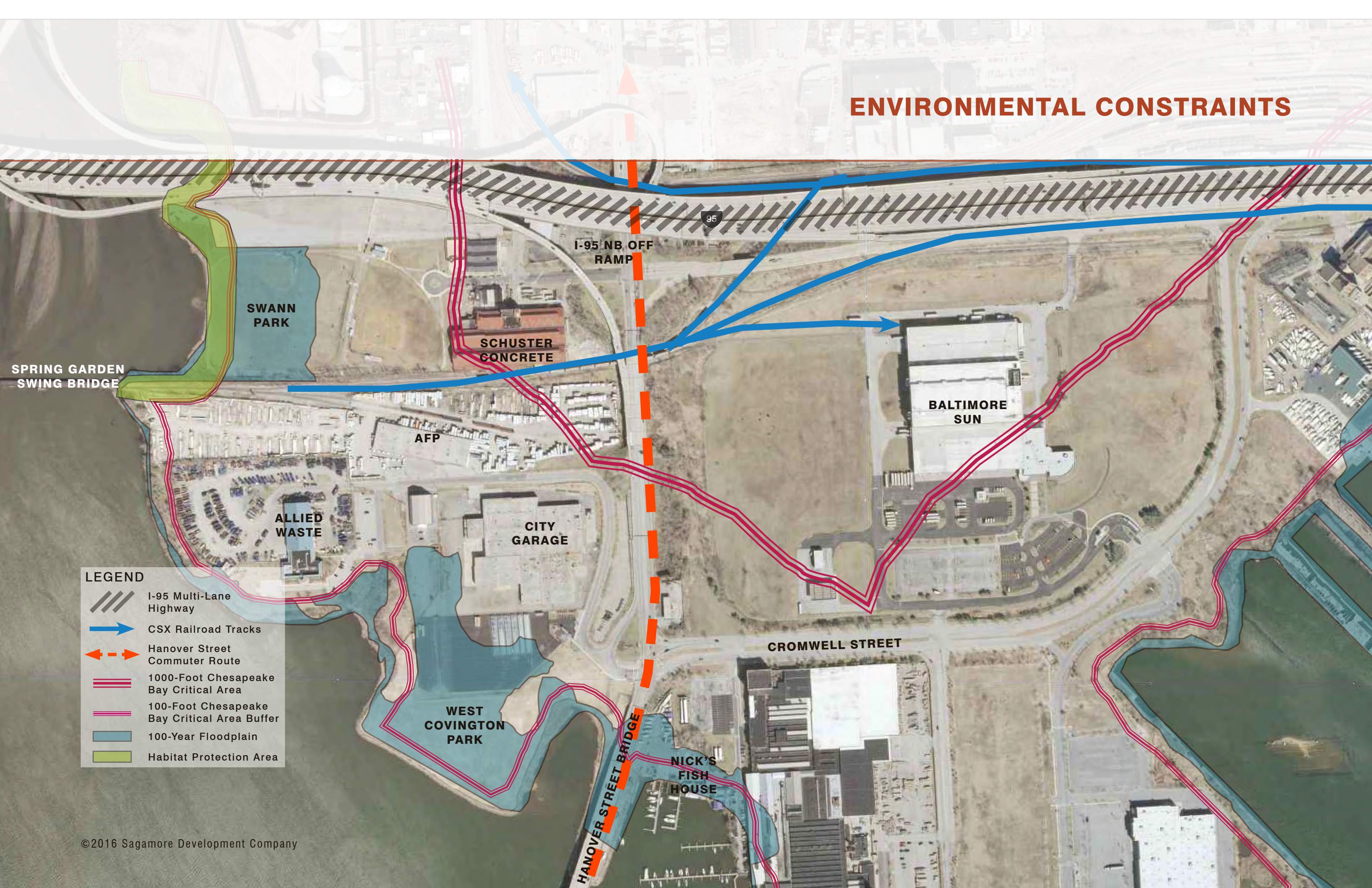
# ENVIRONMENTAL CONSTRAINTS



**LEGEND**

-  I-95 Multi-Lane Highway
-  CSX Railroad Tracks
-  Hanover Street Commuter Route
-  1000-Foot Chesapeake Bay Critical Area
-  100-Foot Chesapeake Bay Critical Area Buffer
-  100-Year Floodplain
-  Habitat Protection Area

# ENVIRONMENTAL CONSTRAINTS



SPRING GARDEN SWING BRIDGE

SWANN PARK

SCHUSTER CONCRETE

I-95 NB OFF RAMP

BALTIMORE SUN

AFP

ALLIED WASTE

CITY GARAGE

CROMWELL STREET

WEST COVINGTON PARK

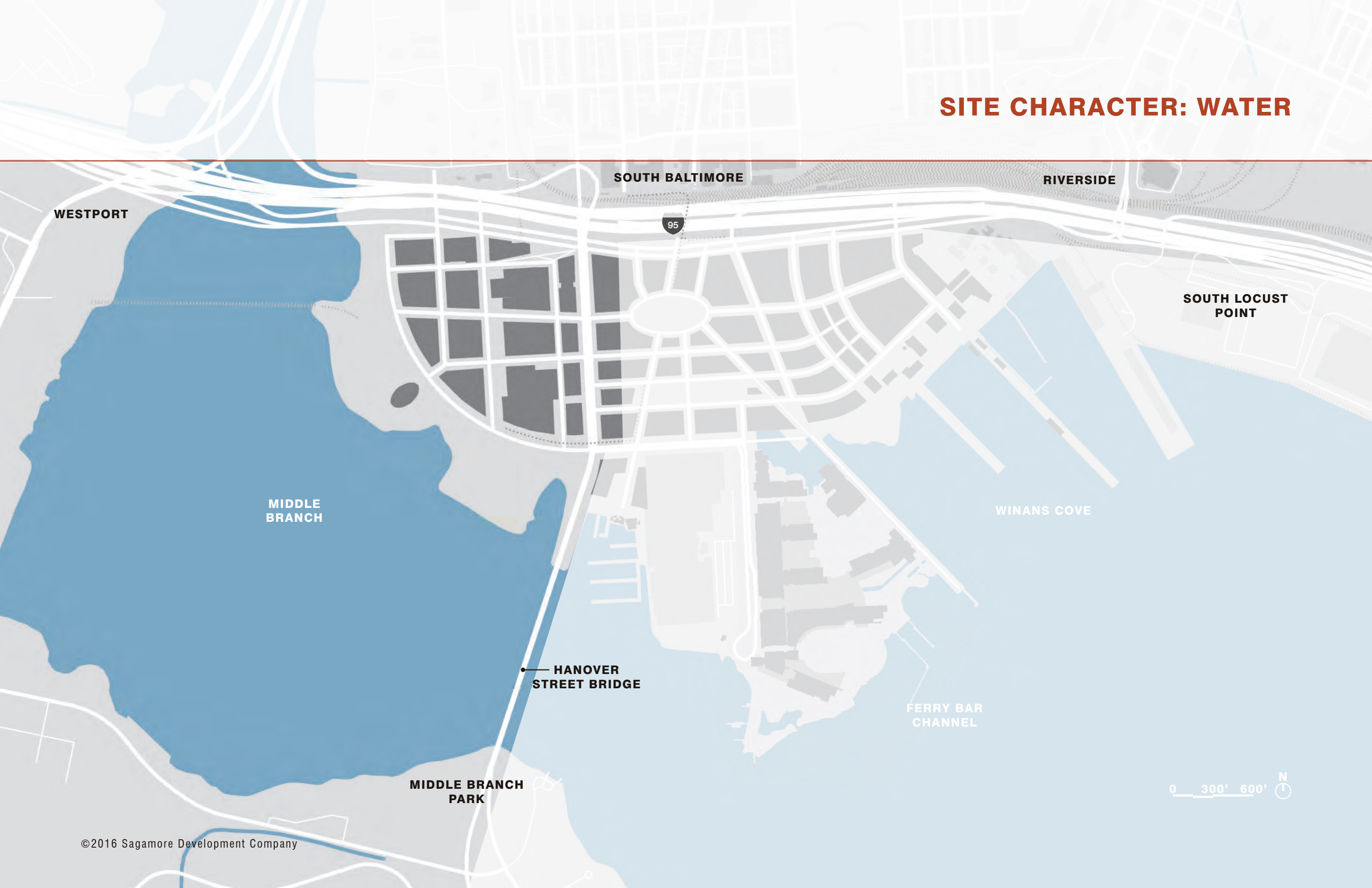
NICK'S FISH HOUSE

HANOVER STREET BRIDGE

**LEGEND**

- I-95 Multi-Lane Highway
- CSX Railroad Tracks
- Hanover Street Commuter Route
- 100-Foot Chesapeake Bay Critical Area
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- 100-Year Floodplain
- Habitat Protection Area

# SITE CHARACTER: WATER



WESTPORT

SOUTH BALTIMORE

RIVERSIDE

95

SOUTH LOCUST  
POINT

MIDDLE  
BRANCH

WINANS COVE

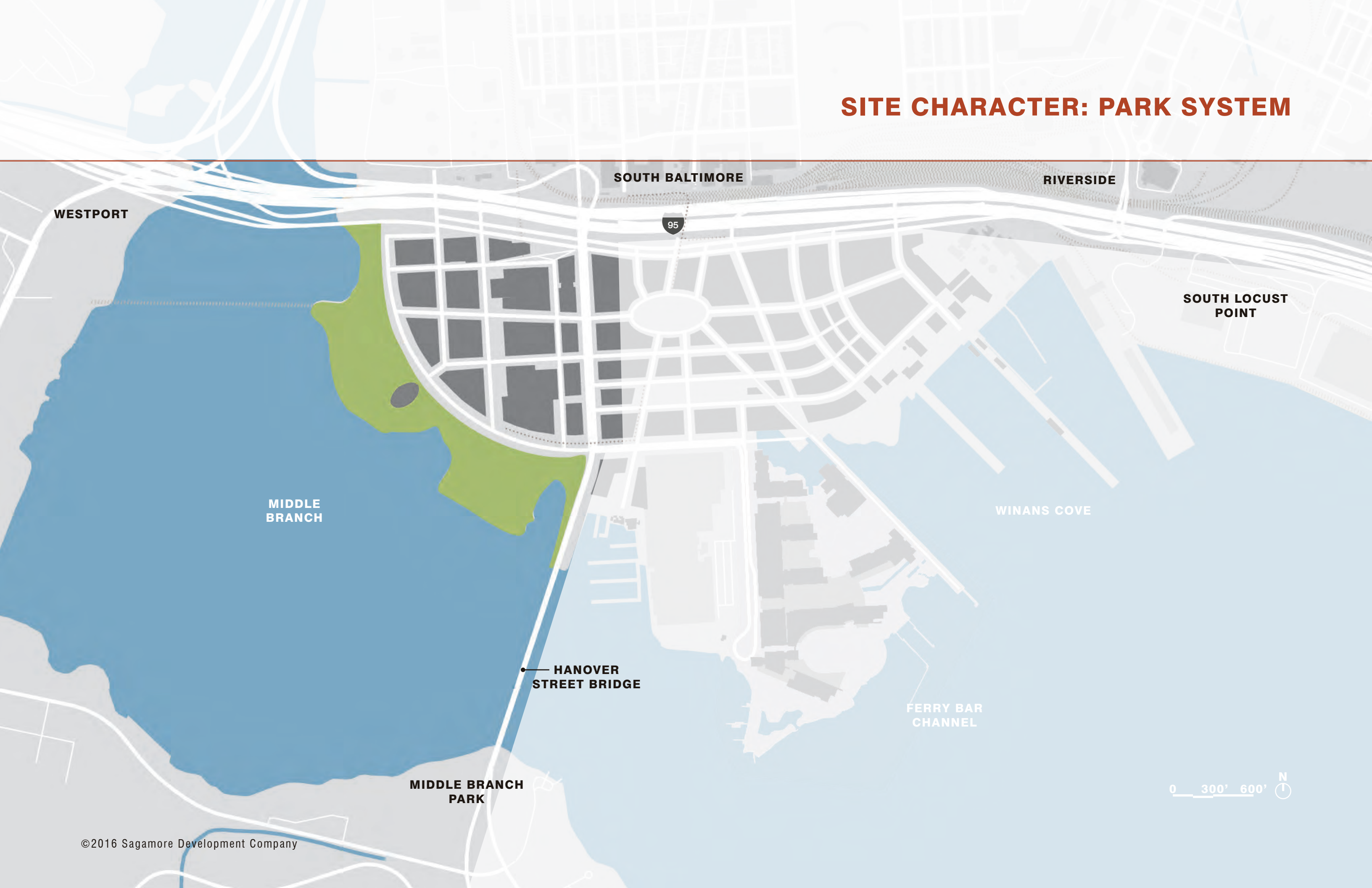
HANOVER  
STREET BRIDGE

FERRY BAR  
CHANNEL

MIDDLE BRANCH  
PARK

0 300' 600' N

# SITE CHARACTER: PARK SYSTEM



WESTPORT

SOUTH BALTIMORE

RIVERSIDE

SOUTH LOCUST POINT

MIDDLE BRANCH

WINANS COVE

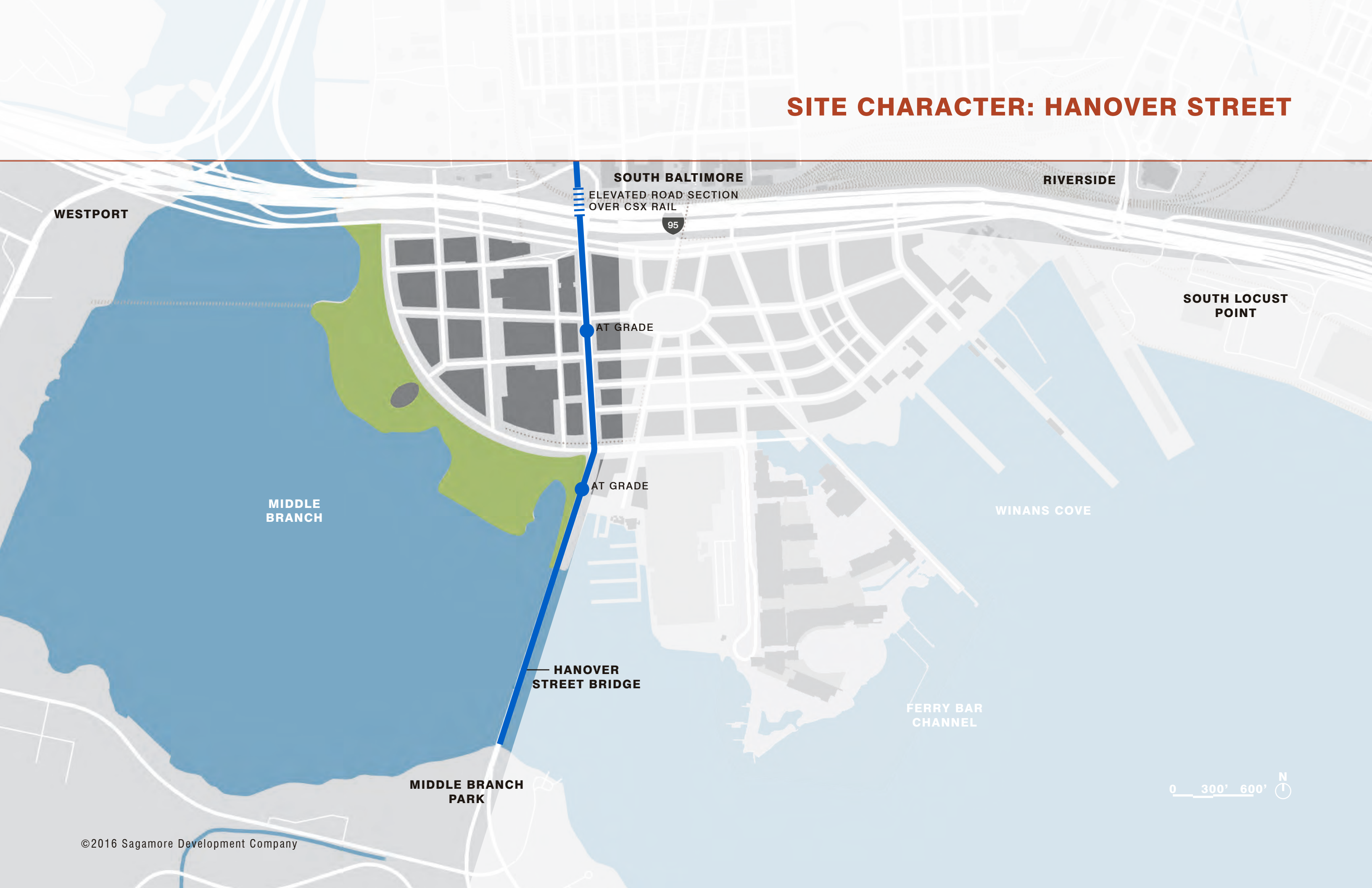
HANOVER STREET BRIDGE

FERRY BAR CHANNEL

MIDDLE BRANCH PARK

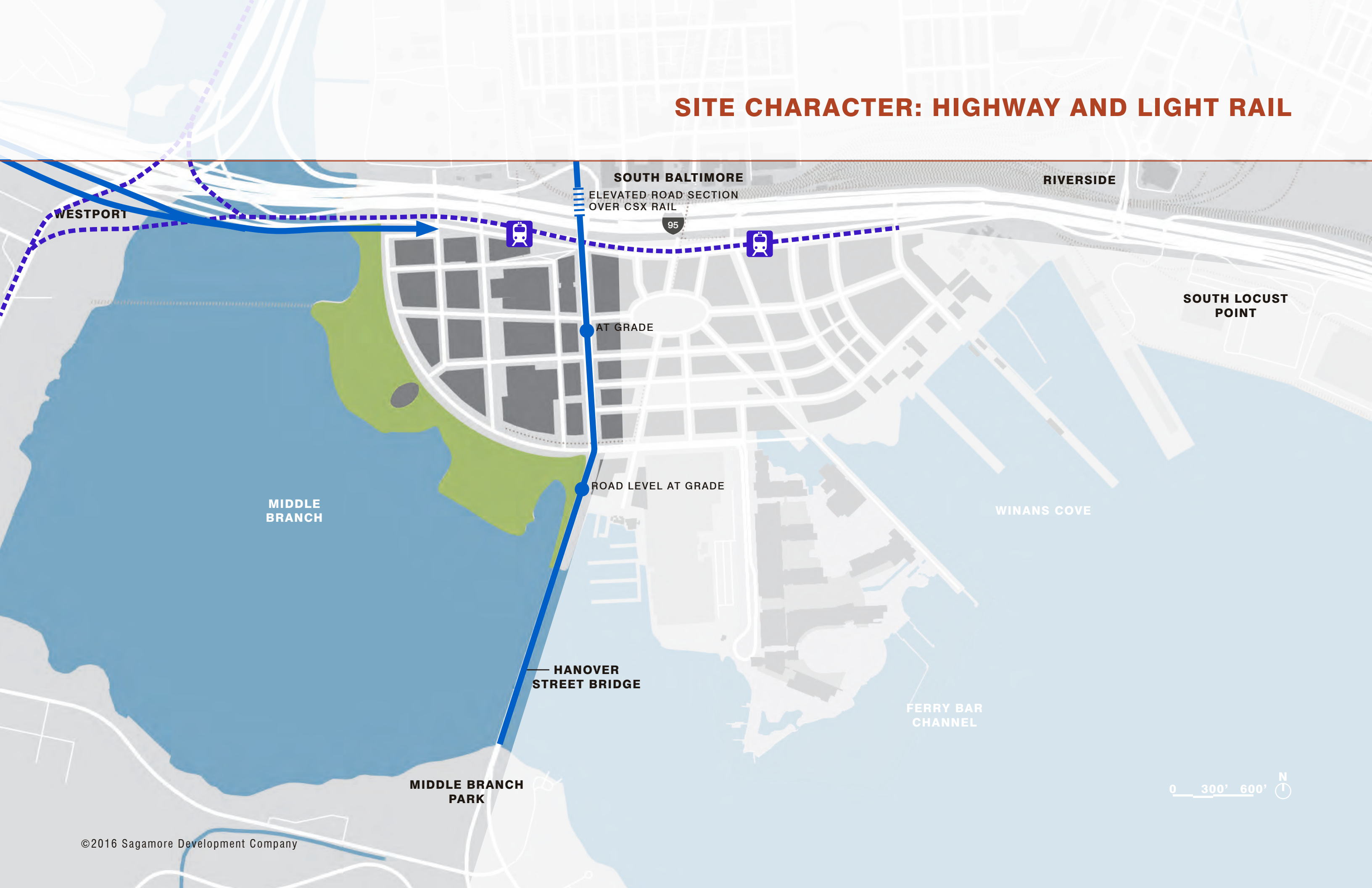


# SITE CHARACTER: HANOVER STREET





# SITE CHARACTER: HIGHWAY AND LIGHT RAIL



**SOUTH BALTIMORE**

**RIVERSIDE**

**WESTPORT**

ELEVATED ROAD SECTION  
OVER CSX RAIL

95

**SOUTH LOCUST  
POINT**

AT GRADE

**MIDDLE  
BRANCH**

ROAD LEVEL AT GRADE

**WINANS COVE**

**HANOVER  
STREET BRIDGE**

**FERRY BAR  
CHANNEL**

**MIDDLE BRANCH  
PARK**



# SITE CHARACTER: CITY GARAGE



# SITE CHARACTER: SCHUSTER





Port  
Covington

**HANOVER STREET &  
WEST END DISTRICTS**  
Massing, Uses & Blocks

DAVID MANFREDI FAIA, LEED AP

Elkus Manfredi Architects  
Principal

# HANOVER STREET DISTRICT



WESTPORT

SOUTH BALTIMORE

RIVERSIDE

Retail  
Office  
Maker Space  
Residential

95

SOUTH LOCUST  
POINT

MIDDLE  
BRANCH

WINANS COVE

HANOVER  
STREET BRIDGE

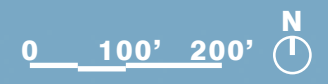
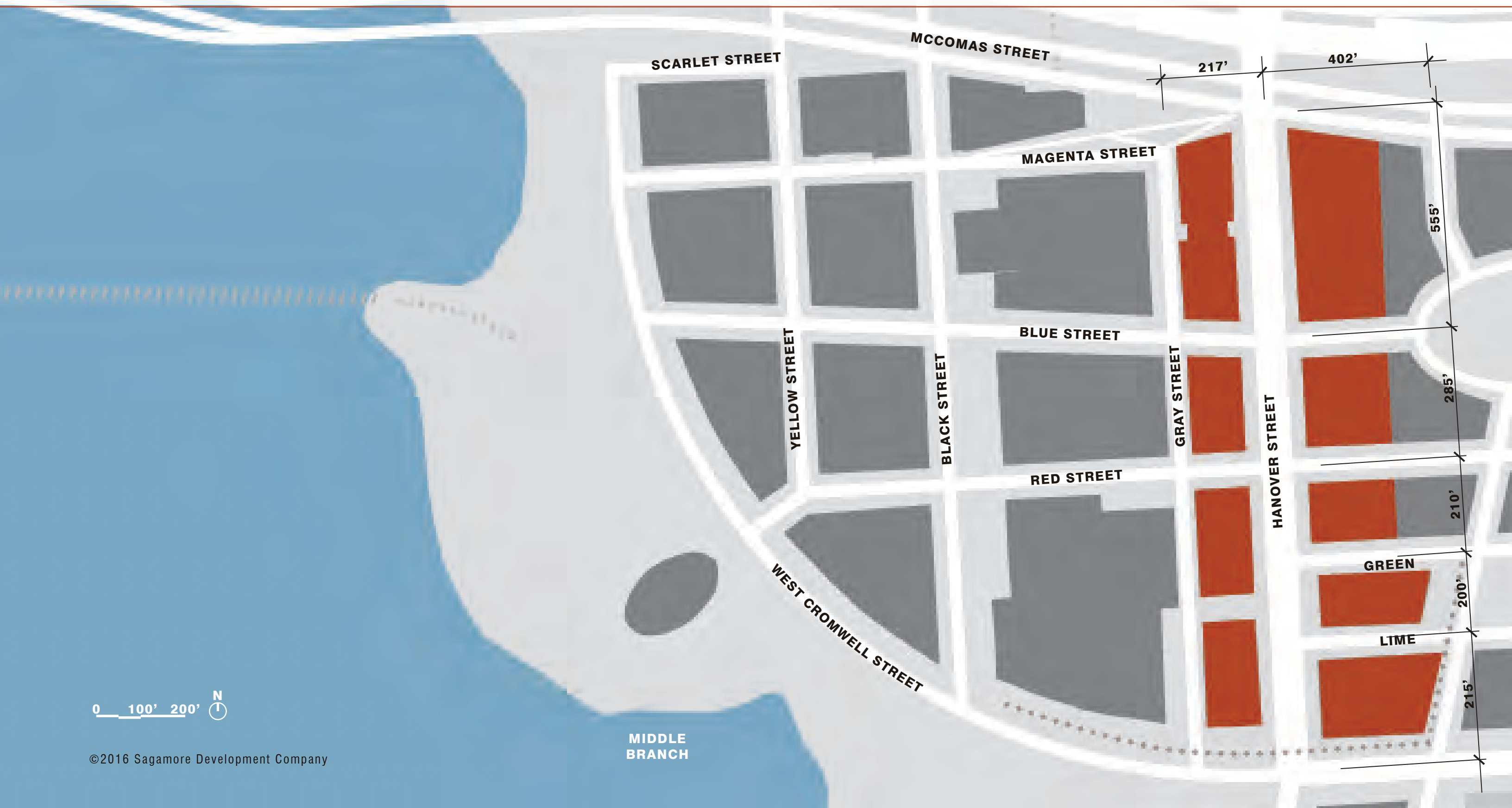
FERRY BAR  
CHANNEL

MIDDLE BRANCH  
PARK

0 300' 600' N

# HANOVER STREET DISTRICT

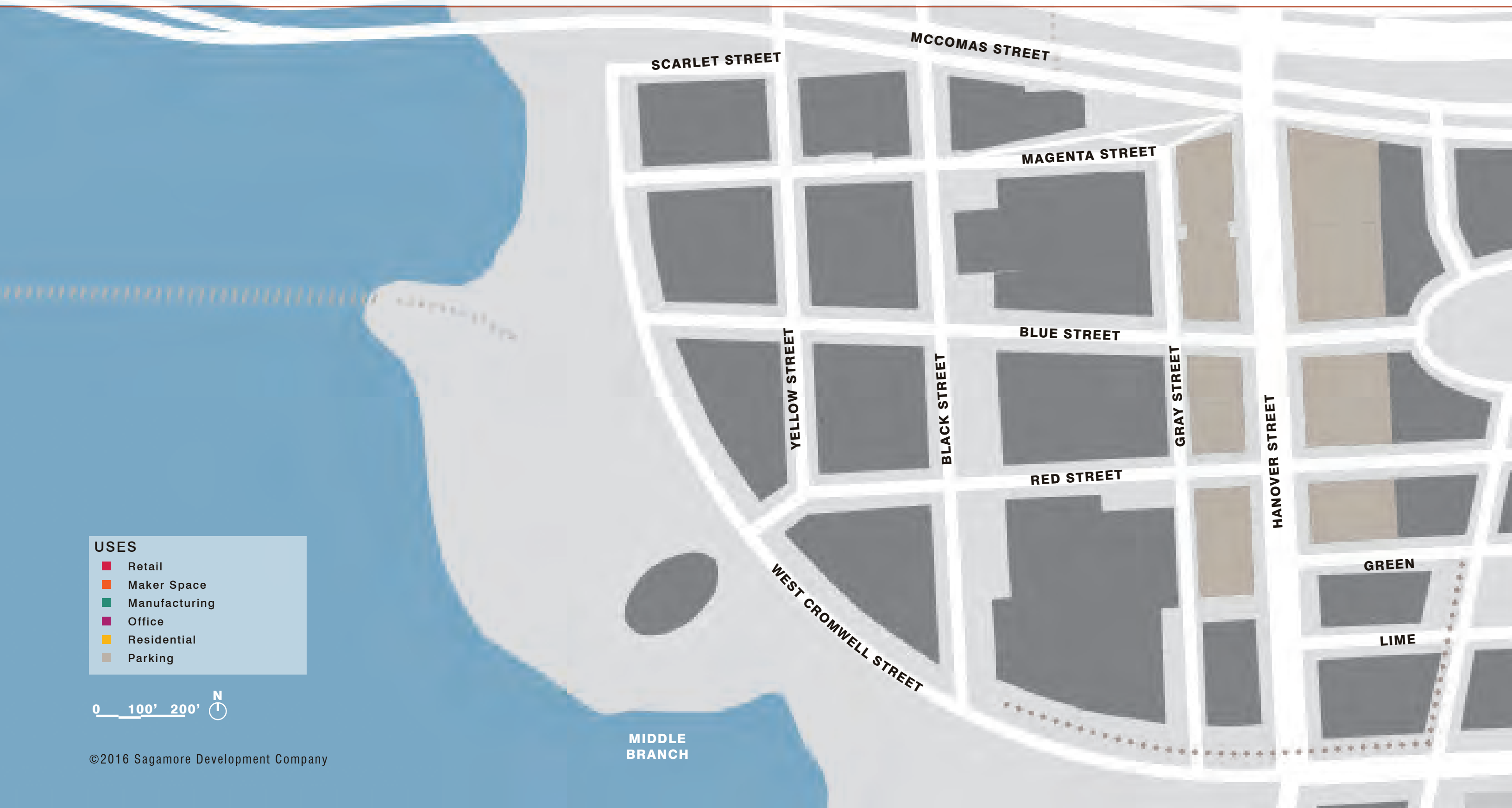
95



# HANOVER STREET DISTRICT

95

## LOWER LEVEL PARKING



### USES

- Retail
- Maker Space
- Manufacturing
- Office
- Residential
- Parking



# HANOVER STREET DISTRICT

## GROUND LEVEL USES

95



### USES

- Retail
- Maker Space
- Manufacturing
- Office
- Residential
- Parking





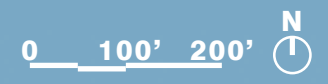
# HANOVER STREET DISTRICT

## UPPER LEVEL USES

95

**USES**

- Retail
- Maker Space
- Manufacturing
- Office
- Residential
- Parking



MIDDLE BRANCH



# HANOVER STREET SECTION LOOKING WEST



# HANOVER STREET SECTION LOOKING EAST



# HANOVER STREET DISTRICT

## AERIAL VIEW FROM THE WEST



# HANOVER STREET DISTRICT

## AERIAL VIEW FROM THE SOUTH



# HANOVER STREET DISTRICT

## HANOVER STREET LOOKING NORTH



# HANOVER STREET DISTRICT

## HANOVER STREET LOOKING SOUTH



# WEST END DISTRICT



SOUTH BALTIMORE

RIVERSIDE

WESTPORT

95

SOUTH LOCUST POINT

Office  
Residential  
Commodity Retail  
Maker Space  
Parking

MIDDLE BRANCH

WINANS COVE

HANOVER STREET BRIDGE

FERRY BAR CHANNEL

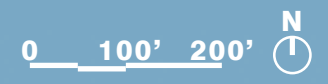
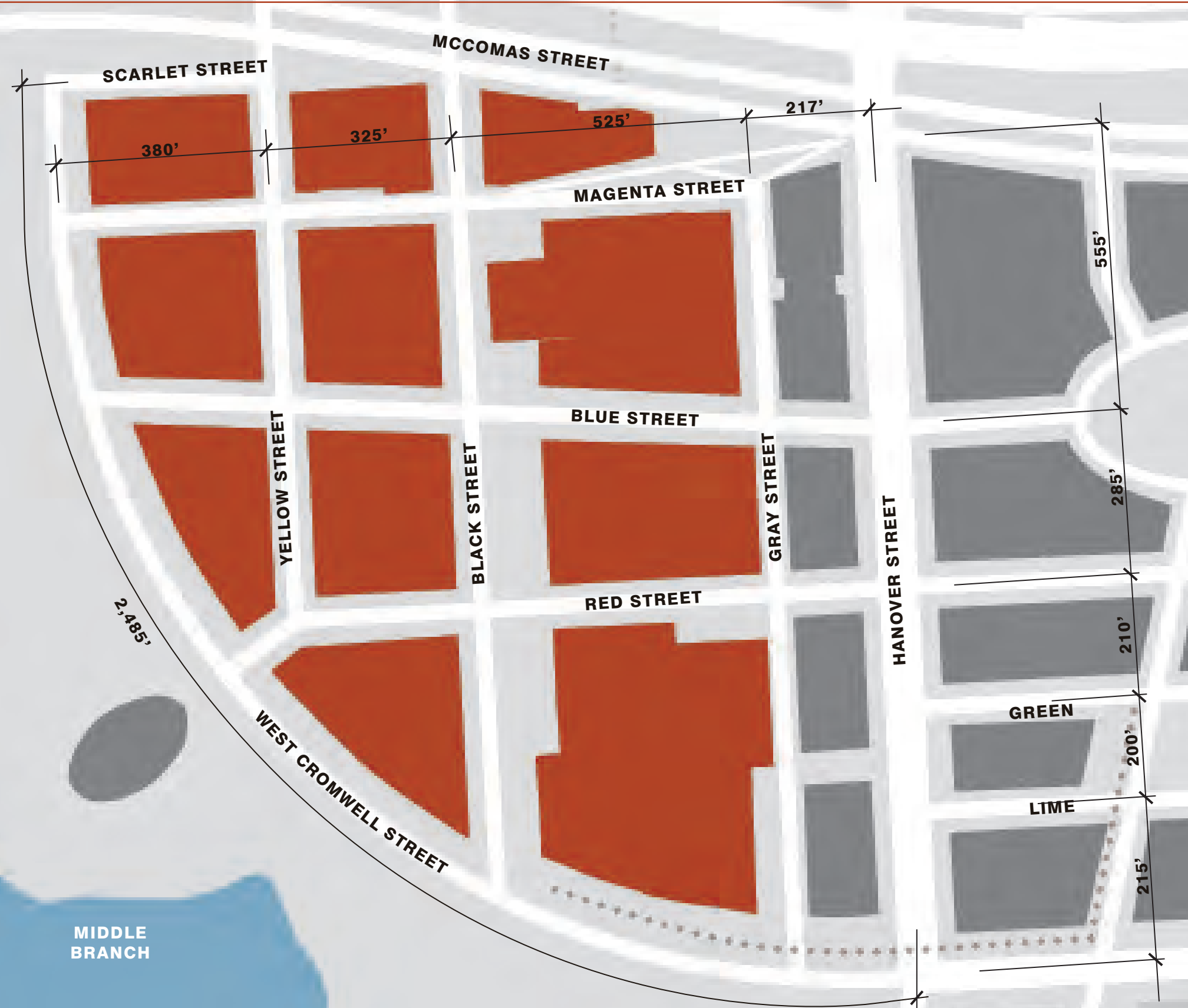
MIDDLE BRANCH PARK

0 300' 600' N



# WEST END DISTRICT

95



MIDDLE BRANCH

# WEST END DISTRICT

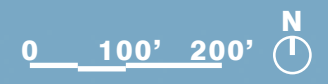
## GROUND LEVEL USES

95



**USES**

- Retail
- Maker Space
- Manufacturing
- Office
- Residential
- Parking



MIDDLE BRANCH

# WEST END DISTRICT

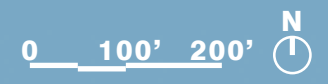
## UPPER LEVEL USES

95



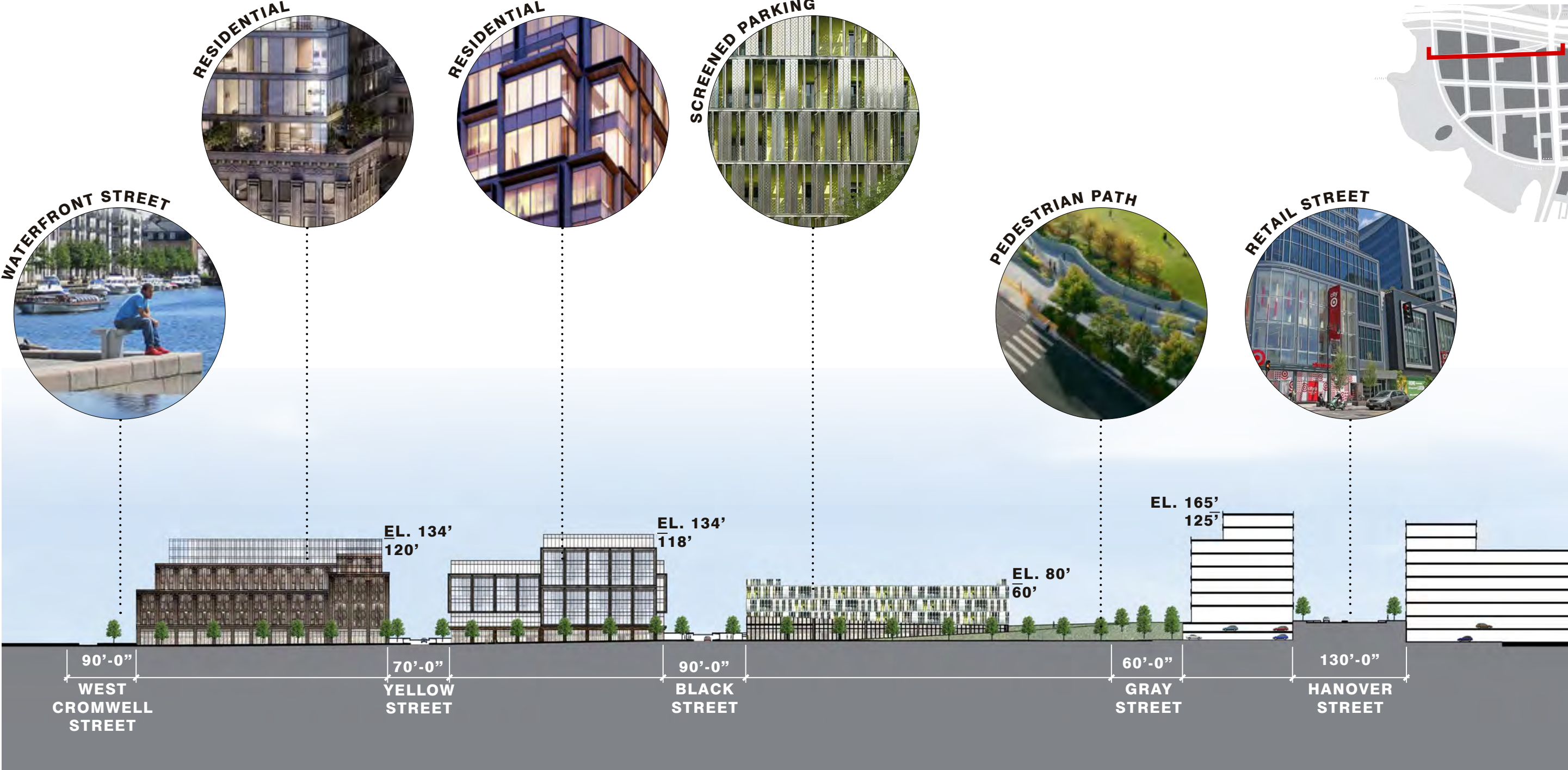
**USES**

- Retail
- Maker Space
- Manufacturing
- Office
- Residential
- Parking

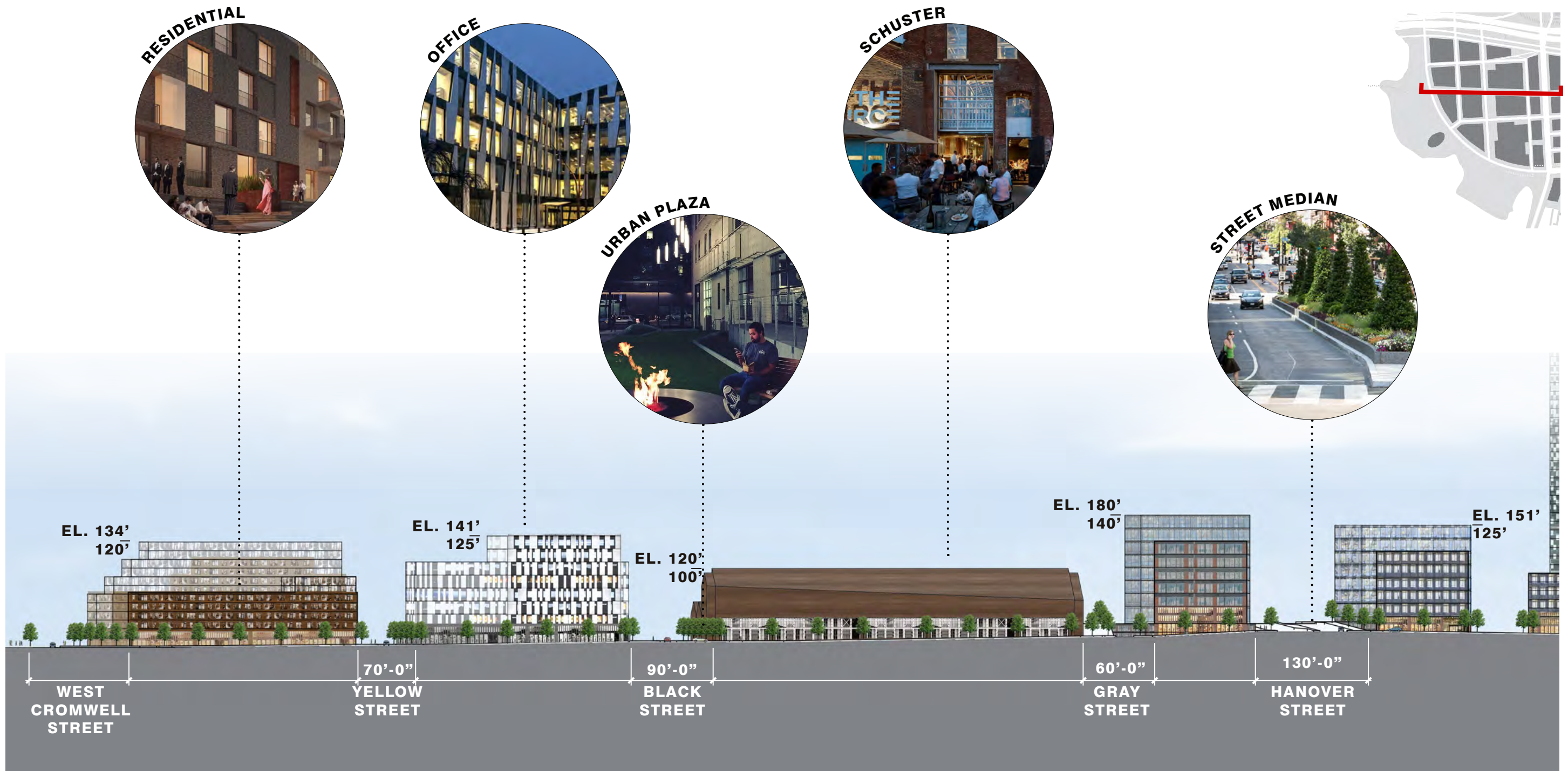


MIDDLE  
BRANCH

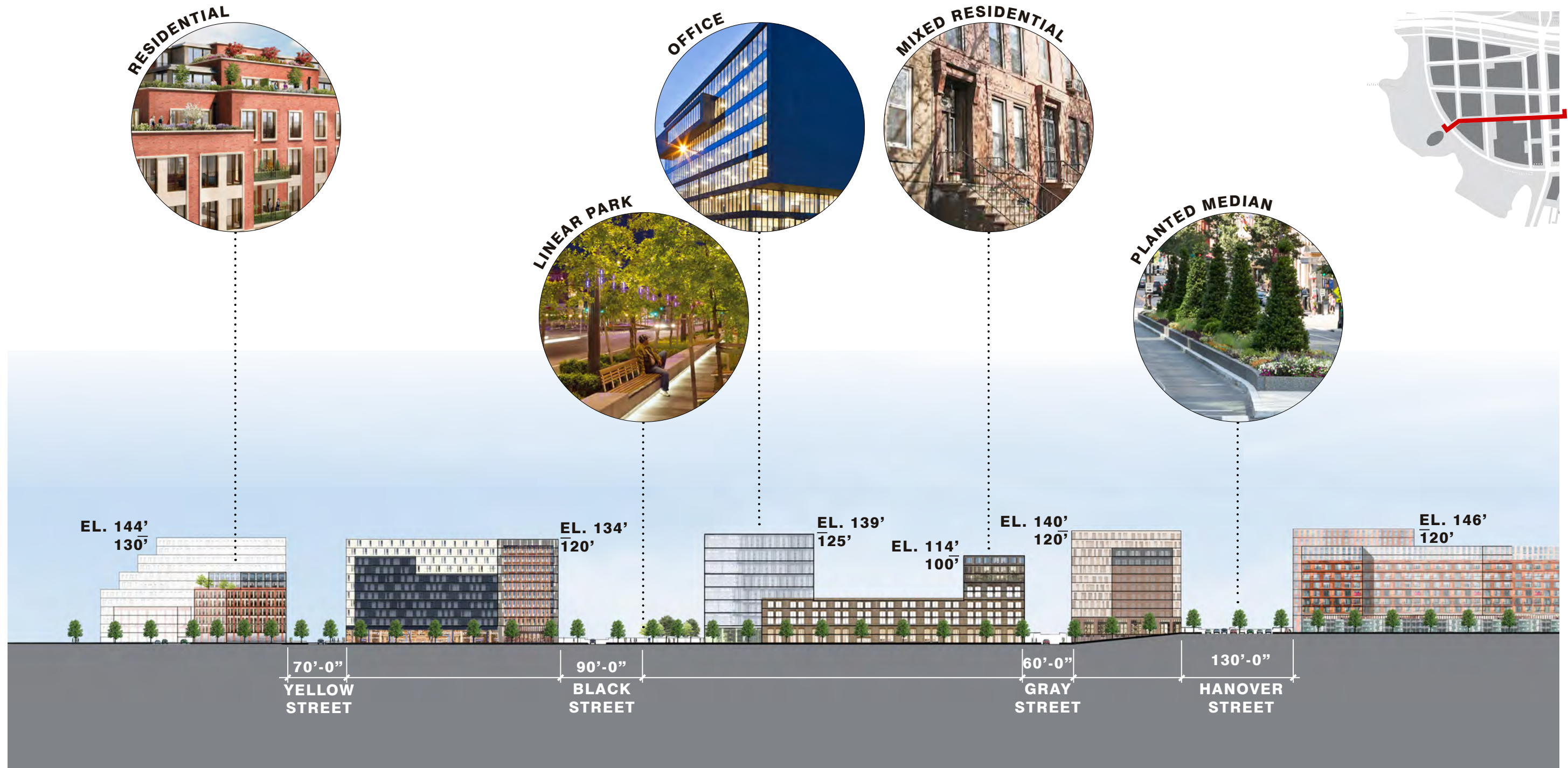
# MAGENTA STREET SECTION LOOKING NORTH



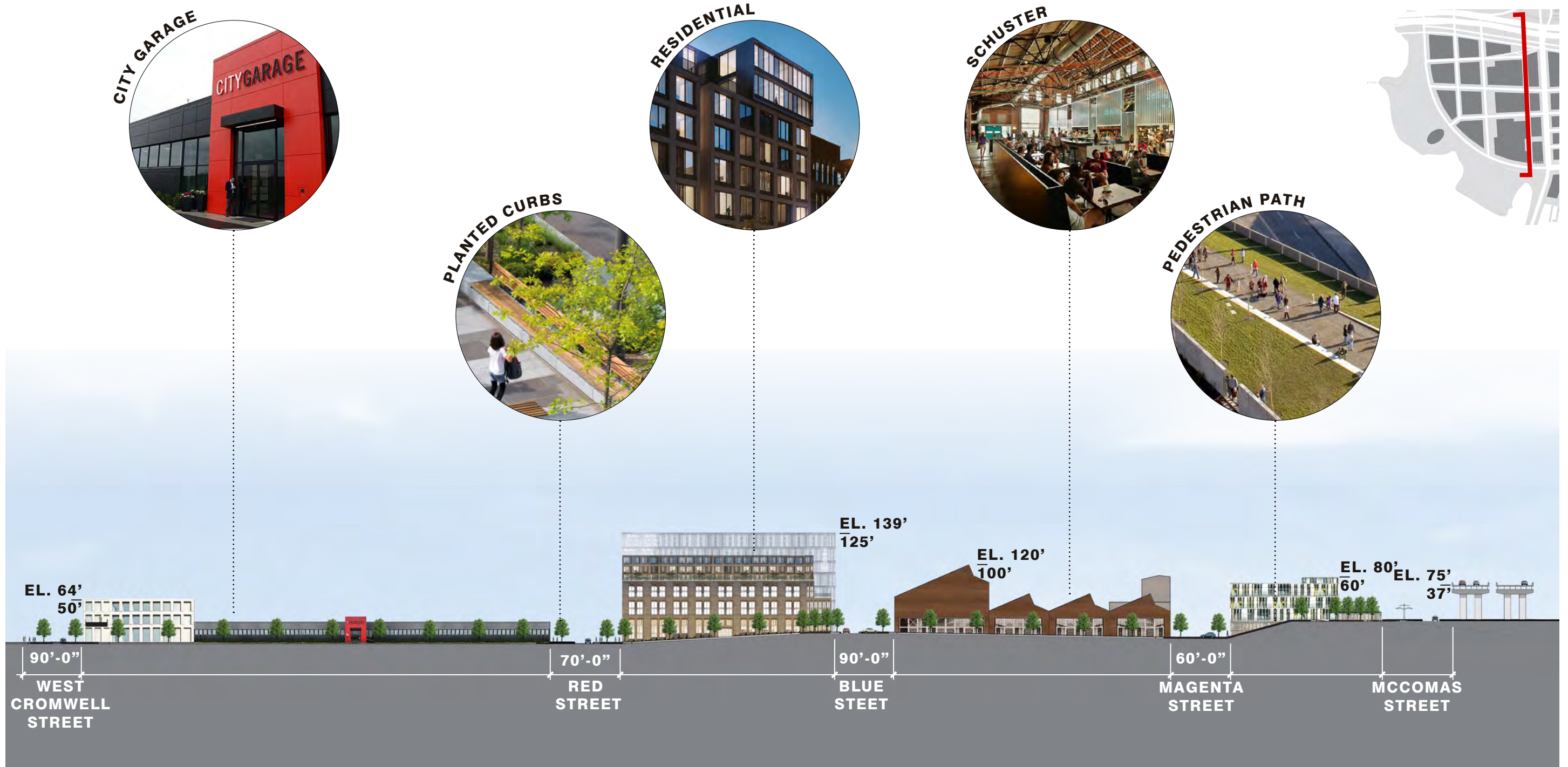
# BLUE STREET SECTION LOOKING NORTH



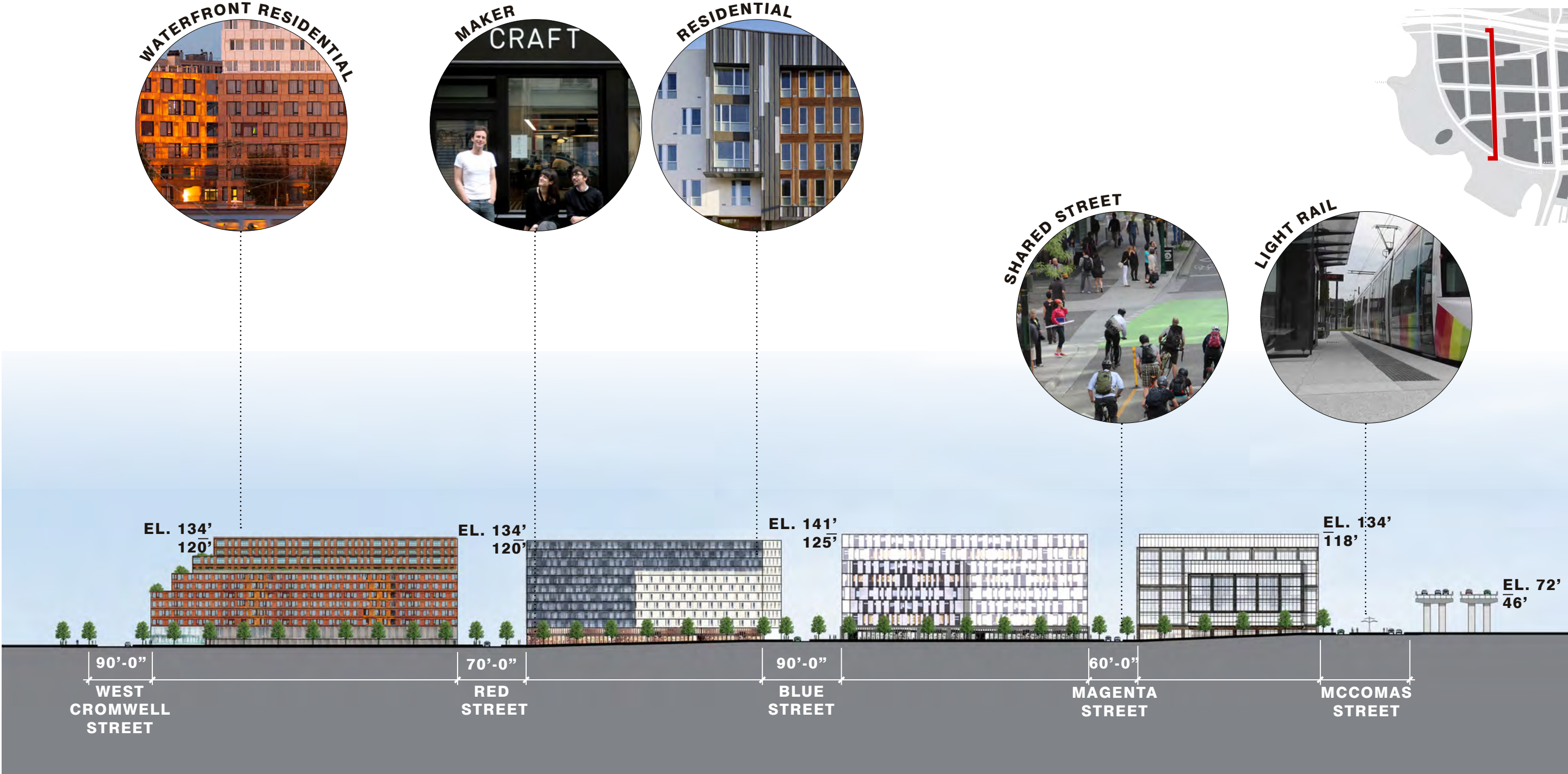
# RED STREET SECTION LOOKING NORTH



# GRAY STREET SECTION LOOKING WEST

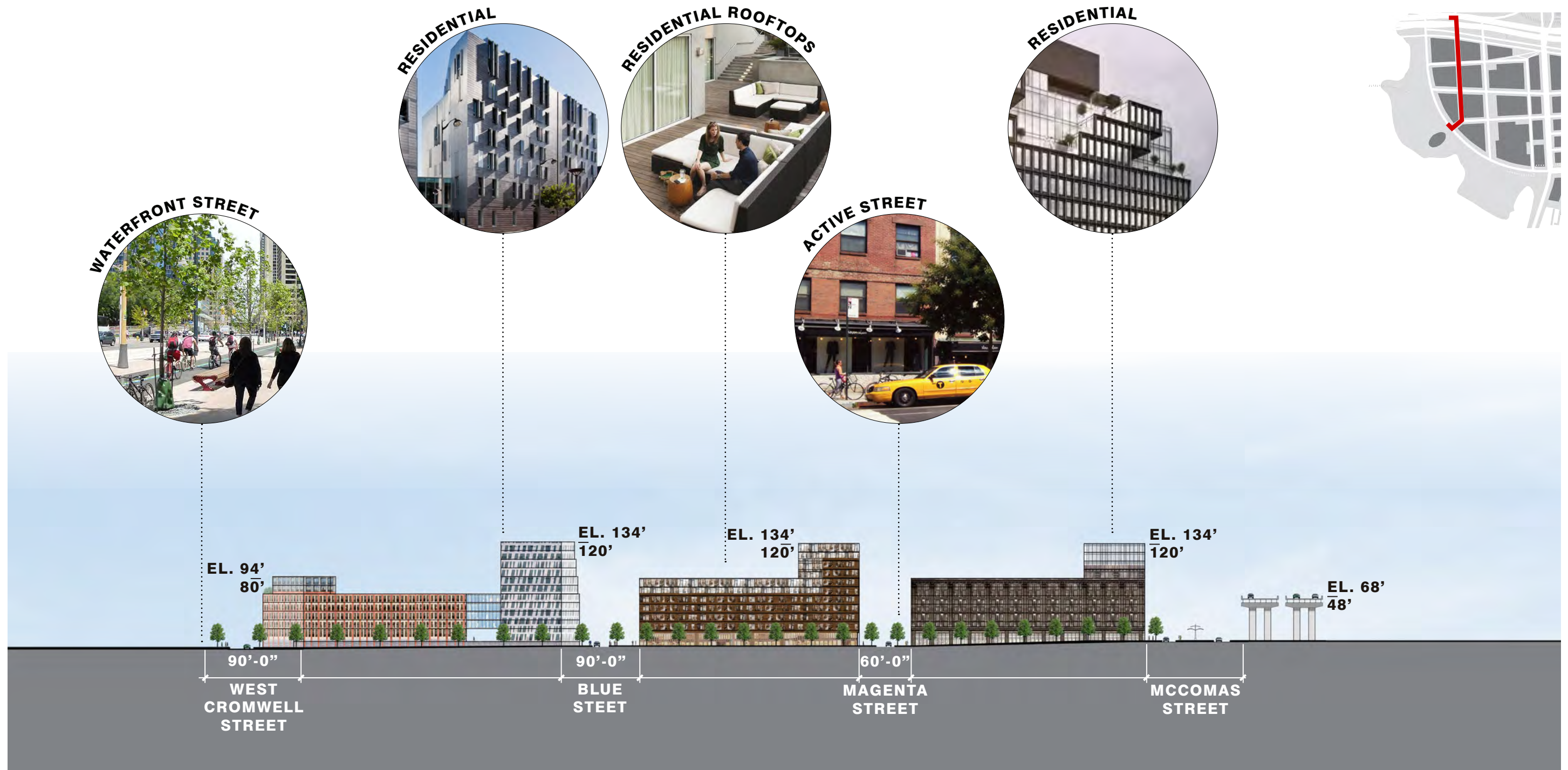


# BLACK STREET SECTION LOOKING WEST

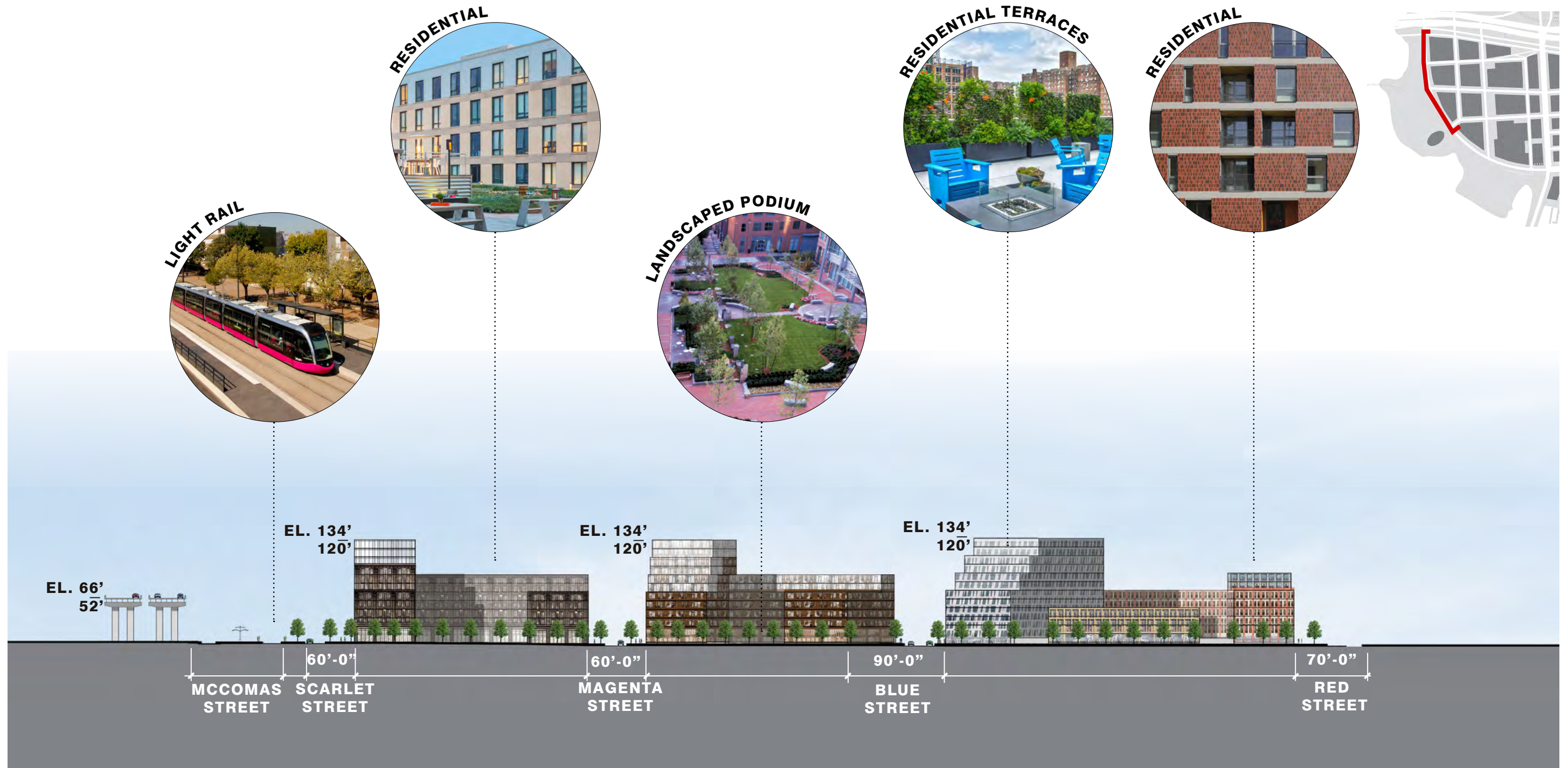




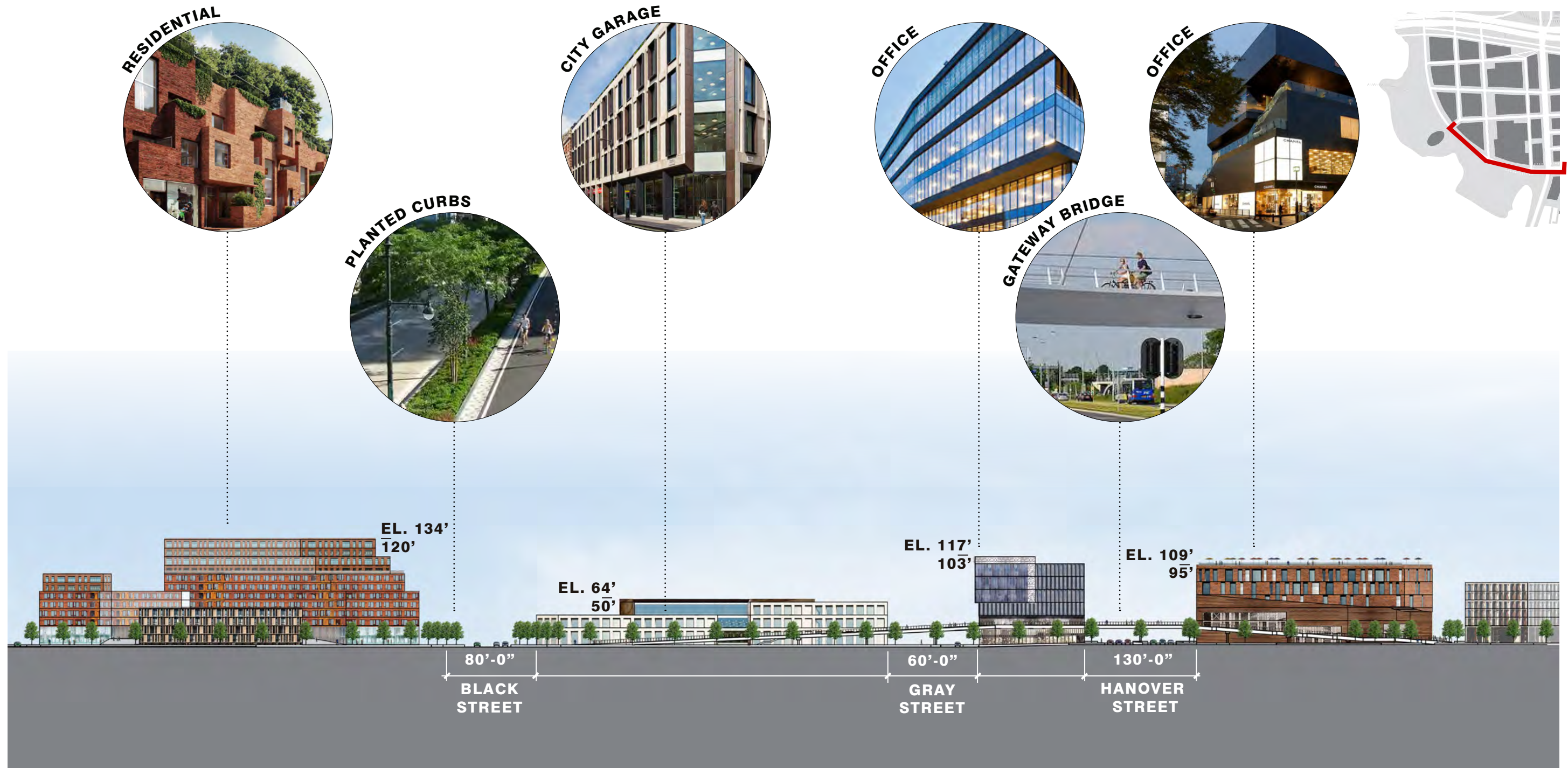
# YELLOW STREET SECTION LOOKING WEST



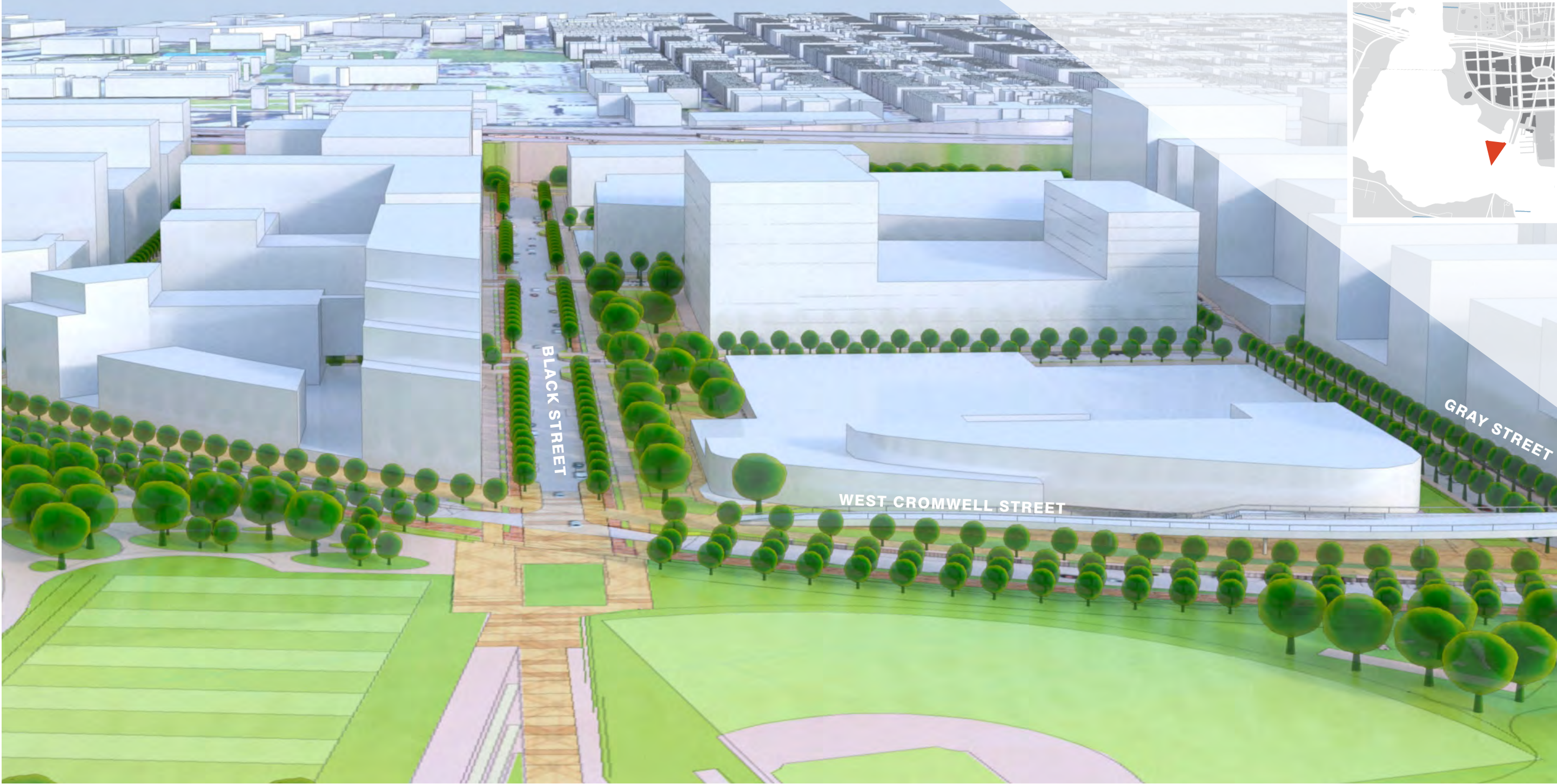
# WEST CROMWELL STREET SECTION (NORTH)



# WEST CROMWELL STREET SECTION (SOUTH)

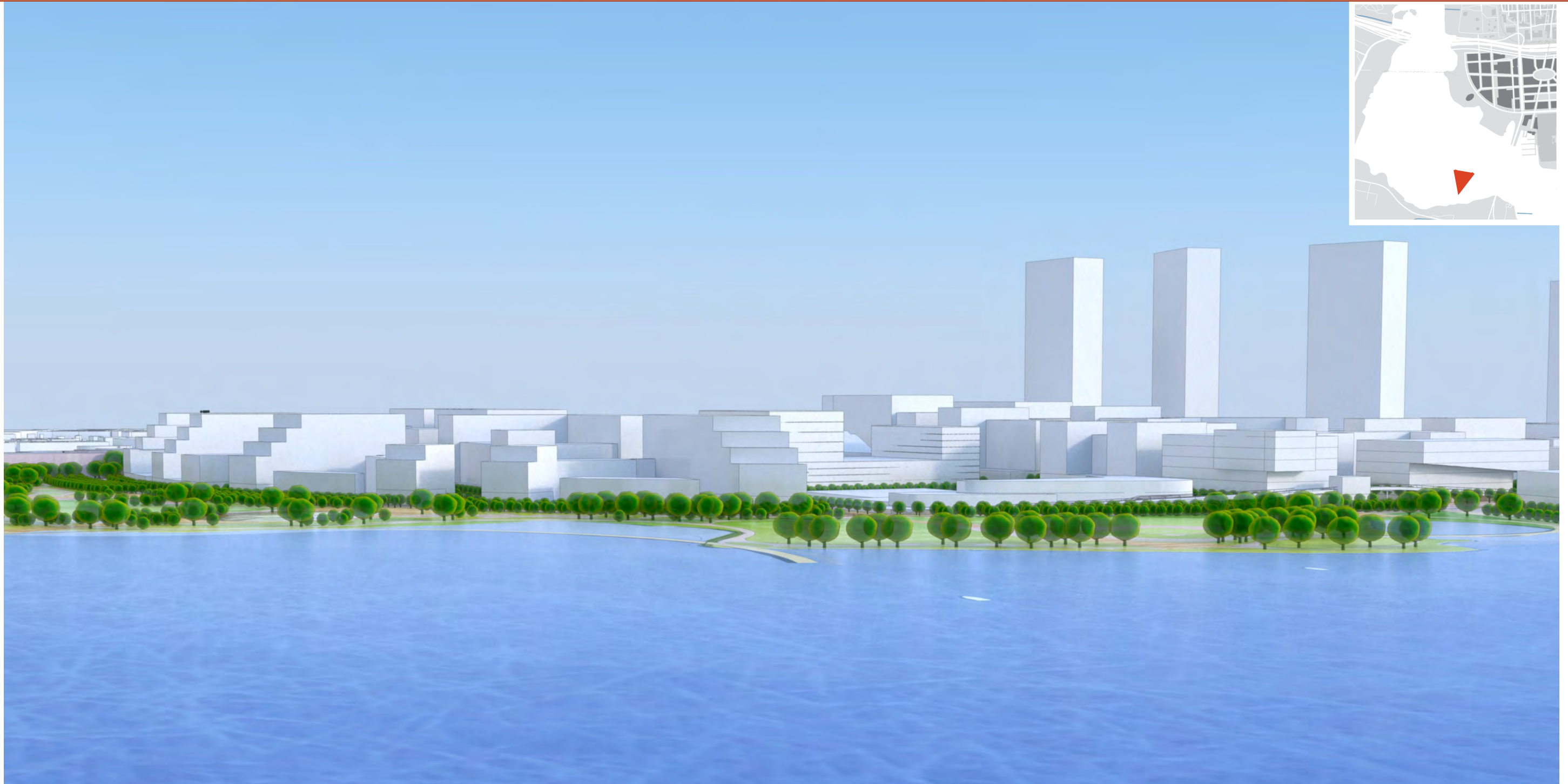


**WEST END DISTRICT**  
AERIAL VIEW FROM THE SOUTH



# WEST END DISTRICT

## VIEW FROM THE CHERRY HILL

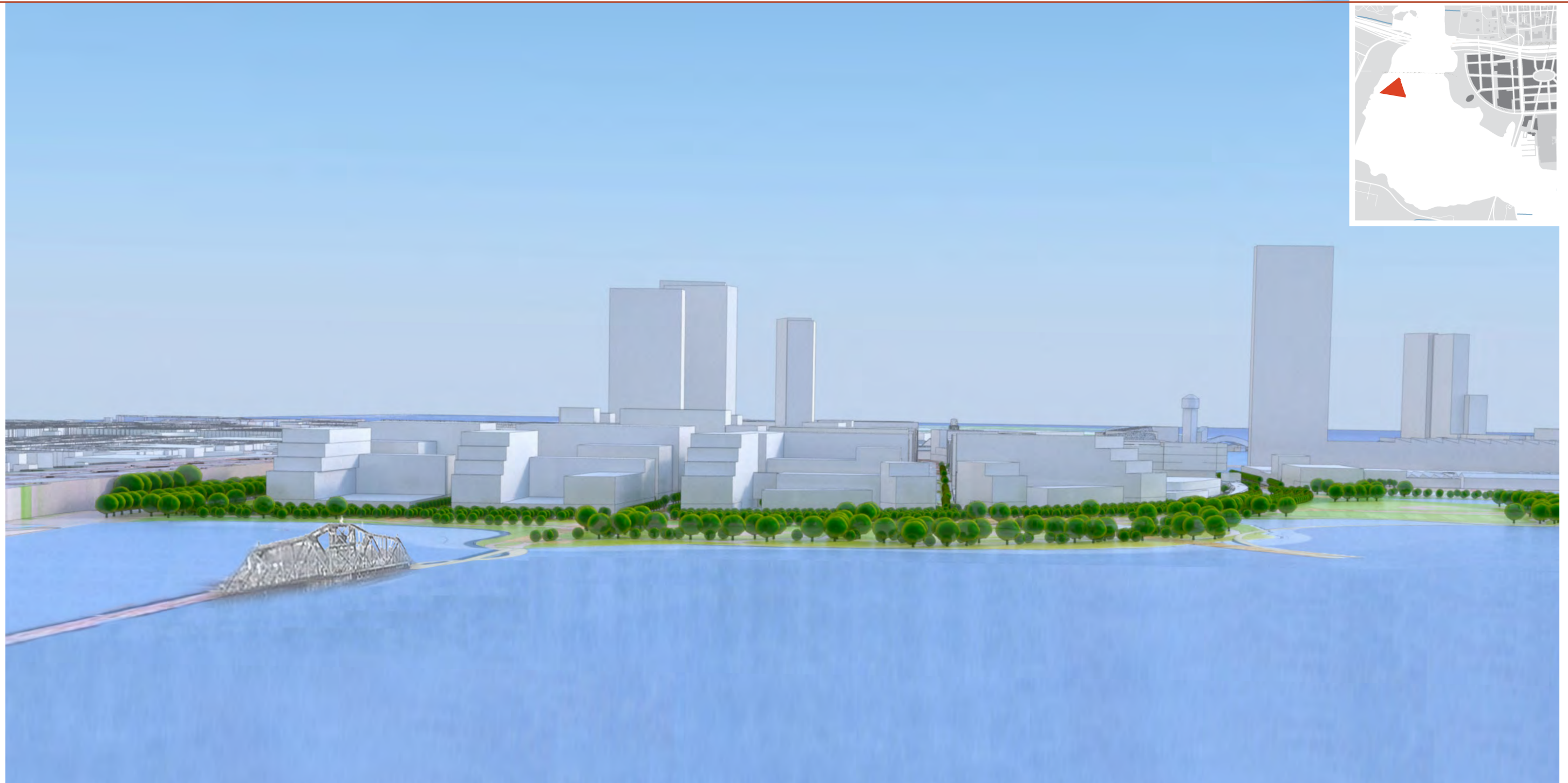


**WEST END DISTRICT**  
AERIAL VIEW FROM SOUTHWEST



# WEST END DISTRICT

## VIEW FROM THE WESTPORT



**WEST END DISTRICT**  
AERIAL VIEW FROM THE WEST

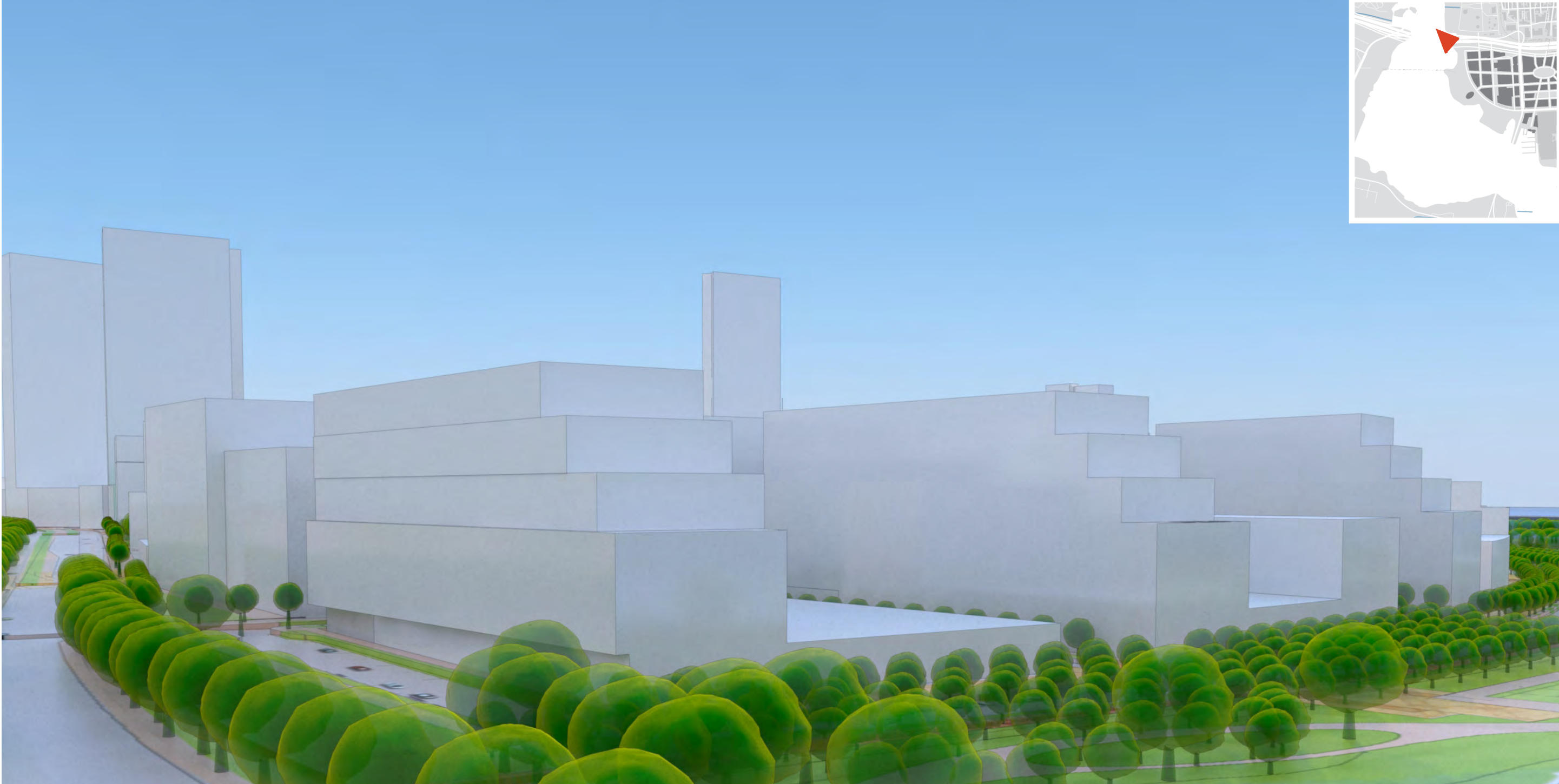




# WEST END DISTRICT AERIAL VIEW FROM NORTHEAST



**WEST END DISTRICT**  
VIEW FROM I-95



**WEST END DISTRICT**  
AERIAL VIEW FROM THE NORTH



# WEST END DISTRICT AERIAL VIEW LOOKING SOUTHWEST



**WEST END DISTRICT**  
VIEW LOOKING WEST ON BLUE STREET





# **HANOVER STREET & WEST END DISTRICTS**

## Ecological Context

CHRIS STREB PE, LEED AP

Biohabitats Inc.  
Ecological Engineer

# PORT COVINGTON ECOLOGICAL PRINCIPLES

## LOCALLY ATTUNED

- An inspiring, innovative & ecologically sustainable community shaped by the natural landscape and cultural context of the Chesapeake Bay.

## HIGH PERFORMANCE LANDSCAPE

- Ecologically adaptive, resilient and high performance urban community.

## CELEBRATING WATER

- Holds water as a precious resource to be conserved, restored and celebrated.

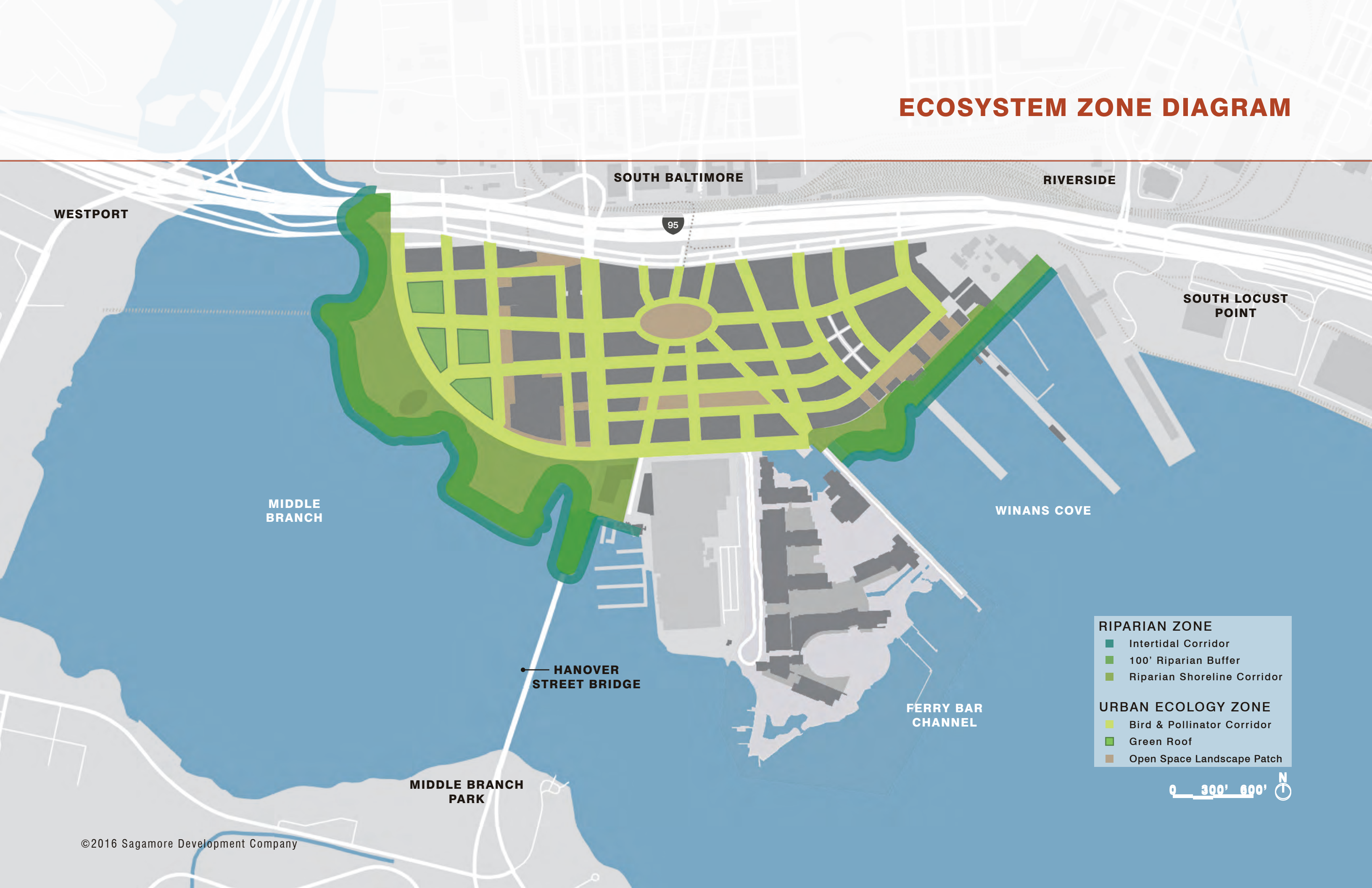
## COMMUNITY CATALYST

- Serves as a catalyst for community actions that promote ecological rejuvenation, health, and stewardship throughout the Middle Branch and Gwynns Falls watershed.



PHOTOGRAPH COPYRIGHT ©JENNIFER DOWDELL

# ECOSYSTEM ZONE DIAGRAM



SOUTH BALTIMORE

RIVERSIDE

WESTPORT

95

SOUTH LOCUST POINT

MIDDLE BRANCH

WINANS COVE

HANOVER STREET BRIDGE

FERRY BAR CHANNEL

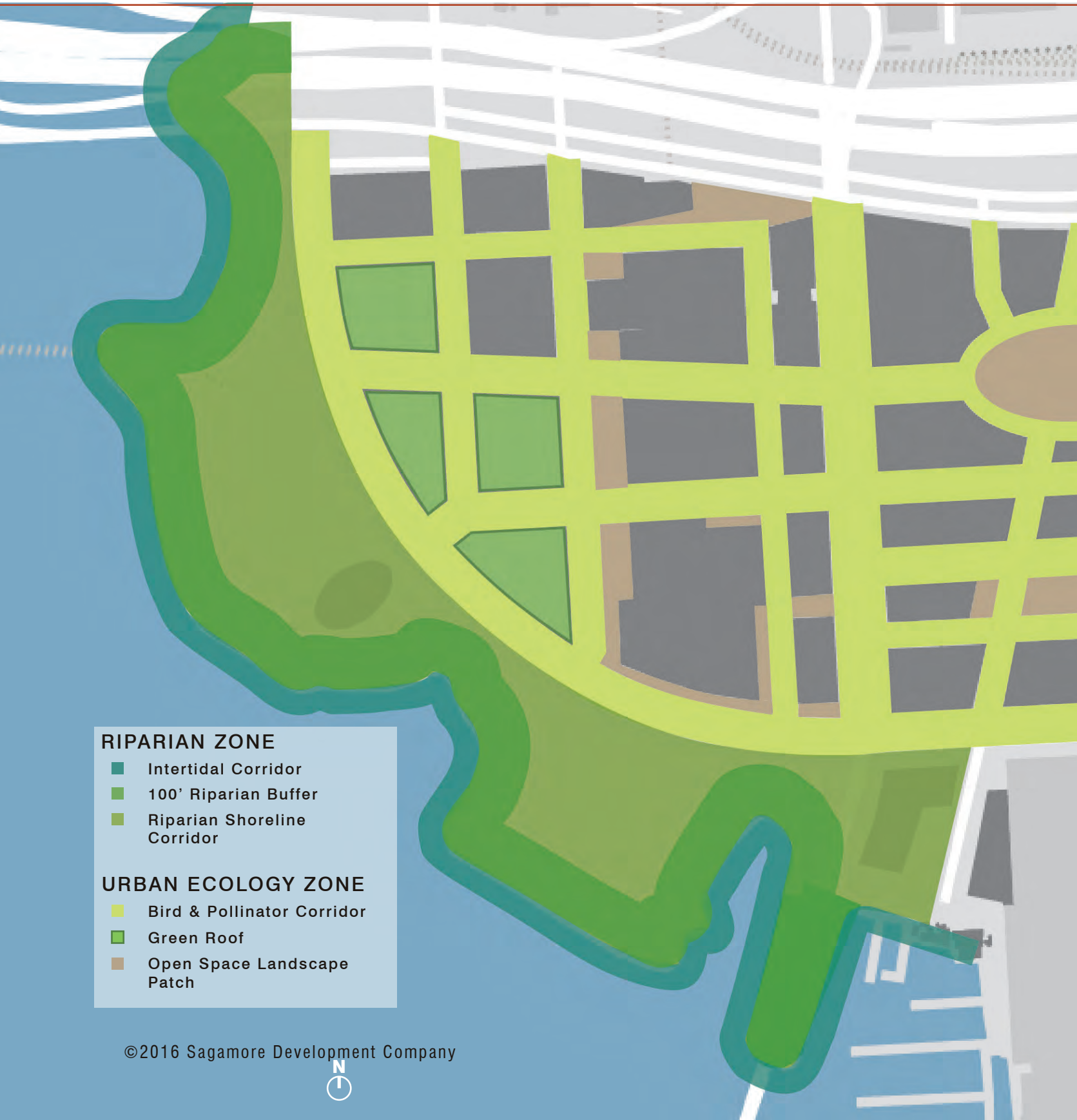
MIDDLE BRANCH PARK

- RIPARIAN ZONE**
  - Intertidal Corridor
  - 100' Riparian Buffer
  - Riparian Shoreline Corridor
- URBAN ECOLOGY ZONE**
  - Bird & Pollinator Corridor
  - Green Roof
  - Open Space Landscape Patch





# SPECIES BY ECOSYSTEM ZONE




- RIPARIAN ZONE**
- Intertidal Corridor
  - 100' Riparian Buffer
  - Riparian Shoreline Corridor
- URBAN ECOLOGY ZONE**
- Bird & Pollinator Corridor
  - Green Roof
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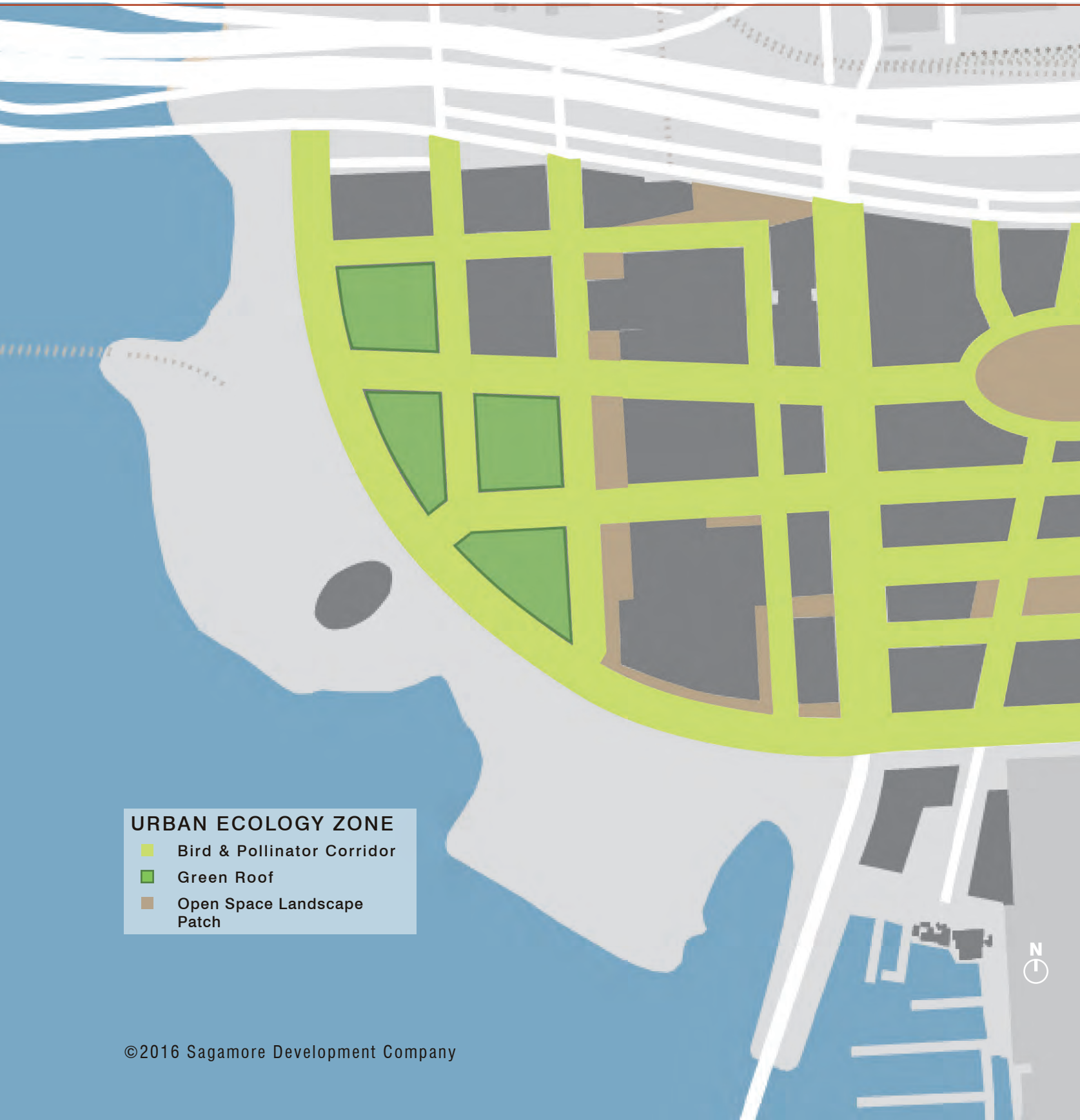
<p><b>INTERTIDAL CORRIDOR</b></p>  <p><b>RIVER OTTER</b> <i>Lontra canadensis</i></p>	<p><b>100' RIPARIAN BUFFER</b></p>  <p><b>BARN SWALLOW</b> <i>Hirundo rustica</i></p>	<p><b>RIPARIAN SHORELINE CORRIDOR</b></p>  <p><b>BALTIMORE ORIOLE</b> <i>Icterus galbula</i></p>
<p><b>BIRD &amp; POLLINATOR CORRIDORS</b></p>  <p><b>MONARCH BUTTERFLY</b> <i>Danaus plexippus</i></p>	<p><b>OPEN SPACE LANDSCAPE PATCH</b></p>  <p><b>HOUSE WREN</b> <i>Troglodytes aedon</i></p>	<p><b>GREEN ROOF PATCH</b></p>  <p><b>BLUE JAY</b> <i>Cyanocitta cristata</i></p>



# ECOSYSTEM SERVICES - HANOVER STREET AND WEST END DISTRICT

		LANDSCAPE POSITION	METRICS
<b>PROVISIONING</b> 	COLLECT & STORE WATER (SWM)	UPLAND / BUILDINGS	Volume of water captured vs volume used vs volume conveyed to storm drain
	FOOD/ URBAN AG	UPLAND / BUILDINGS	Calories or lbs. grown on or near site vs imported, pre and post
	POLLINATION	UPLAND / SHORELINE	Pollinator surveys, pre and post; square feet of flowering plantings, pre and post
<b>SUPPORTING</b> 	CYCLE NUTRIENTS	UPLAND	Lbs. of nutrients imported/generated/exported; lbs sequestered on site; offsets
	HABITAT	UPLAND / SHORELINE	QHEI, types of habitat, species counts by habitat pre and post
	BUILD SOILS	UPLAND	Cubic feet of amended soils, annual soil tests
	INCREASE BIODIVERSITY	UPLAND / SHORELINE / BUILDINGS	Species counts by habitat (plant and wildlife) , pre and post
<b>REGULATING</b> 	CONTROL FLOODING	SHORELINE	NOAA/ FEMA models - expected vs adapted; living shoreline sq ft
	EVAPOTRANSPIRATION	UPLAND / SHORELINE	itree analysis and output; volume of water captured on roofs versus released
	PROTECT SHORELINE (CRITICAL AREA BUFFER)	SHORELINE / UPLAND	Buffer width managed for habitat; QHEI; erosion measures pre and post
	DARK SKY COMPLIANCE	UPLAND / SHORELINE / BUILDINGS	Pre and post measures, reduction versus typical comparable; monitor wildlife
	URBAN HEAT ISLAND	UPLAND / BUILDINGS	Annual/seasonal avg temps; albedo (pre and post); %IC vs %PC
	CARBON SEQUESTRATION	UPLAND / SHORELINE	Annual metric tons carbon generated vs sequestered offsets from trees
	FILTER AIR AND WATER (SWM)	UPLAND / SHORELINE / BUILDINGS	itree analysis and output monitor water quality in stormwater practices
<b>CULTURAL</b> 	EDUCATION	UPLAND / SHORELINE / BUILDINGS	Long term monitoring, number of educational programs (bio-blitzes) or annual student visits
	RESPITE	UPLAND / SHORELINE	Site user surveys; perception of opportunities, daily use
	AESTHETICS	UPLAND / SHORELINE / BUILDINGS	Monumented photo sites, change over time; survey of user's perceptions of landscapes
	RECREATION	UPLAND / SHORELINE	Survey of pre-/post-construction user numbers, events held; monitoring of sensitive species
	JOBS	UPLAND / SHORLINE / BUILDINGS	Jobs created: landscape maintenance, monitoring; annual & seasonal

# ECOSYSTEM SERVICES - URBAN ECOLOGY ZONE



## URBAN ECOLOGY ZONE

- Bird & Pollinator Corridor
- Green Roof
- Open Space Landscape Patch

## PROVISIONING



- FILTER AIR AND WATER**
- STORMWATER MANAGEMENT
  - STORE WATER FOR ONSITE REUSE

## SUPPORTING



- CYCLE NUTRIENTS/WASTE**
- URBAN AGRICULTURE
  - COMPOSTING PLANT MATERIAL AND FOOD WASTE
  - BUILD SOILS

## REGULATING



- URBAN HEAT ISLAND**
- REDUCE IMPERVIOUS COVER THROUGH GREEN ROOFS AND NATIVE VEGETATION
  - PLANTS PROVIDE SHADE AND DECREASE OVERALL TEMPERATURES

## CULTURAL



- AESTHETICS**
- NATIVE SYSTEM AS PHYSICAL CONTEXT FOR REDEVELOPMENT
  - NATIVE PLANT PALETTE FOR MIDDLE RIVER
  - LIVING SHORELINE RESTORATION

# ECOSYSTEM SERVICES - RIPARIAN ECOLOGY ZONE



## RIPARIAN ZONE

- Intertidal Corridor
- 100' Riparian Buffer
- Riparian Shoreline Corridor

## PROVISIONING



### POLLINATION

- SPECIES HOST BALTIMORE CHECKERSPOT & MONARCH BUTTERFLY
- RESPONDING TO NATIVE PLANT PALETTE, BIODIVERSITY
- PRODUCTIVE LANDSCAPES

## SUPPORTING



### INCREASE BIODIVERSITY

- PROMOTING ECORESILIENCY
- NATIVE HABITAT INTEGRATED INTO LANDSCAPE DESIGN
- SHORELINE RESTORATION

## REGULATING



### EVAPOTRANSPIRATION

- MANAGING STORMWATER THROUGH VEGETATED PRACTICES, TREE CANOPY, HEALTHY SOILS, & WATERBODIES

## CULTURAL



### RECREATION

- BIRDING & FISHING
- MIX OF ACTIVE AND PASSIVE OPPORTUNITIES
- ACCESS TO PUBLIC OPEN SPACE WITH CONTEXT-RESPONSIVE ACTIVITIES
- RESPITE WITHIN URBAN CONTEXT



Port  
Covington

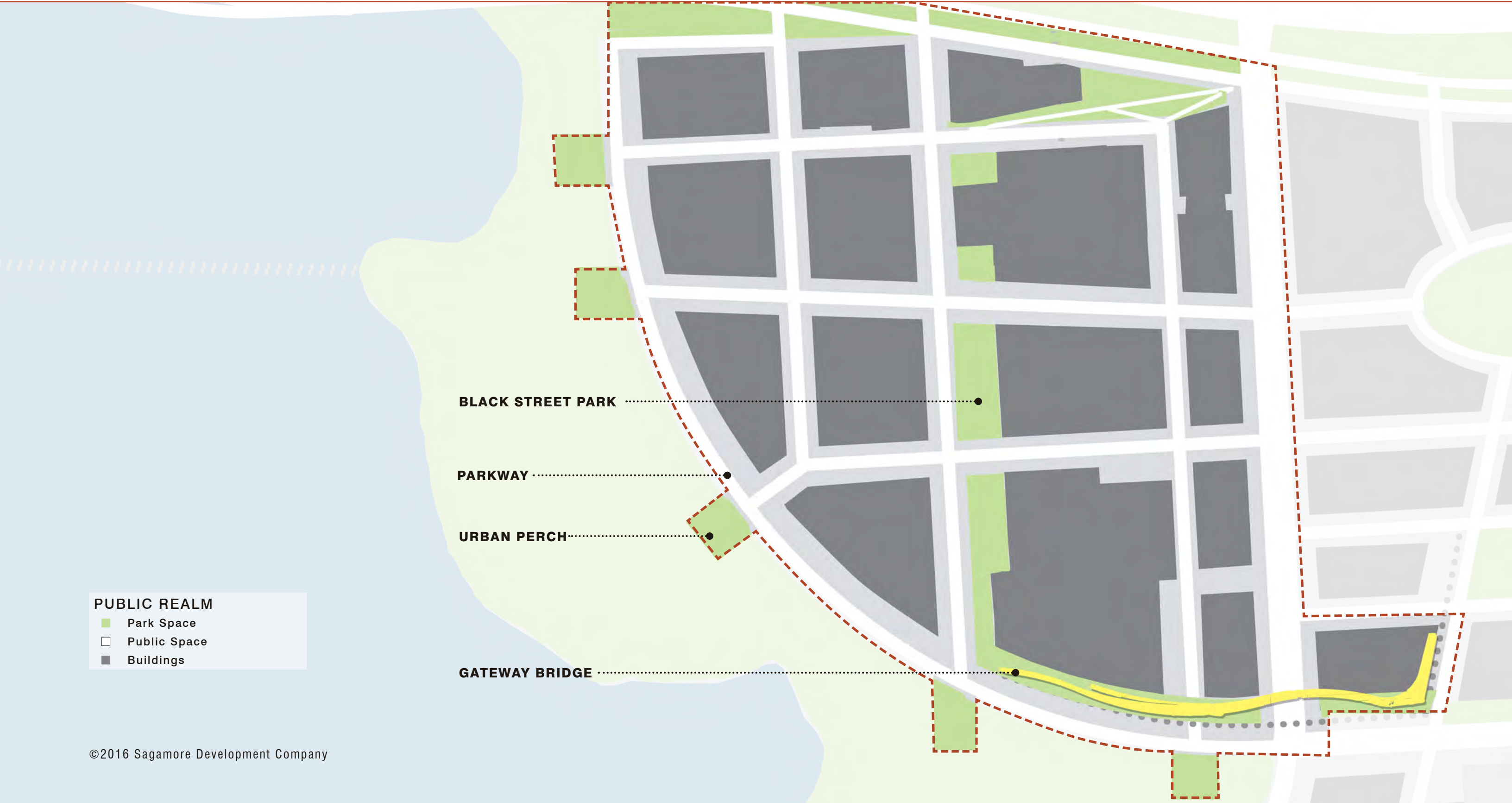
**HANOVER STREET &  
WEST END DISTRICTS**  
Public Realm

MICHAEL BLIER  
Landworks Studio Inc.  
Principal

# OPEN SPACE FRAMEWORK



# BUILDING THE PUBLIC REALM: OPEN SPACE



**PUBLIC REALM**


- Park Space
- Public Space
- Buildings

# BUILDING THE PUBLIC REALM: CIRCULATION



**CIRCULATION**

- Sidewalk
- Bike Lane
- Road
- Gateway Bridge

0 100' 200' 



# BUILDING THE PUBLIC REALM: NEIGHBORHOOD CONNECTIONS



HANOVER STREET GATEWAY

SWING  
BRIDGE  
THRESHOLD

BLACK STREET PARKS

URBAN PERCH

## NEIGHBORHOOD CONNECTIONS

- Raised Intersection
- Speciality Pavement
- Crosswalk

0 100' 200' N

# BUILDING THE PUBLIC REALM: STREET CHARACTER



# BUILDING THE PUBLIC REALM: MAKING PLACE

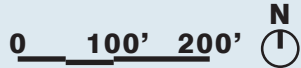


BLUE STREET

BLACK STREET PARKS

**MAKING PLACE**

- Parklets
- Street Festival Zones
- ⋯ Street Events Zones
- Urban Rooms



# BUILDING THE PUBLIC REALM: WATER MOVEMENT



**STREETSCAPE SWALE**



**MICRO-BIORETENTION**



**STORMWATER WETLAND**

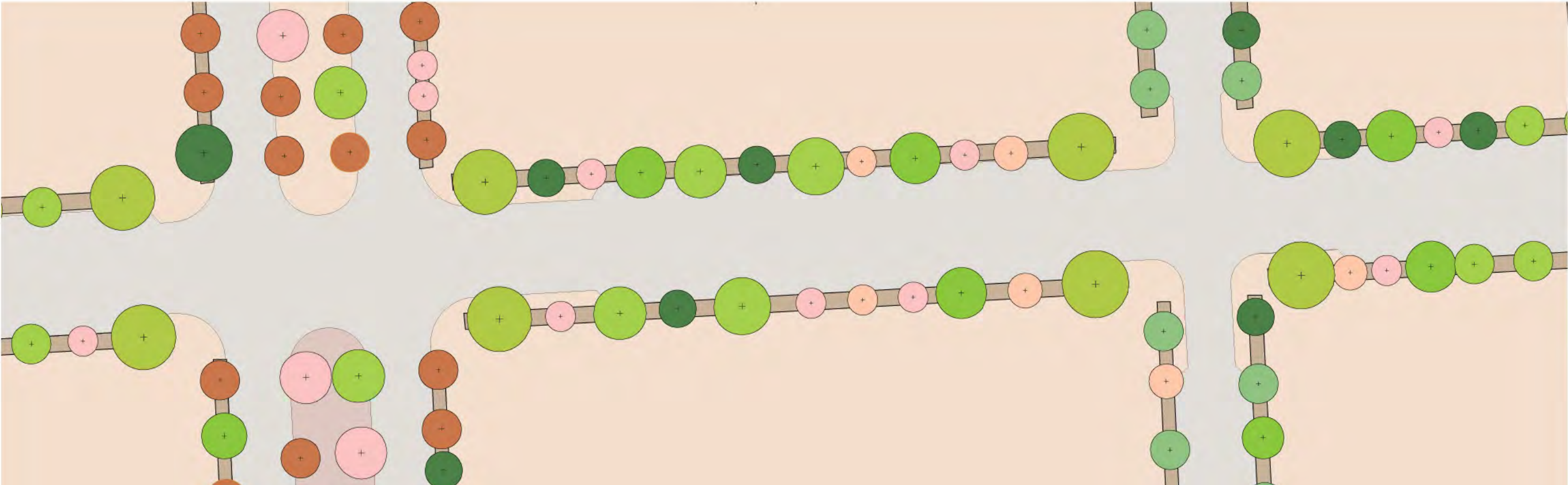


**WATER MOVEMENT**

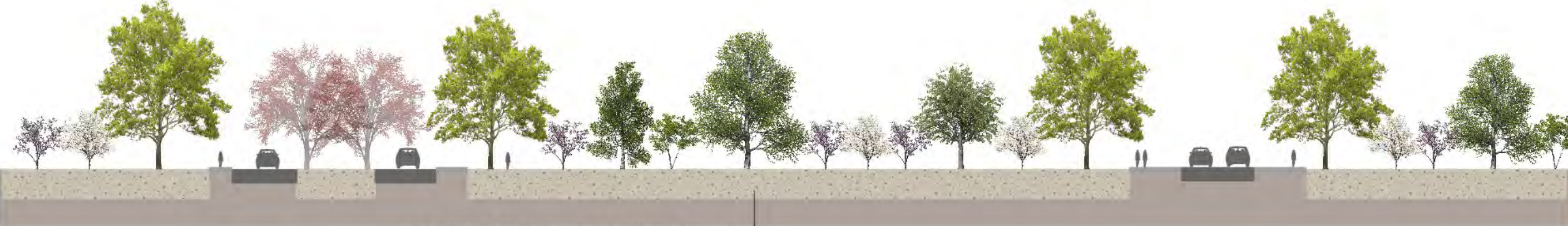
- Flow Direction
- Stormwater Catchments



# BUILDING THE PUBLIC REALM: RESILIENT STREET CORRIDOR



**Plant Many Species on Each Street, Avoid Monocultures, and Vary Planting Distances Based on Species Sizes**



**Plant in Continuous Planting Areas to Maximize Soil Volume**

# BUILDING AN OPEN SPACE SYSTEM: UNDERSTORY PLANTING



FLAG IRIS



COMMON RUSH



RED TWIG DOGWOOD



SWEET FLAG



BITTER PANIC GRASS

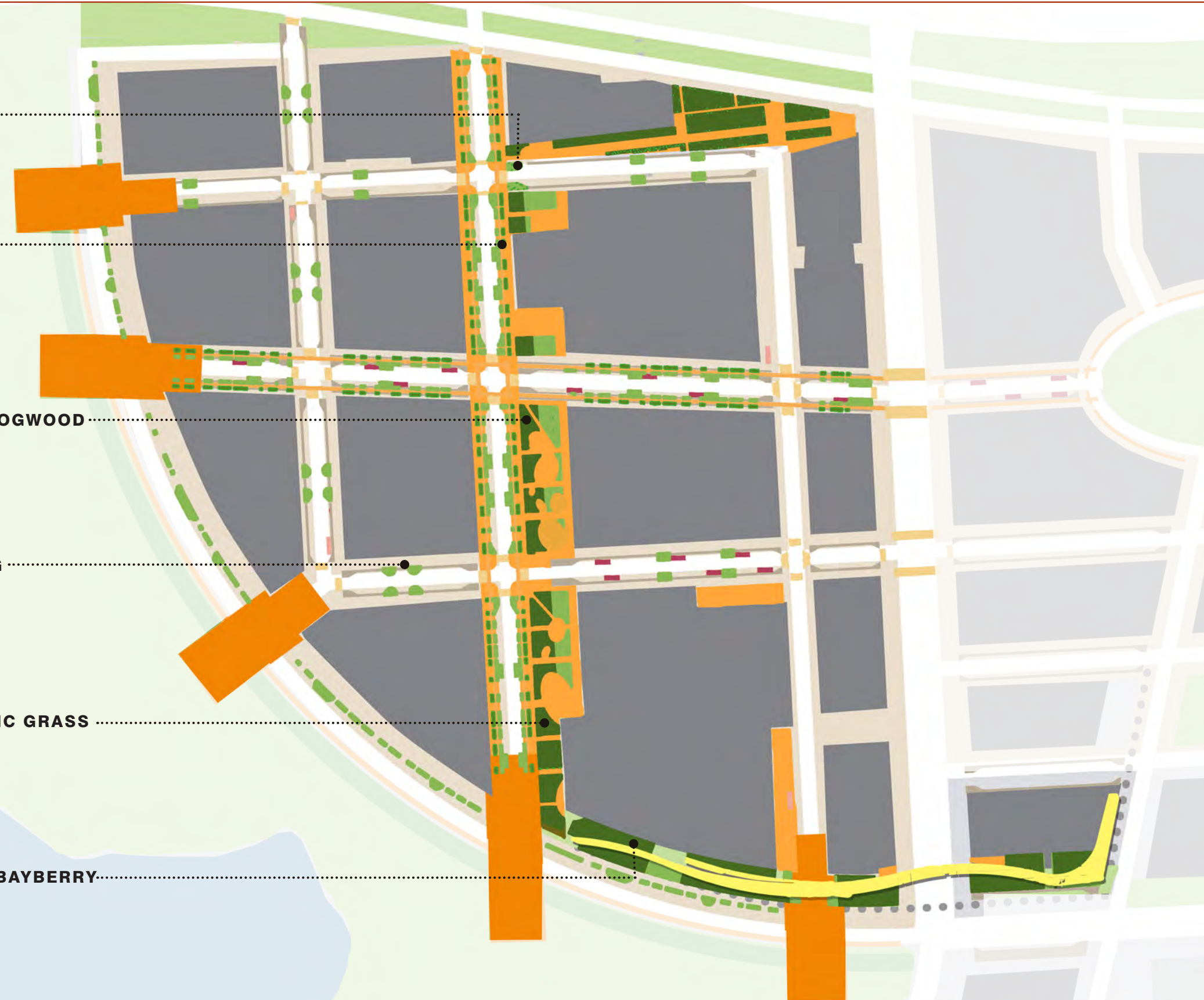


NORTHERN BAYBERRY

## UNDERSTORY PLANTING

- Stormwater Planting
- Under Story Planting
- Street Planting
- Park Planting

0 100' 200' N



# BUILDING AN OPEN SPACE SYSTEM: TREE PLANTING



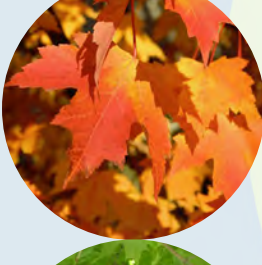
AMERICAN SYCAMORE



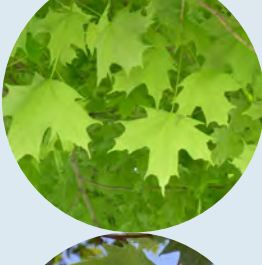
SWEETBAY MAGNOLIA



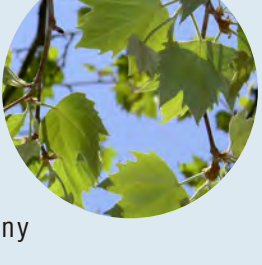
PIN OAK



RED MAPLE



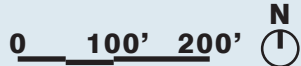
SUGAR MAPLE



LONDON PLANE TREE

**TREE PLANTING**


- 6" Caliper 'A' Street Trees
- 4" Caliper 'B' Street Trees
- Stormwater Trees
- 6" Caliper Park Trees
- 3" Caliper Understory Trees



# PUBLIC REALM CONCEPT PLAN

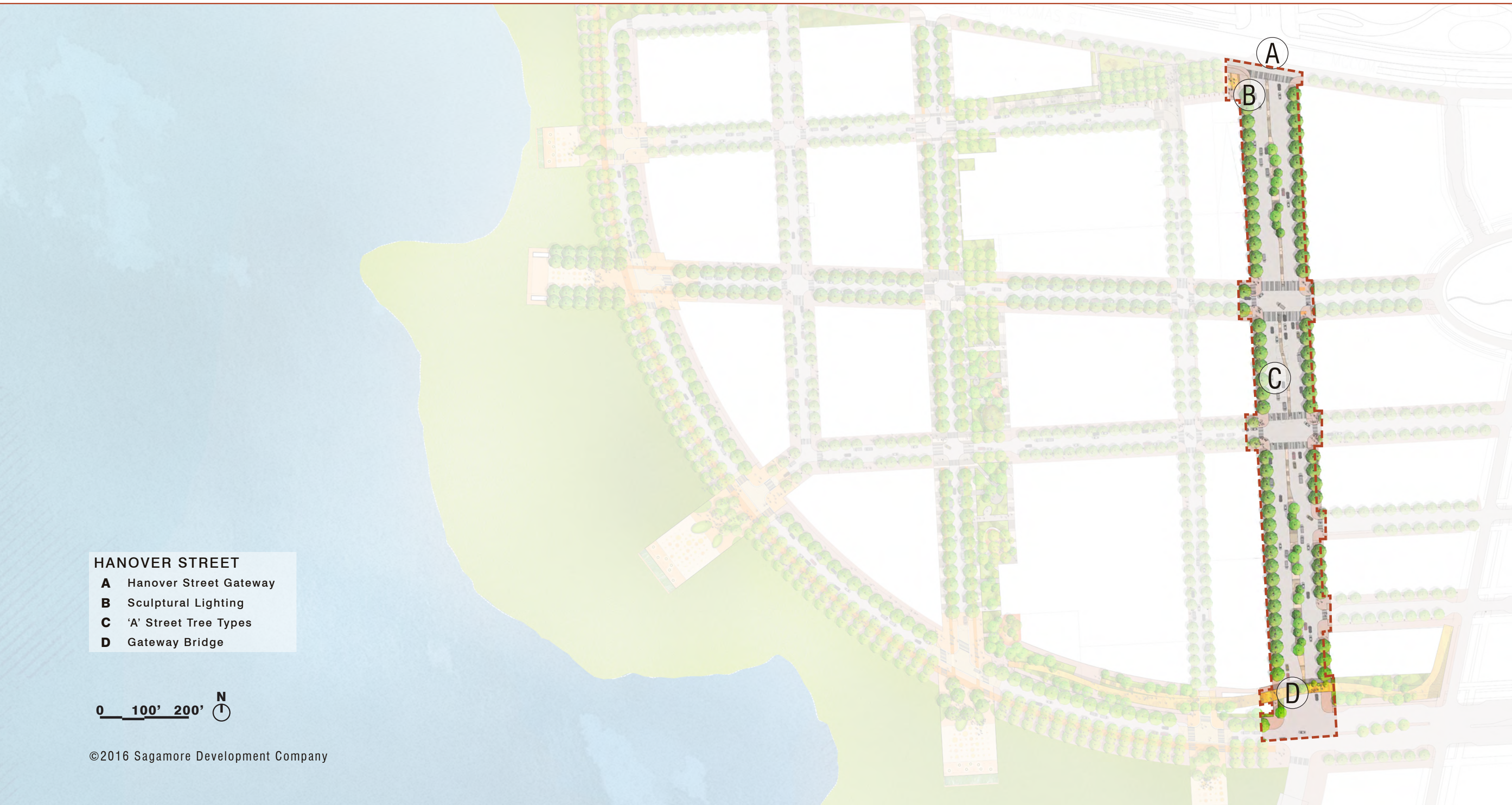


- CONCEPT PLAN**
- A** Hanover Street Gateway
  - B** Black Street Parks
  - C** Gateway Bridge
  - D** Urban Perches
  - E** Swing Bridge Threshold


0 100' 200' 



# HANOVER STREET DISTRICT PLAN



- HANOVER STREET**
- A** Hanover Street Gateway
  - B** Sculptural Lighting
  - C** 'A' Street Tree Types
  - D** Gateway Bridge

0 100' 200' 

# HANOVER STREET DISTRICT STREETScape



# HANOVER STREET DISTRICT GATEWAY - PLAN



A

B

C

D

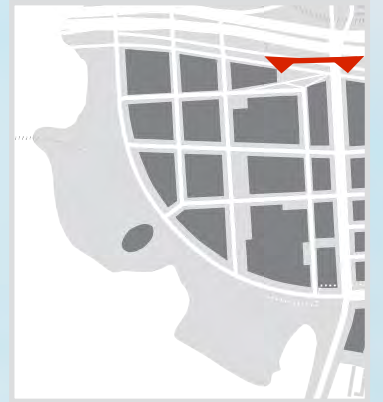
E

## GATEWAY

- A Pedestrian Connection
- B Grove Planting
- C Understory Planting
- D Stormwater Planting
- E Sculptural Lighting

0 15' 30' N

# HANOVER STREET DISTRICT GATEWAY SECTION



SIDEWALK

SCULPTURAL  
LIGHTING

GROVE PLANTING+ UNDERSTORY

PEDESTRIAN  
CONNECTION

0 8' 16'

# HANOVER STREET DISTRICT GATEWAY BRIDGE



- GATEWAY BRIDGE**
- A** Grand Stair
  - B** Ramp Access
  - C** Hanover Crossing
  - D** Canopy Planting
  - E** Understory Planting

0 40' 80' N

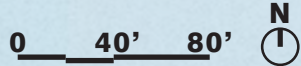
# HANOVER STREET DISTRICT GATEWAY BRIDGE VIEW



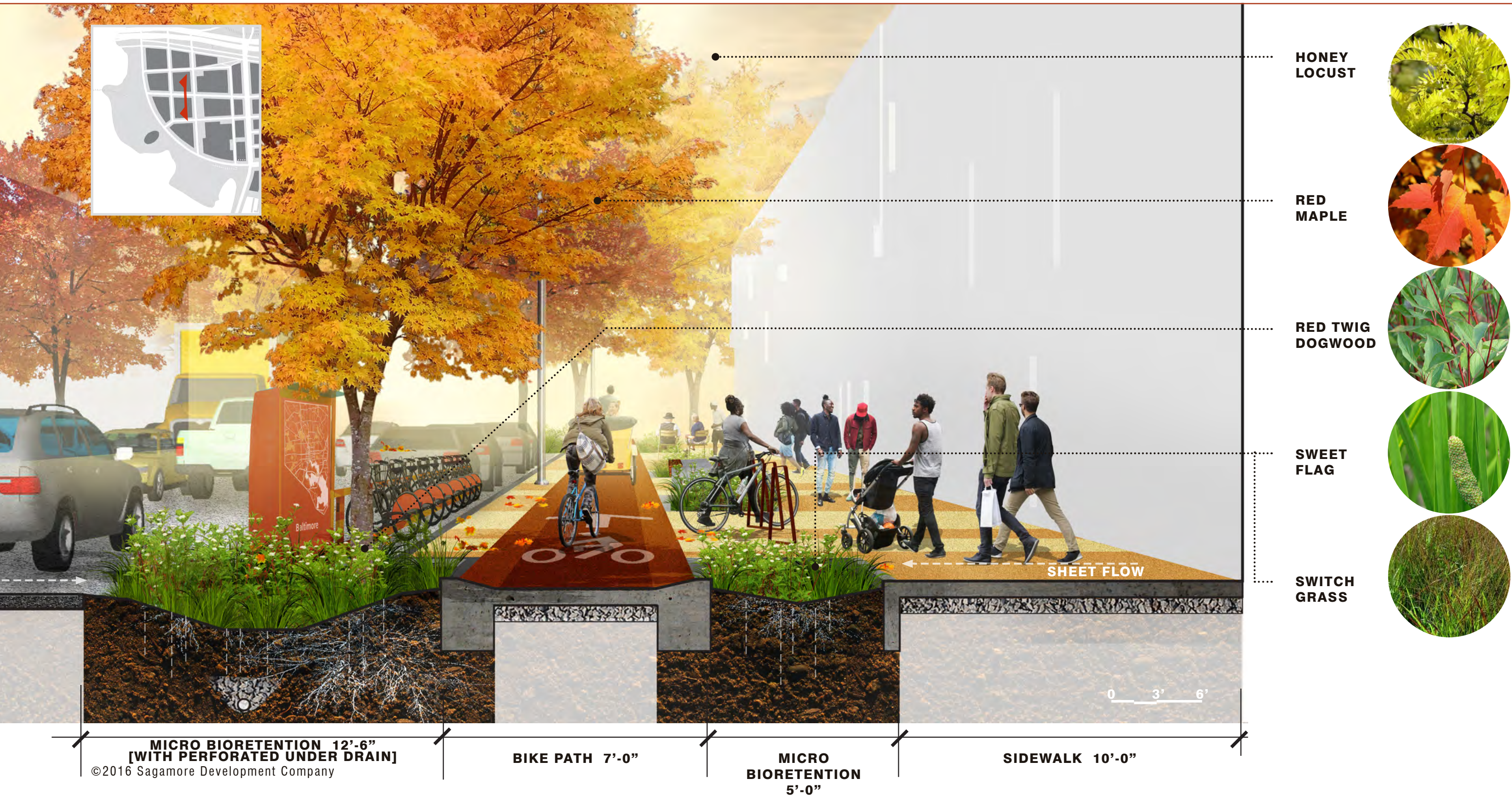
# WEST END DISTRICT PLAN



- WEST END DISTRICT**
- A** Hanover Street Gateway
  - B** Black Street Parks
  - C** Gateway Bridge
  - D** Urban Perches
  - E** Swing Bridge Threshold

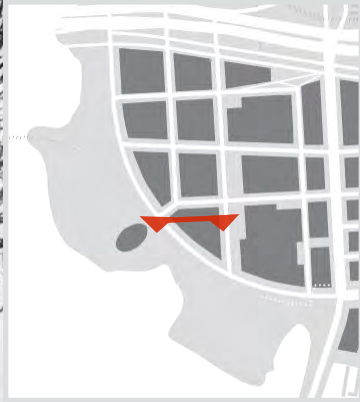


# WEST END DISTRICT STREET 'A' SECTION





# WEST END DISTRICT STREET 'B' SECTION



PIN OAK



RED MAPLE



BLUE FESCUE



PANIC GRASS



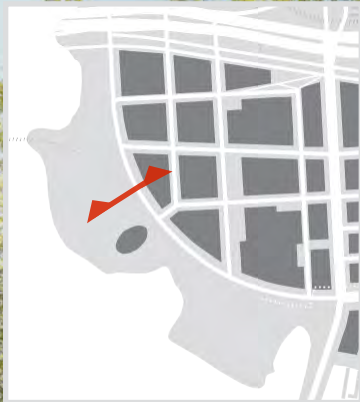
NORTHERN BAYBERRY



MICRO BIORETENTION 5'-0"  
[WITH STRUCTURAL SOIL]

SIDEWALK 8'-0"

# WEST END DISTRICT WEST CROMWELL STREET SECTION



**SWEETBAY  
MAGNOLIA**



**AMERICAN  
SYCAMORE**



**HONEY  
LOCUST**



**RED TWIG  
DOGWOOD**



**BLUE  
FESCUE**



SHEET FLOW

0 3' 6'

**MICRO  
BIORETENTION  
5'-0"**

**BIKE PATH 10'-0"**

**MICRO  
BIORETENTION  
5'-0"**

**SIDEWALK 8'-0"**

# WEST END DISTRICT SWING BRIDGE PERCH PLAN



## SWING BRIDGE PERCH

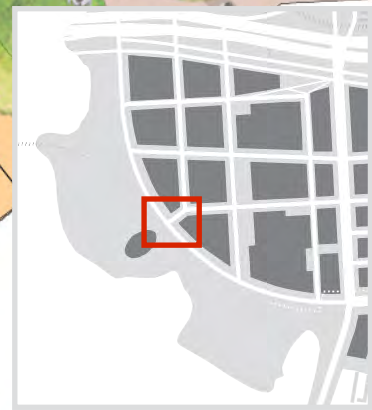
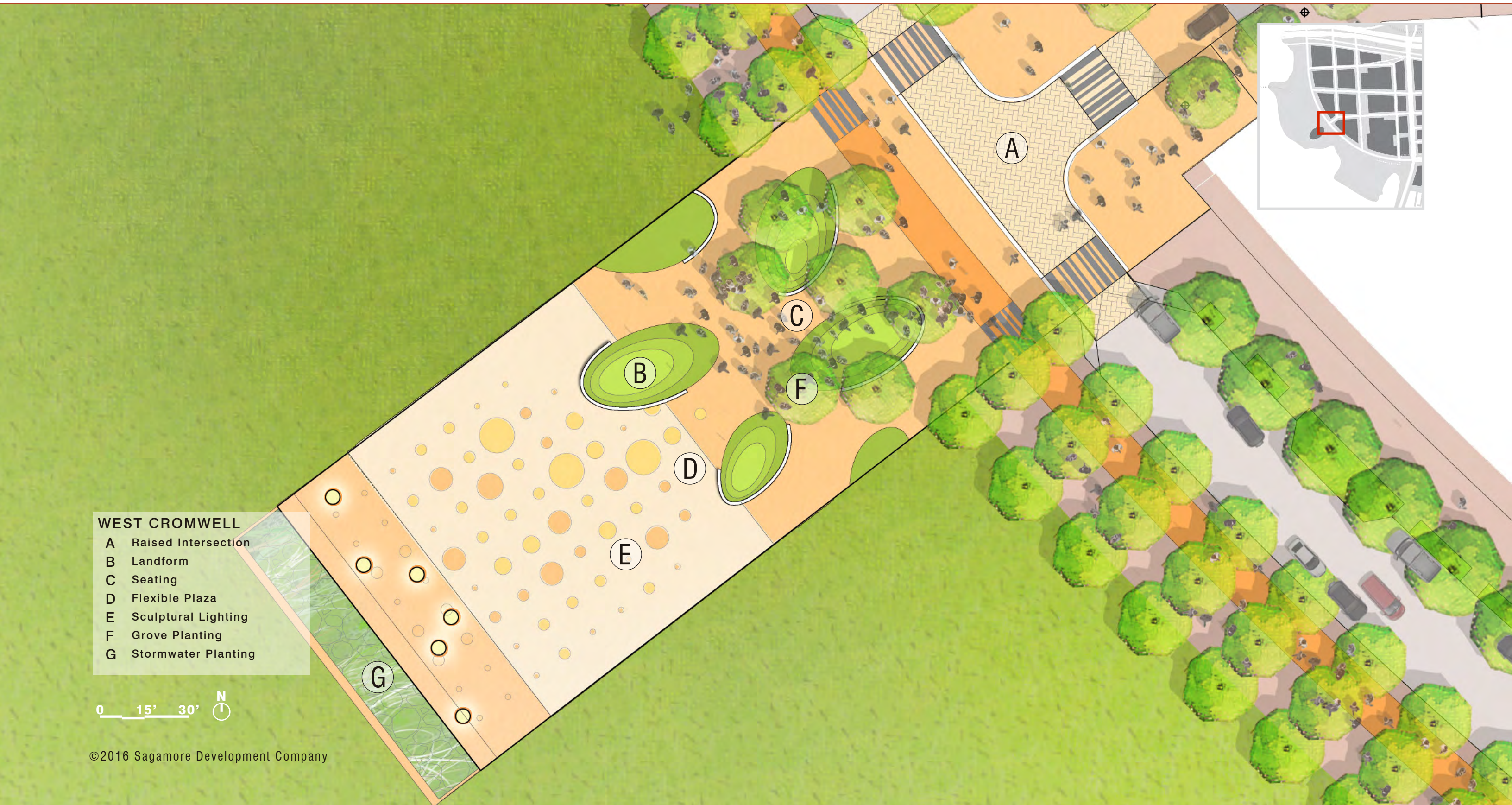
- A Raised Intersection
- B Seating
- C Flexible Plaza
- D Lighted Threshold Frame
- E Grove Planting



# WEST END DISTRICT SWING BRIDGE PERCH SECTION



# WEST END DISTRICT WEST CROMWELL INTERSECTION



## WEST CROMWELL

- A Raised Intersection
- B Landform
- C Seating
- D Flexible Plaza
- E Sculptural Lighting
- F Grove Planting
- G Stormwater Planting

0 15' 30' N

# WEST END DISTRICT WEST CROMWELL INTERSECTION

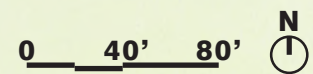


# WEST END DISTRICT BLACK STREET PLAN



## BLACK STREET

- A Stormwater Collection
- B Flexible Program Space
- C Play Area
- D Habitat Planting



# WEST END DISTRICT BLACK STREET SUMMER



SHEET FLOW

BIOSWALE

MICRO  
BIORETENTION

MICRO  
BIORETENTION





# **HANOVER STREET & WEST END DISTRICTS**

## Multi-Modal Approach

**BARBARA MOSIER PE, PTOE**

STV Inc.  
Traffic Engineer

**RJ ELDRIDGE**

Toole Design Group  
Chief Operating Officer

# BICYCLE AND PEDESTRIAN NETWORK

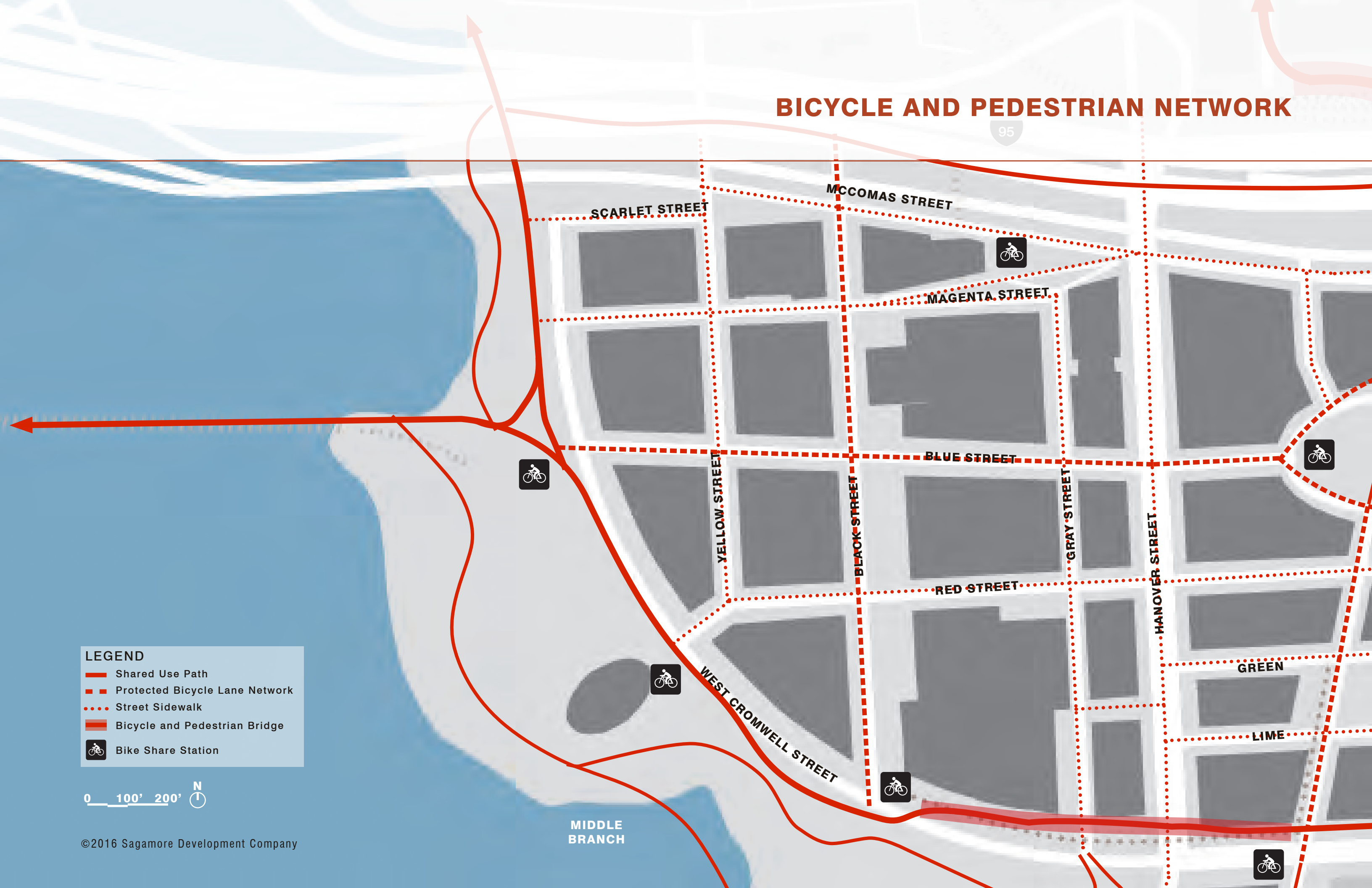


**LEGEND**

- Shared Use Path
- Protected Bicycle Lane Network
- Street Sidewalk
- Bicycle and Pedestrian Bridge
- Bike Share Station



# BICYCLE AND PEDESTRIAN NETWORK



**LEGEND**

- Shared Use Path
- Protected Bicycle Lane Network
- Street Sidewalk
- Bicycle and Pedestrian Bridge
- Bike Share Station



MIDDLE BRANCH

# TRANSIT CIRCULATION



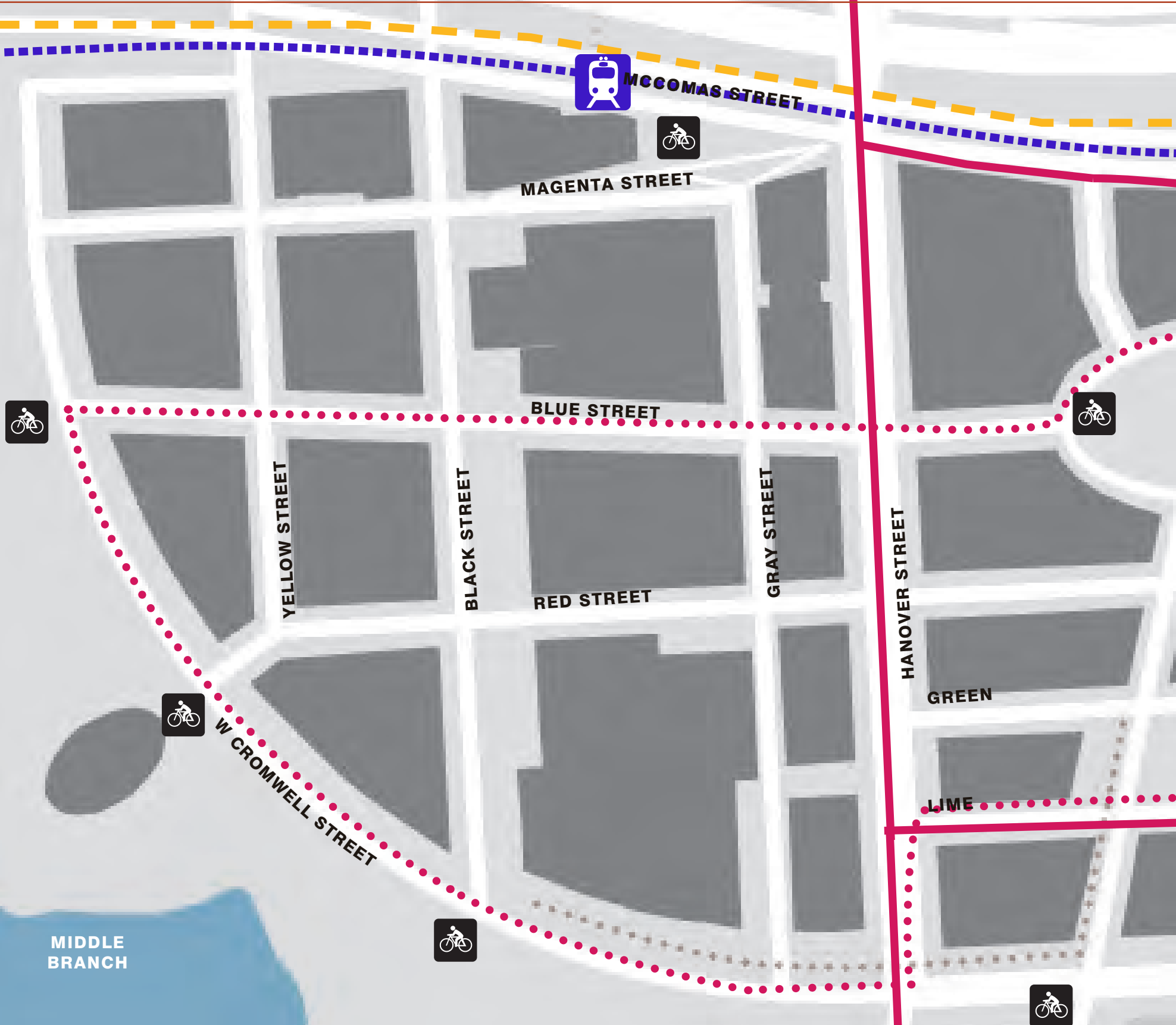
**LEGEND**

- Modified Bus Route
- Modified Express Bus Route
- Proposed Light Rail/Metro Transit
- Proposed Light Rail Station
- Proposed Circulator
- Bike Share Station
- Proposed Water Taxi
- Proposed Water Taxi Stop

# TRANSIT CIRCULATION

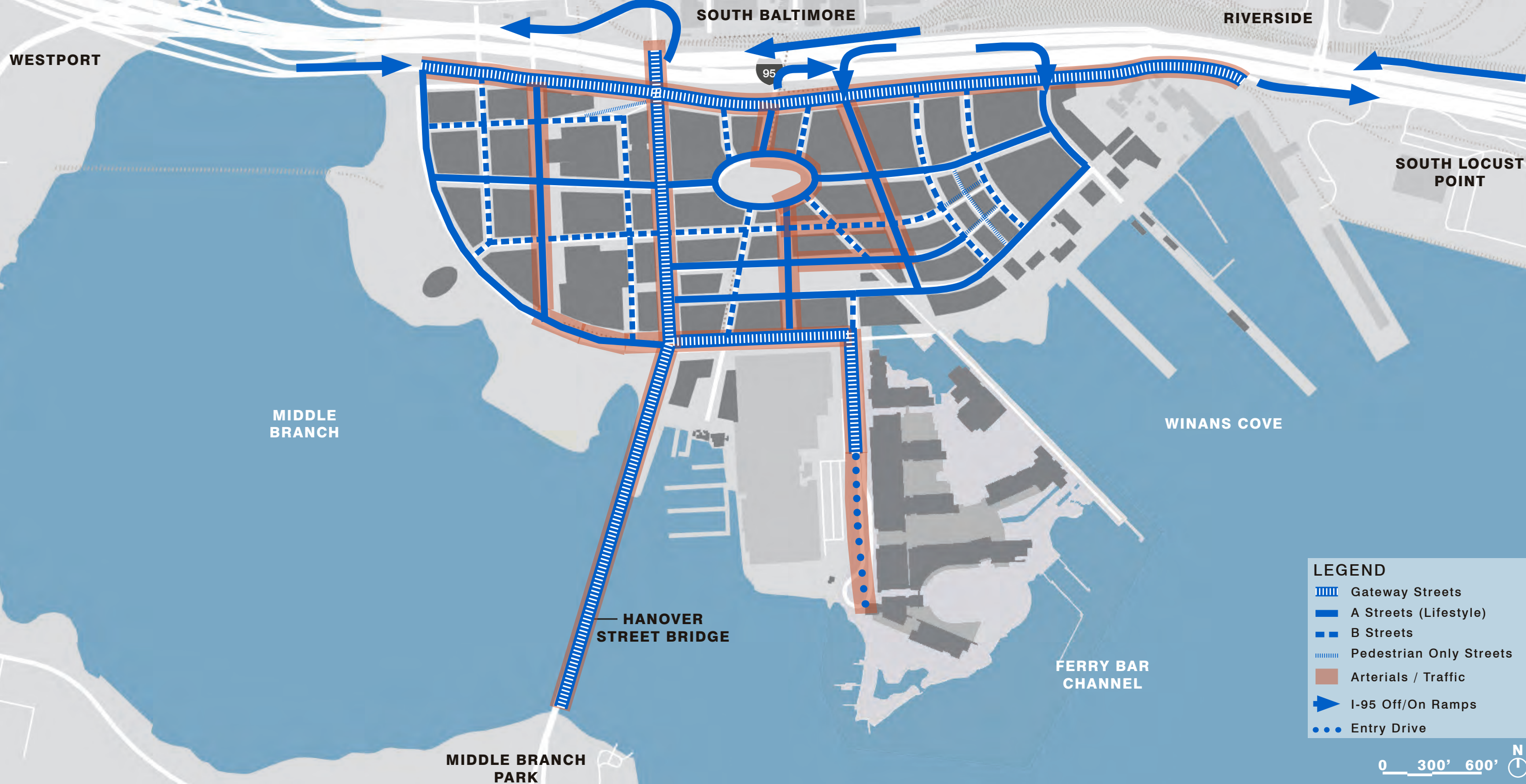
**LEGEND**

- Modified Bus Route
- Modified Express Bus Route
- Proposed Light Rail/Metro Transit
- Proposed Light Rail Station
- Proposed Circulator
- Bike Share Station



MIDDLE BRANCH

# STREET TYPOLOGIES



# STREET TYPOLOGIES

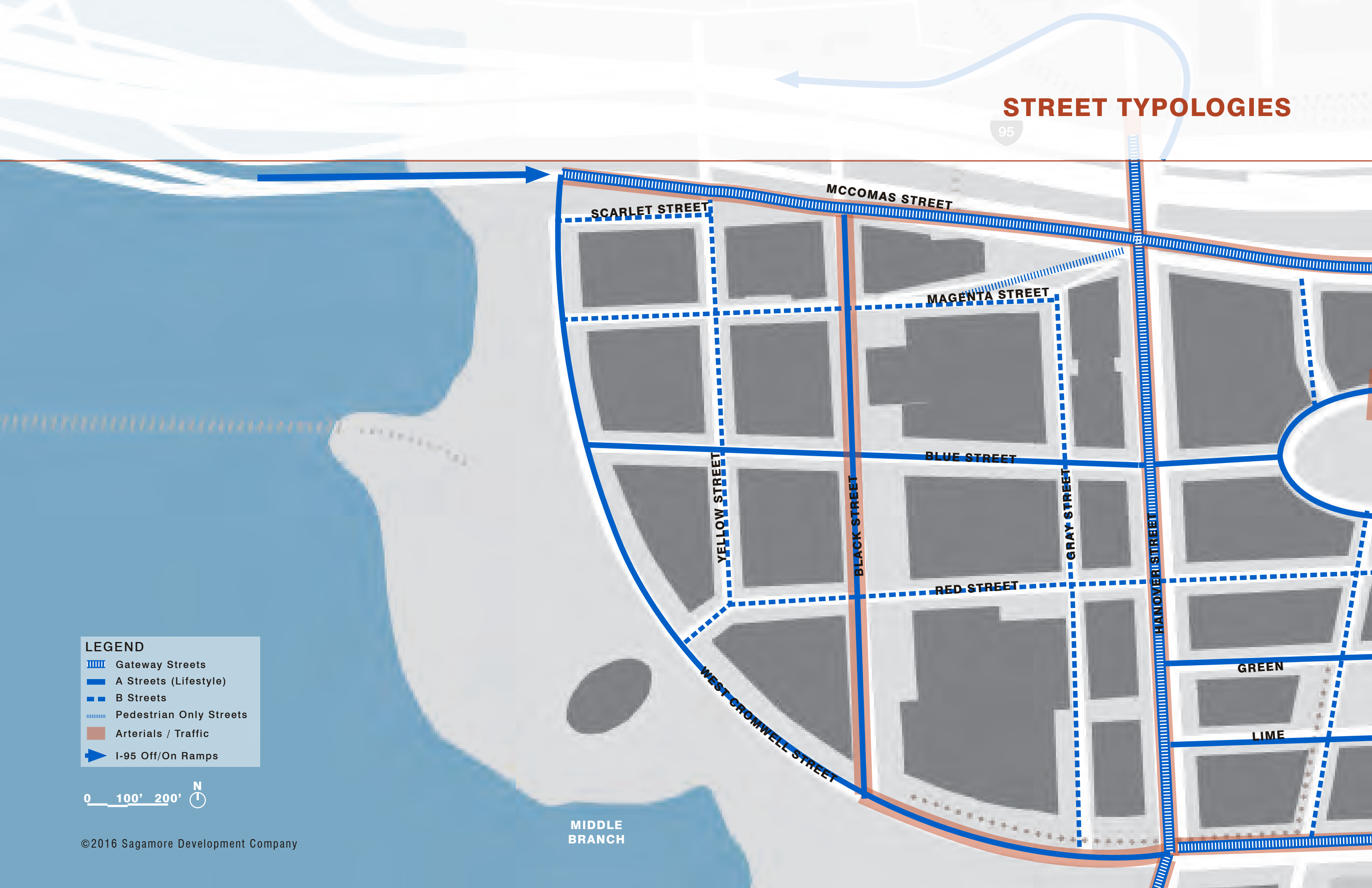
95

**LEGEND**

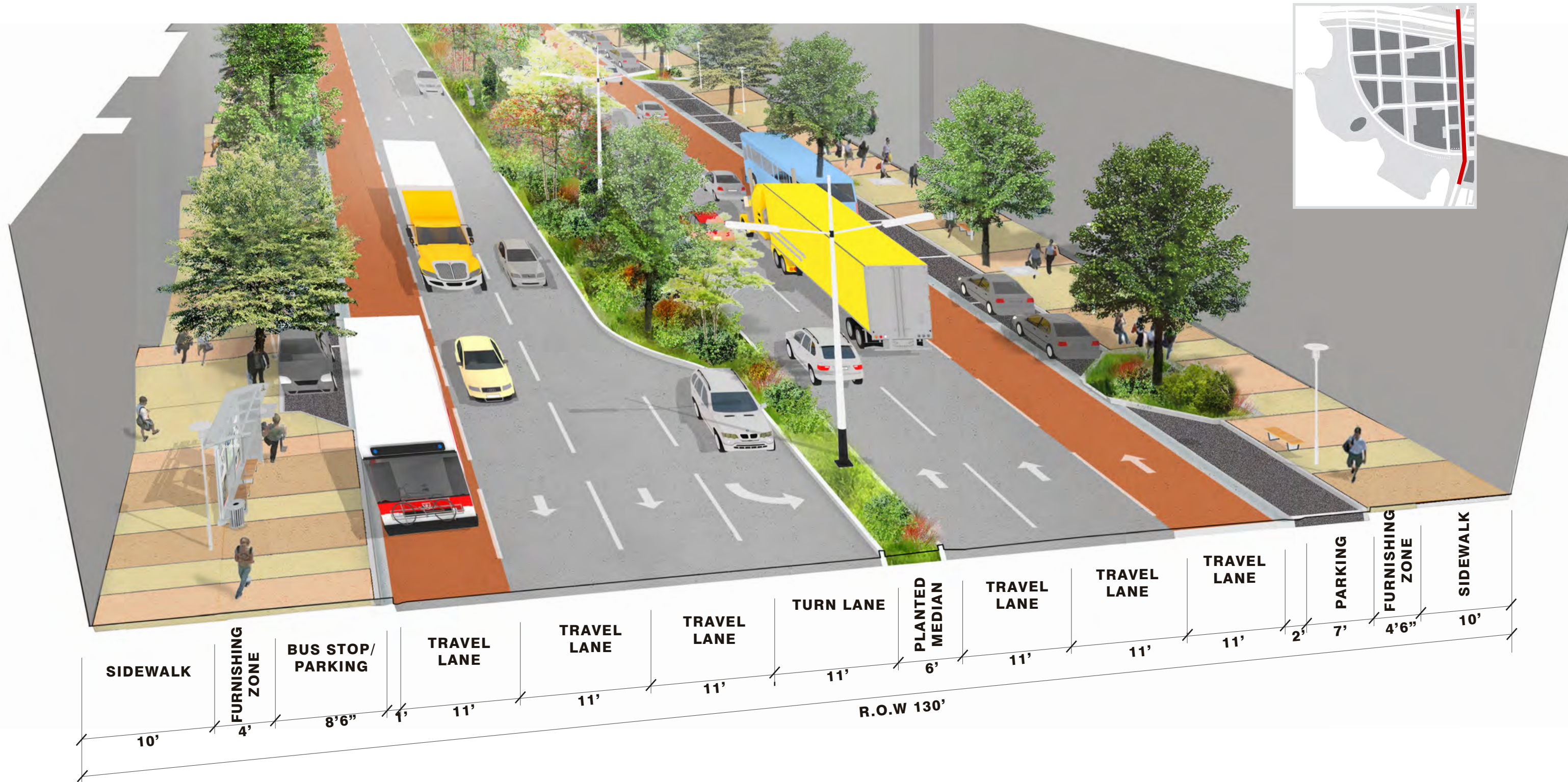
-  Gateway Streets
-  A Streets (Lifestyle)
-  B Streets
-  Pedestrian Only Streets
-  Arterials / Traffic
-  I-95 Off/On Ramps

0 100' 200' 

MIDDLE BRANCH

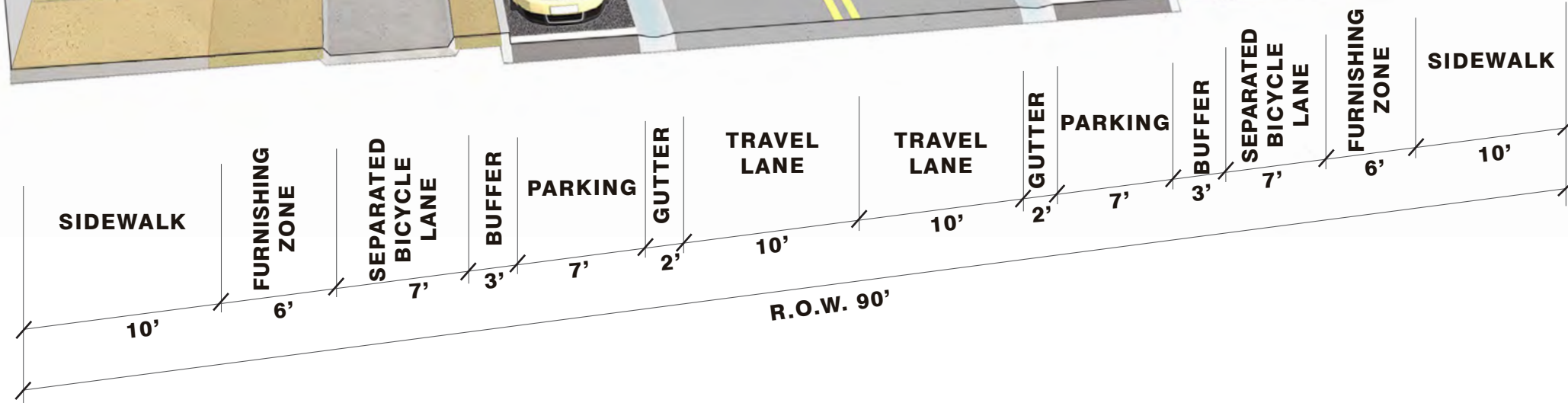


# HANOVER STREET

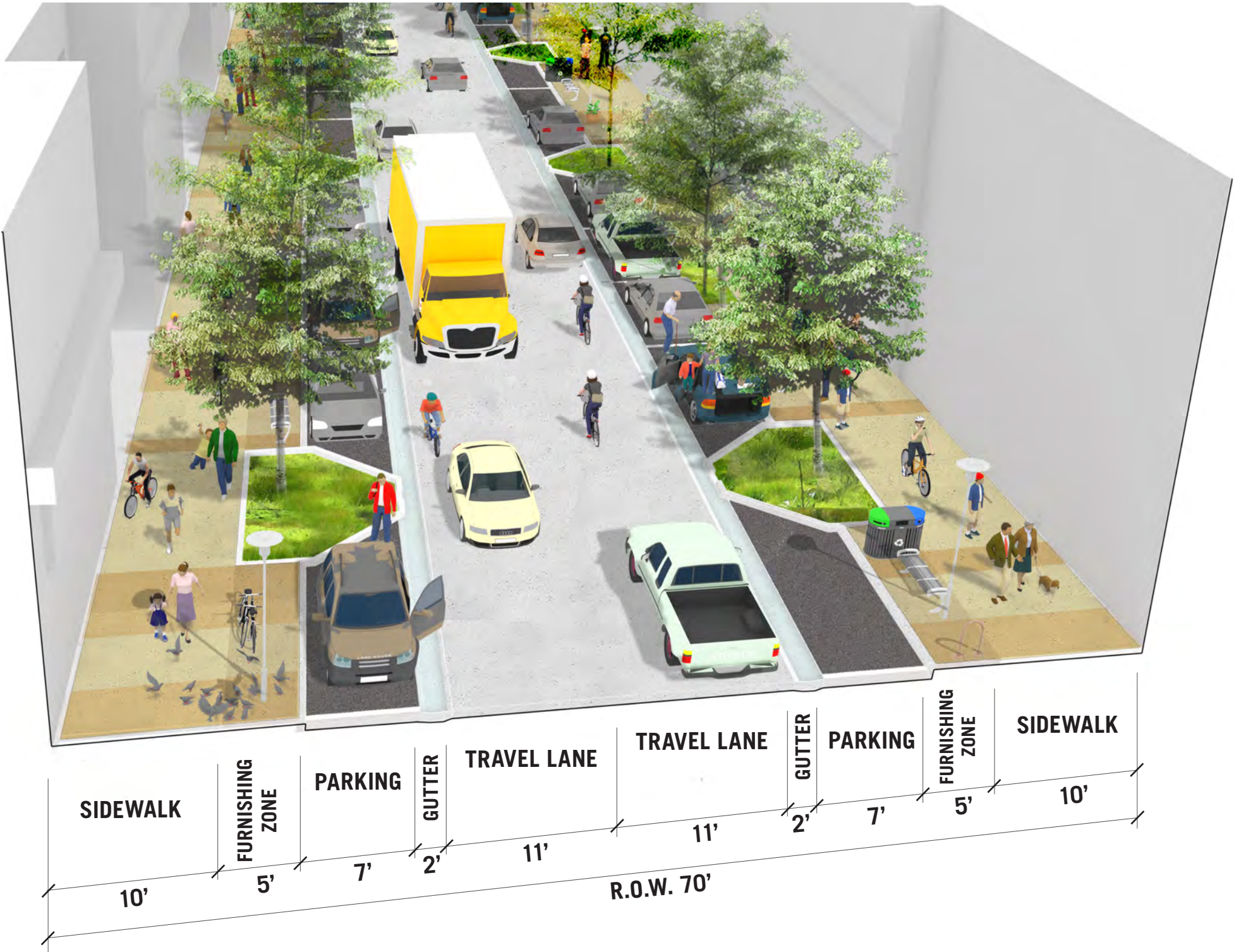




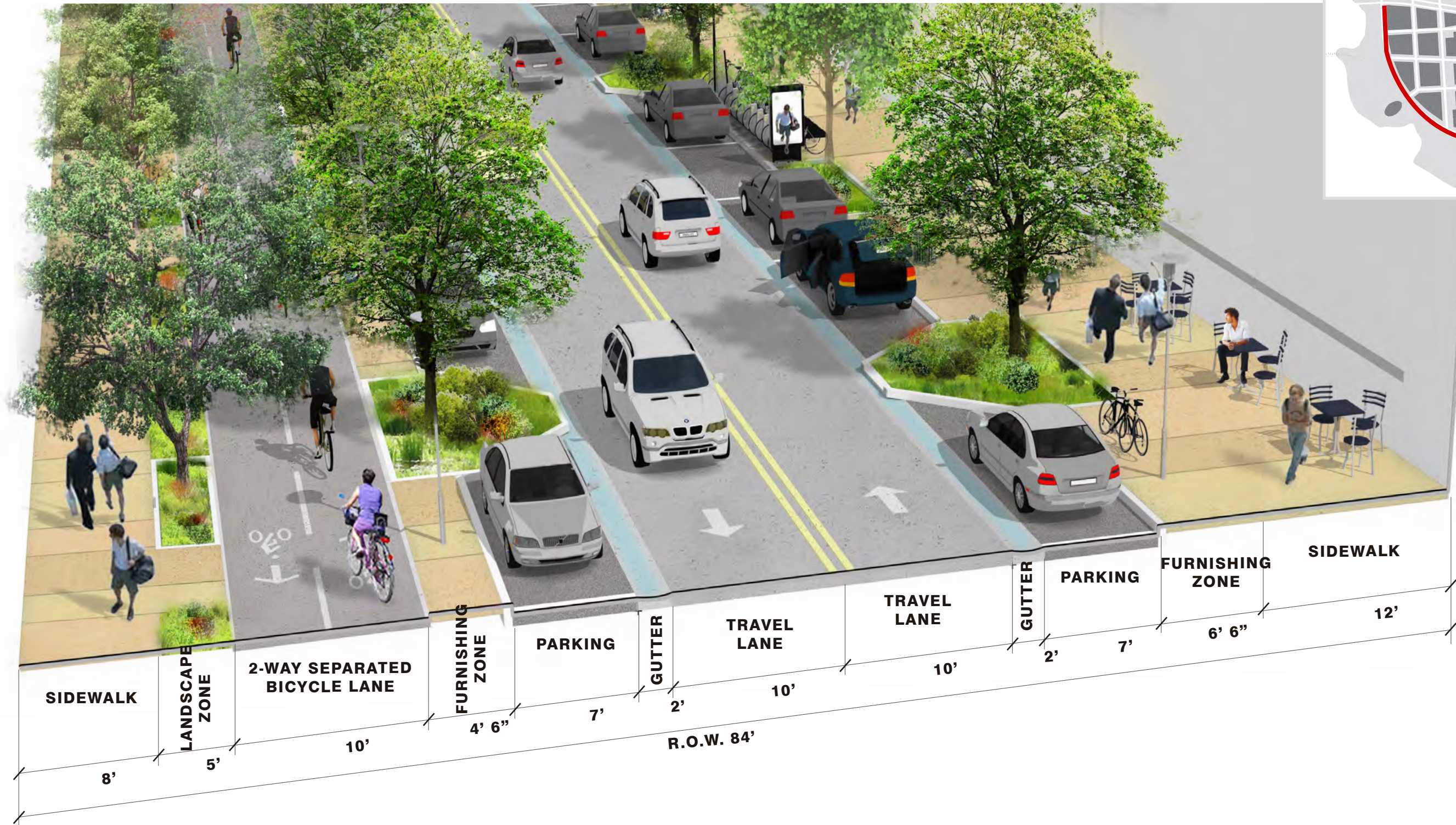
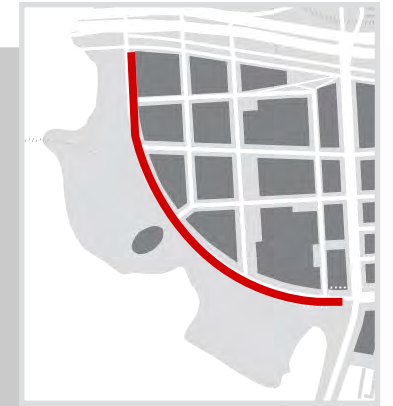
# A STREET



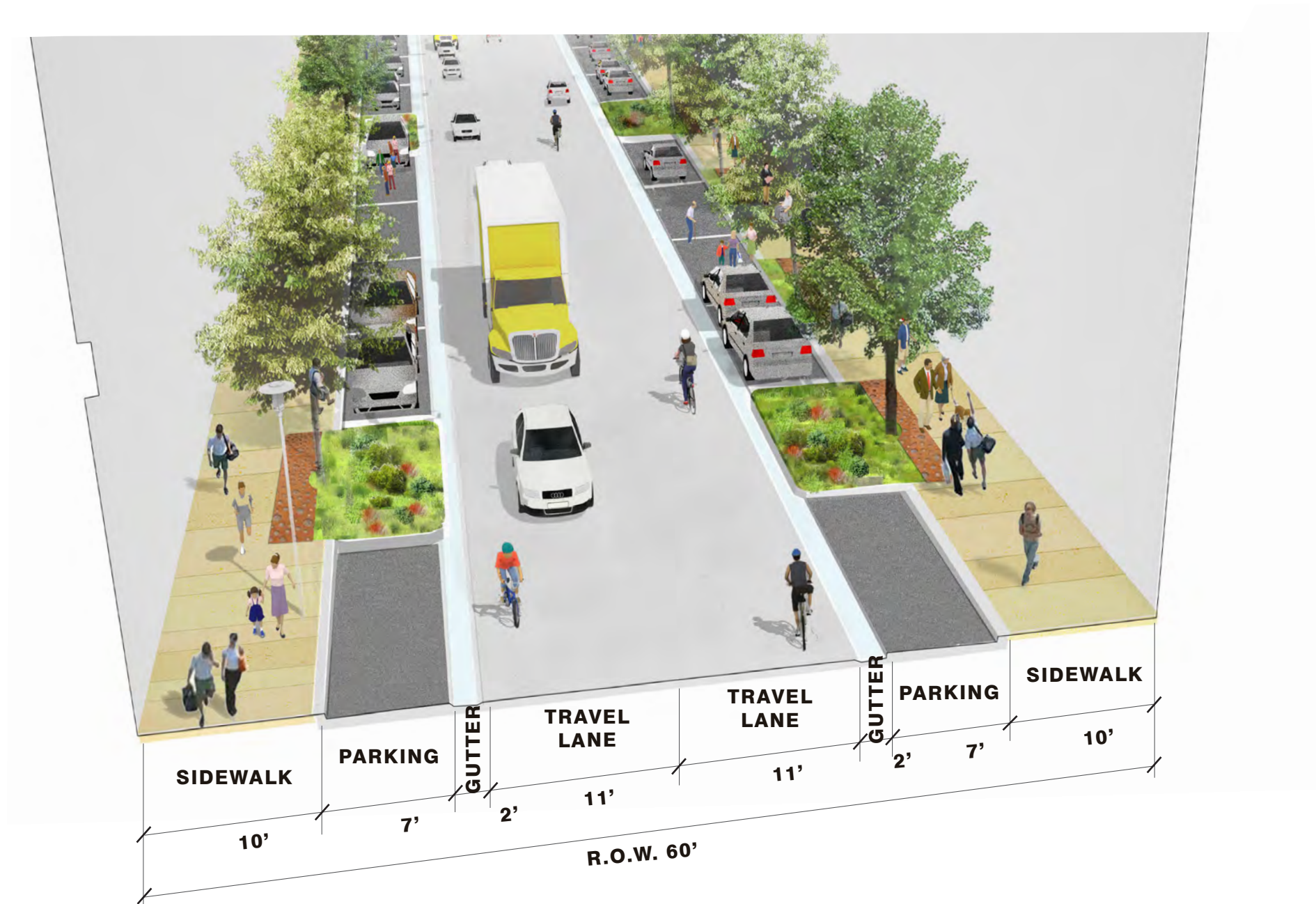
# B STREET



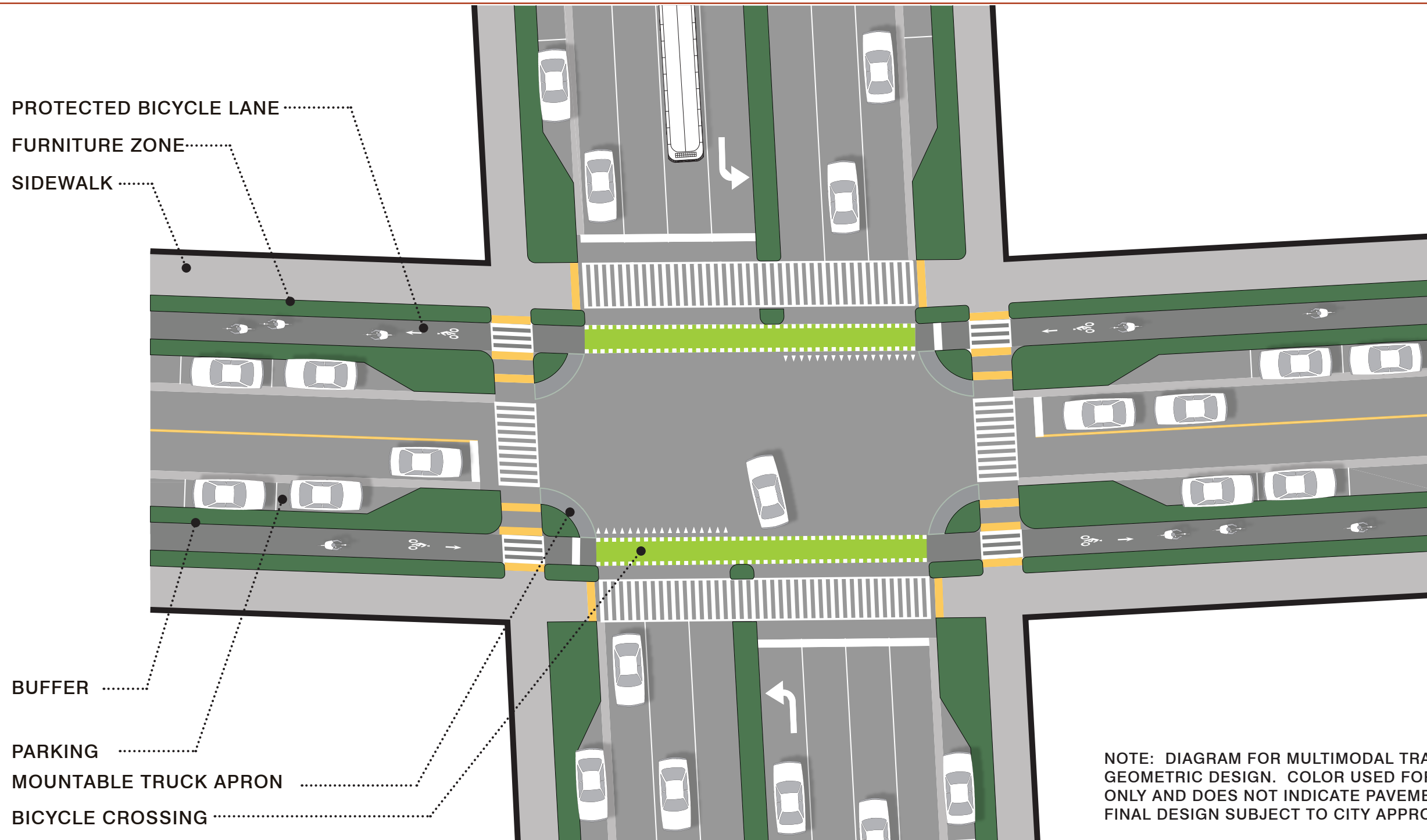
# WEST CROMWELL STREET



# NARROW STREET

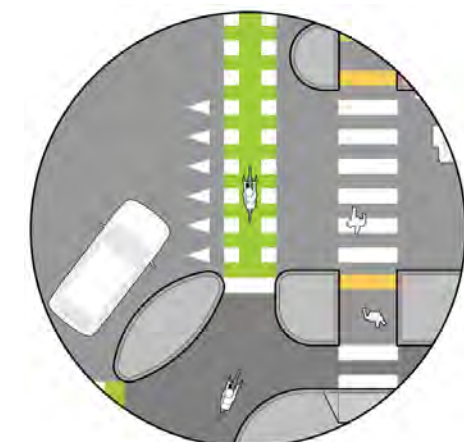
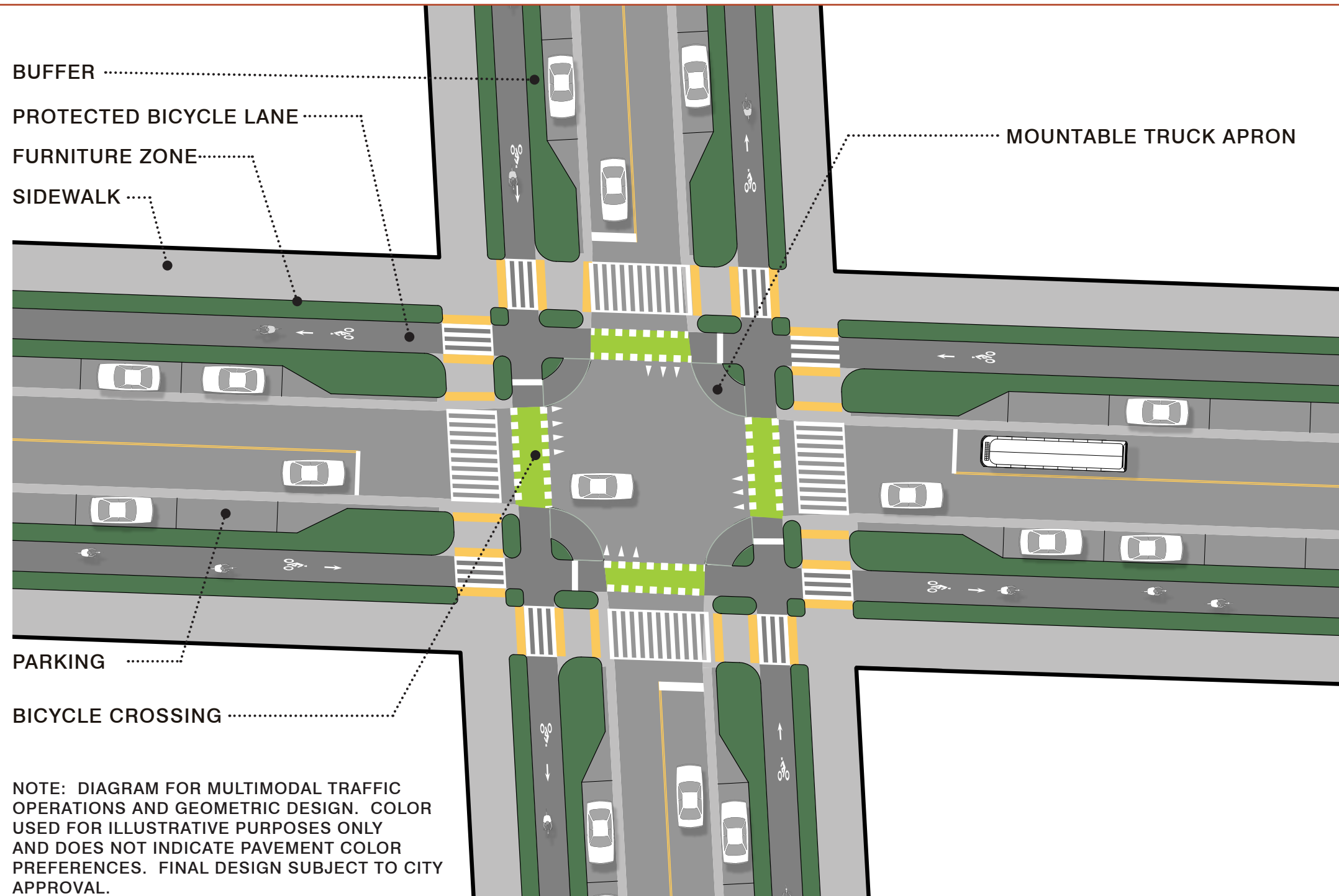


# BLUE STREET AND HANOVER INTERSECTION

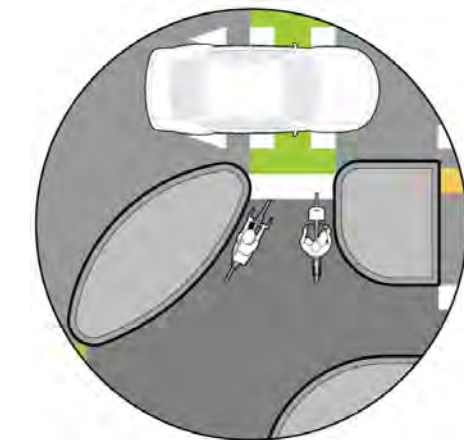


NOTE: DIAGRAM FOR MULTIMODAL TRAFFIC OPERATIONS AND GEOMETRIC DESIGN. COLOR USED FOR ILLUSTRATIVE PURPOSES ONLY AND DOES NOT INDICATE PAVEMENT COLOR PREFERENCES. FINAL DESIGN SUBJECT TO CITY APPROVAL.

# PROTECTED BIKE LANE INTERSECTION

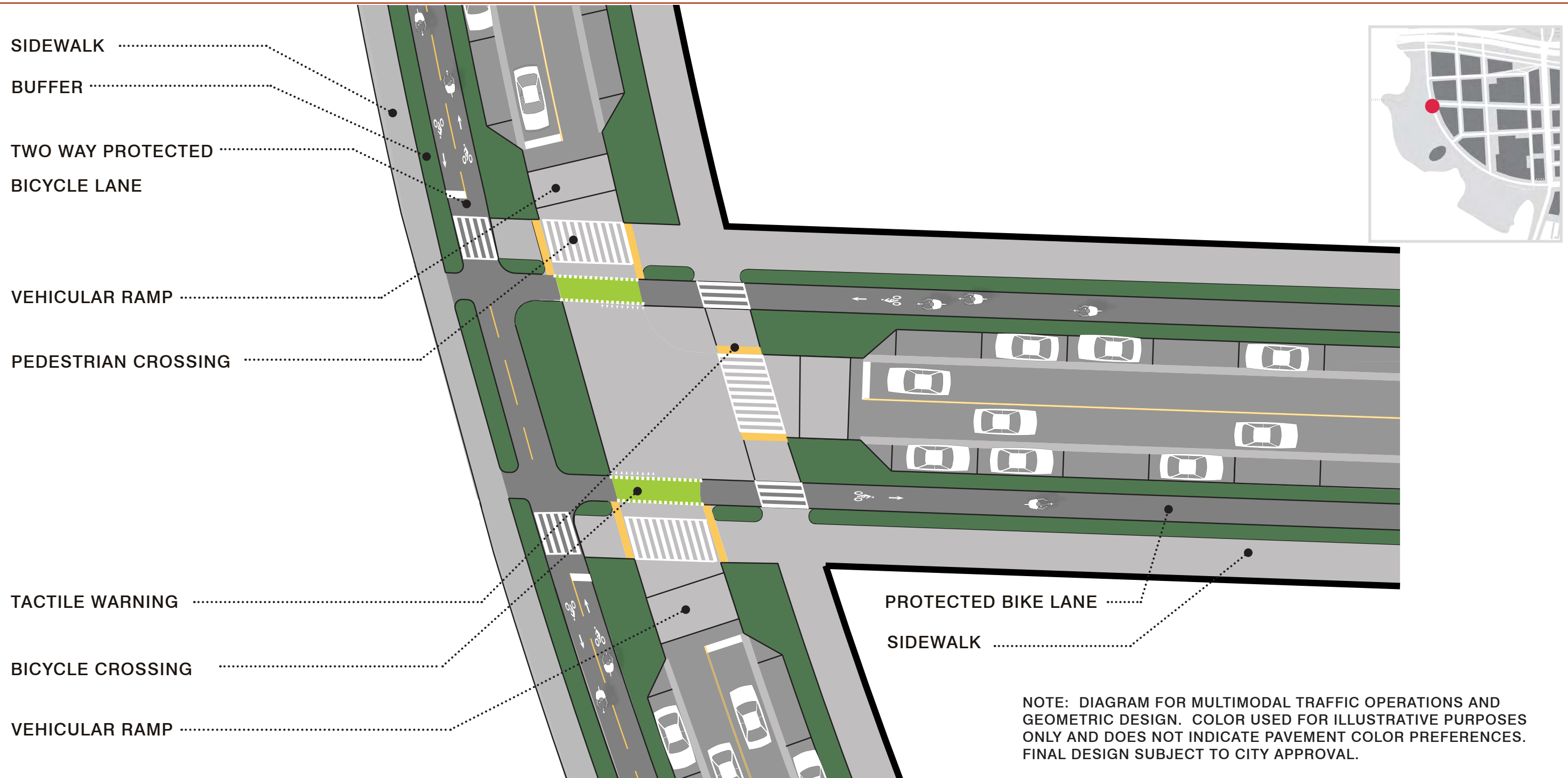


**BICYCLE CROSSING**

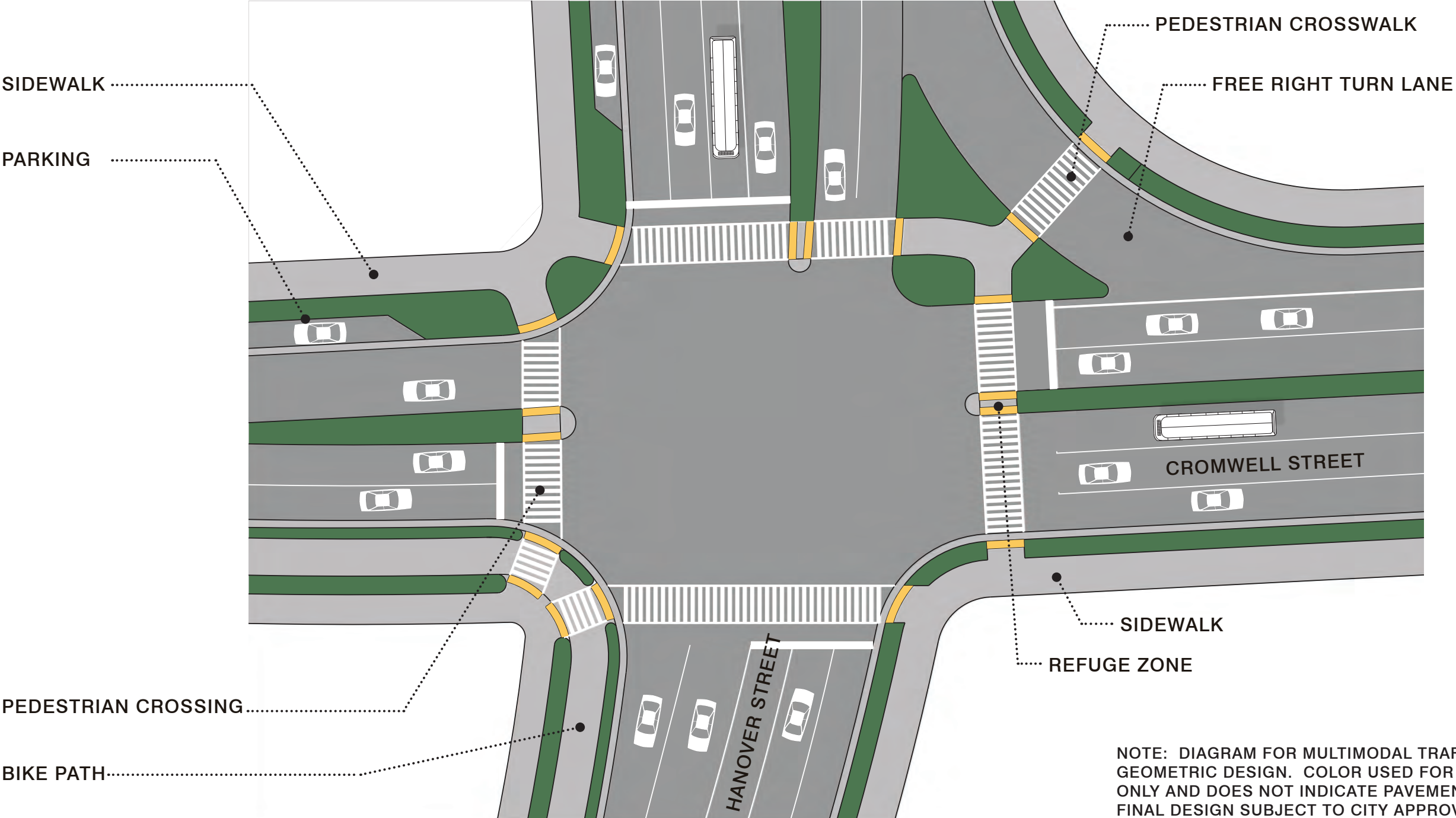


**BICYCLE STOP & QUEUING AREA**

# BLUE STREET AND WEST CROMWELL INTERSECTION



# HANOVER STREET AND CROMWELL INTERSECTION



NOTE: DIAGRAM FOR MULTIMODAL TRAFFIC OPERATIONS AND GEOMETRIC DESIGN. COLOR USED FOR ILLUSTRATIVE PURPOSES ONLY AND DOES NOT INDICATE PAVEMENT COLOR PREFERENCES. FINAL DESIGN SUBJECT TO CITY APPROVAL.



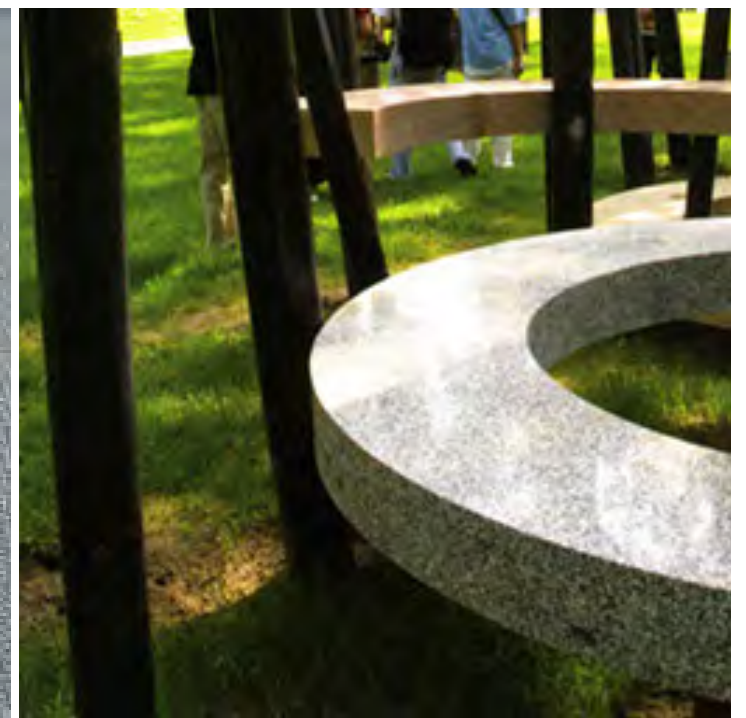
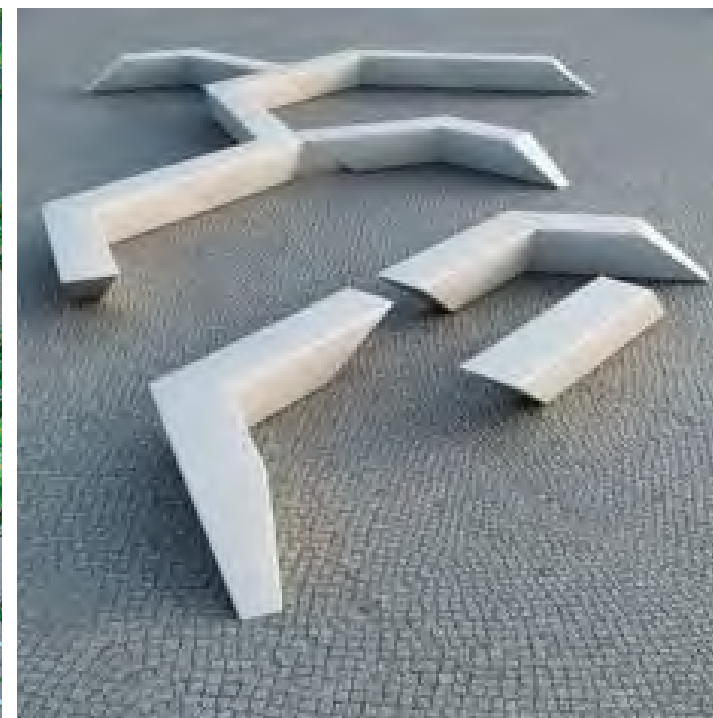


Port  
Covington | **PARK BENCHES**

# THE NEXT GREAT BALTIMORE BENCH



**FEBRUARY 29, 2016**  
[www.promotionandarts.org](http://www.promotionandarts.org)



## NEXT STEPS

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Address panel comments

Continued District and Gateway Reviews

Phasing Plan

Comprehensive Plan

**WE ARE FROM THIS CITY.  
OF THIS CITY.  
WE ARE GOING TO HELP CREATE  
SOMETHING GREAT IN THIS CITY.**

**— KEVIN PLANK**

