

Troy Downtown Development Authority  
**Big Beaver Landscape Improvements**

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**Concept Presentation**

September 2022

## **Progress Meeting**

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### **Agenda**

### **Agenda**

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**Update on DDA Financial Standing**

**Review Previous Work**

**Present Concept Design**

**Discuss Phase 1 Implementation**

## TDDA Financial Standing



## Downtown Development Authority

County of Oakland, State of Michigan

### 2021/22 through 2023/24 Budget

	2020 Actual	2021 Estimated	2021 Budget	2022 Budget	2023 Budget	2024 Budget
<b>REVENUE</b>						
Property Taxes	\$ 1,763,992	\$ 1,792,440	\$ 1,792,440	\$ 1,482,770	\$ 1,987,160	\$ 2,269,050
State Revenue Sharing-EMPP	-	-	-	-	-	-
Parking Deck Repayment	-	4,029,736	4,035,170	-	-	-
Interest Income	45,244	25,000	10,000	10,000	10,000	10,000
<b>Total Revenues</b>	<b>1,809,236</b>	<b>5,847,176</b>	<b>5,837,610</b>	<b>1,492,770</b>	<b>1,997,160</b>	<b>2,279,050</b>
<b>EXPENDITURES</b>						
Administrative Expenses	26,500	27,000	27,000	50,000	51,000	52,000
Audit Fees	5,100	3,200	3,220	3,300	3,400	3,500
Tax Tribunals	10,833	25,000	25,000	25,000	25,000	25,000
Quality Development Initiative (QDI)	13,080	30,250	30,250	45,380	45,380	45,380
Big Beaver Corridor Maintenance	171,248	289,685	338,155	314,635	310,115	315,065
Debt Service-Series 2013/2020	914,613	3,990,712	1,013,738	596,663	629,895	702,857
District Promotion	-	25,000	25,000	25,000	25,000	25,000
Other expenditures	-	1,200	1,200	1,200	1,200	1,200
<b>TOTAL - EXPENDITURES</b>	<b>1,141,374</b>	<b>4,392,047</b>	<b>1,463,563</b>	<b>1,061,178</b>	<b>1,090,990</b>	<b>1,170,002</b>
<b>SURPLUS (USE) OF FUND BALANCE</b>	<b>667,862</b>	<b>1,455,129</b>	<b>4,374,047</b>	<b>431,592</b>	<b>906,170</b>	<b>1,109,048</b>
<b>BEGINNING FUND BALANCE</b>	<b>1,003,560</b>	<b>1,671,422</b>	<b>1,671,422</b>	<b>3,126,551</b>	<b>3,558,143</b>	<b>4,464,313</b>
<b>ENDING FUND BALANCE</b>	<b>\$ 1,671,422</b>	<b>\$ 3,126,551</b>	<b>\$ 6,045,469</b>	<b>\$ 3,558,143</b>	<b>\$ 4,464,313</b>	<b>\$ 5,573,361</b>

# **Progress Review**

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## Project Area



## Concept Development

### Project Drivers



#### High Impact

Prioritize cohesive, overall identity and impact, rather than concentrating investment in small pockets



#### Adaptable

Realize and create opportunities for placemaking and civic pride



#### Timeless

Tap into proven design strategies which perform through time



#### Safe

Create safe experiences for all, regardless of mode of transit



#### Enjoyable

Improvements should create an enriching and enjoyable experience



#### Unique

Create experience which is specific to the Big Beaver Corridor / City of Troy



#### Balanced

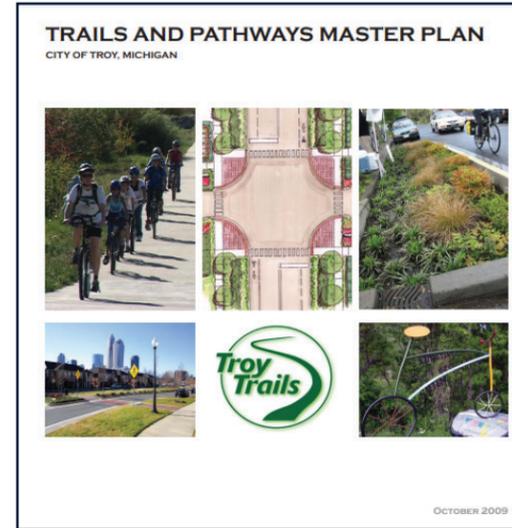
Balance improvements between creating great spaces and meeting the needs of the corridor



#### Coordinated

Integrate with surrounding context

## Previous Documents and Initiatives



**Big Beaver Corridor Study | 2006**

**Trails and Pathways Master Plan | 2009**

**City Master Plan | 2017**

**Move Across Troy | 2017**

### Social Spaces

- Engaging Public Spaces
- Big Beaver Promenade
- Development of Social Nodes

### Safety and Mobility

- Complete Streets
- Mobility
- Mid-Block Crossings
- Walkability Toolbox

### Environmental Responsibility

- Sustainable Development
- Stormwater Management

## Stakeholder Feedback

### Stakeholders Interviewed

Kirco

Bostick Group

Chuck Whittall

Stuart Frankel

Troy Chamber -  
Hospitality Working Group

City Planning Commission

The Forbes Company

Online Survey

Troy Chamber - Economic  
Development Forum

Stanley Frankel

## Stakeholder Feedback

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### Chamber of Commerce Hospitality Group

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## Feedback

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### Overall Comments

- Safety, High Impact and Timeless rank among top goals
- Dominant impressions were “Traffic, Shopping, Restaurants and Busy”

### What’s Working?

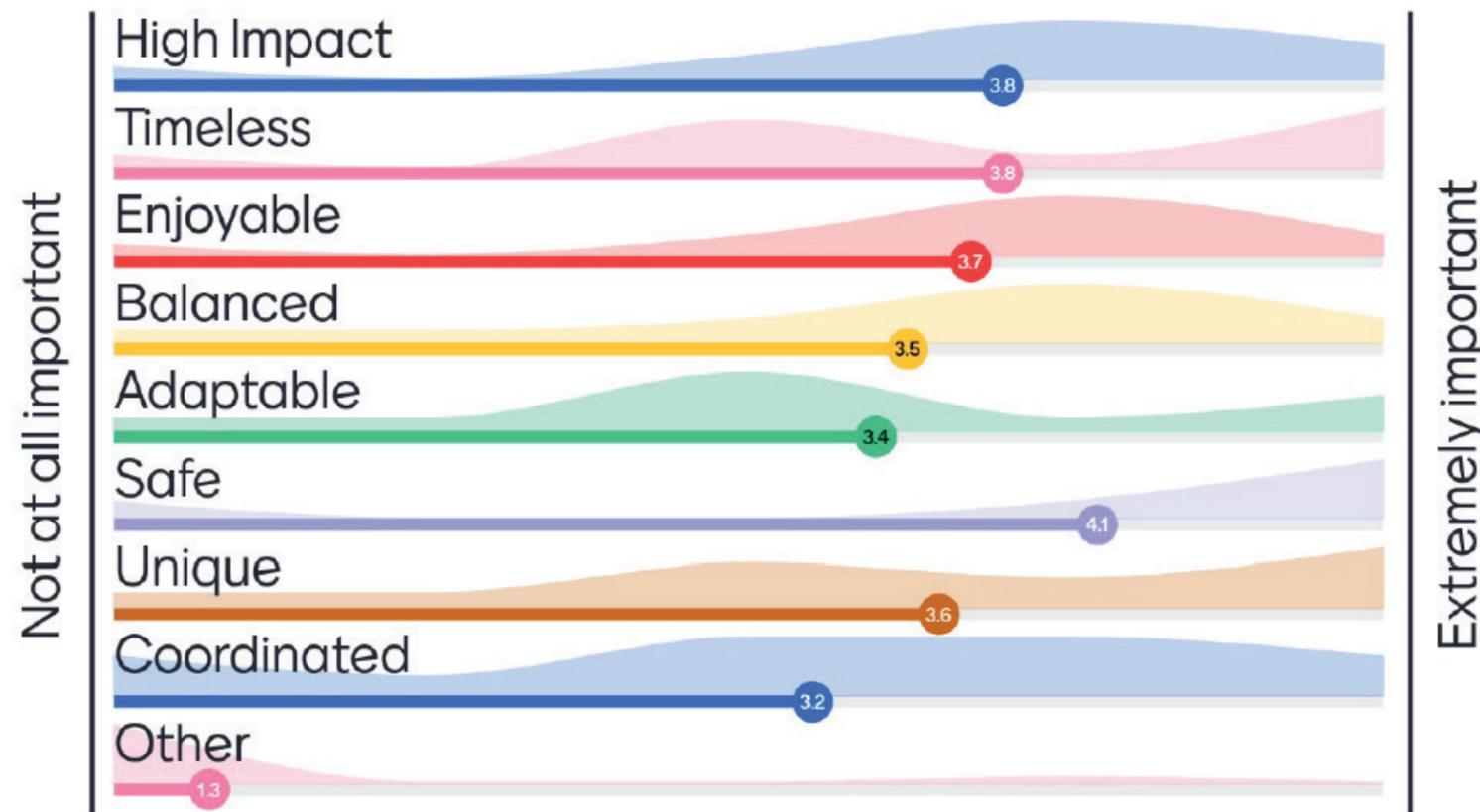
- Somerset Collection landscape is favored for consistency and maintenance
- Strong community connection to mature trees and evergreens, especially seasonal lighting

### What Needs Attention?

- East side of I-75 does not have the appeal of the west side
- DDI presents challenges and opportunities
- Generally not seen as friendly to pedestrians, however people feel it should become one

## Stakeholder Feedback

### Chamber of Commerce Hospitality Group



### Feedback

#### Landscape Character

- Welcoming and comfortable
- Multiple perspectives: Bold and vibrant vs more refined and elegant

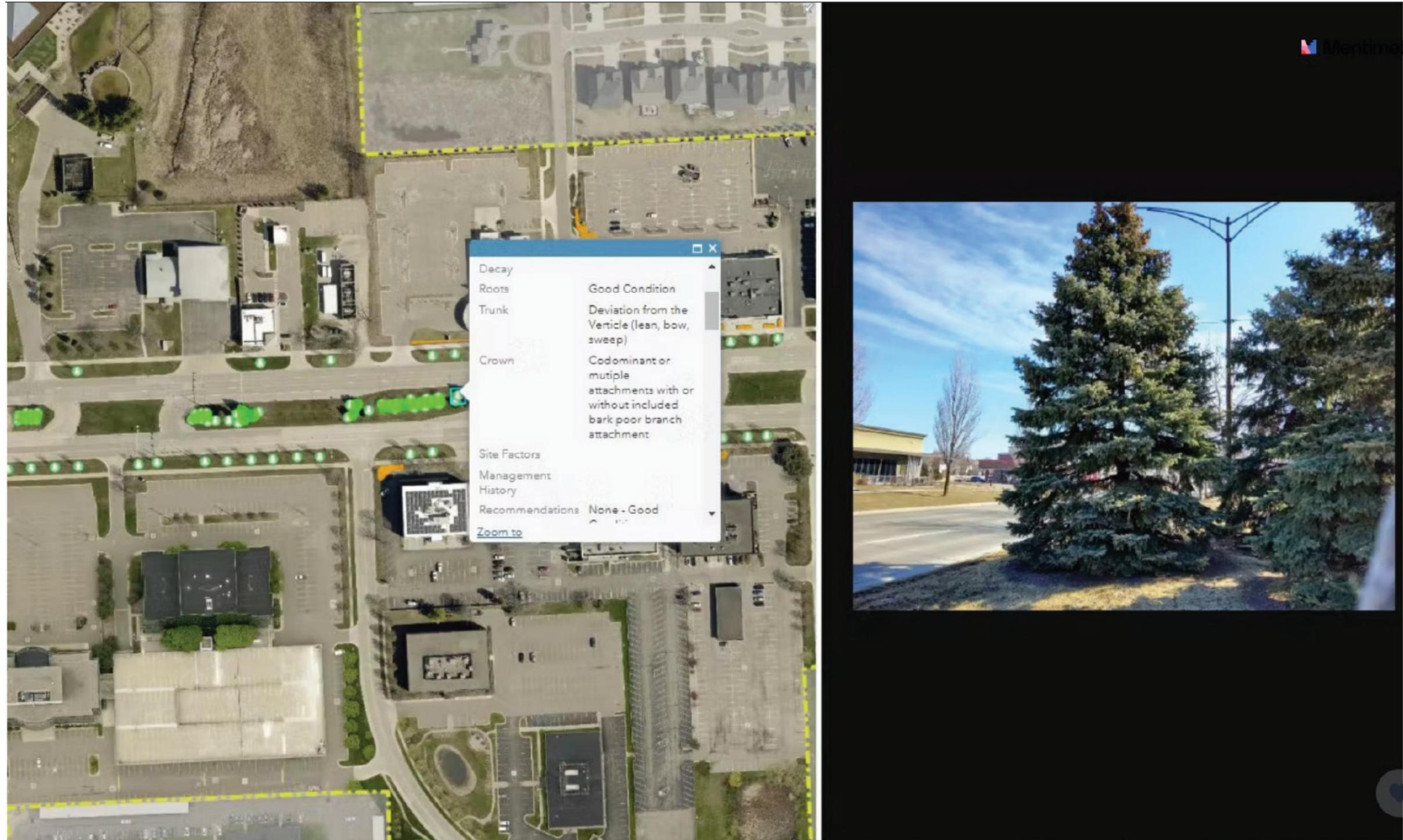
#### Diverging Diamond Interchange

- Increase landscaping
- Investigate pedestrian safety

#### Pedestrian Safety and Comfort

- Perceived lack of safety for pedestrians
- Desire for increased pedestrian comfort through buffering, seating, signage and landscaping
- Desire for more pedestrian crossings of Big Beaver

## Data Collection



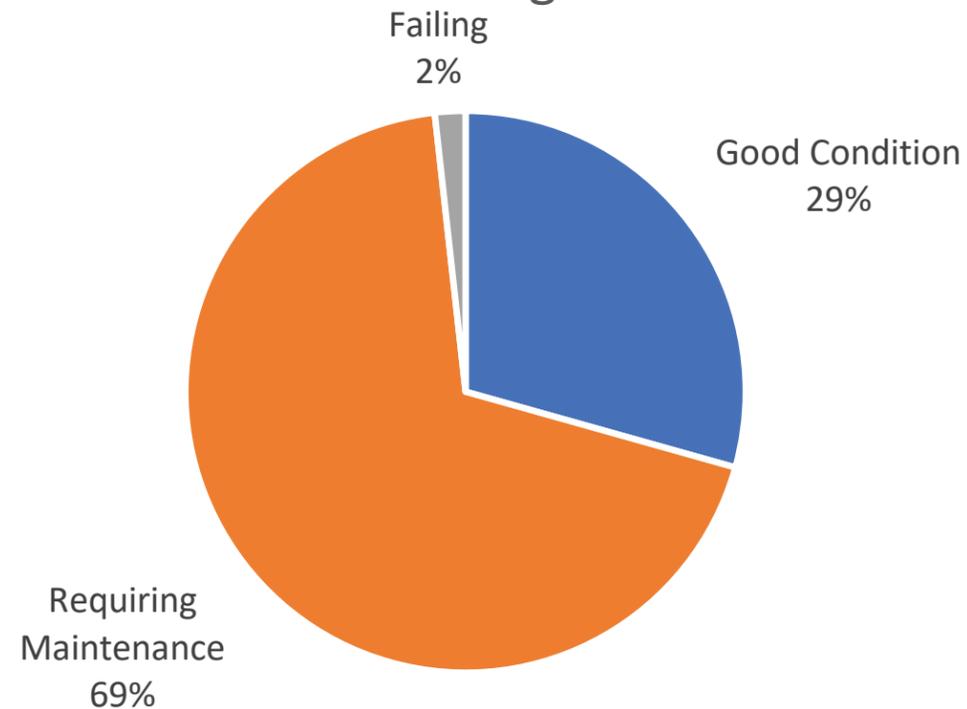
## Data Collection

### Hardscape Quantities

Decorative Pavers	±65,000 SF
Concrete in Decorative Applications	±28,000 SF
<b>Total</b>	<b>±93,000 SF</b> <b>±2.1 Acres</b>

### Landscape Condition

#### Decorative Paving Condition

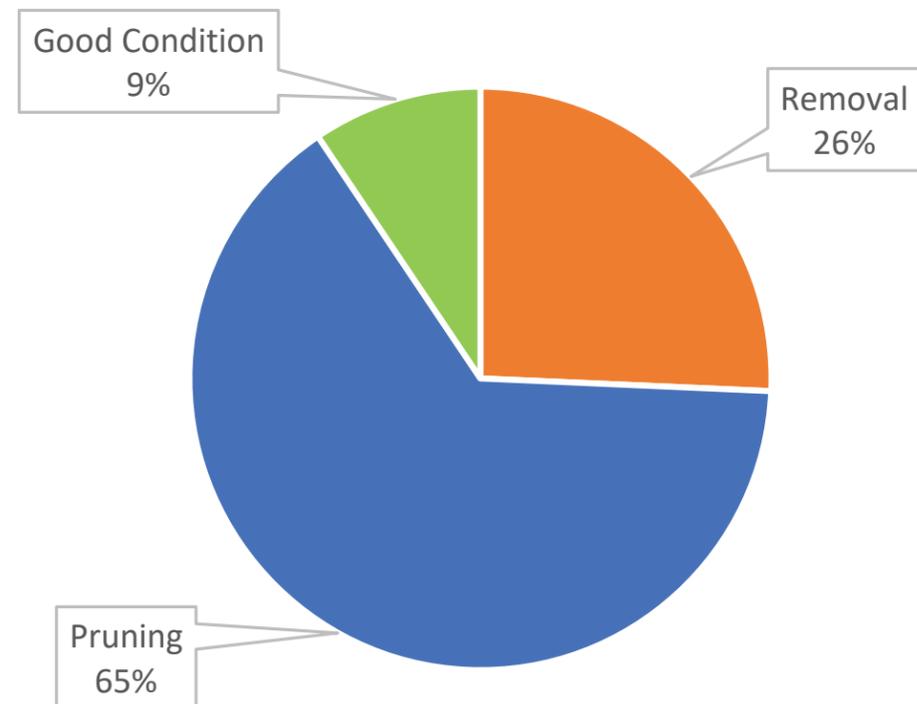


### Landscape Quantities

Deciduous Trees	864
Evergreen Trees	175
<b>Total</b>	<b>1039</b>
Landscape Beds	143,000 SF
Irrigation Control Valves	575

### Landscape Condition

#### Tree Recommendations Summary



## Consistency Through Nature

What is the Desired Look and Feel?



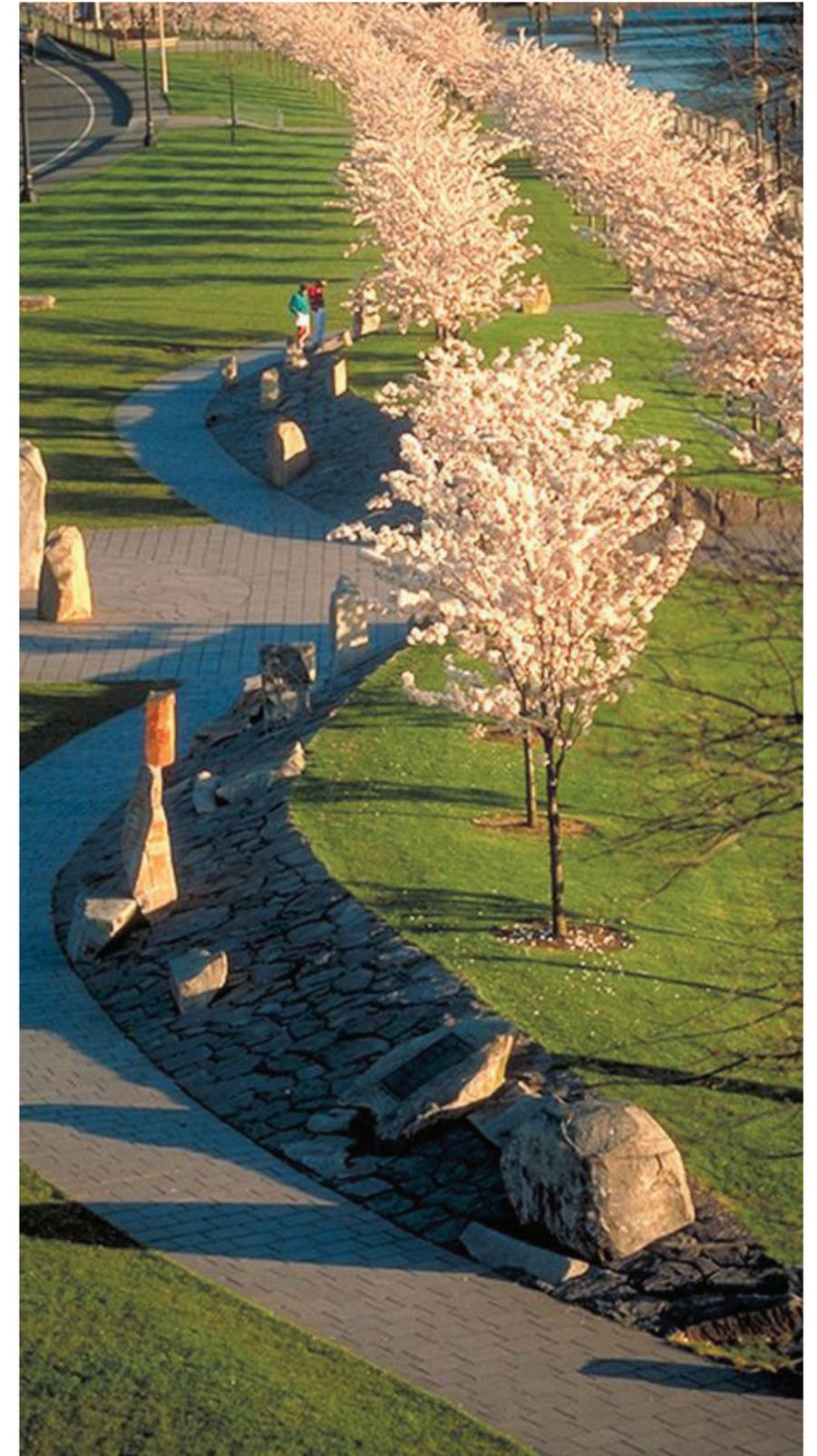
Description

- Channel the refinement and consistency of the landscape characteristic of West Big Beaver
- Utilize inspiration from the Michigan landscape
- Strike a balance between the formal and naturalistic

## Concept Development

Look & Feel

Consistency...



## Concept Development

### Look & Feel

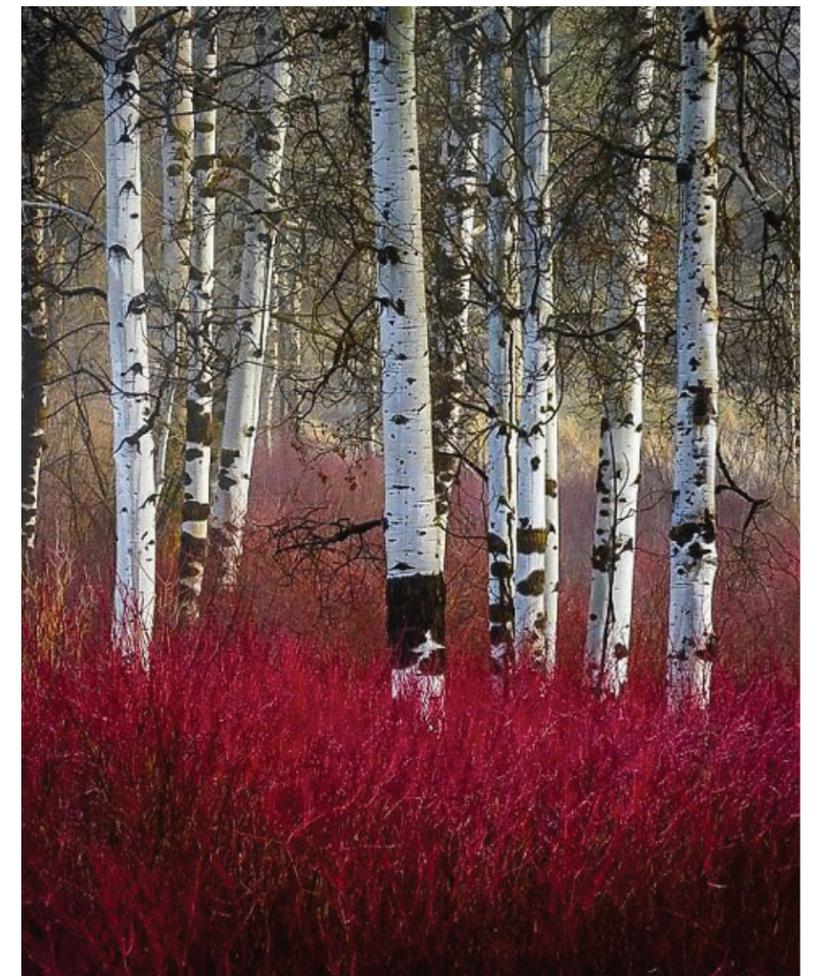
...Through Nature



## Concept Development

### Look & Feel

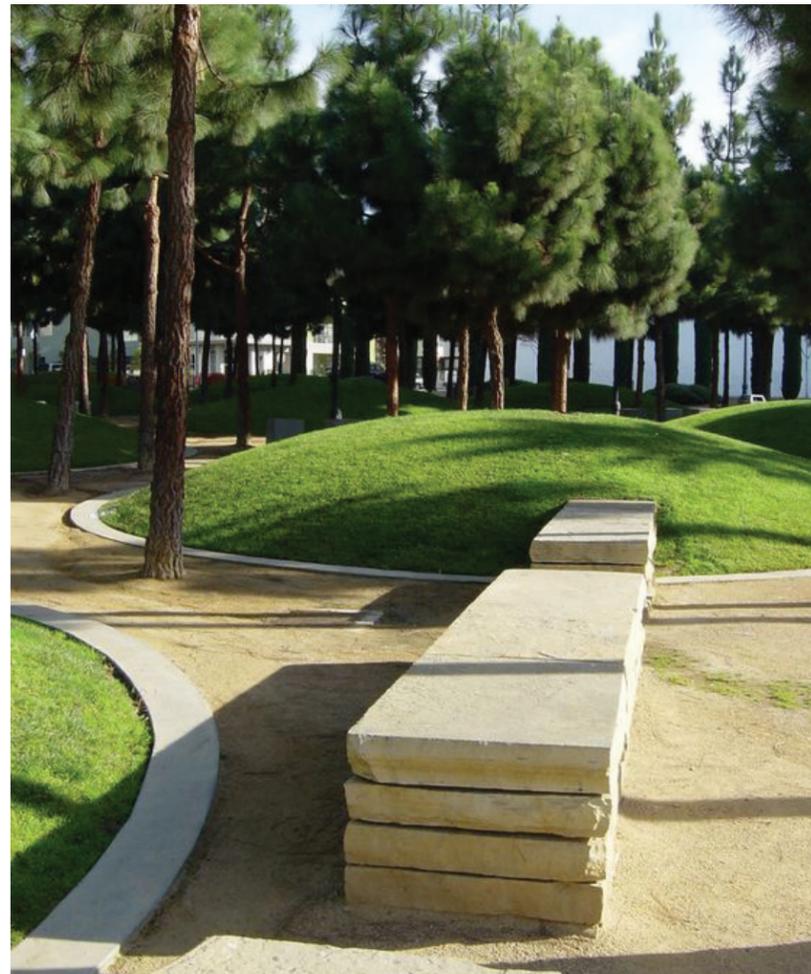
### Texture, Color and Variety



## Concept Development

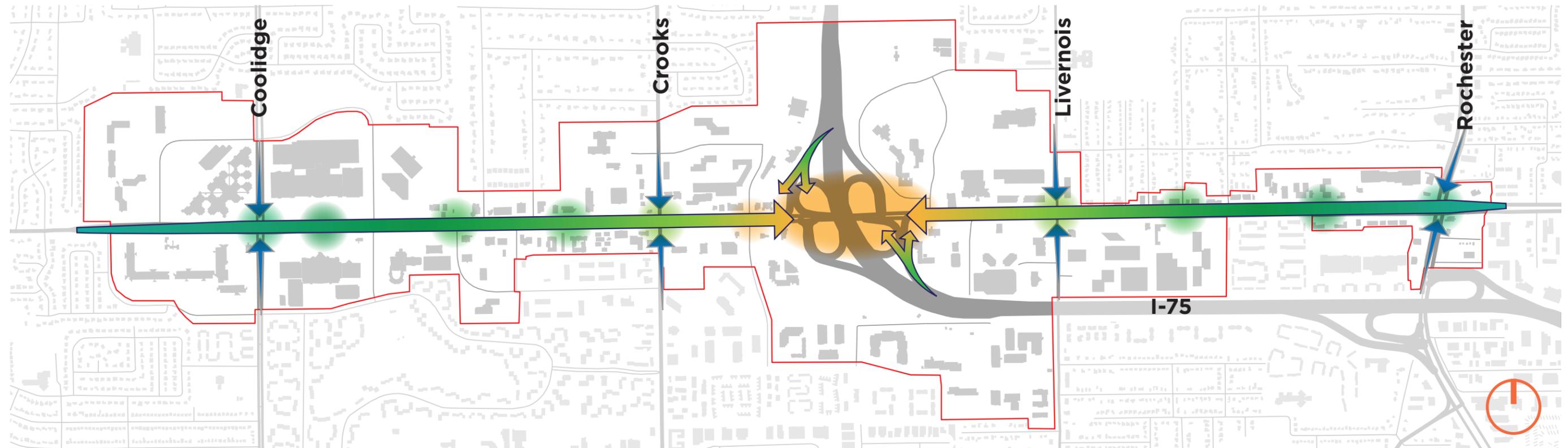
### Look & Feel

### Pedestrian Comfort



# Concept Development

## Corridor Approach



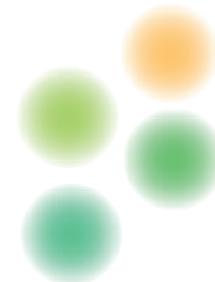
Map Key



**Big Beaver Corridor Landscaping**



**Mile Road Landscaping**



**Landscape Focus Areas**

# Concept Development

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## Concept Development

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### Project Awards

### Award Granting Organizations

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#### **American Planning Association (APA)**

- Planning Excellence Award

#### **American Society of Landscape Architects**

- General Design
- Urban Design
- Analysis and Planning

#### **Urban Land Institute (ULI)**

- Open Submission
- Resilient Development

#### **Congress for New Urbanism (CNU)**

- Neighborhood, District and Corridor

#### **Association for Civil Engineering Companies (ACEC)**

- Transportation

#### **American Public Works Association (APWA)**

- Exceptional Performance Award

## Award Submission Themes

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### **Impact of long-term planning and design**

- City and DDA focused efforts to develop regional destination, which Big Beaver as a catalyst
- Landscaping nearly 30 years prior
- Learning through time and advancing corridor to meet the needs of changing uses today
- Result is international destination which continues to evolve and respond to changing needs

### **Designing for Longevity and Maintenance**

- Right plant, right place
- Using artful site elements to shield and buffer landscape from snow and salt
- Lasting materials which are cognizant of resources

### **Sustainability and Resilience**

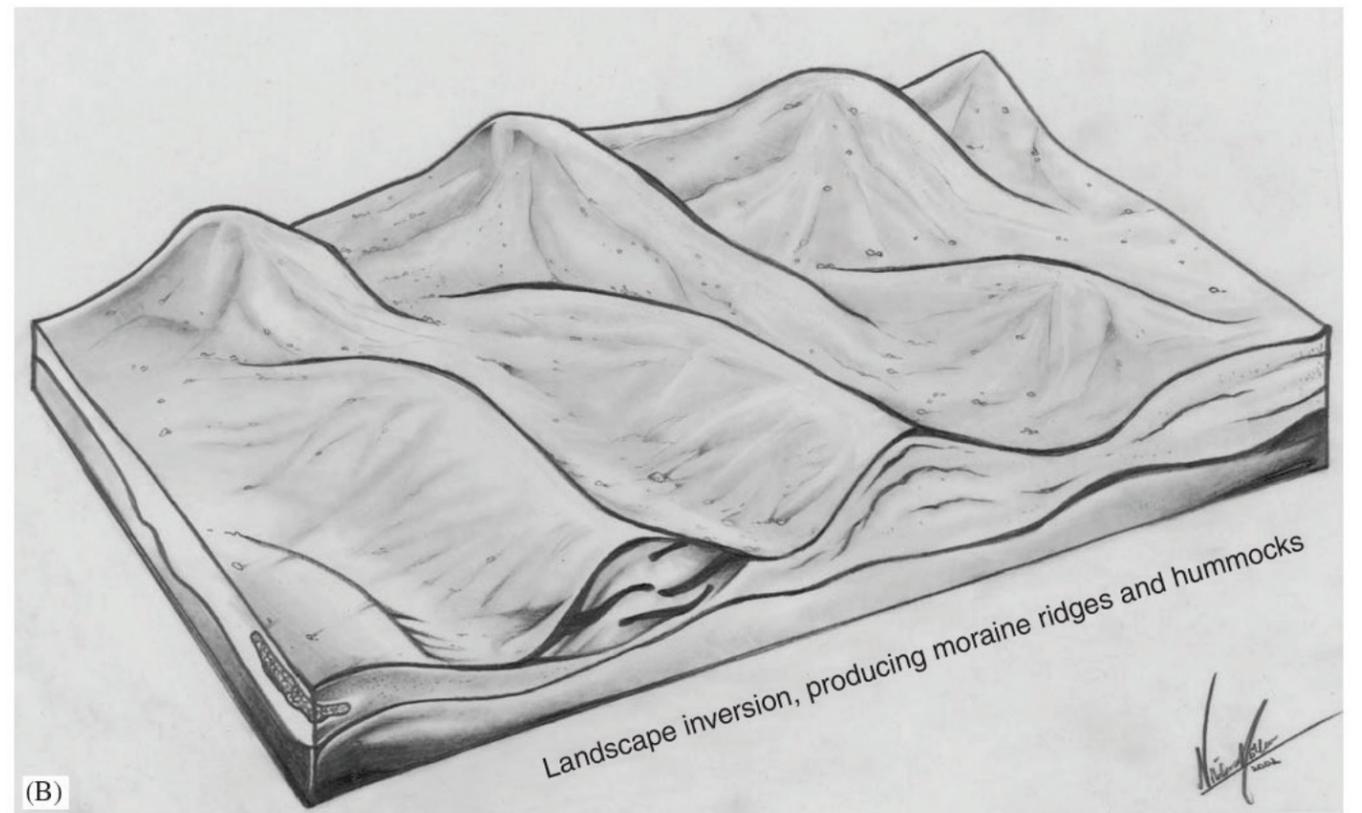
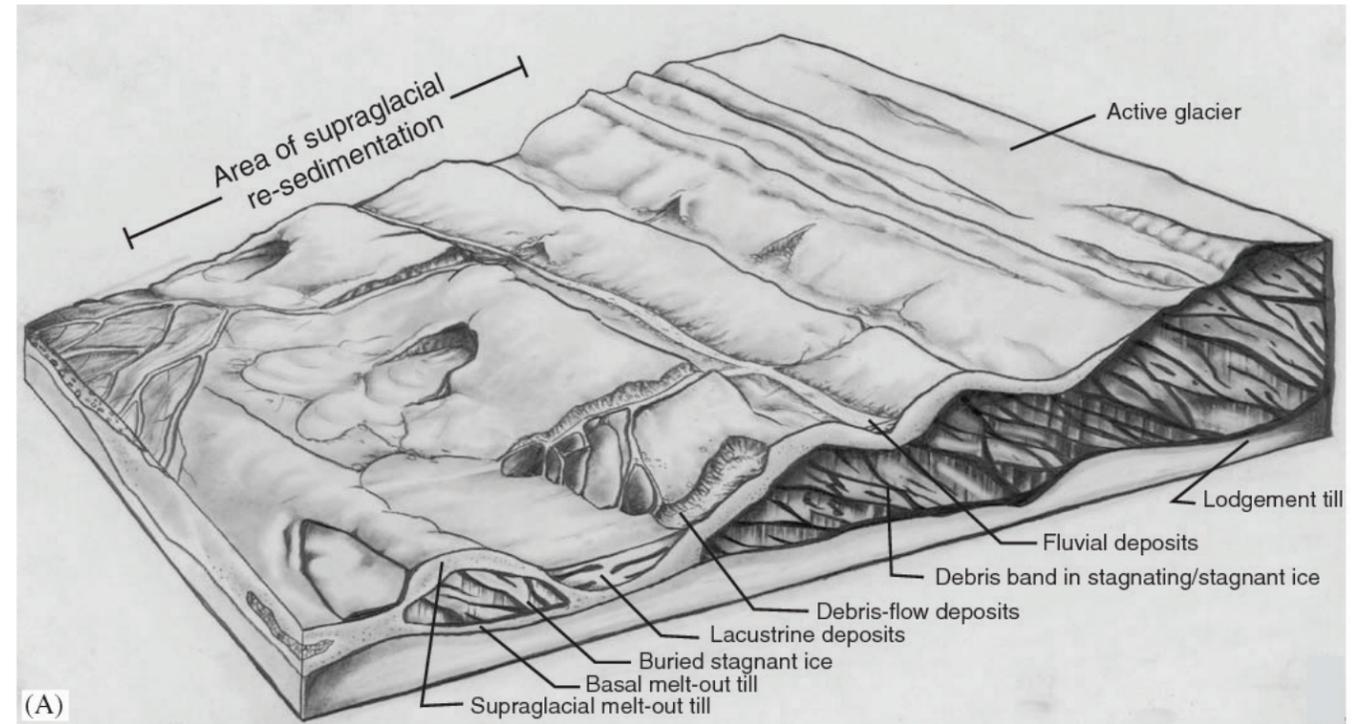
- Material Selection - Defined radius for material sourcing
- Plant Selection - Reduced water and mowing needs
- Carbon Sequestration - Quantification of tree benefits
- Pedestrian Access - Enhanced pedestrian access through creative engineering

### **Design Excellence**

- Multi-faceted and multi-disciplinary approach
- Design impact at local and regional scale
- Prioritization of materials endemic to region

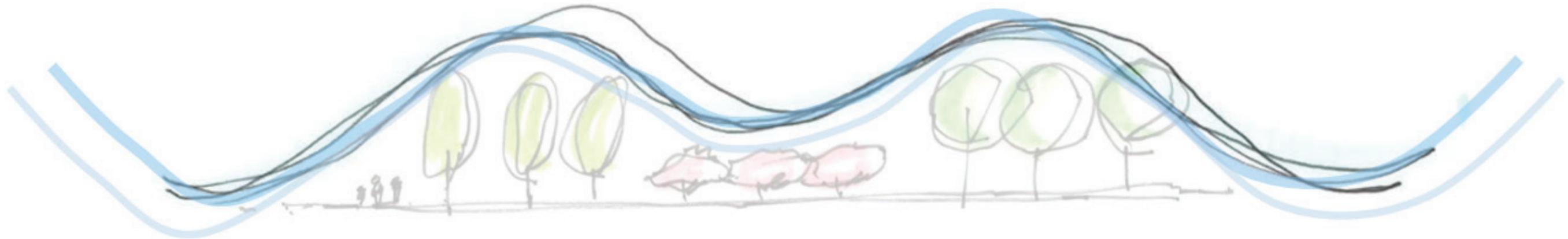
# Concept Development

## Landscape Inspiration



## Concept Development

### Concept Sketch



*Peaks/Ridges & Valleys* = **Fluidity of Scale** = Dynamic Sense of Enclosure

## Planting for Color, Texture, Seasonal Interest and Ecological Benefit

## Concept Development

### Evergreen Trees



**EASTERN RED CEDAR**  
*Juniperus virginiana*

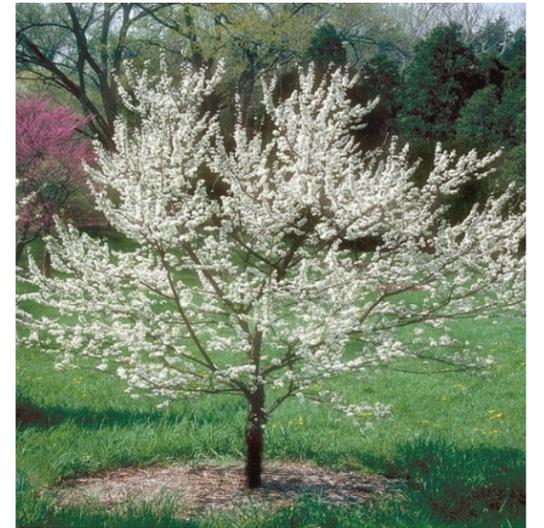
**BLUE SPRUCE**  
*Picea pungens*

**AUSTRIAN PINE**  
*Pinus nigra*

**LARCH**  
*Larix laricina*

# Concept Development

## Deciduous Trees



**BLACK GUM**  
*Nyssa sylvatica*

**RED OAK**  
*Quercus rubra*

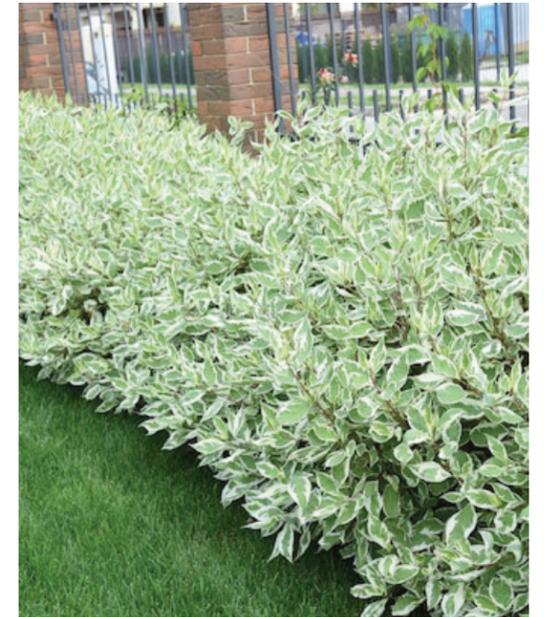
**RIVER BIRCH**  
*Betula nigra*

**SERVICEBERRY**  
*Amelanchier canadensis*

**AMERICAN PLUM**  
*Prunus americana*

# Concept Development

## Shrubs



**PANICLE HYDRANGEA**  
*Hydrangea paniculata*

**DWARF CRANBERRY BUSH**  
*Viburnum opulus 'Nanum'*

**JUNIPER**  
*Juniperus sp.*

**SUMAC**  
*Rhus typhina*

**VARIEGATED RED TWIG DOGWOOD**  
*Cornus alba 'Elegantissima'*

## Concept Development

### Perennials



**MILKWEED**  
*Asclepias syriaca*

**BLACK EYED SUSAN**  
*Rudbeckia hirta*

**CONEFLOWER**  
*Echinacea purpurea*

**YARROW**  
*Achillea millefolium*

**JOE PYE WEED**  
*Eutrochium purpureum*

## Concept Development

### Grasses



**LITTLE BLUESTEM**  
*Schizachyrium scoparium*

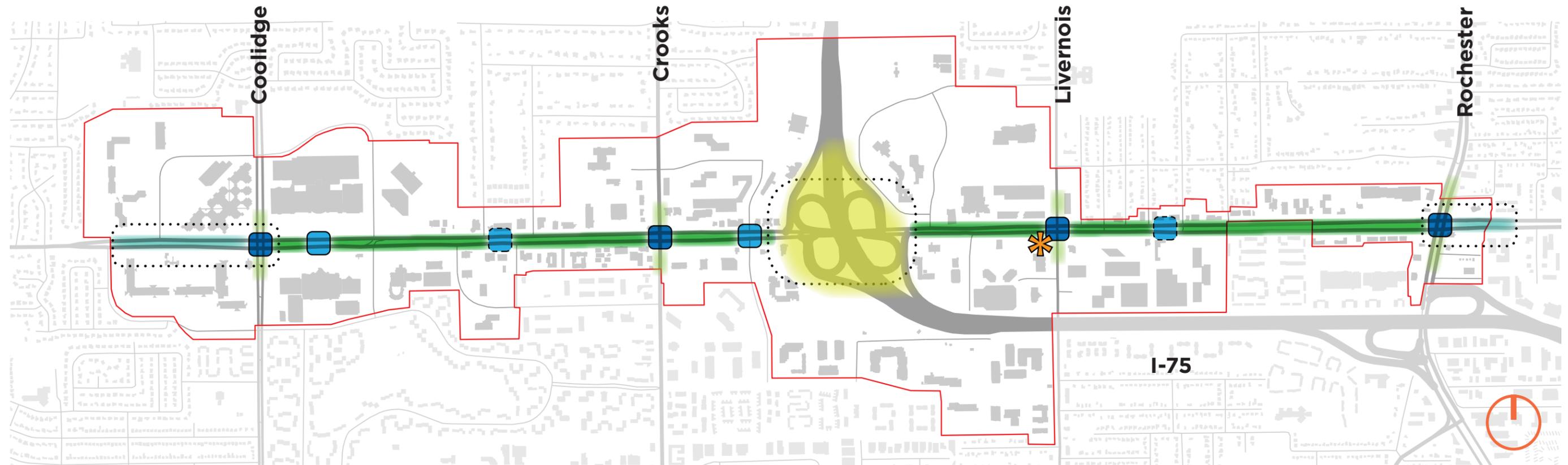
**PRAIRIE DROPSEED**  
*Sporobolus heterolepis*

**SWITCHGRASS**  
*Panicum virgatum*

**KARL FOERSTER**  
*Calamagrostis acutifloa 'Karl Foerster'*

## Corridor Overview

### Project Areas

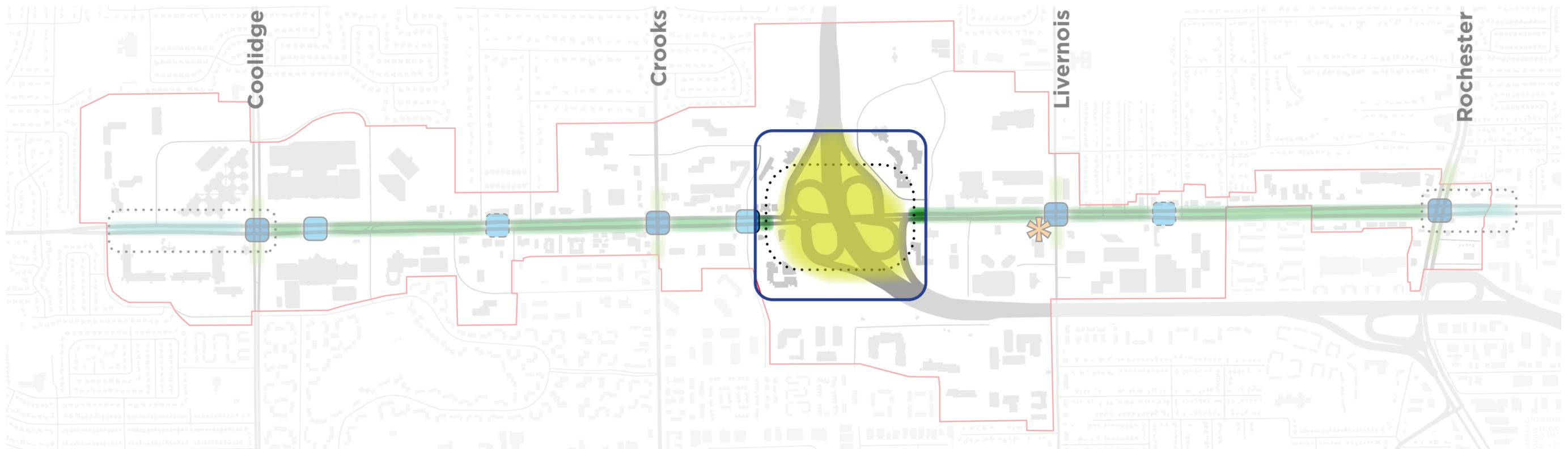


### Map Key

-  Entries
-  Intersections
-  Mid-Block Crossings (Existing)
-  Mid-Block Crossings (Proposed)
-  Pocket Park
-  Corridor Landscaping

# Diverging Diamond Interchange

- Signature corridor entrance
- Link between East and West Big Beaver
- Opportunity to make traffic flows more intuitive
- Improve pedestrian comfort



**DDI Design**

**Birdseye**



**DDI Design**

**Inbound Perspective**



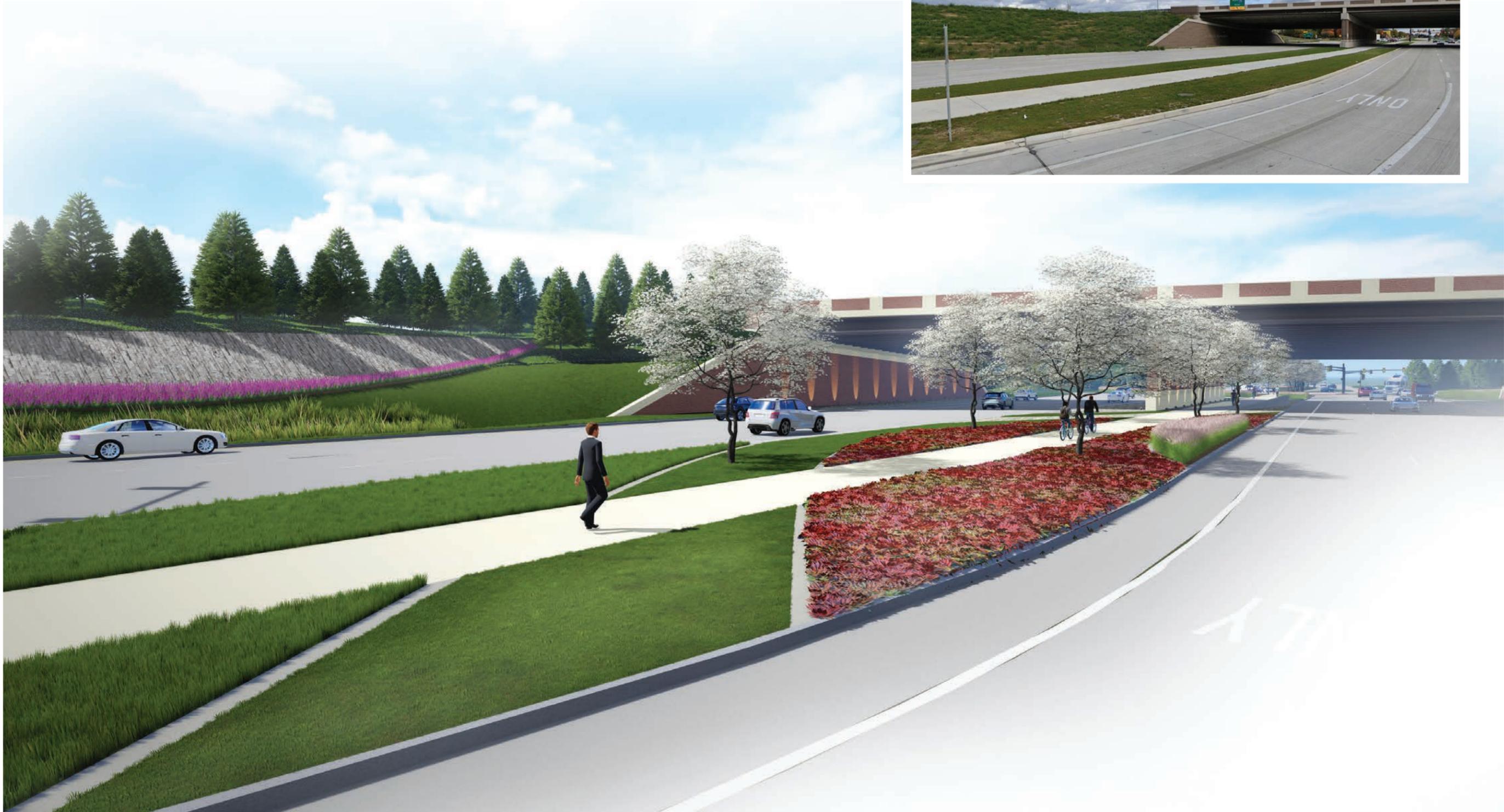
**DDI Design**

**East Big Beaver Perspective**



**DDI Design**

**Median Perspective**



**DDI Design**

**East Big Beaver Plan**



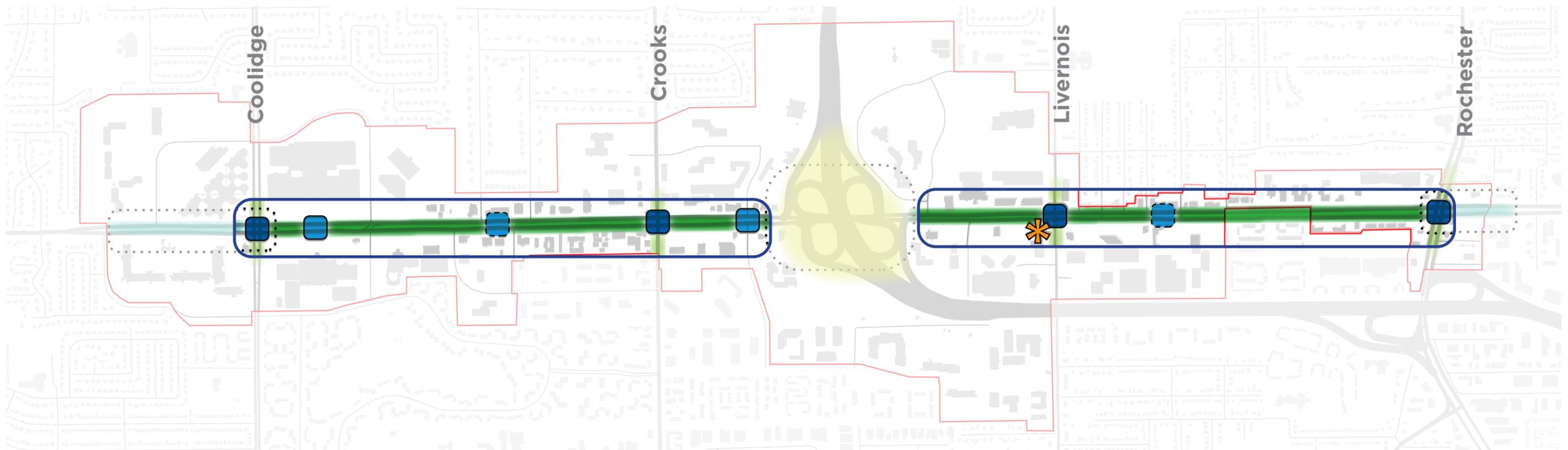
**DDI Design**

**Underpass Rendering**



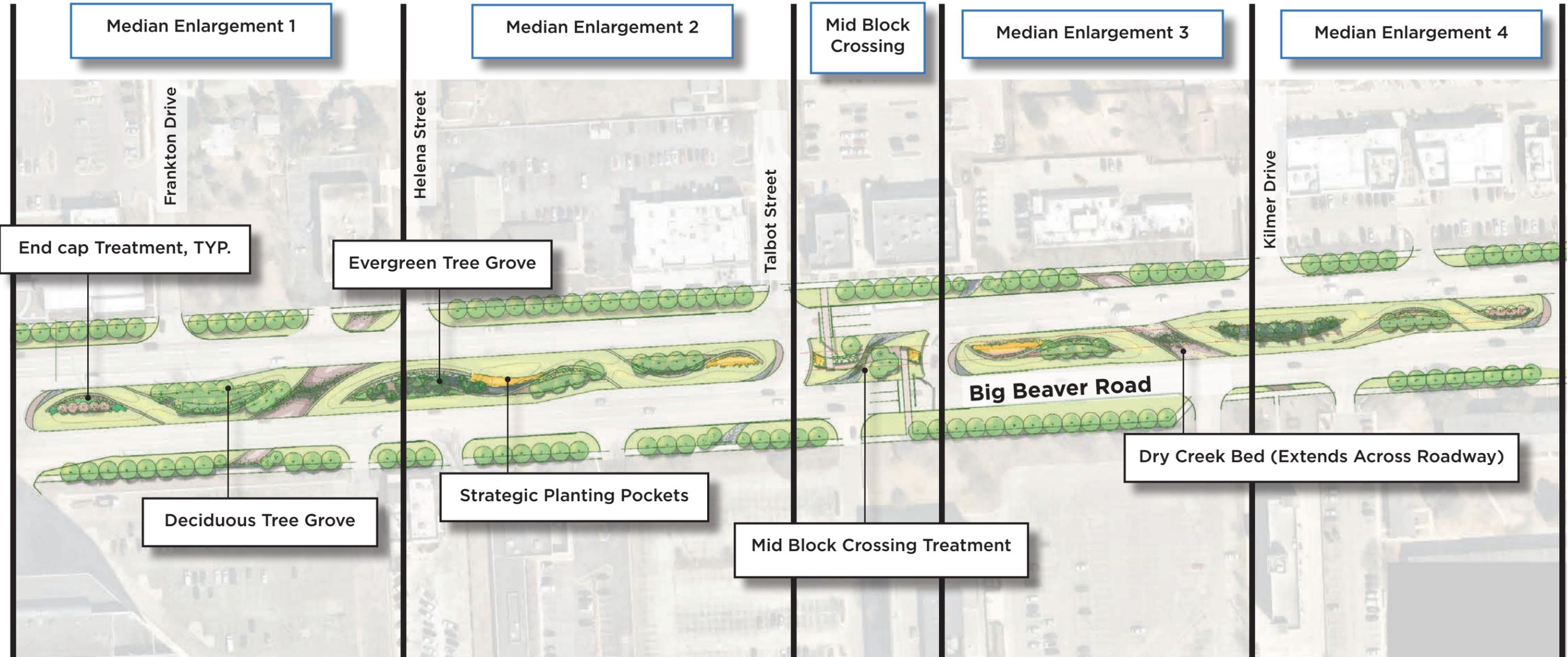
# Median Landscaping

- Consistent theme through East and West Big Beaver
- Signature identity unique to the DDA
- Increase pedestrian comfort



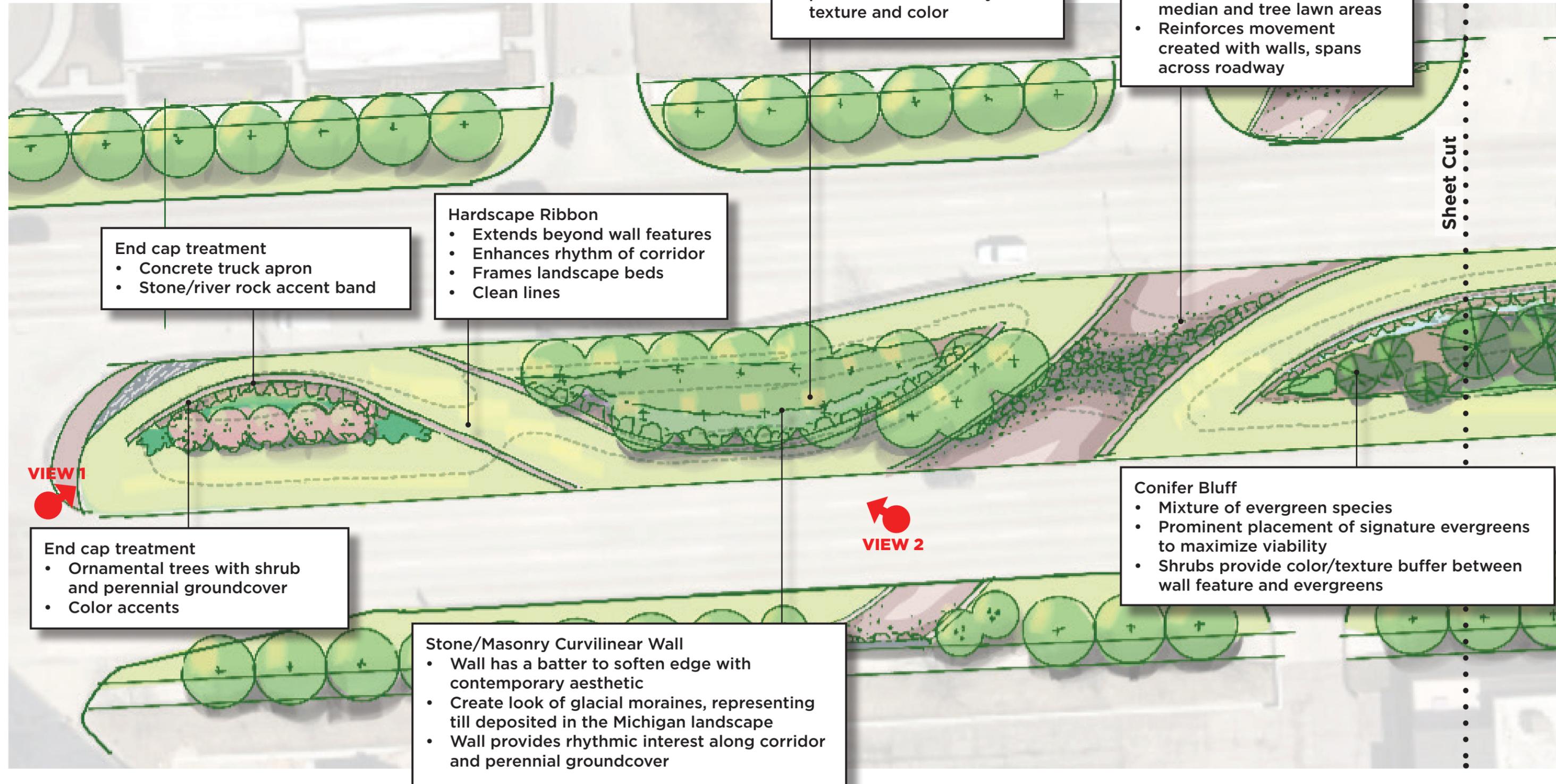
# Median Landscaping

## Segment Plan



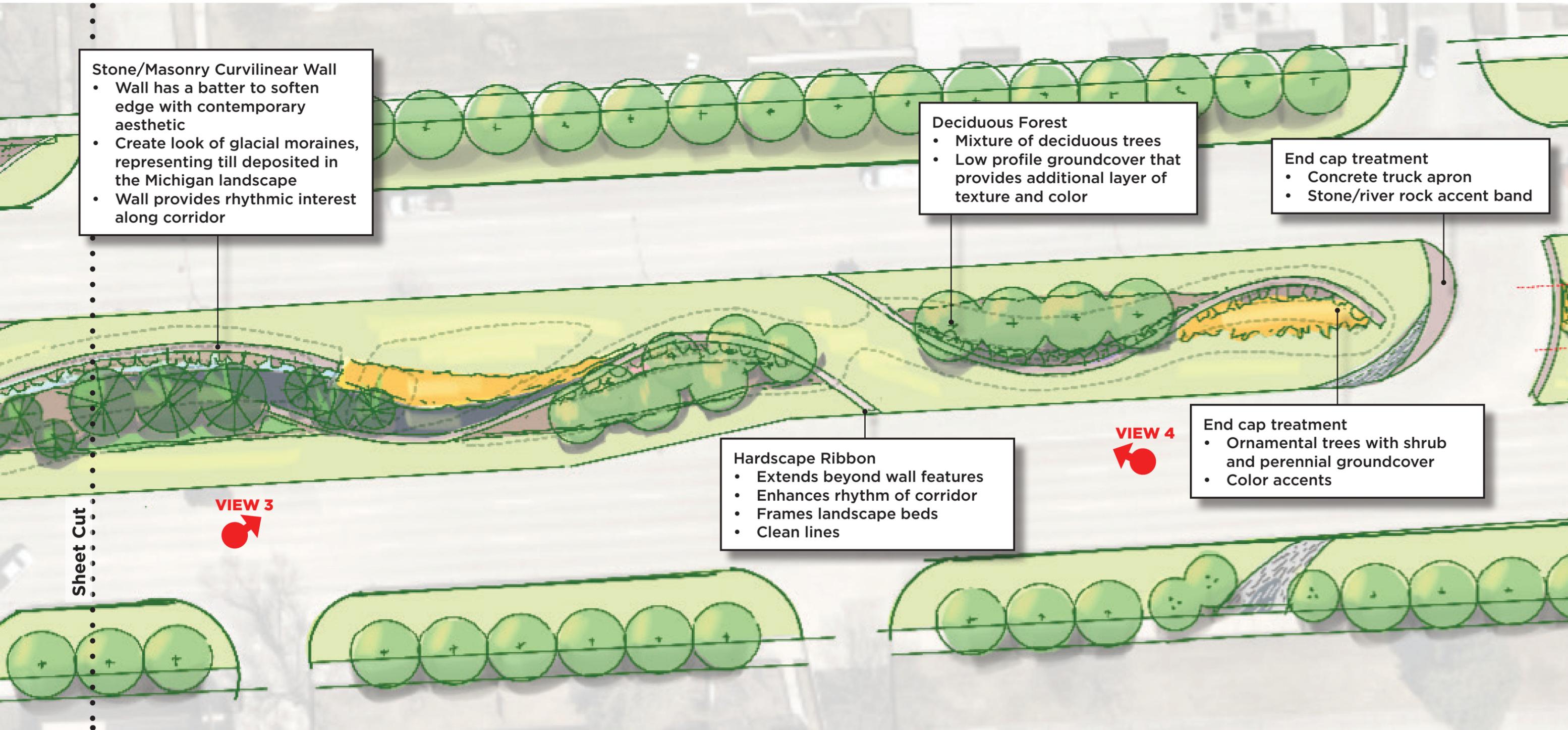
# Median Landscaping

## Plan Enlargement



# Median Landscaping

## Plan Enlargement



**Stone/Masonry Curvilinear Wall**

- Wall has a batter to soften edge with contemporary aesthetic
- Create look of glacial moraines, representing till deposited in the Michigan landscape
- Wall provides rhythmic interest along corridor

**Deciduous Forest**

- Mixture of deciduous trees
- Low profile groundcover that provides additional layer of texture and color

**End cap treatment**

- Concrete truck apron
- Stone/river rock accent band

**Hardscape Ribbon**

- Extends beyond wall features
- Enhances rhythm of corridor
- Frames landscape beds
- Clean lines

**End cap treatment**

- Ornamental trees with shrub and perennial groundcover
- Color accents

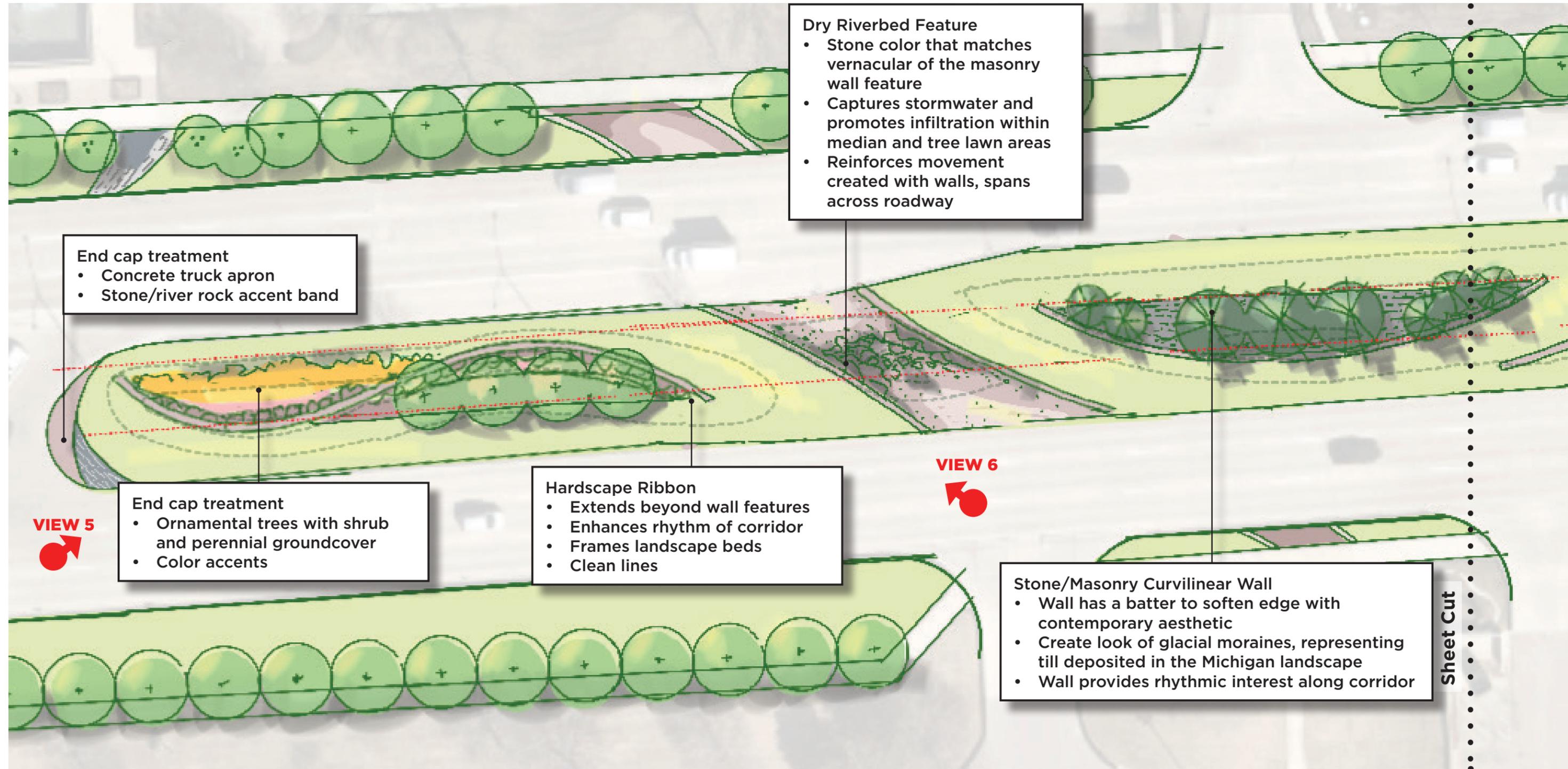
**VIEW 3**

**VIEW 4**

Sheet Cut

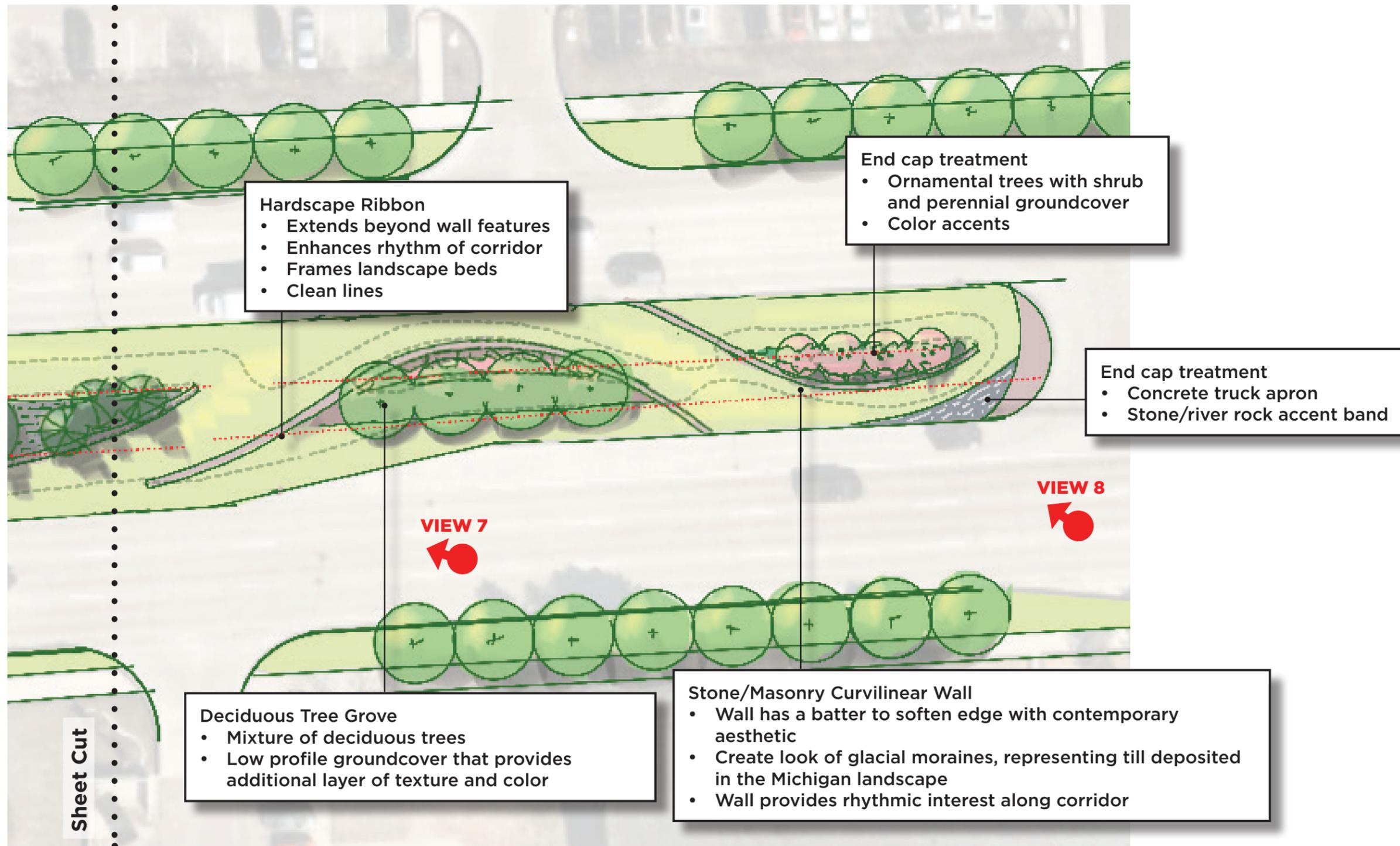
## Median Landscaping

### Plan Enlargement



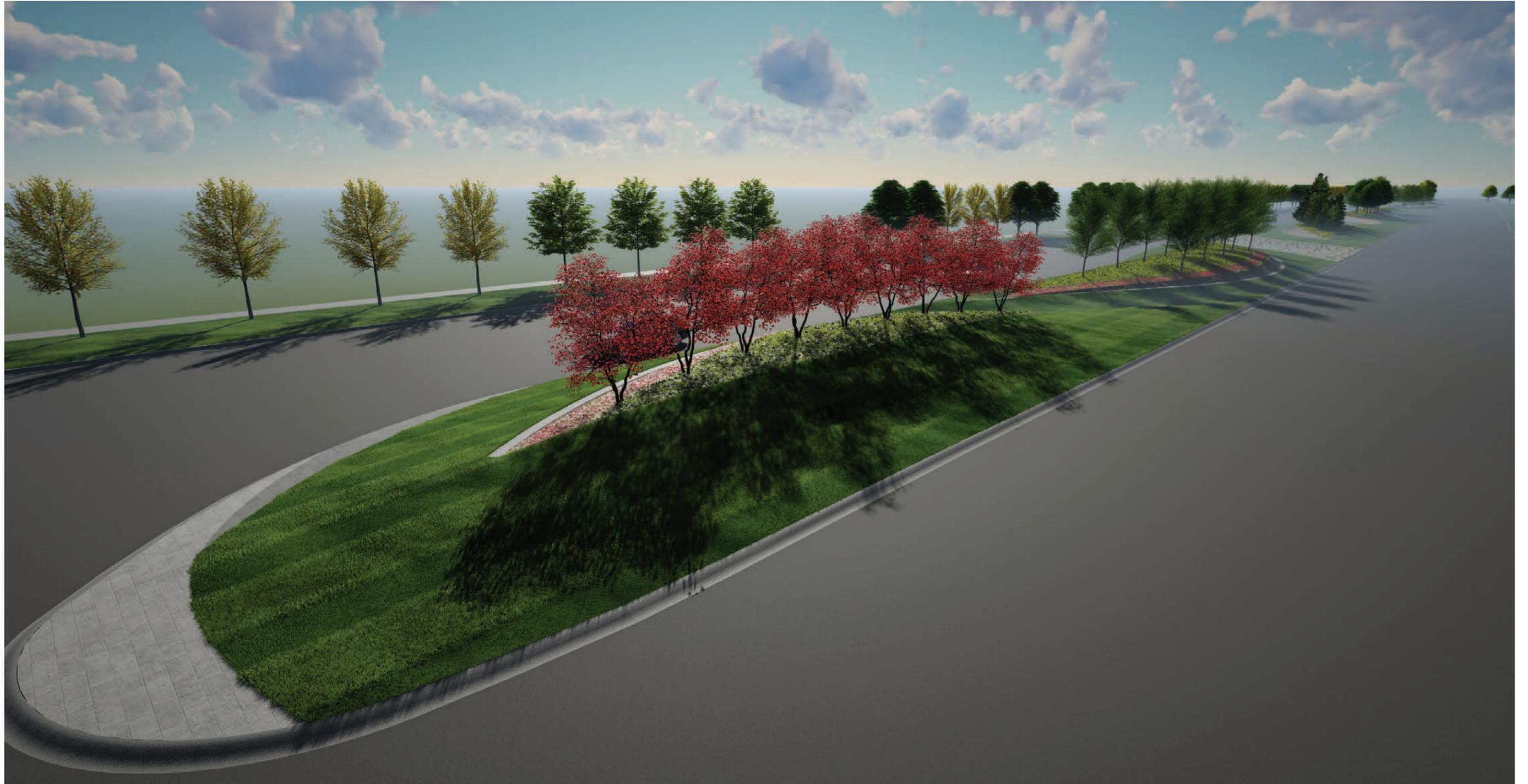
## Median Landscaping

### Plan Enlargement



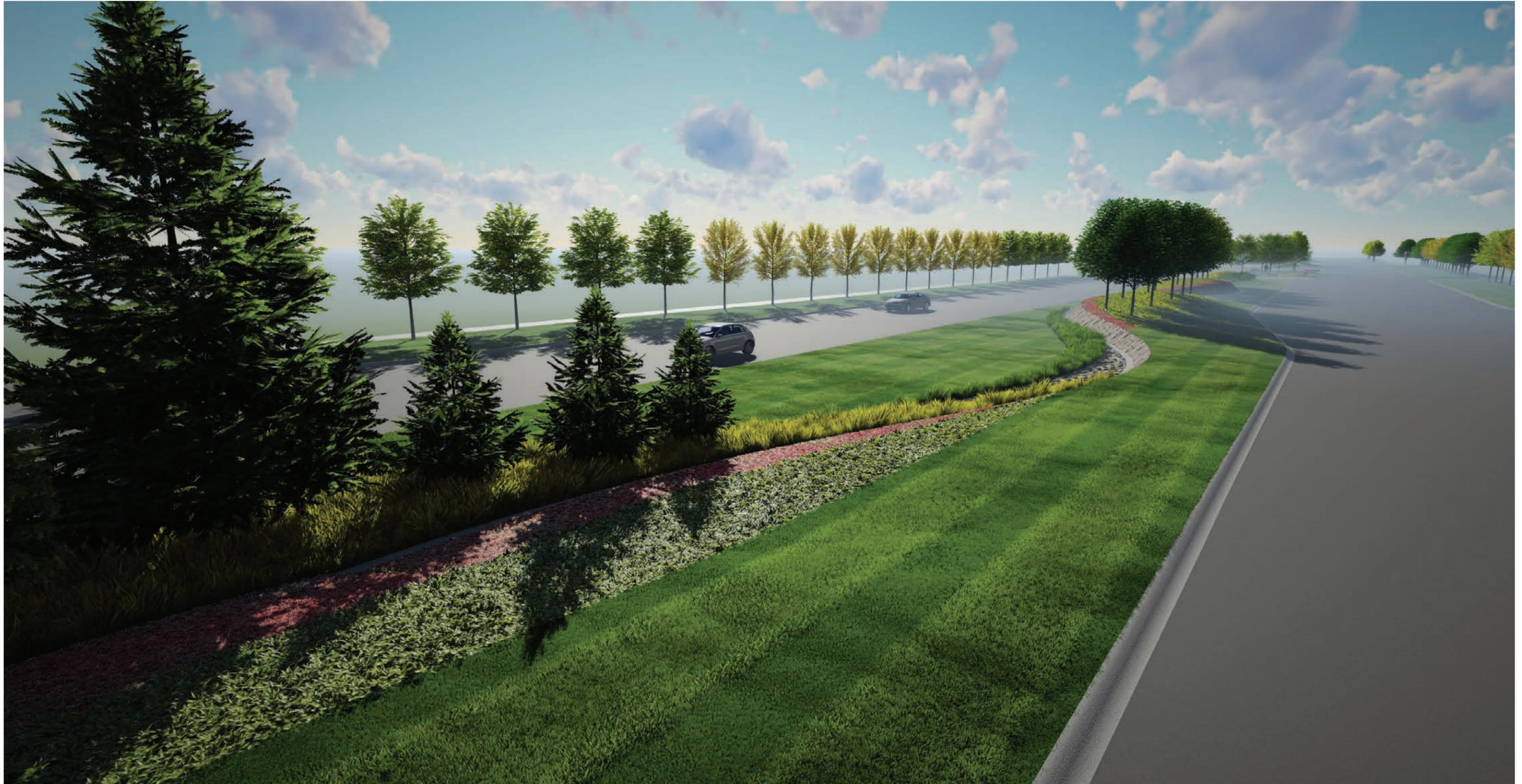
## Median Landscaping

### View 1



## Median Landscaping

### View 3



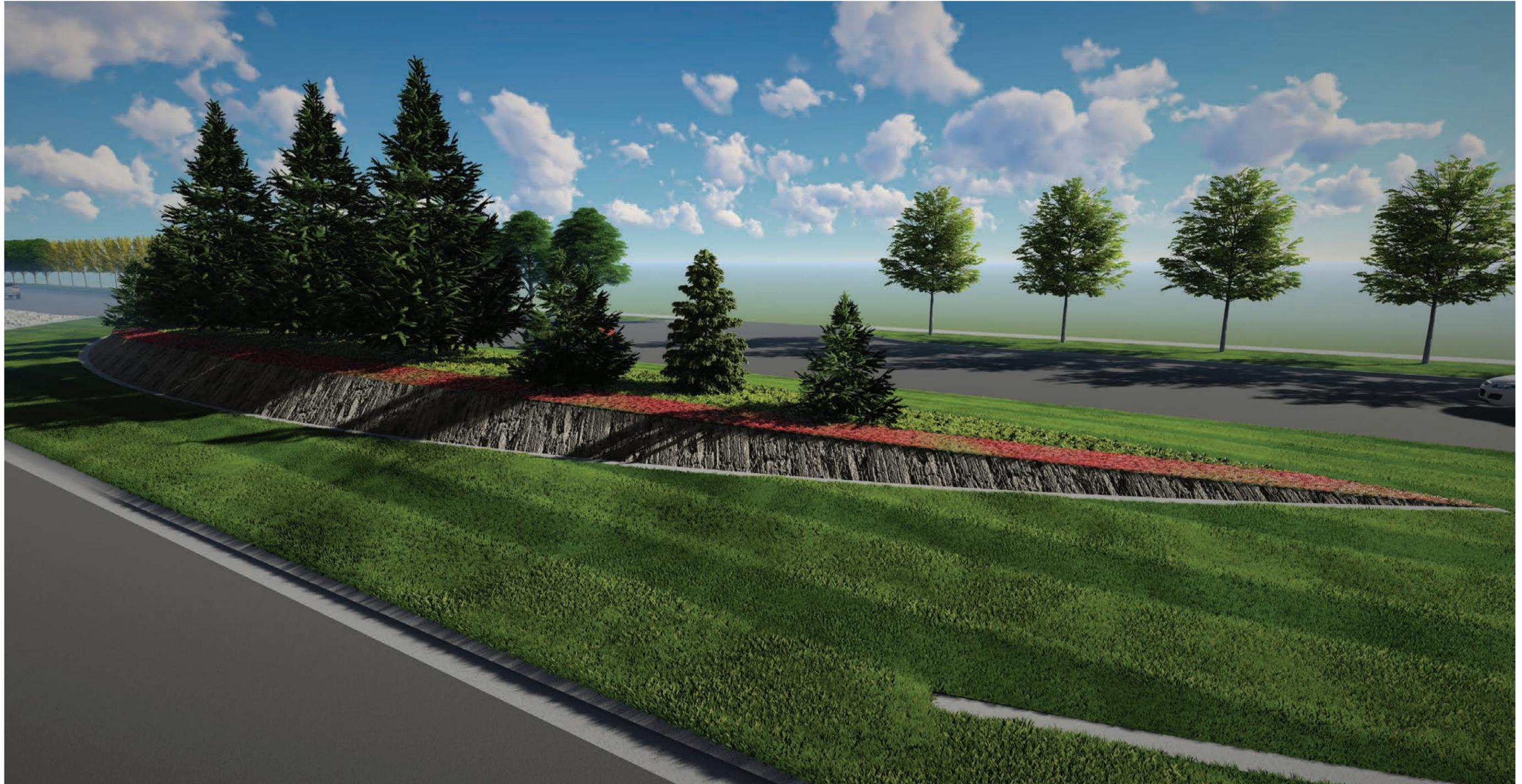
## Median Landscaping

### View 4



## Median Landscaping

### View 7



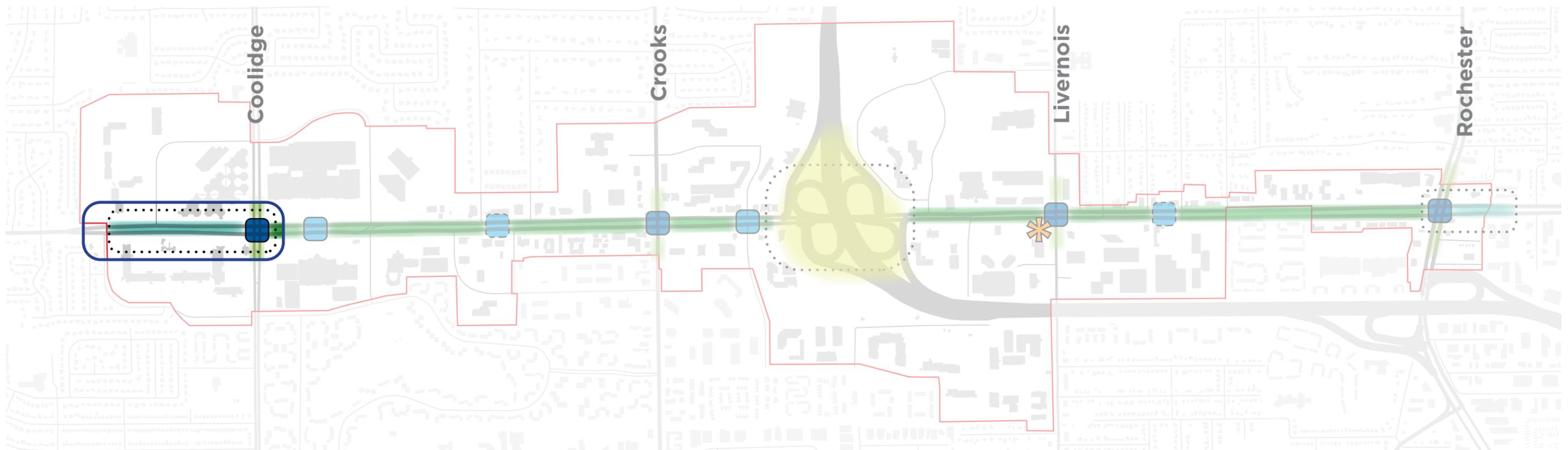
## Median Landscaping

### View 8

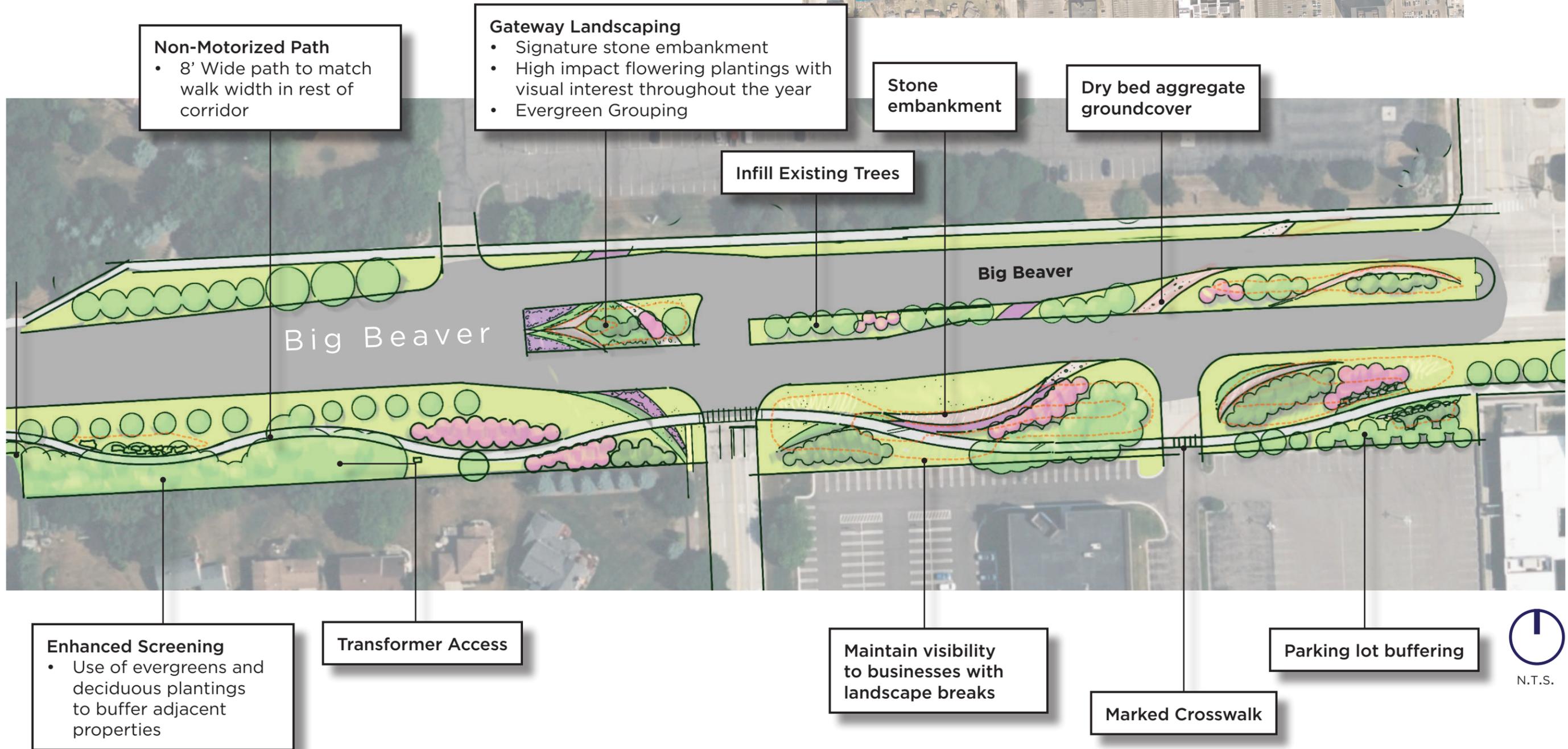


# Western Gateway

- Create welcoming signature entrance
- Provide connectivity from neighborhoods to corridor



**Gateways**  
**West Plan**



**Gateways**  
**West Plan**



**End-Cap Landscape**  
• Landscape area contained with concrete header to match style of typical intersection

**Stone embankment**

**Dry bed aggregate groundcover**



**Widened Path**

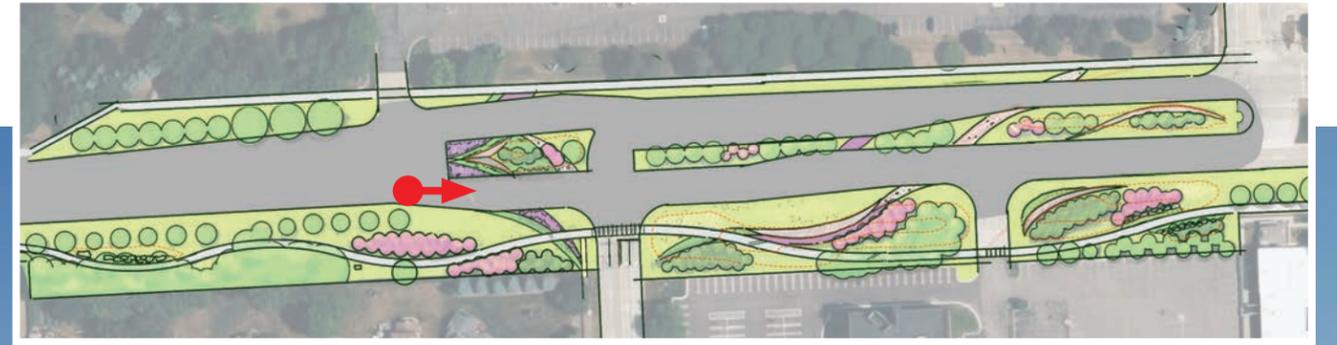
**Typical Intersection**



N.T.S.

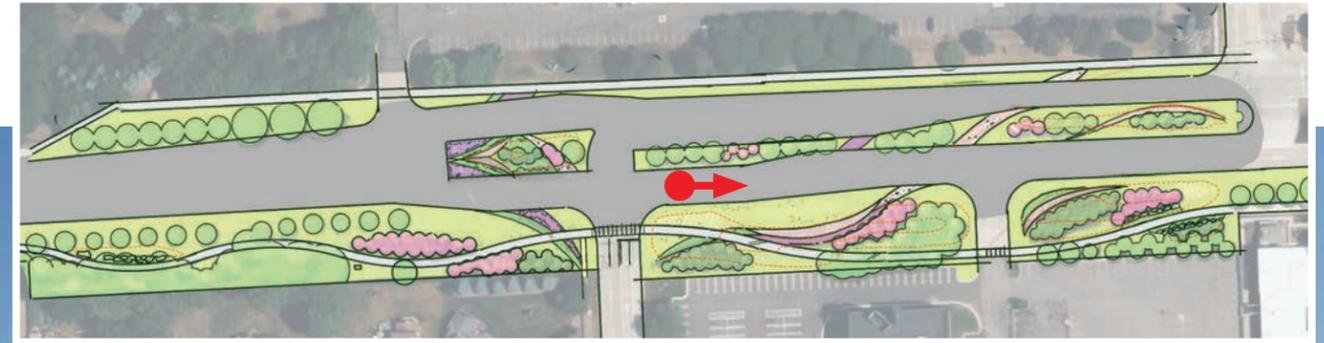
## Gateways

### West Roadway Perspective



## Gateways

### West Roadway Perspective



## Gateways

### West Roadway Perspective



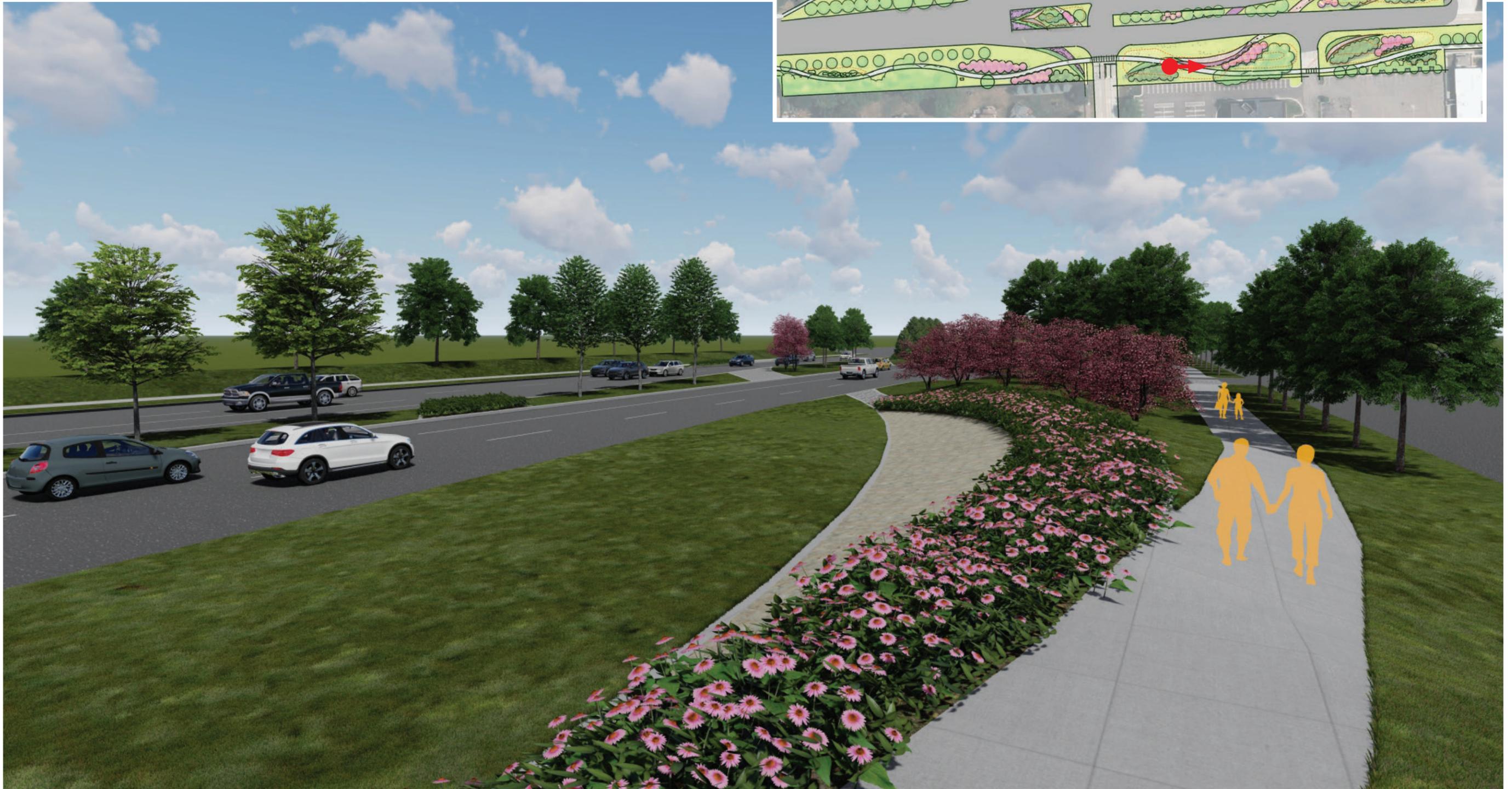
## Gateways

### West Pedestrian Perspective



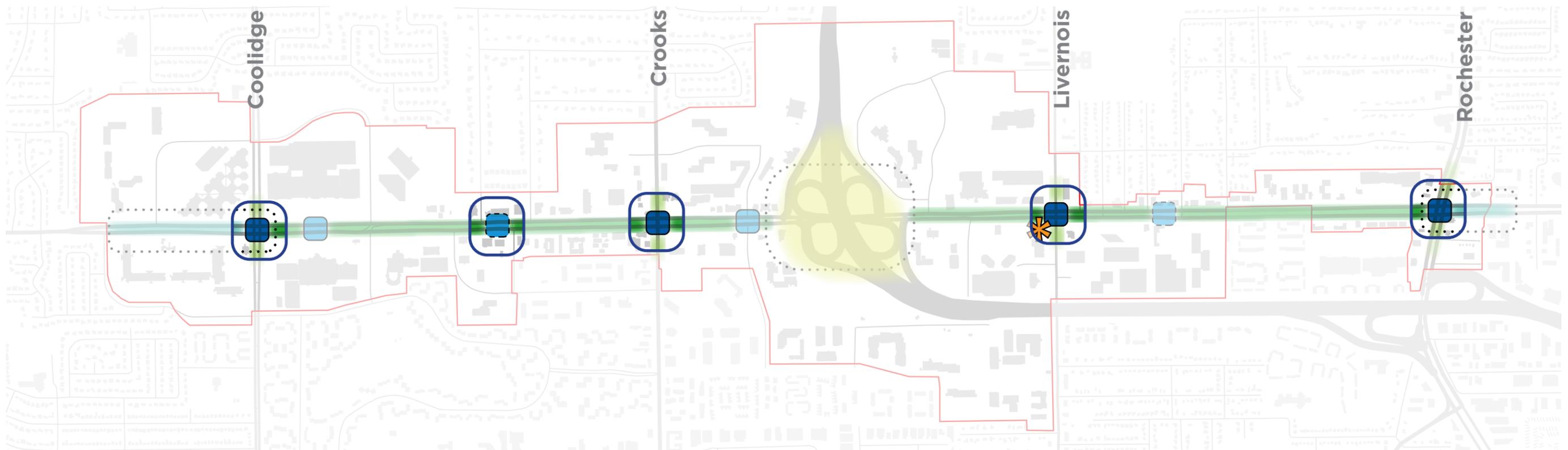
## Gateways

### West Pedestrian Perspective



# Major Intersections

- Provide color and interest at locations where people enter and exit the corridor
- Finer grain landscaping at locations where pedestrians cross and cars pause at lights



## Intersections

### Typical Plan Enlargement

#### Secondary Road Intersection Islands

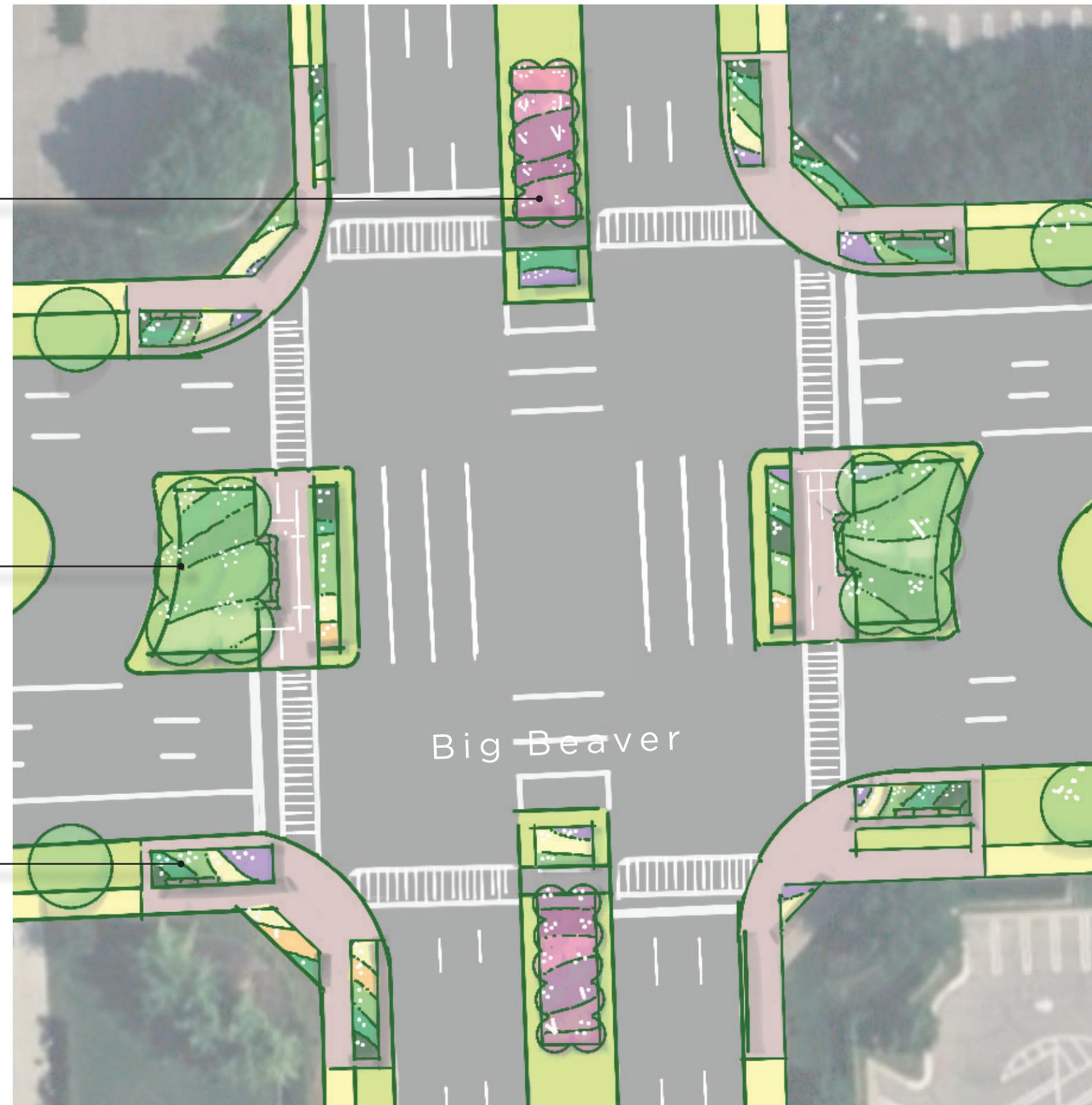
- Landscape beds with concrete headers
- Ornamental Multi-stem trees

#### Big Beaver Intersection Islands

- Landscape beds with concrete headers
- Shade trees
- Boulders with seating elements

#### Intersection Corners

- Removal of decorative pavers
- Decorative concrete pavement
- Planting beds with varied color and texture



## Intersections

### Birdseye Rendering



## Intersections

### Big Beaver Perspective



## Intersections

### Island Perspective



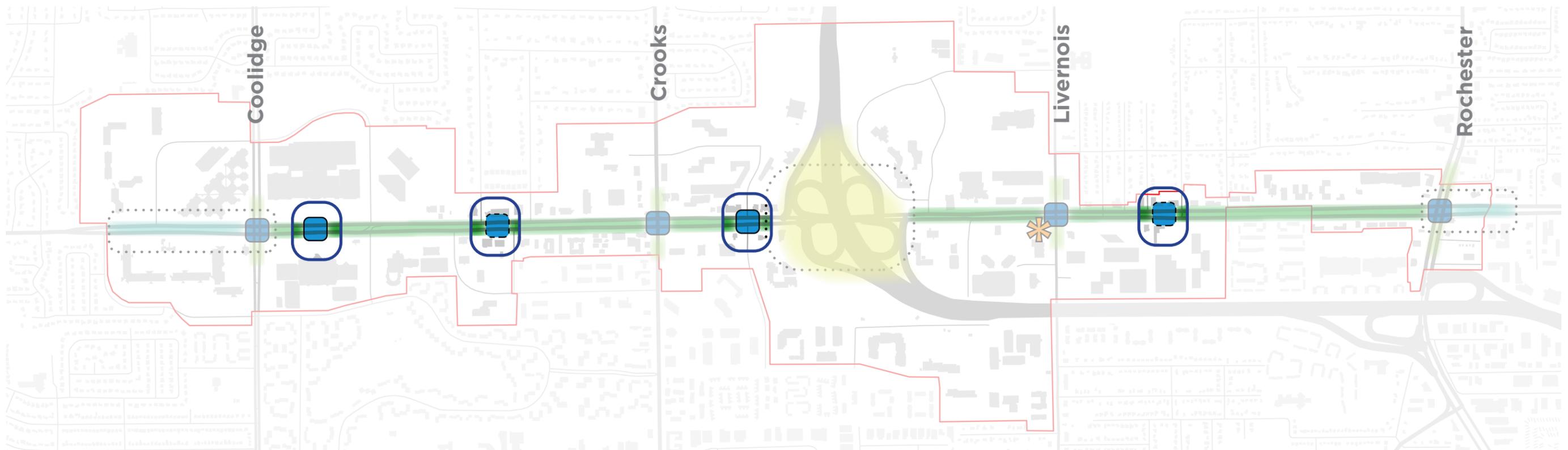
## Intersections

### Corner Perspective



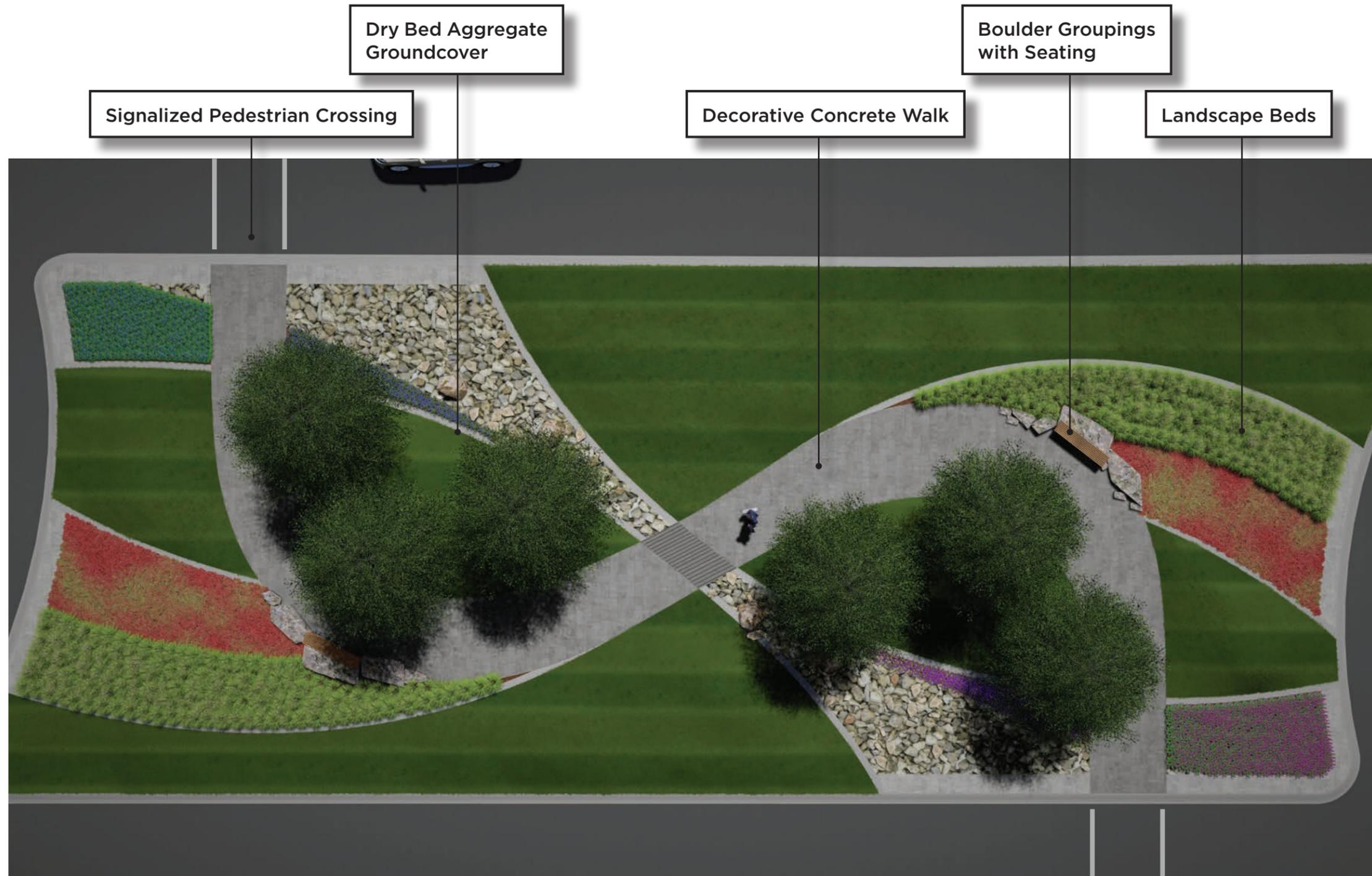
# Mid-Block Crossings

- Provide additional pedestrian connectivity
- Create landscape nodes of interest and focus



# Mid-Block Crossing

## Plan

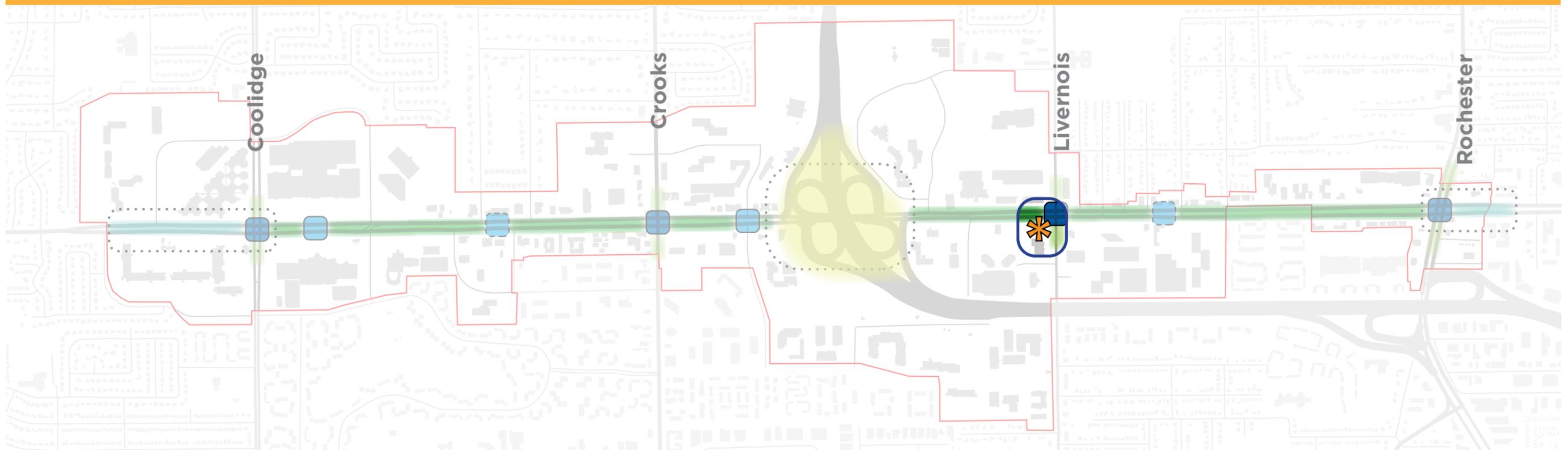


**Mid-Block Crossing**  
**Perspective**



# Corner Park

- Active key City-owned parcel



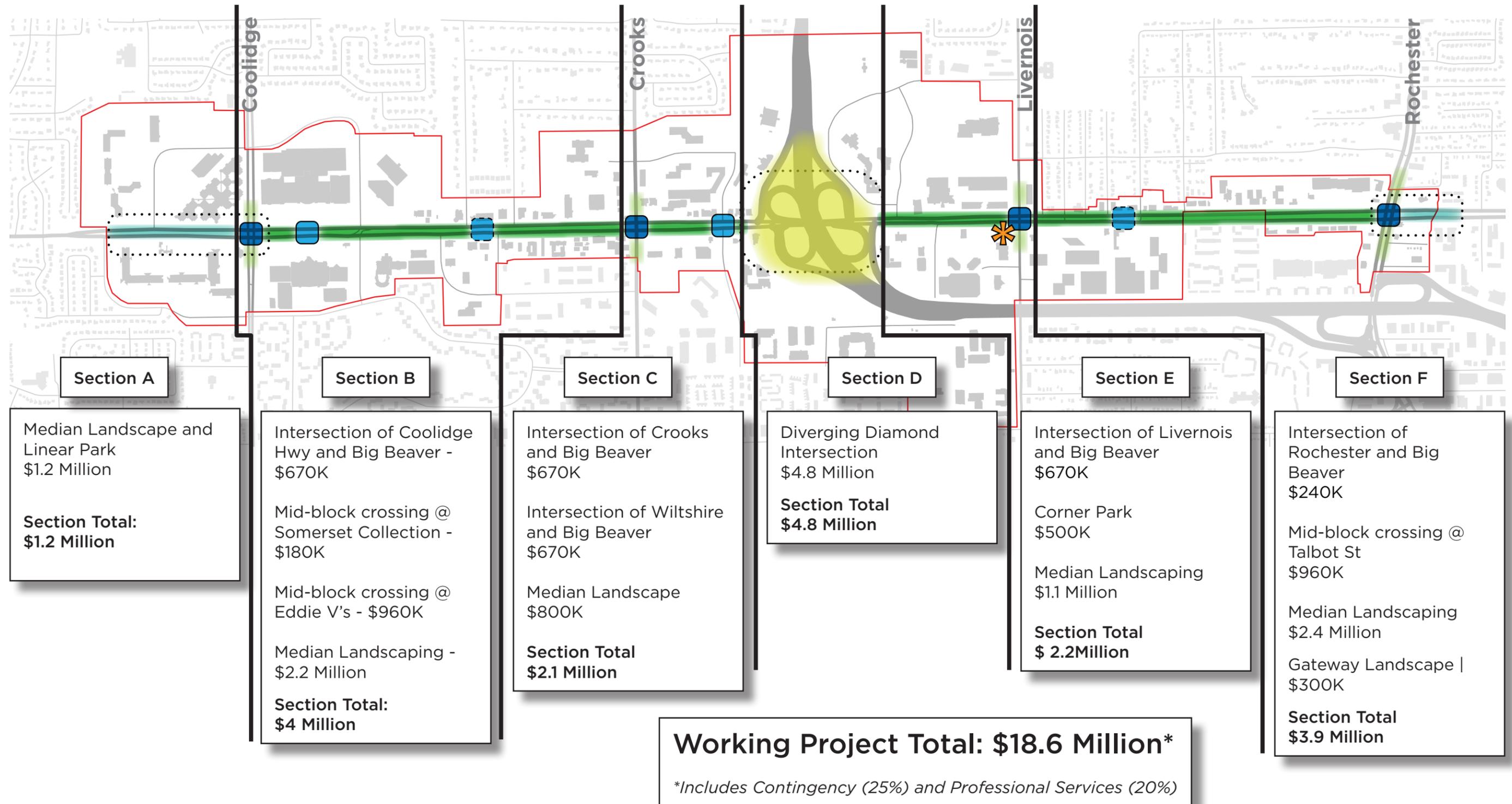
## Corner Park

### Existing Conditions



# Cost and Phasing

## Corridor Segments



## Cost and Phasing

### Project Costs Summary

Section and Components	Component Total	Section Total
Tree Removals		\$ 360,000
<b>Section A</b>		<b>\$ 1,200,000</b>
<i>Median + Linear Park</i>	\$ 1,200,000	
<b>Section B</b>		<b>\$ 4,000,000</b>
<i>Coolidge Intersection</i>	\$ 670,000	
<i>Somerset Crossing</i>	\$ 180,000	
<i>Eddie V's crossing</i>	\$ 960,000	
<i>Median</i>	\$ 2,200,000	
<b>Section C</b>		<b>\$ 2,100,000</b>
<i>Crooks Intersection</i>	\$ 670,000	
<i>Wiltshire Intersection</i>	\$ 670,000	
<i>Median</i>	\$ 800,000	
<b>Section D</b>		<b>\$ 4,800,000</b>
<i>Diverging Diamond Intersection</i>	\$ 4,800,000	
<b>Section E</b>		<b>\$ 2,200,000</b>
<i>Livernois Intersection</i>	\$ 670,000	
<i>Corner Park</i>	\$ 500,000	
<i>Median</i>	\$ 1,060,000	
<b>Section F</b>		<b>\$ 3,900,000</b>
<i>Rochester Intersection</i>	\$ 240,000	
<i>Talbot Crossing</i>	\$ 960,000	
<i>Median</i>	\$ 2,400,000	
<i>Gateway</i>	\$ 300,000	
	<b>PROJECT TOTAL</b>	<b>\$ 18,600,000</b>

**Note: Costs include contingency (25%) and professional fees (20%)**

## Cost and Phasing

### Project Costs + Escalation

Troy TDDA  
Big Beaver Corridor Improvements  
Cost Escalation Tabulation

	2022	2023*	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
<b>Project Cost</b> <i>Project cost adjusted by 2% annually*</i>	\$ 18,600,000	\$ 20,460,000	\$ 18,300,000	\$ 16,100,000	\$ 14,900,000	\$ 13,700,000	\$ 12,400,000	\$ 11,100,000	\$ 9,800,000	\$ 8,500,000	\$ 7,100,000	\$ 5,700,000	\$ 4,300,000
<b>Annual Expenditure</b>	-	\$ 2,500,000	\$ 2,500,000	\$ 1,500,000	\$ 1,500,000	\$ 1,500,000	\$ 1,500,000	\$ 1,500,000	\$ 1,500,000	\$ 1,500,000	\$ 1,500,000	\$ 1,500,000	\$ 1,500,000
<b>Remaining Project Cost</b> <i>Project cost less annual expenditure</i>	\$ 18,600,000	\$ 17,960,000	\$ 15,800,000	\$ 14,600,000	\$ 13,400,000	\$ 12,200,000	\$ 10,900,000	\$ 9,600,000	\$ 8,300,000	\$ 7,000,000	\$ 5,600,000	\$ 4,200,000	\$ 2,800,000

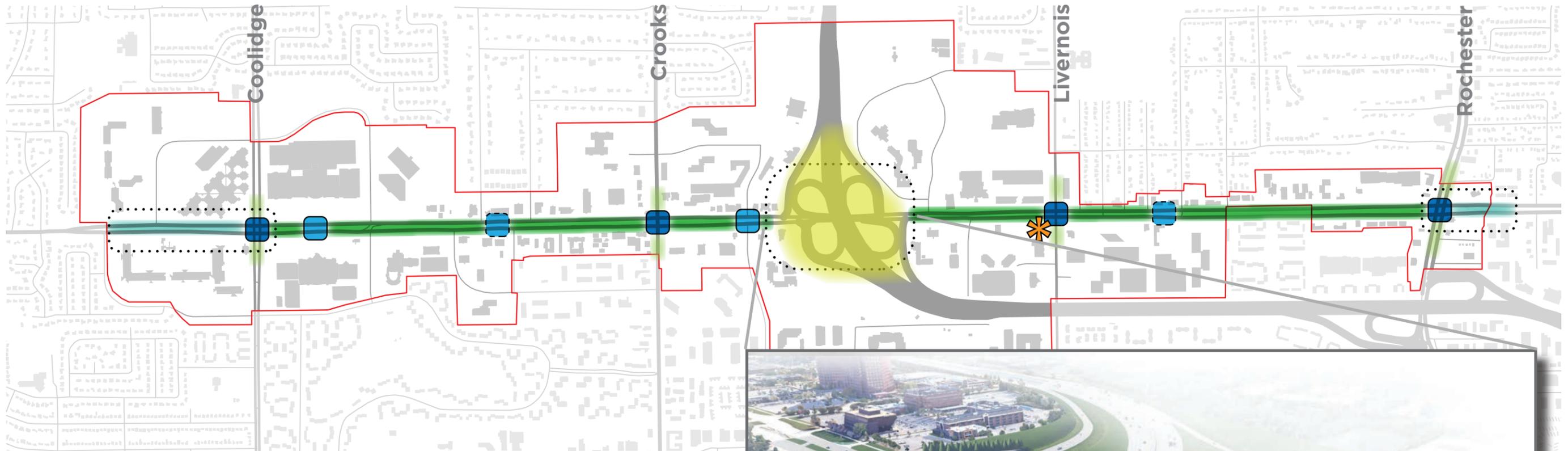
\*2023 Adjusted to 10% per forecasts

**Note: Costs include contingency (25%) and professional fees (20%)**

**Does not account for potential grants and other funding sources**

## Cost and Phasing

### Phase 1 Implementation



#### Map Key

-  Entries
-  Intersections
-  Mid-Block Crossings (Existing)
-  Mid-Block Crossings (Proposed)
-  Pocket Park
-  Corridor Landscaping

