

# 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<br>Actual | 2021<br>Estimated | 2021<br>Budget | 2022<br>Budget | 2023<br>Budget | 2024<br>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         |
| Total Revenues                       | 1,809,236      | 5,847,176         | 5,837,610      | 1,492,770      | 1,997,160      | 2,279,050      |
| <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          |
| TOTAL - EXPENDITURES                 | 1,141,374      | 4,392,047         | 1,463,563      | 1,061,178      | 1,090,990      | 1,170,002      |
| SURPLUS (USE) OF FUND BALANCE        | 667,862        | 1,455,129         | 4,374,047      | 431,592        | 906,170        | 1,109,048      |
| BEGINNING FUND BALANCE               | 1,003,560      | 1,671,422         | 1,671,422      | 3,126,551      | 3,558,143      | 4,464,313      |
| ENDING FUND BALANCE                  | \$ 1,671,422   | \$ 3,126,551      | \$ 6,045,469   | \$ 3,558,143   | \$ 4,464,313   | \$ 5,573,361   |

# 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

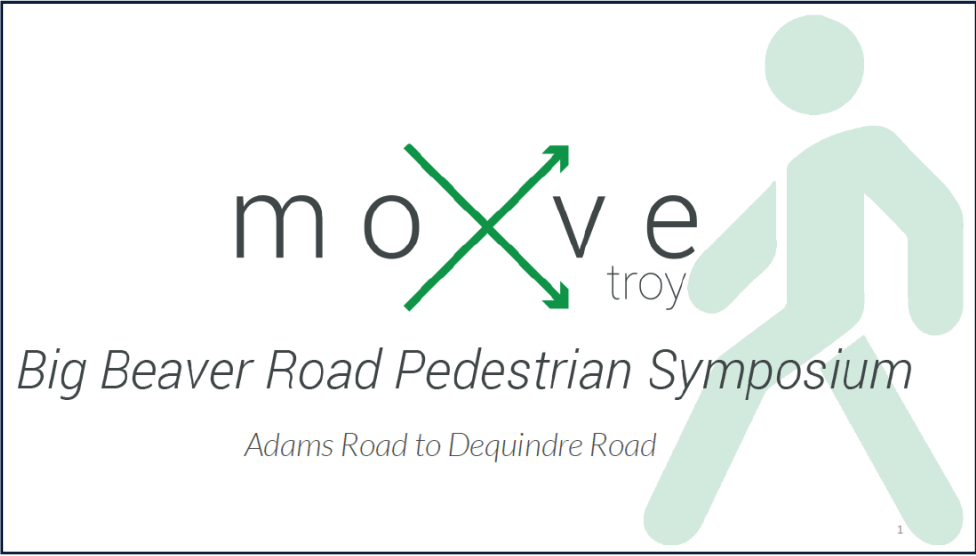
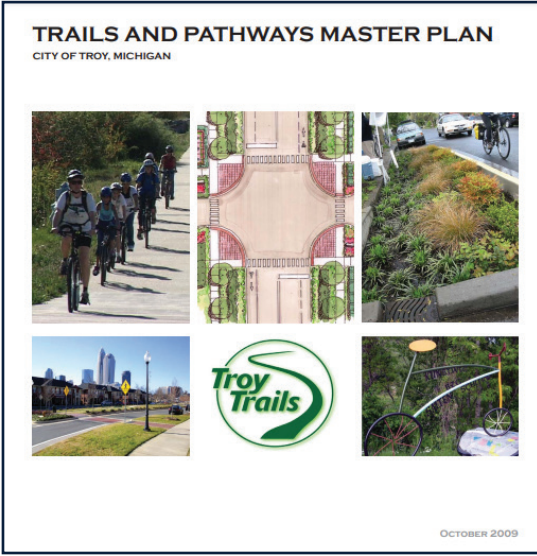
Balance improvements between creating great spaces and meeting the needs of the corridor



#### 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

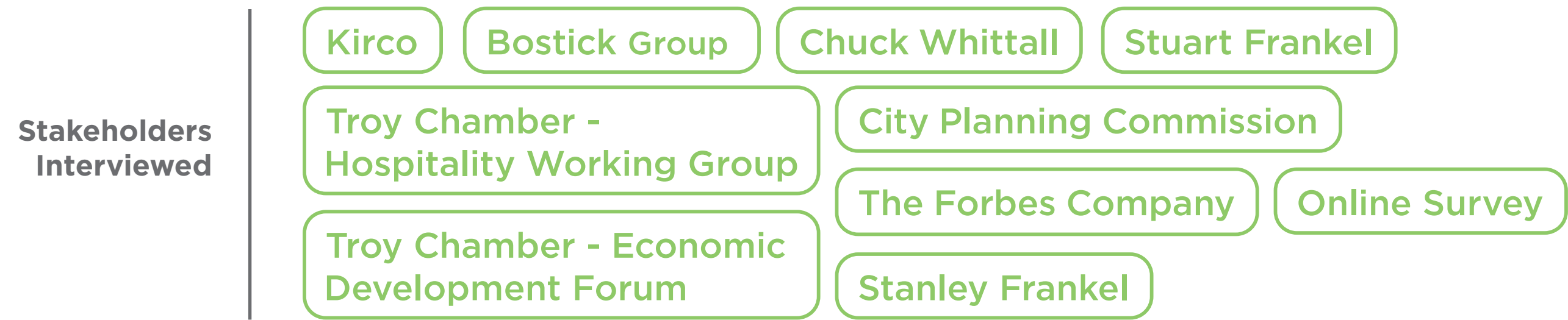
Safety and Mobility

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

Environmental Responsibility

- Sustainable Development
- Stormwater Management

Stakeholder Feedback



Stakeholder Feedback

Chamber of Commerce  
Hospitality Group



Feedback

Overall Comments

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

What’s Working?

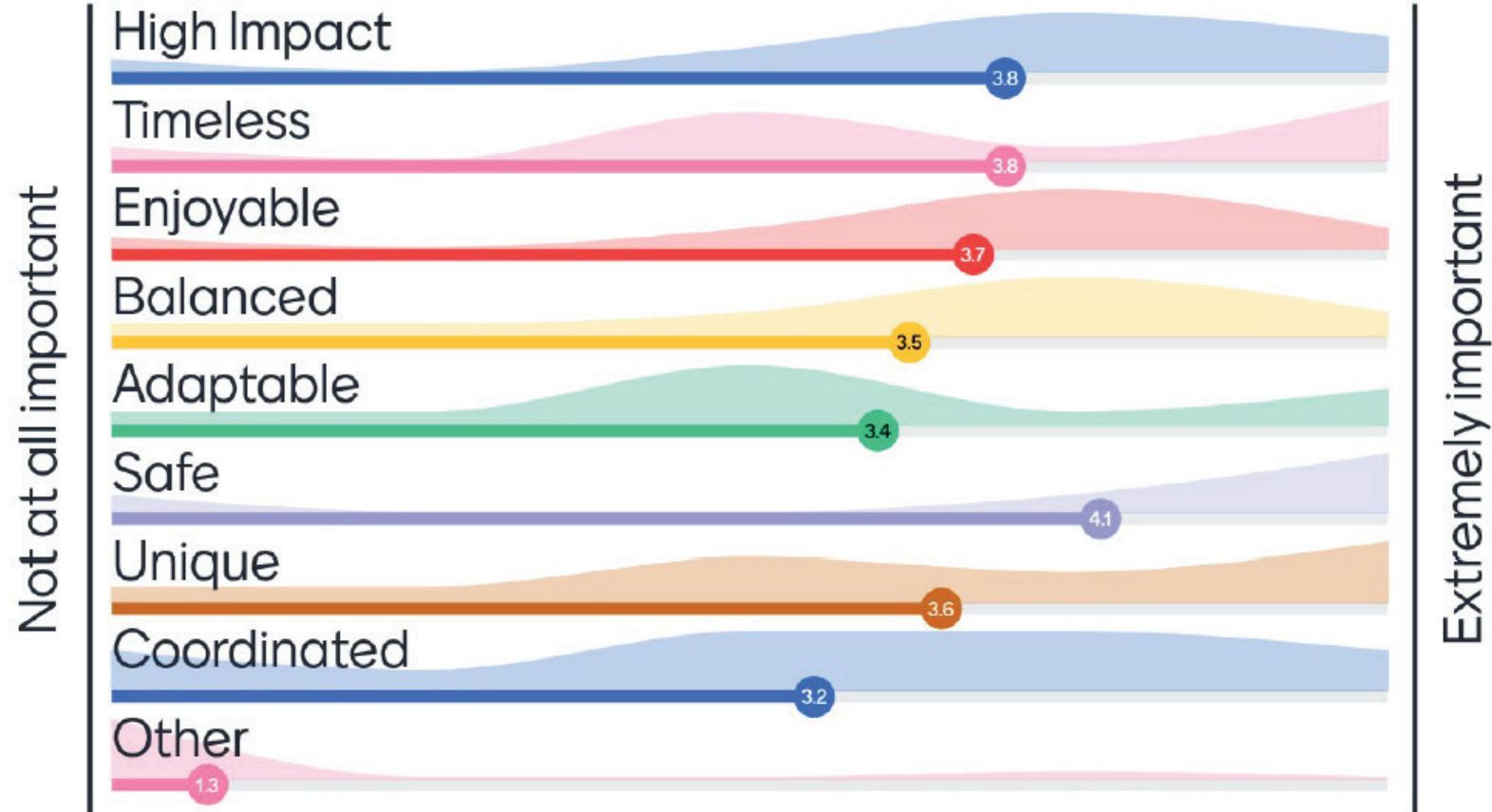
- Somerset Collection landscape is favored for consistency and maintenance
- Strong community connection to mature trees and evergreens, especially seasonal lighting

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

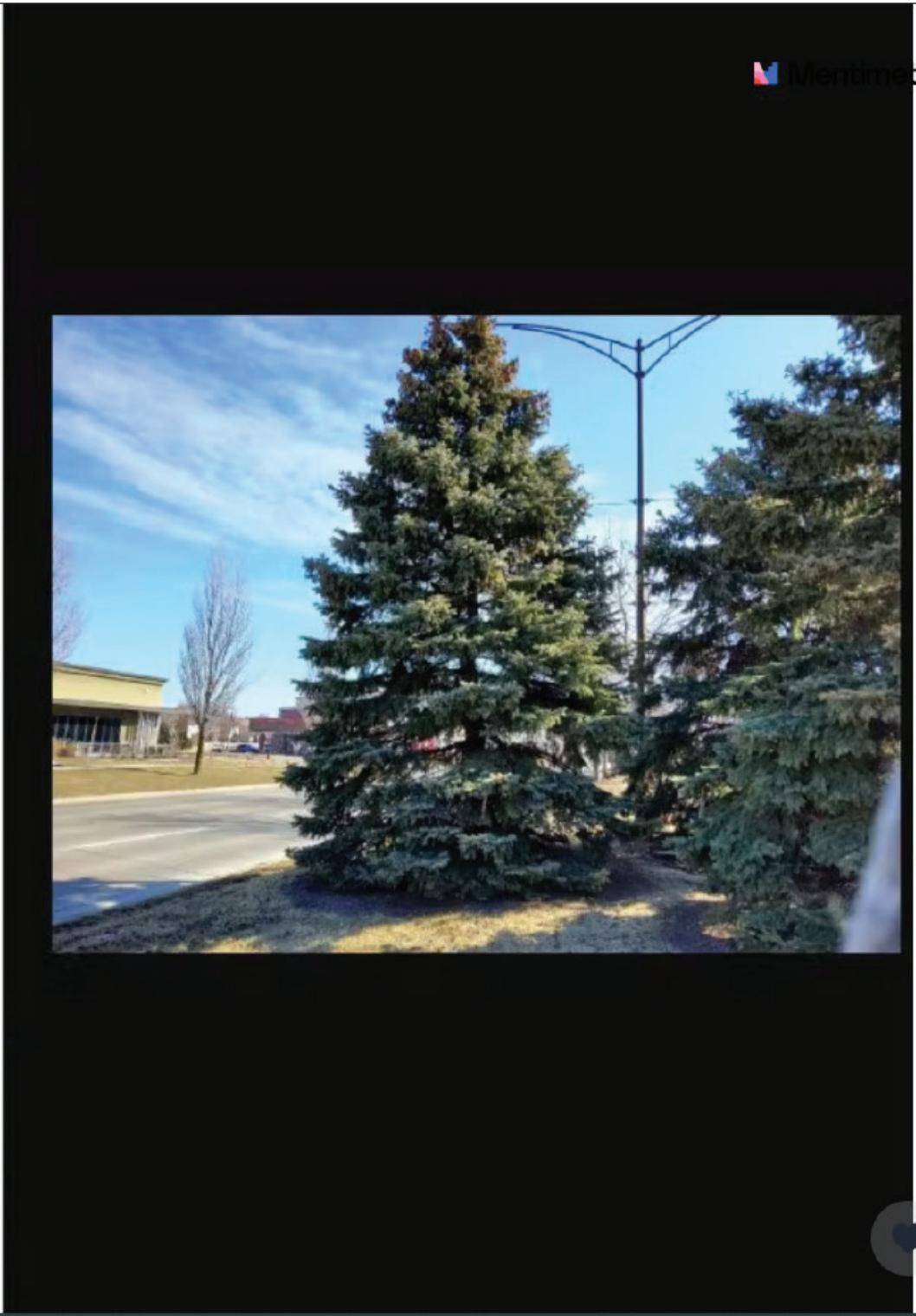
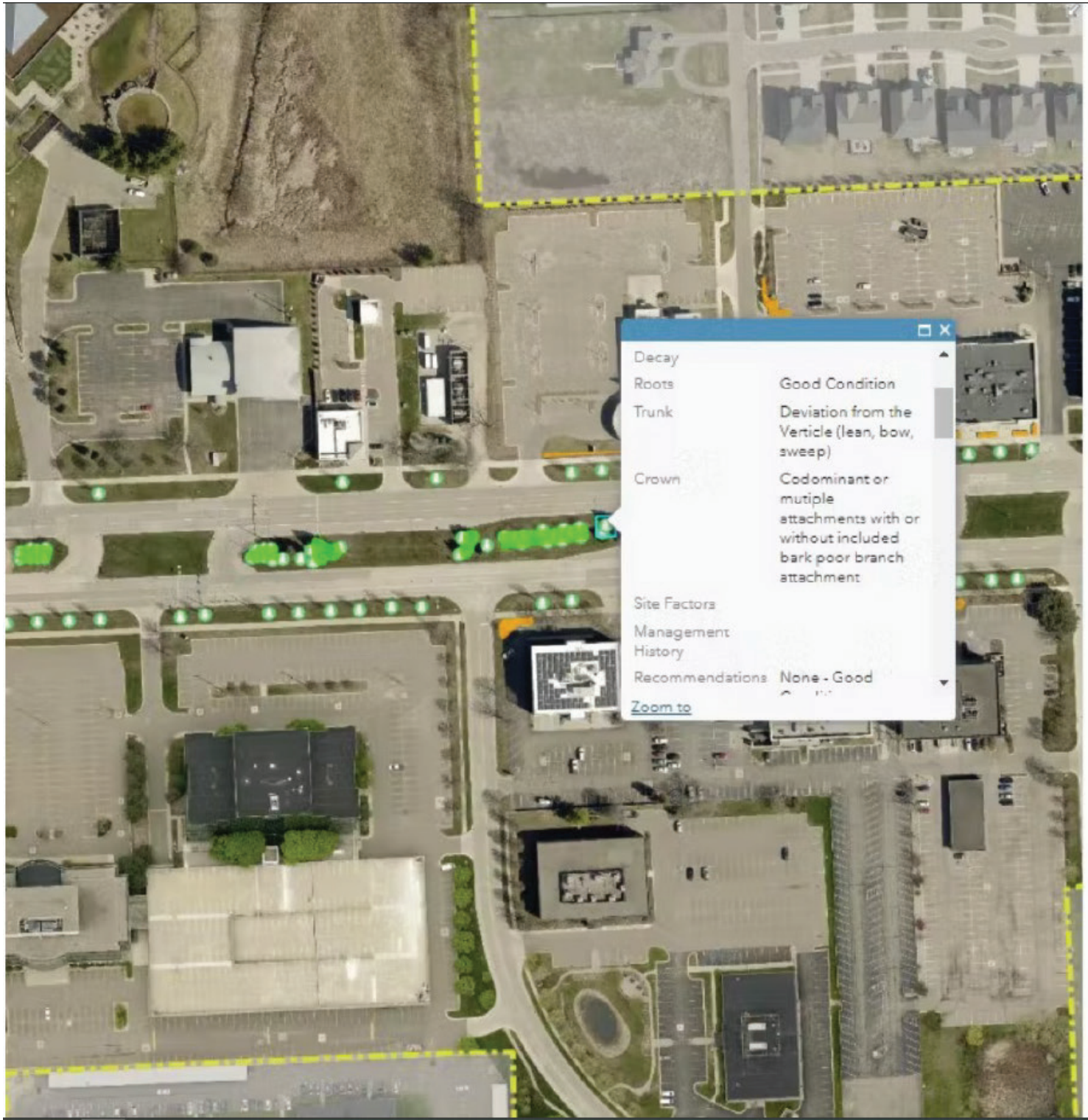
Diverging Diamond Interchange

- 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



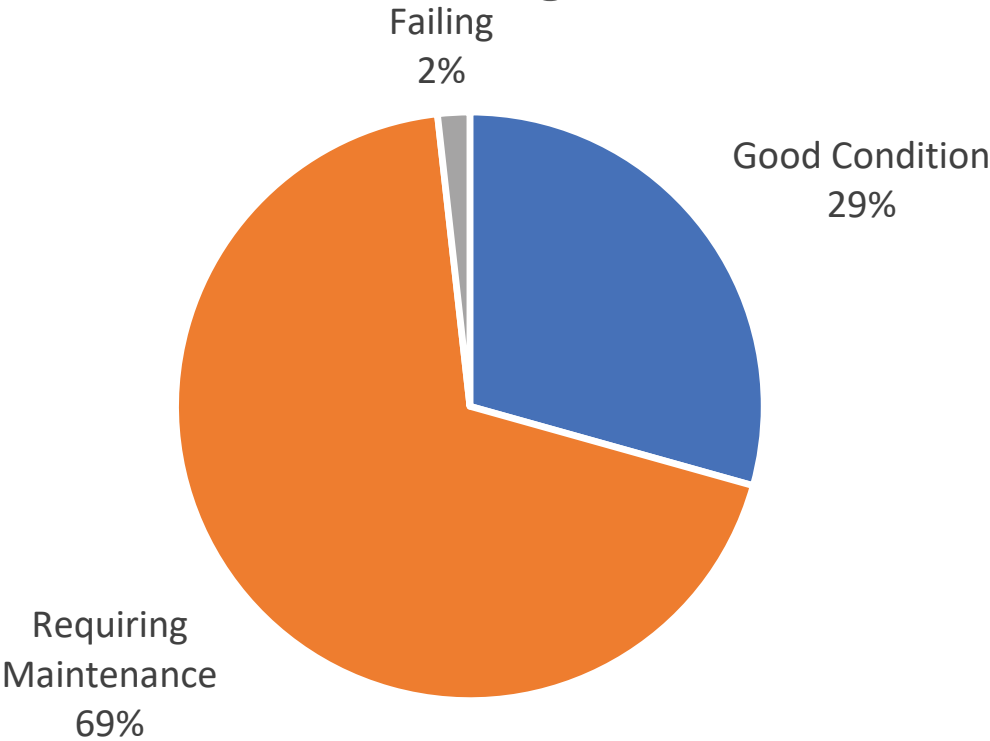
Data Collection

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

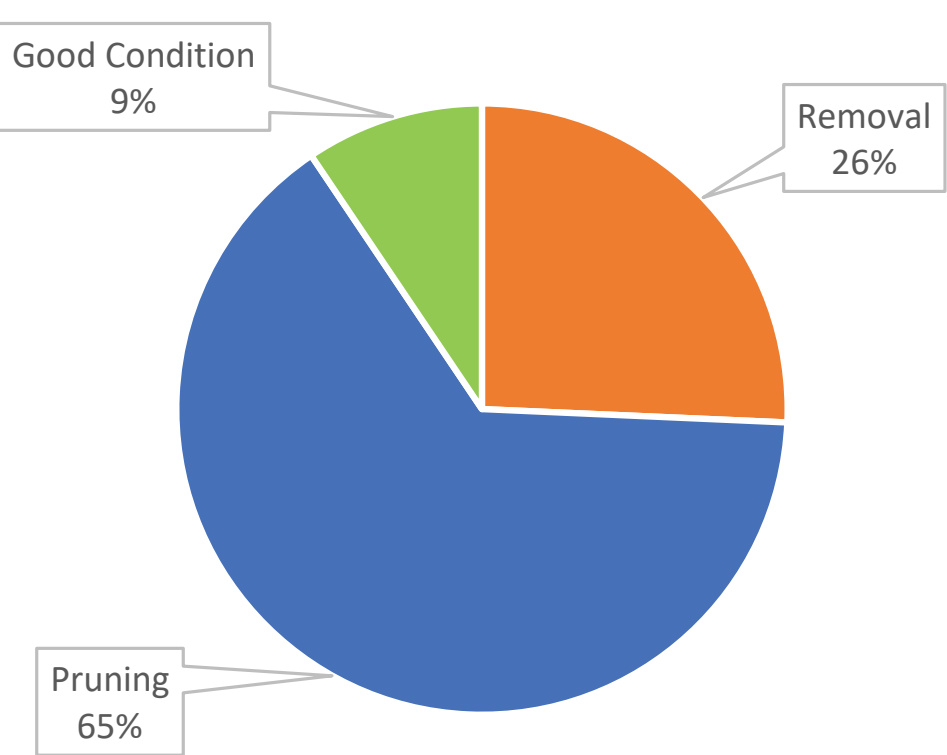


Landscape Quantities

|                           |             |
|---------------------------|-------------|
| 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

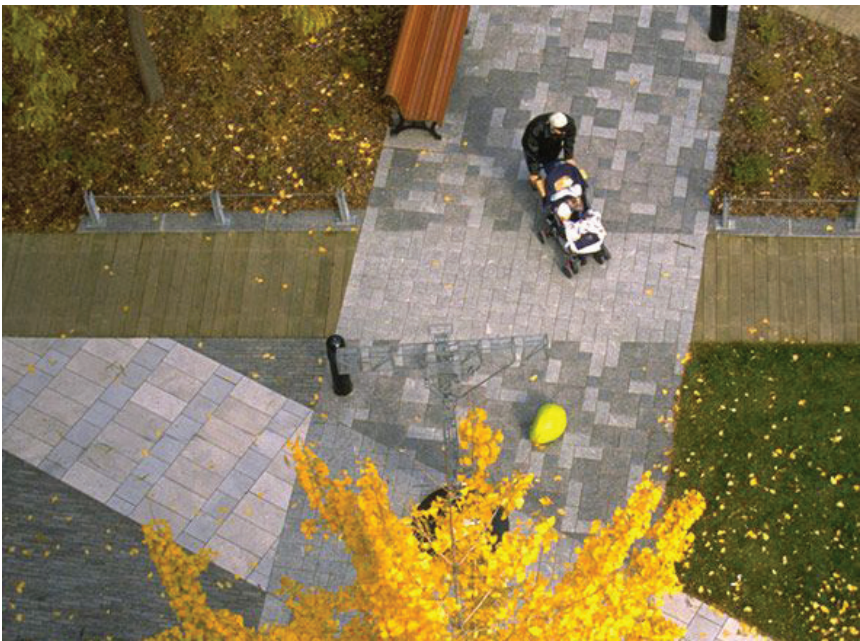
Texture, Color and Variety



Concept Development

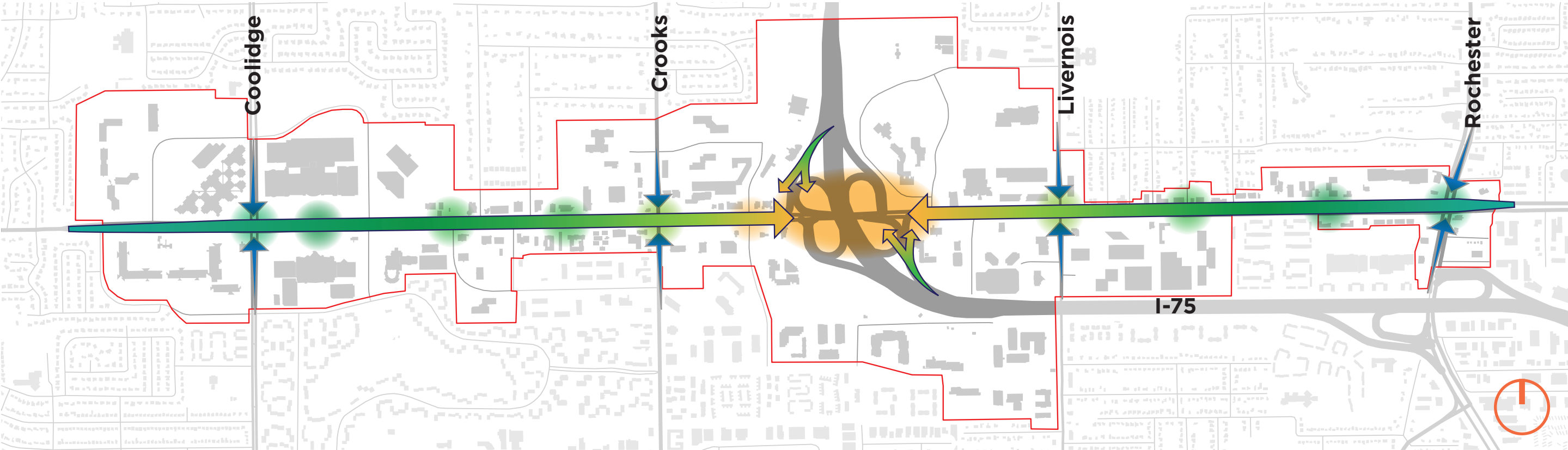
Look & Feel

Pedestrian Comfort



Concept Development

Corridor Approach



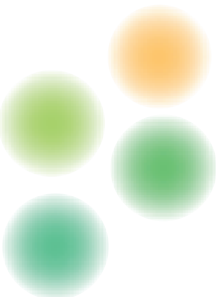
Map Key



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

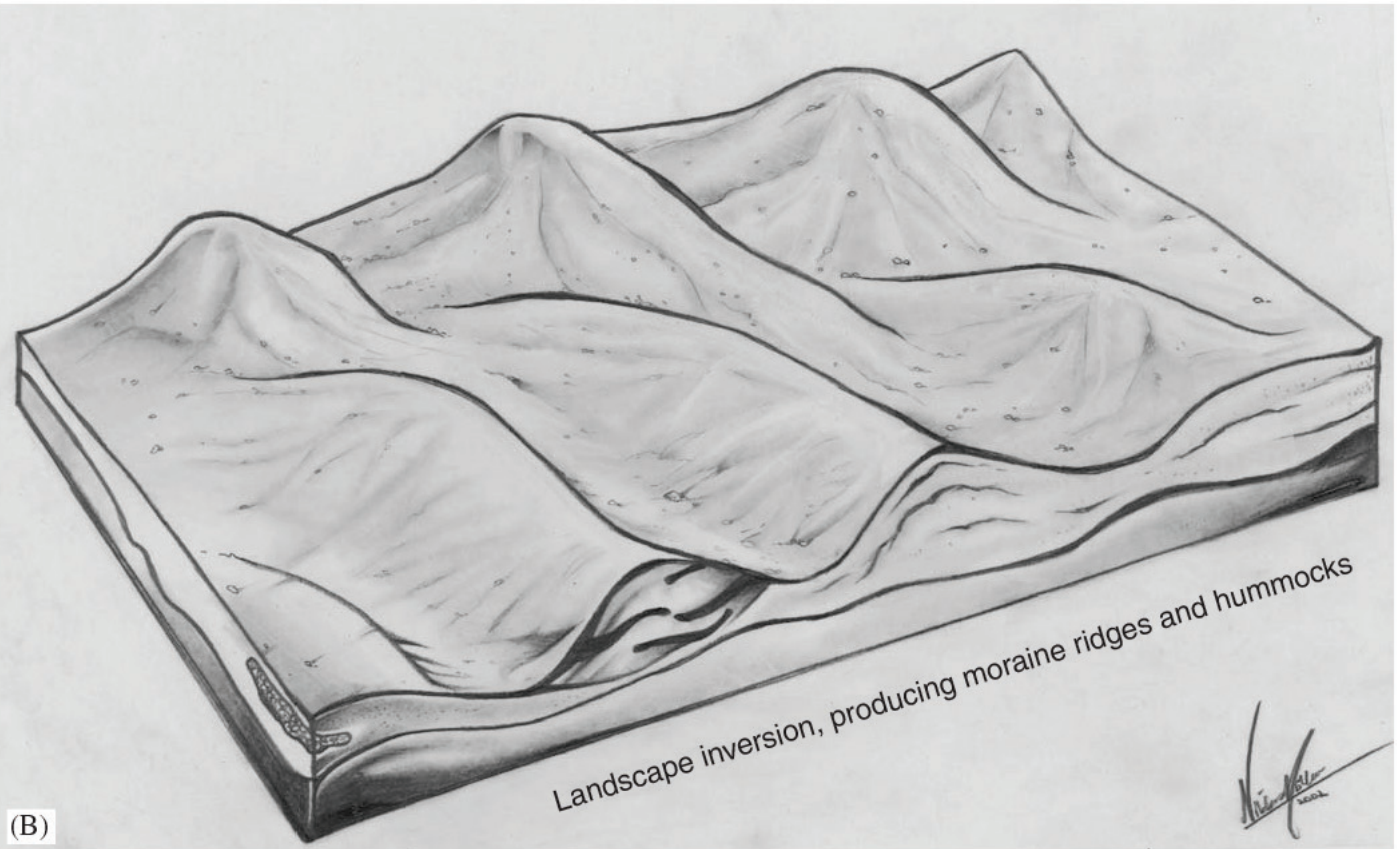
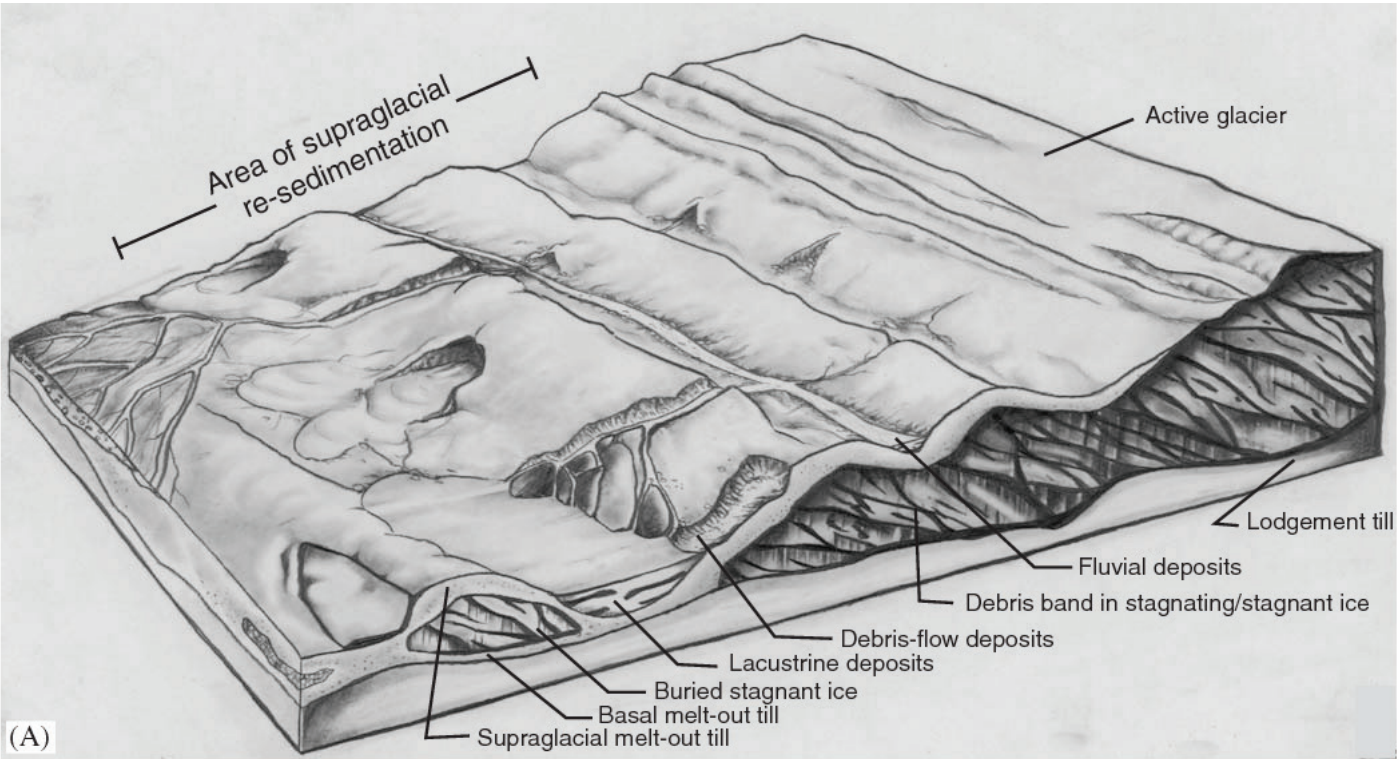
- Material Selection - Defined radius for material sourcing
- Plant Selection - Reduced water and mowing needs
- Carbon Sequestration - Quantification of tree benefits
- Pedestrian Access - Enhanced pedestrian access through creative engineering

### Design Excellence

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

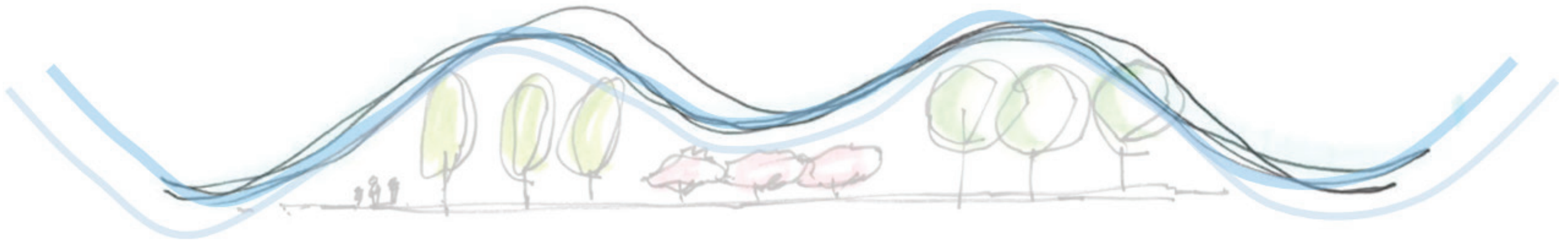
Concept Development

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*

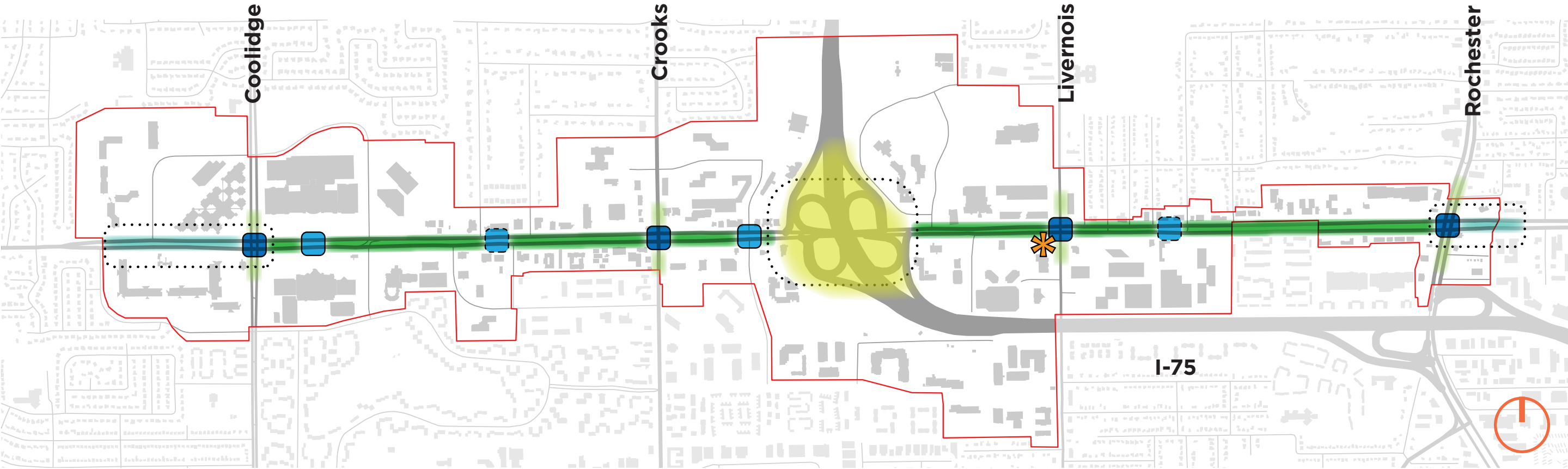


KARL FOERSTER  
*Calamagrostis acutifloa 'Karl Foerster'*









Corridor Overview

Project Areas

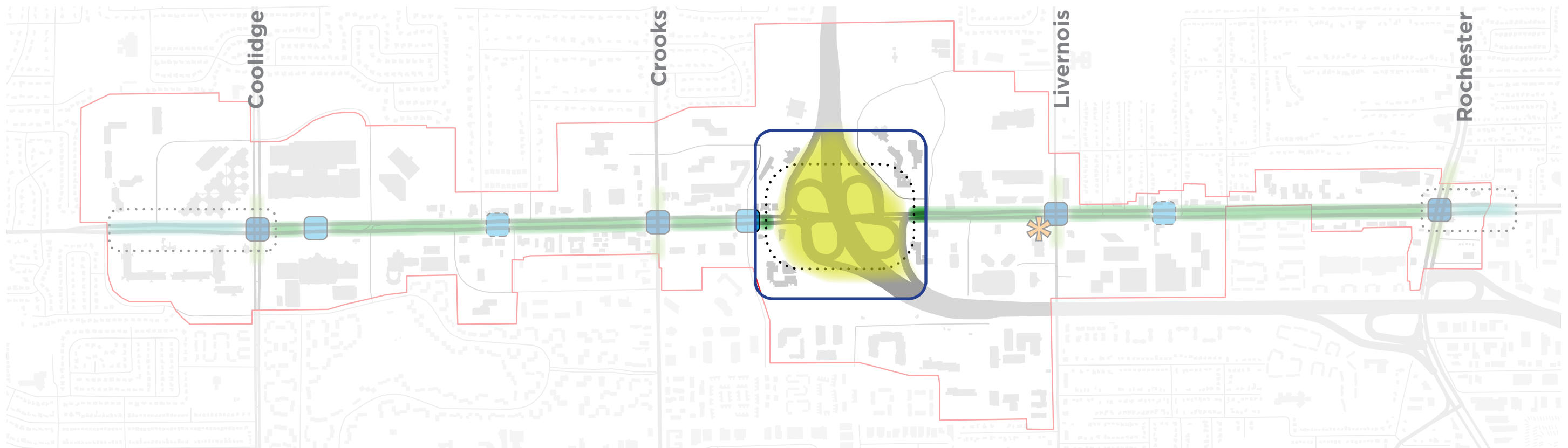


Map Key

-  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**  
**Inbound Perspective**



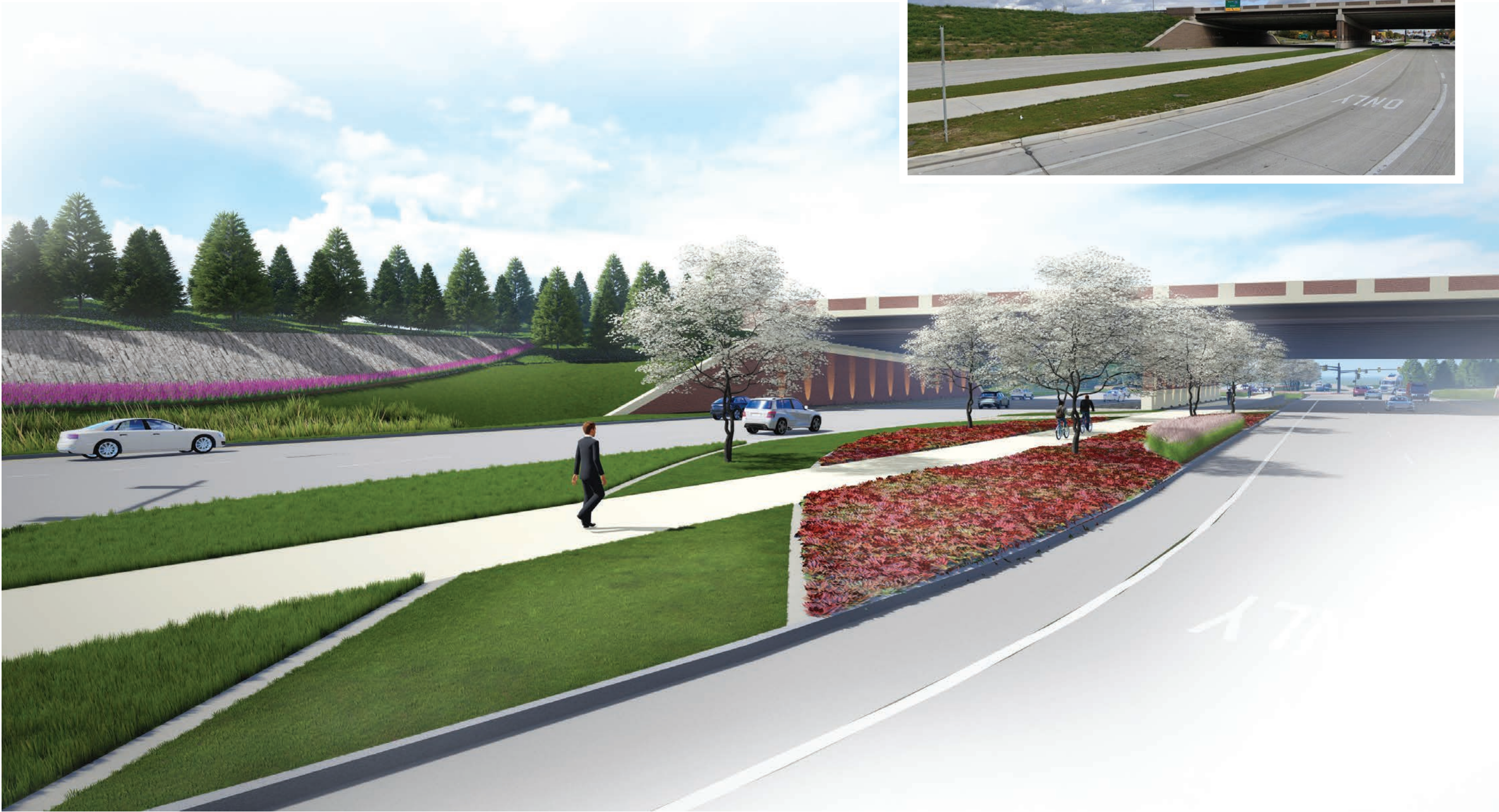
DDI Design

East Big Beaver Perspective



DDI Design

Median Perspective



DDI Design

East Big Beaver Plan



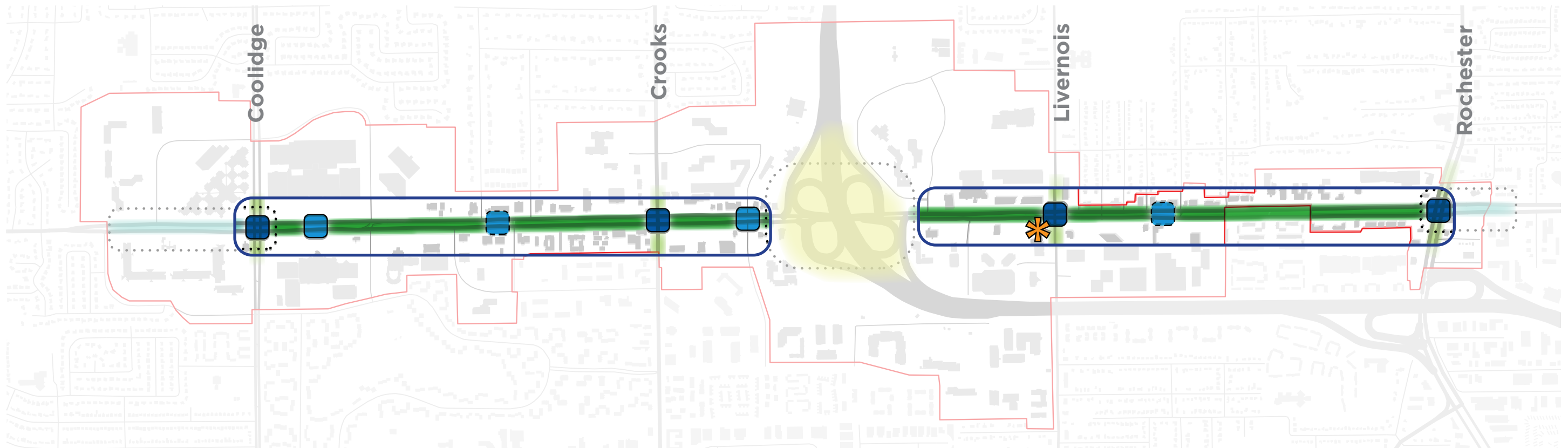
DDI Design

Underpass Rendering

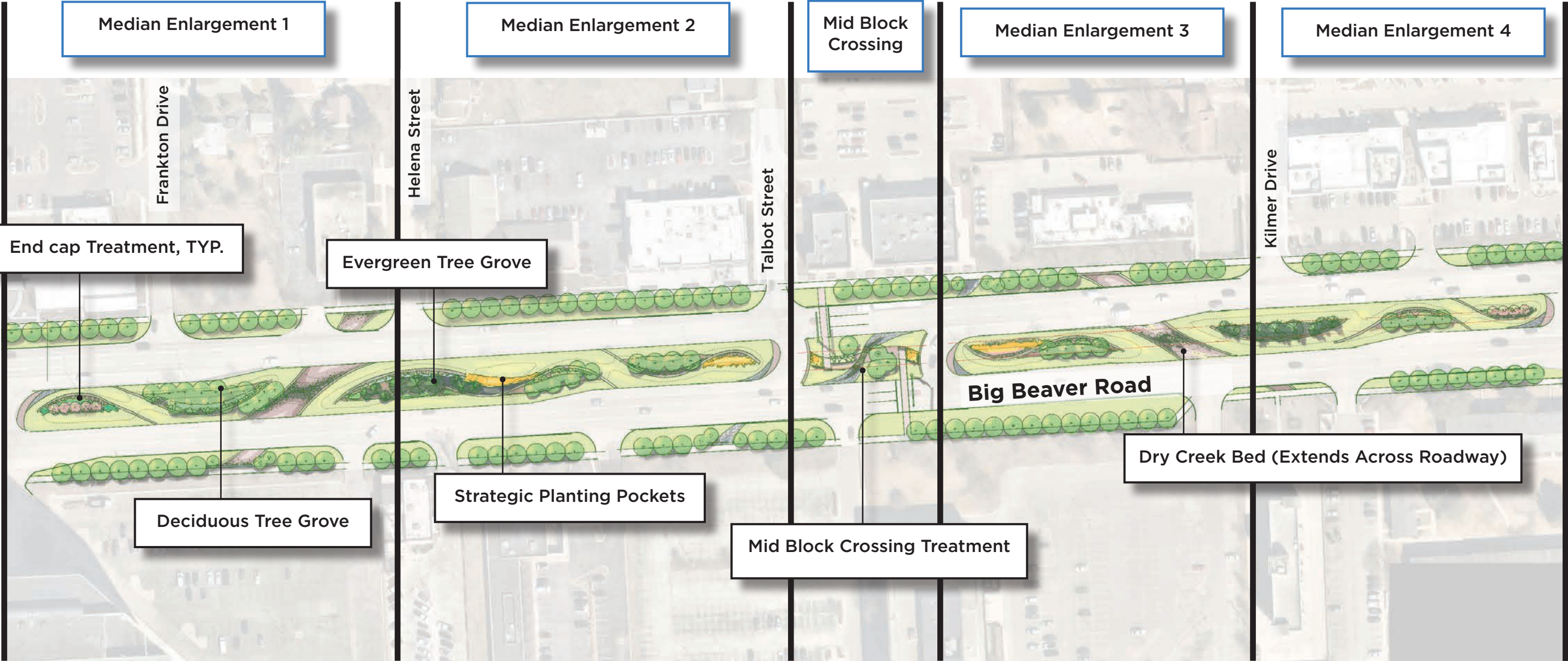


# Median Landscaping

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

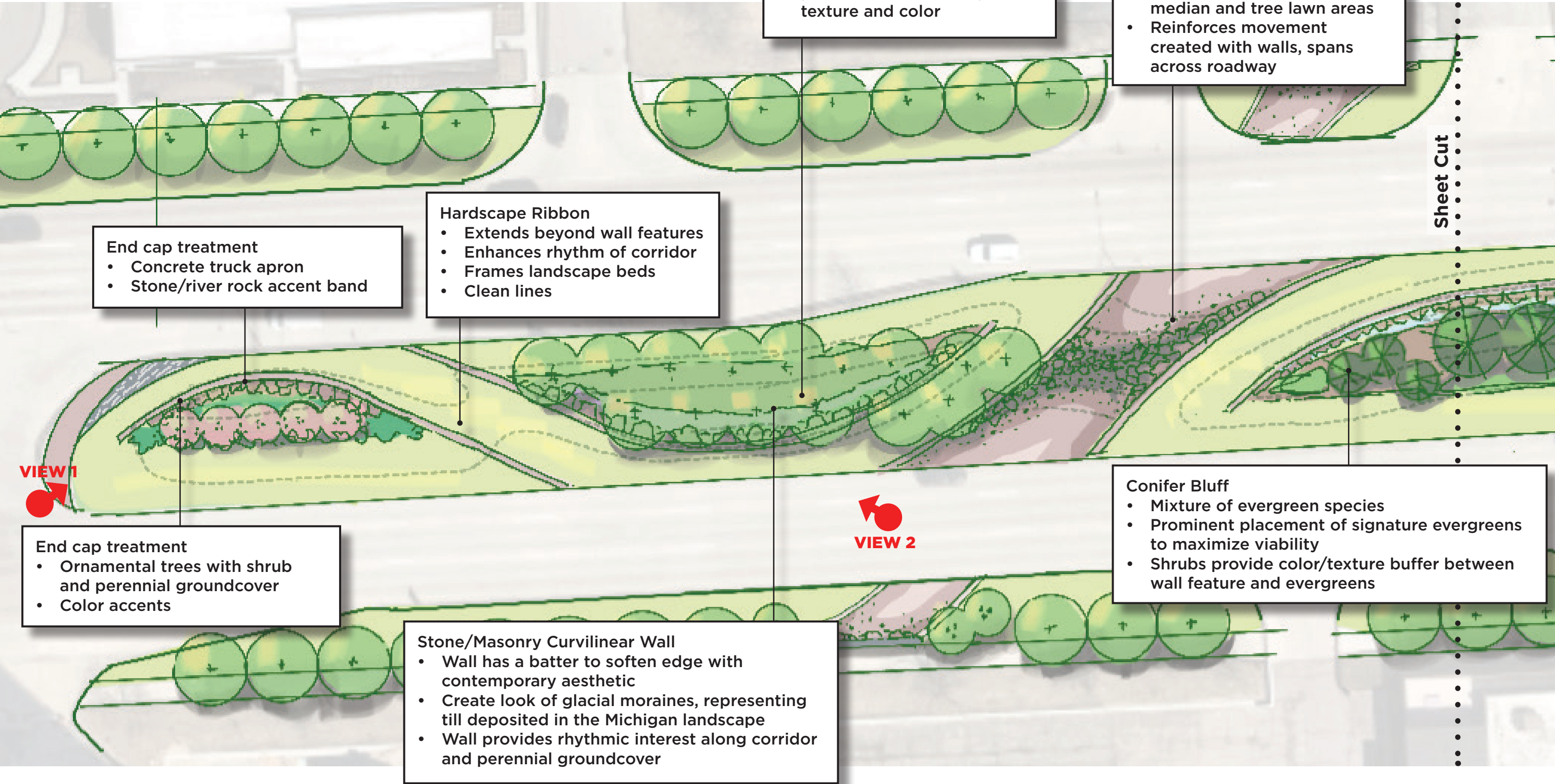


Median Landscaping  
Segment Plan



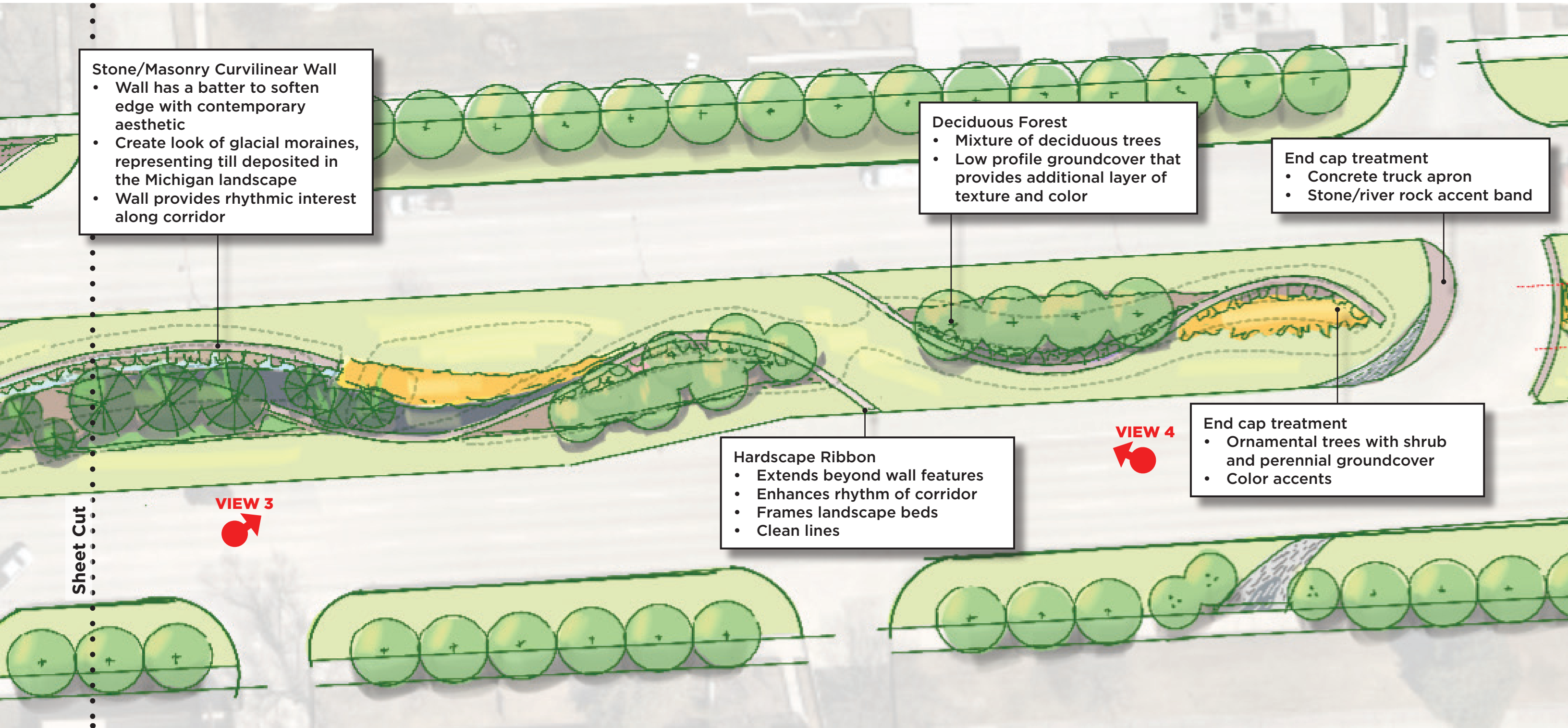
Median Landscaping

Plan Enlargement



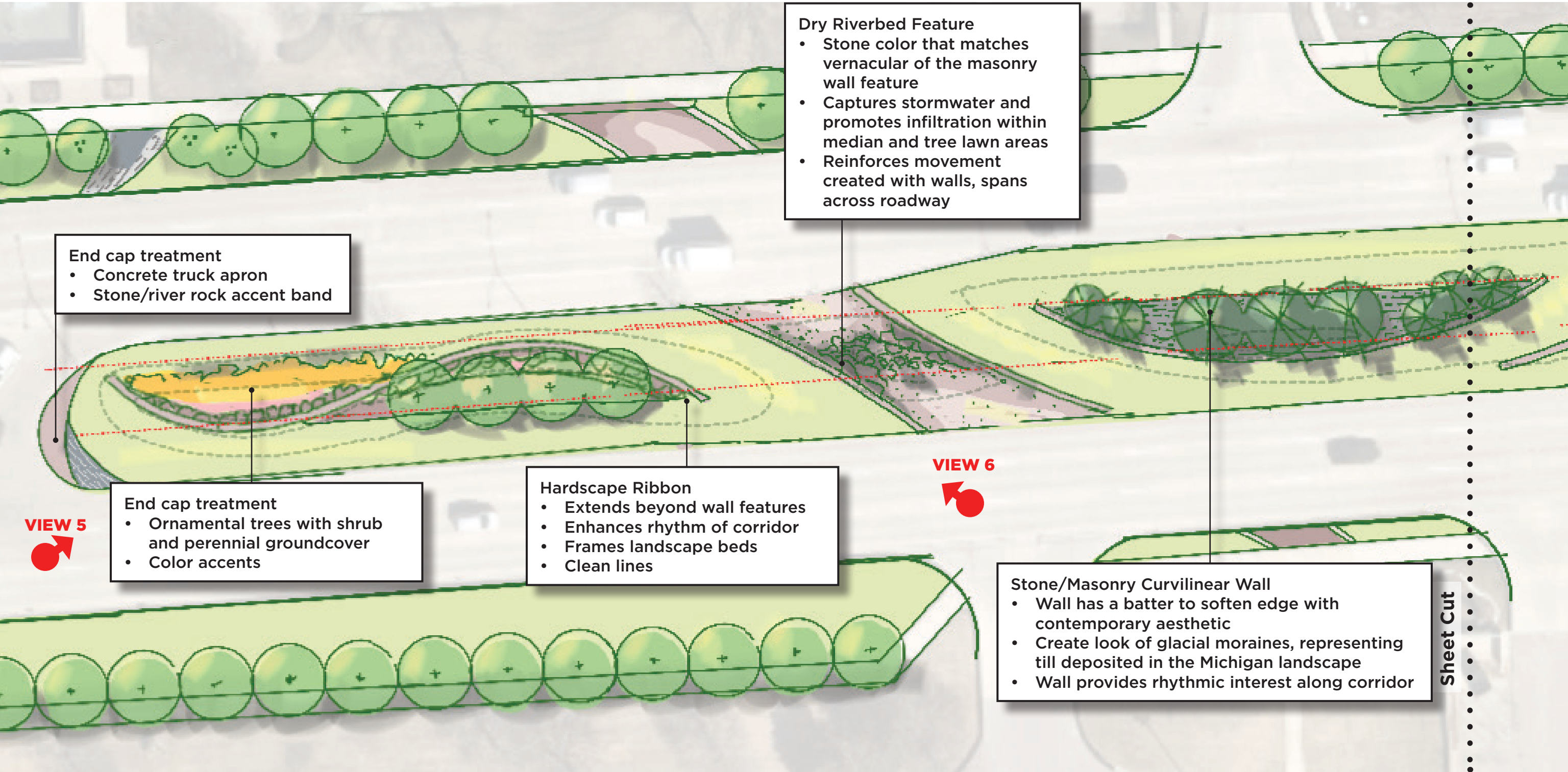
Median Landscaping

Plan Enlargement



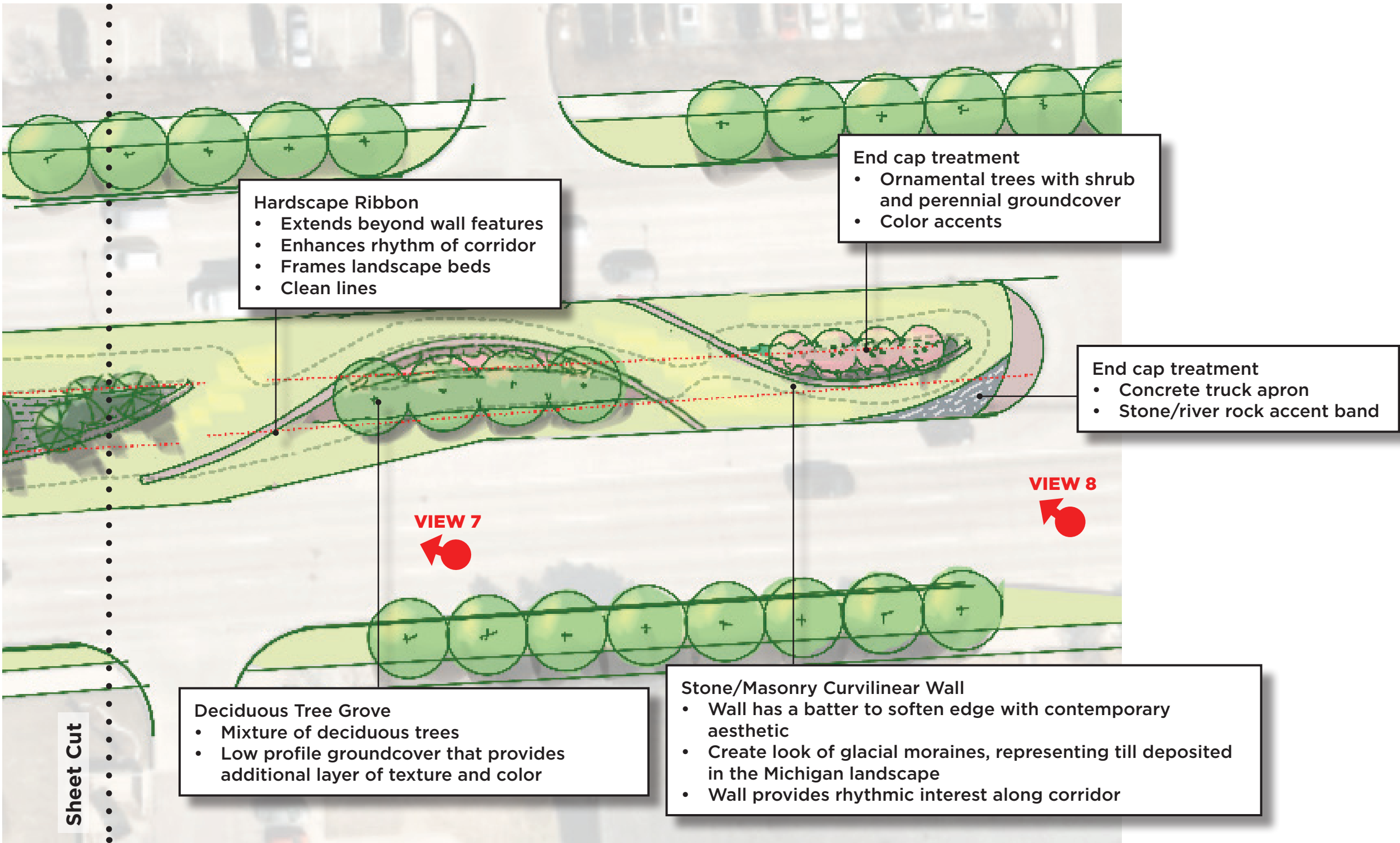
Median Landscaping

Plan Enlargement



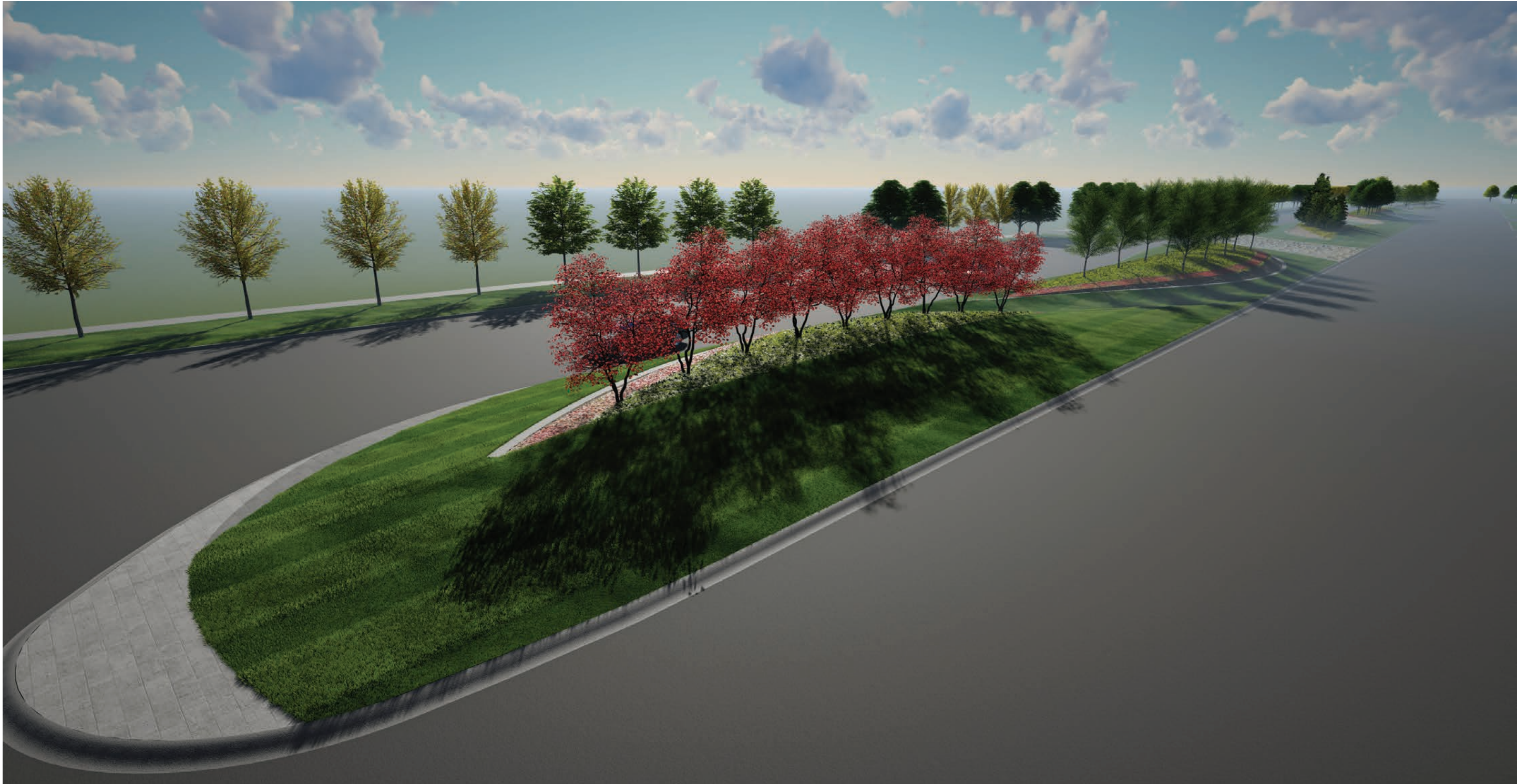
Median Landscaping

Plan Enlargement



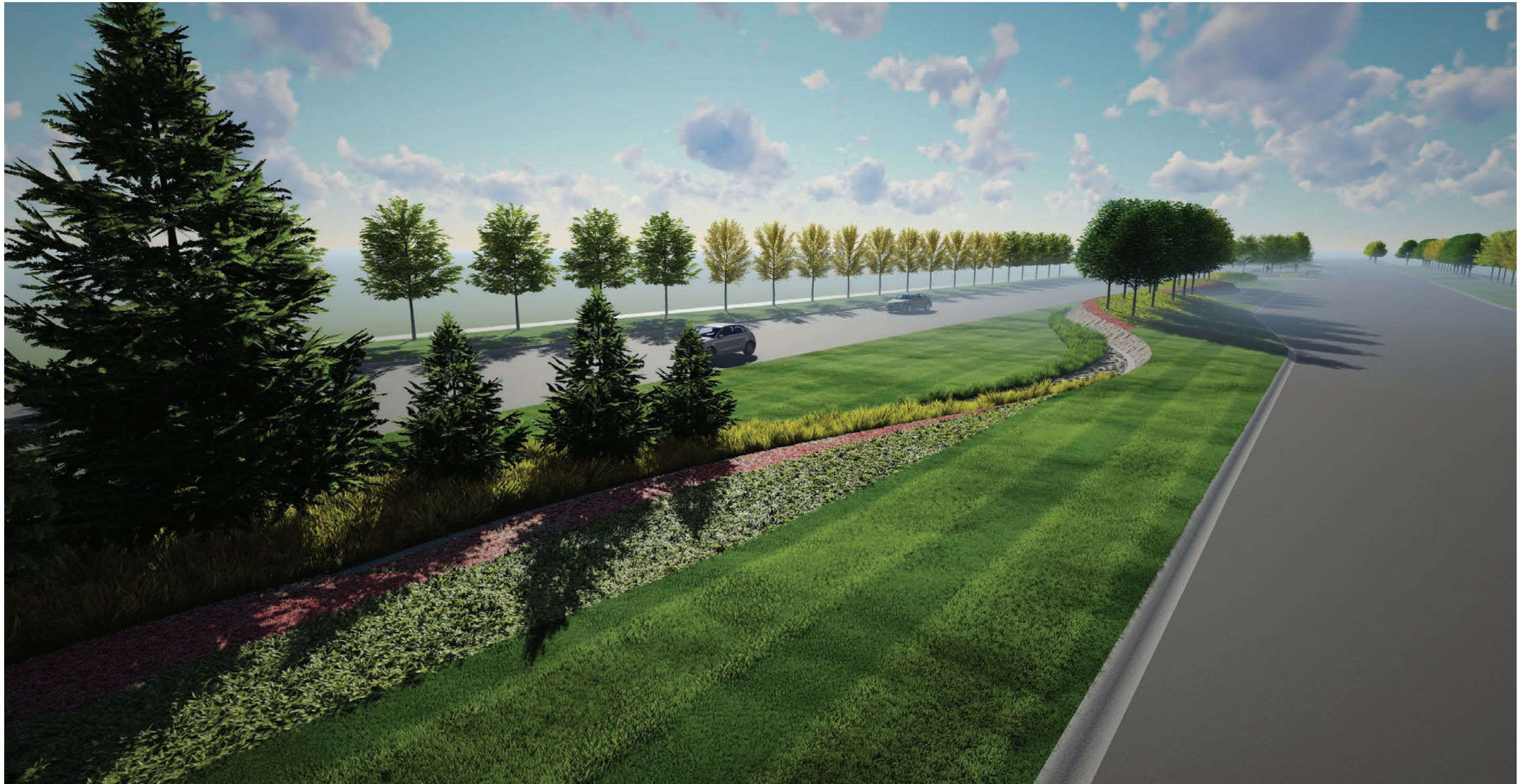
## Median Landscaping

### View 1



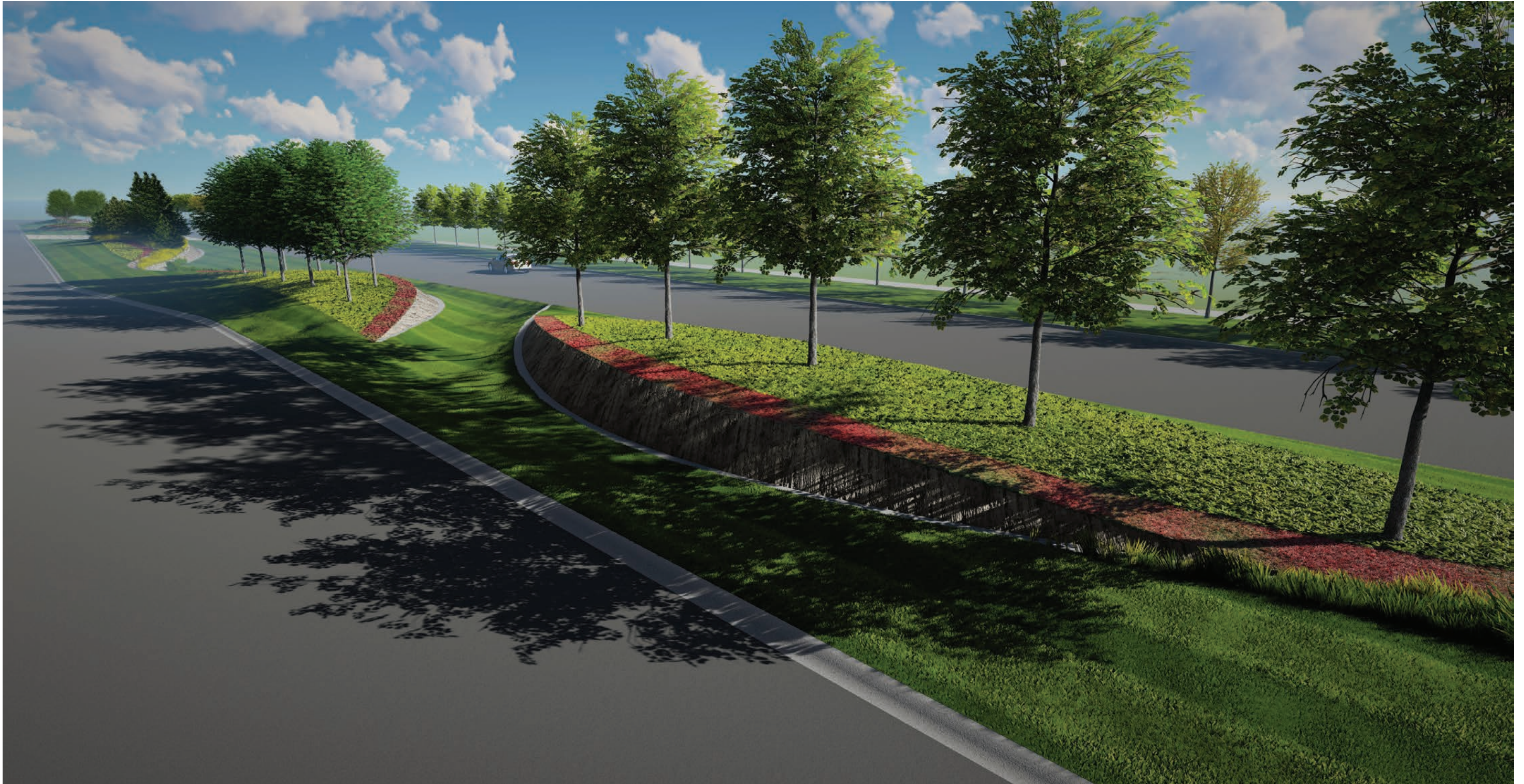
## Median Landscaping

### View 3



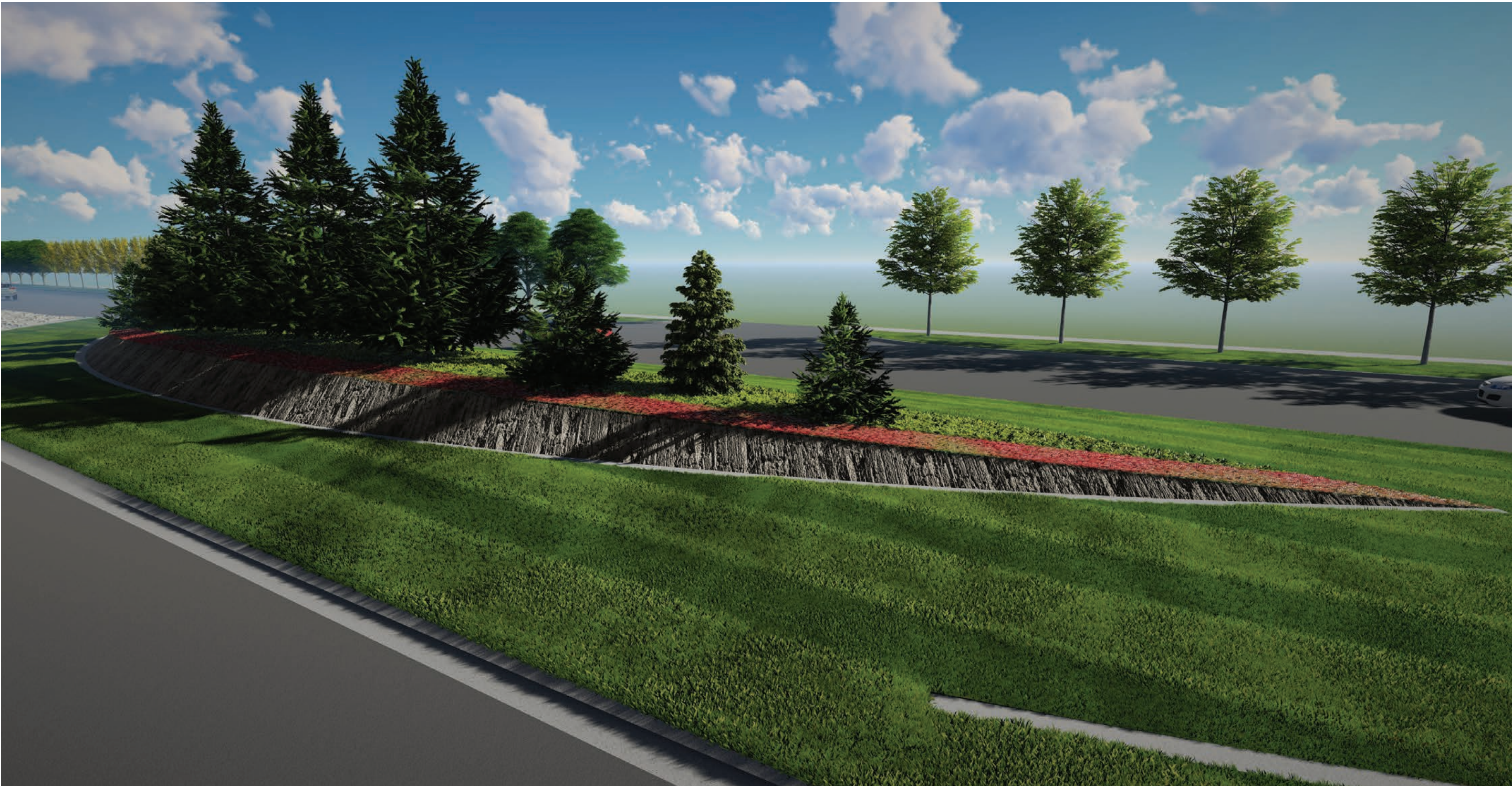
## Median Landscaping

### View 4



Median Landscaping

View 7



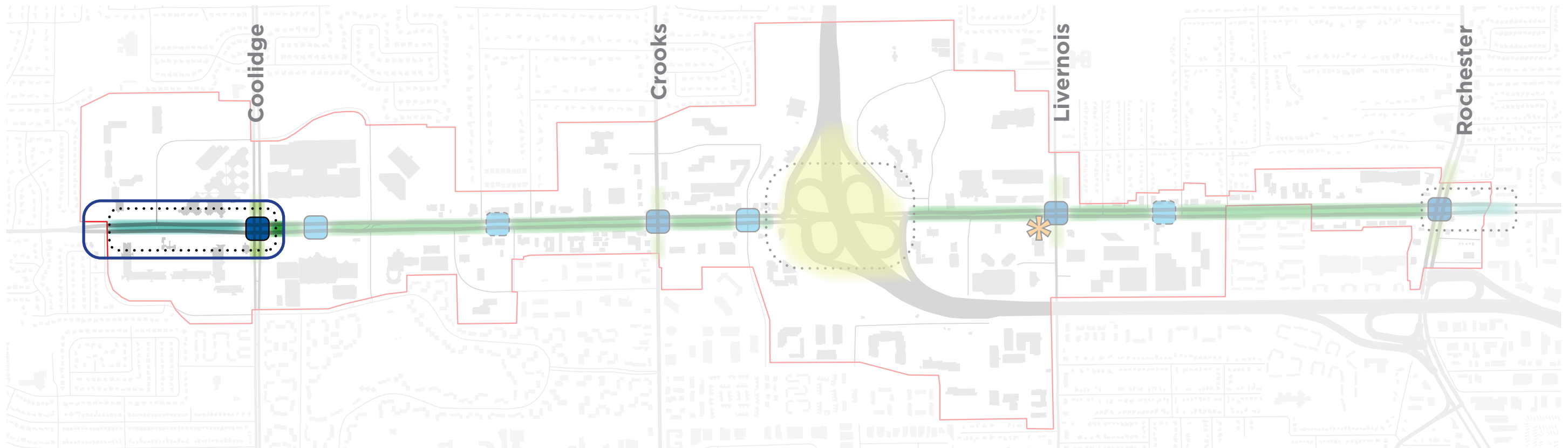
## Median Landscaping

### View 8

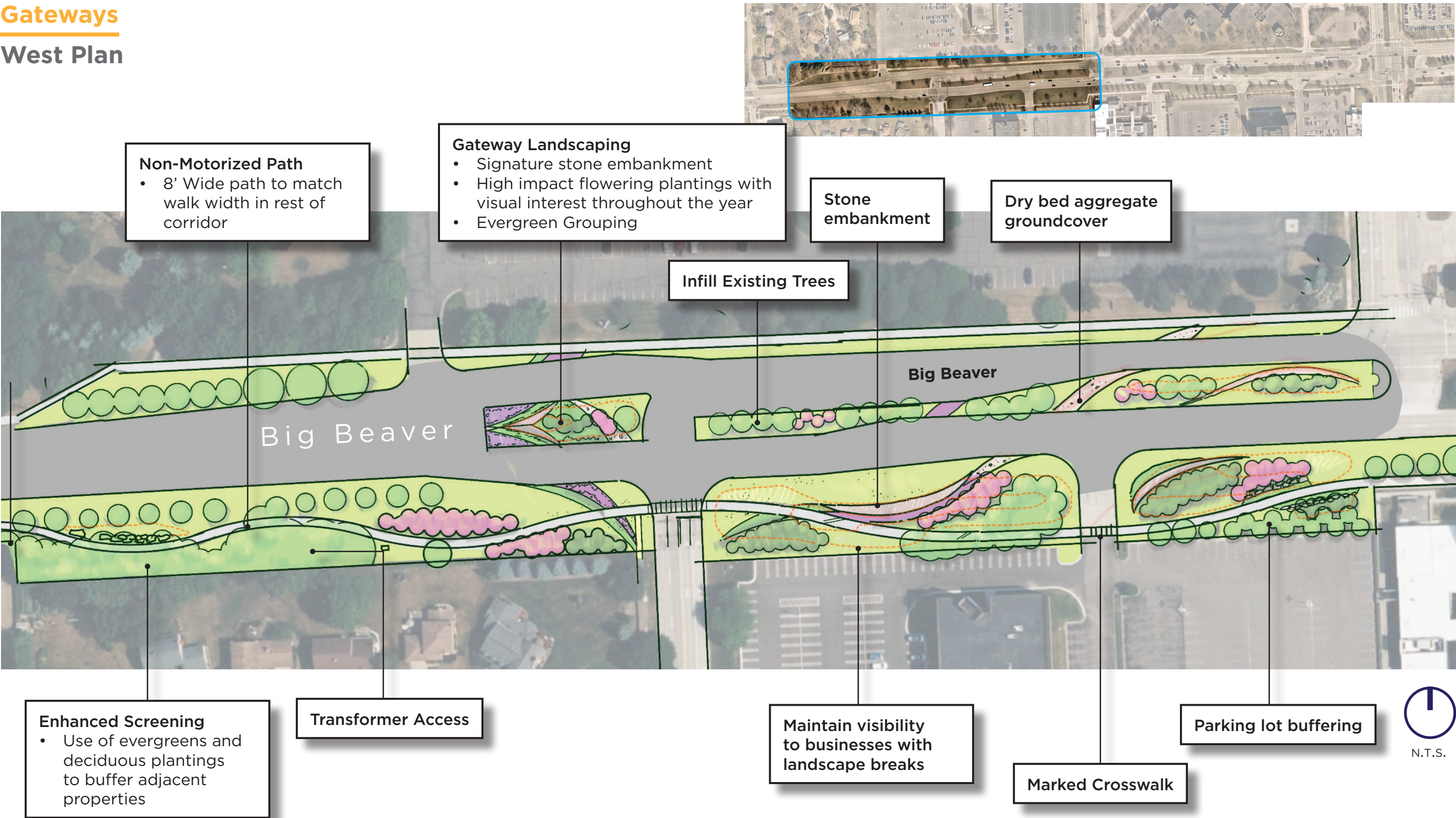


# Western Gateway

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



Gateways  
West Plan



Gateways  
West Plan



Gateways

West Roadway Perspective



Gateways

West Roadway Perspective



Gateways

West Roadway Perspective



Gateways

West Pedestrian Perspective



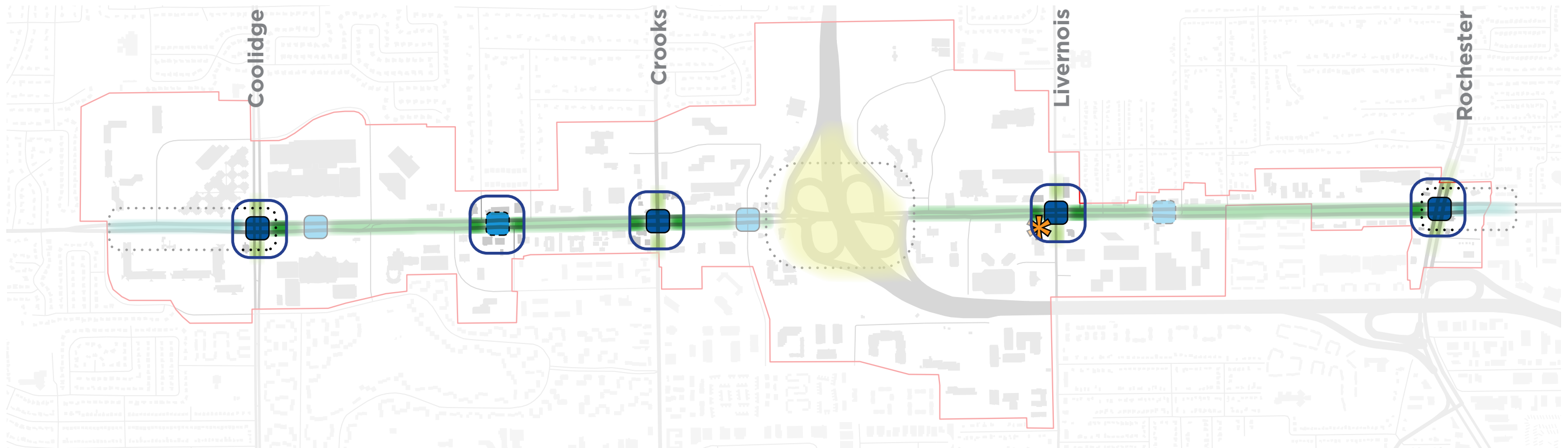
Gateways

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

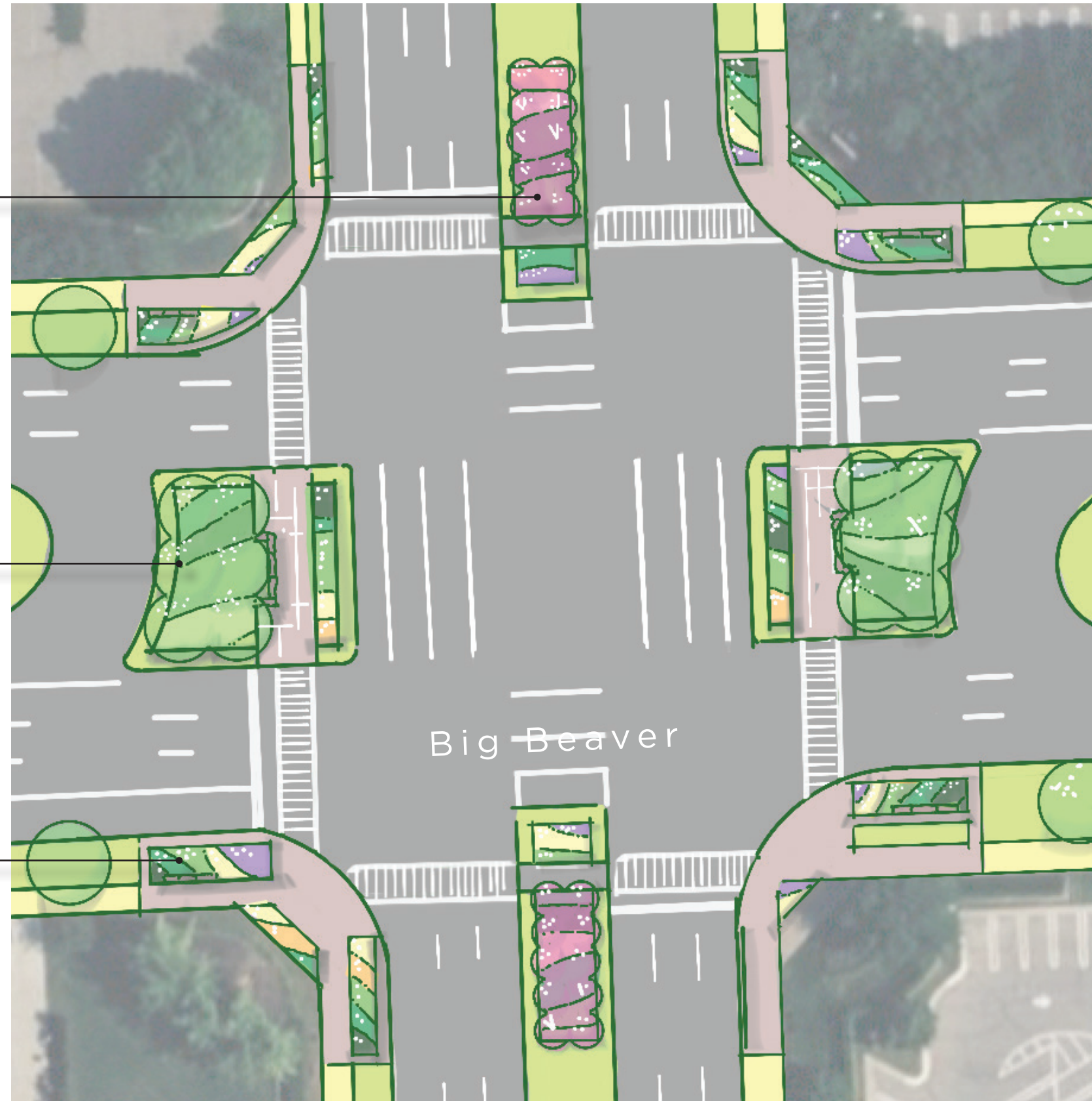
- Landscape beds with concrete headers
- Ornamental Multi-stem trees

#### 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



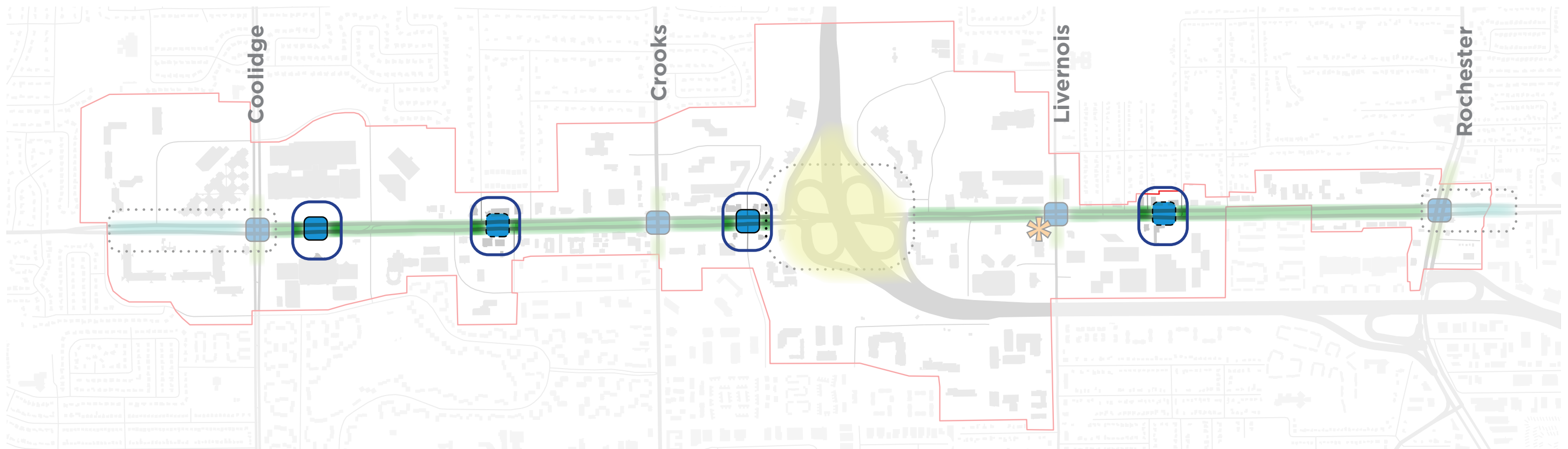
## Intersections

### Corner Perspective

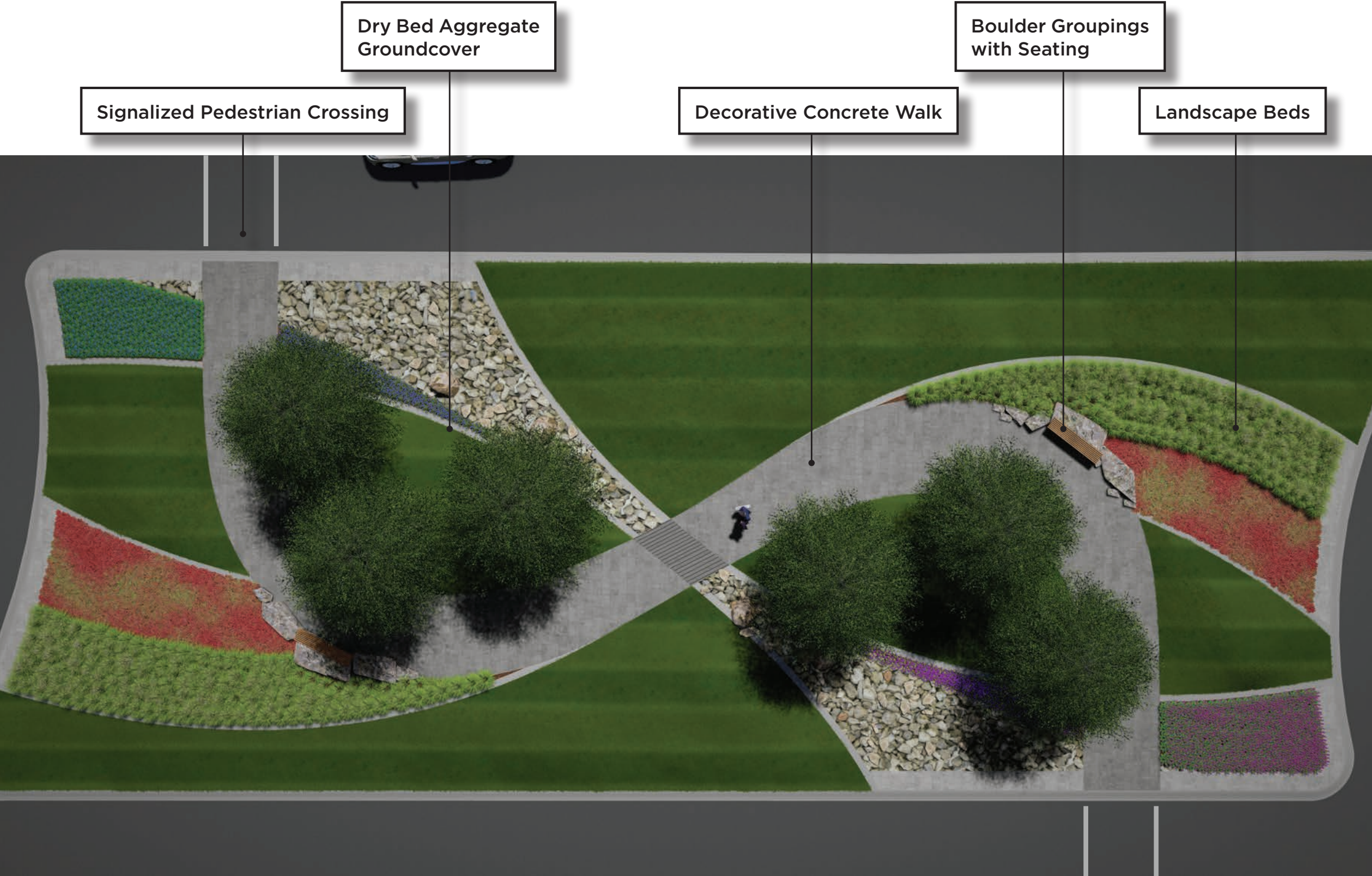


# Mid-Block Crossings

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



Mid-Block Crossing  
Plan



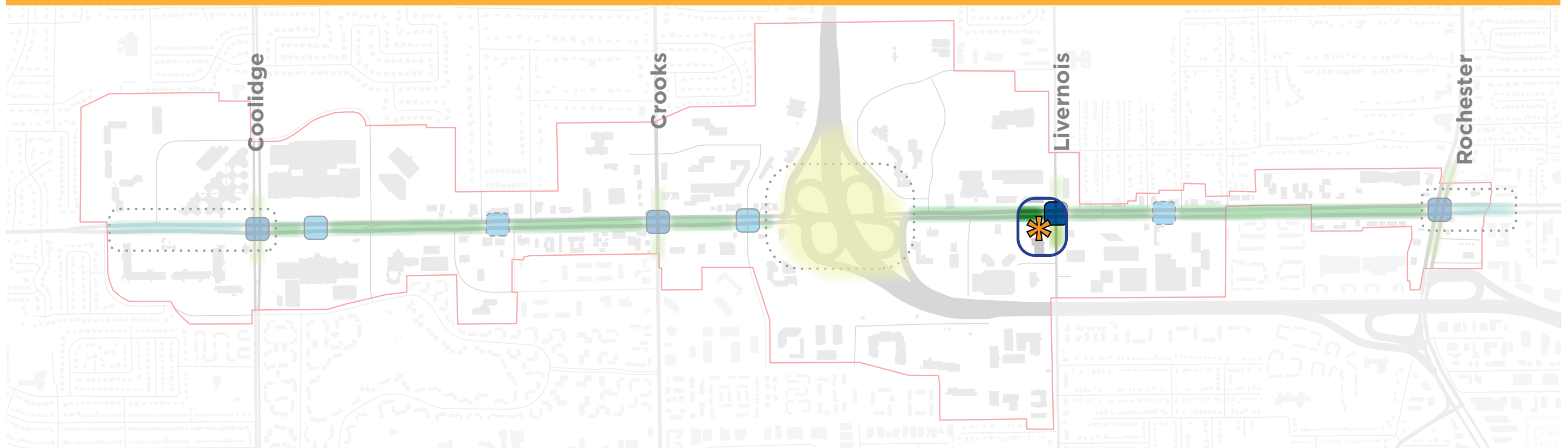
## Mid-Block Crossing

### Perspective



# Corner Park

- Active key City-owned parcel



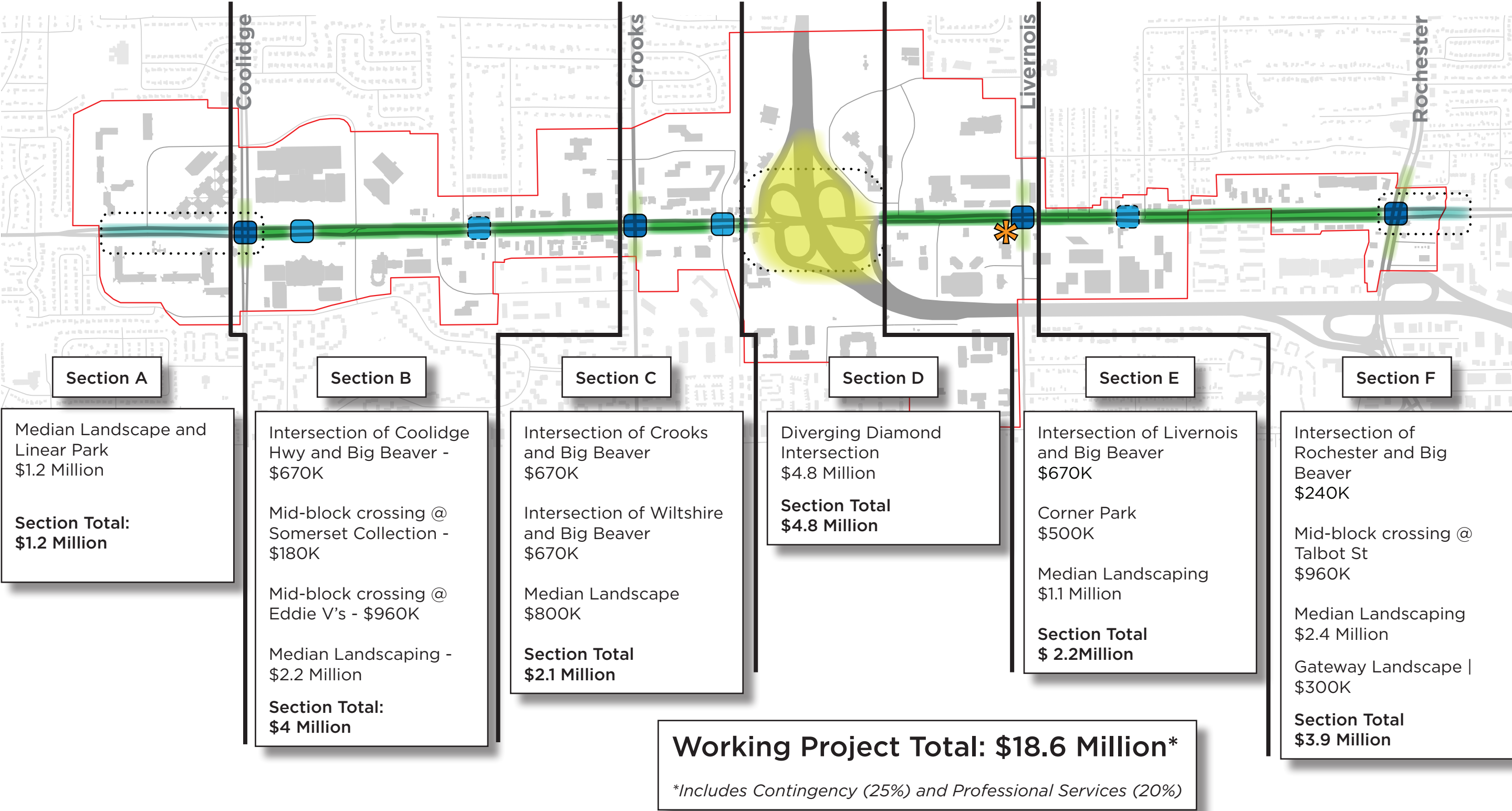
Corner Park

Existing Conditions



Cost and Phasing

Corridor Segments



Cost and Phasing

Project Costs Summary

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

**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         |
|---|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|--------------|--------------|--------------|--------------|--------------|
| Project Cost<br><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 |
| Annual Expenditure  | -             | \$ 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 |
| Remaining Project Cost<br><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 |

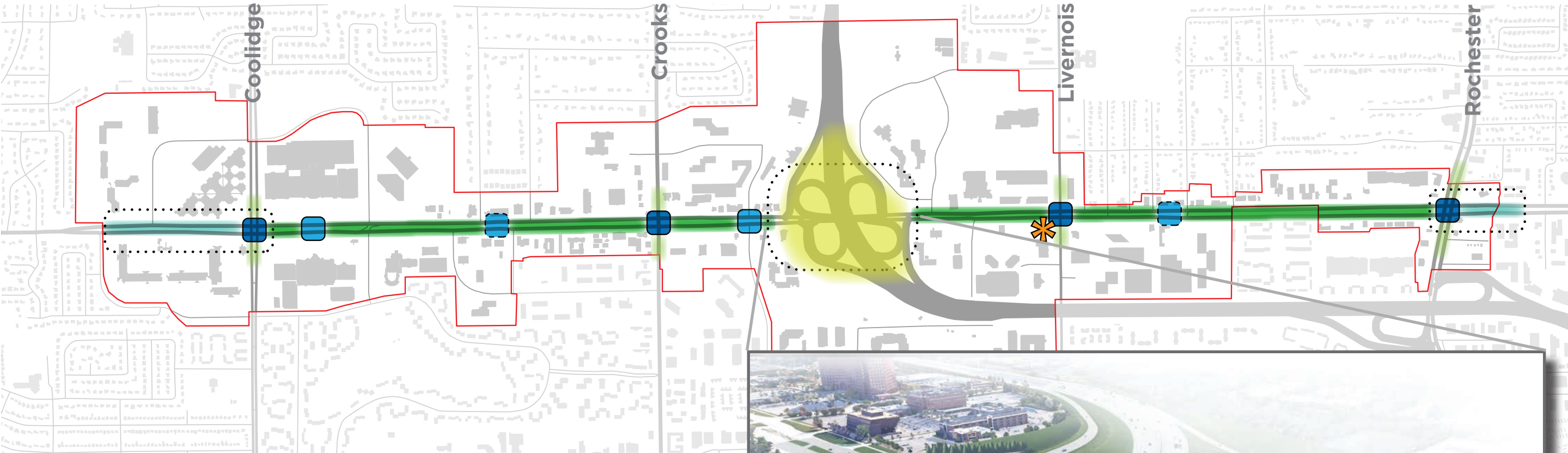
\*2023 Adjusted to 10% per forecasts

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



