

# Chapel Hill Downtown Mobility Study

Council Update

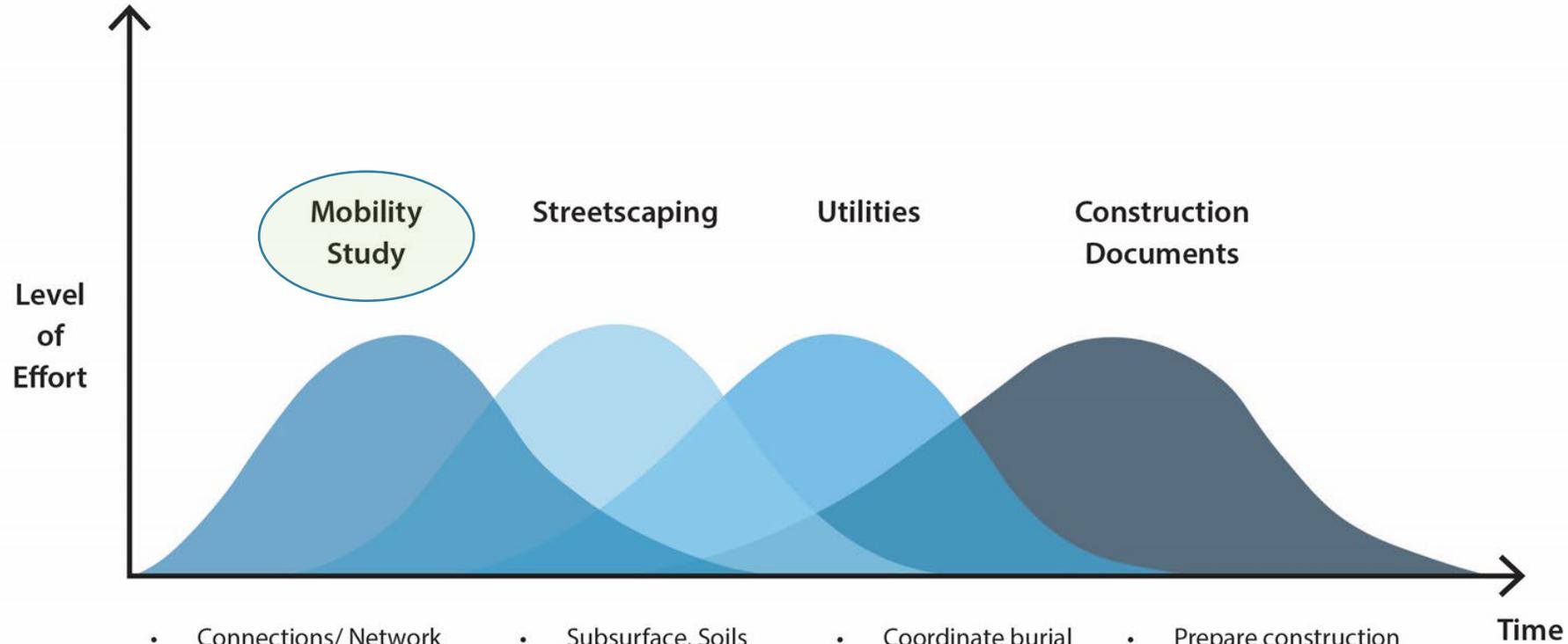
Design Charrette: Reveal and Discussion

*June 7, 2023*



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# Implementing Streetscape Changes



- Connections/ Network
- Cross-Sections
- Intersections
- Multimodal/ Inclusiveness
- Flexibility
- Allocation of Space: mobile users/ static users

- Subsurface, Soils
- Materials Selection
- Green Infrastructure
- Art
- Detailed Plan View, Section, and Elevations

- Coordinate burial of wires
- Stormwater
- Sanitary
- Communications
- Gas
- Potable Water
- Small Utilities

- Prepare construction drawings, engineering, bid documents, specifications

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# Why do we need a vision for Mobility in Downtown?



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# Feedback on current conditions

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- Current mobility patterns are **degrading the Place**
  - *People are traveling through rather than to*
- **Improvements have been piecemeal and uncoordinated**
  - Results in low levels of trust among stakeholders
- Everyone is concerned about **conflicts between users**
  - Resulting in frustration for everybody
- **Businesses need safe, easy access**
  - Solutions may vary but change needs to be thoughtful

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# Path as Place

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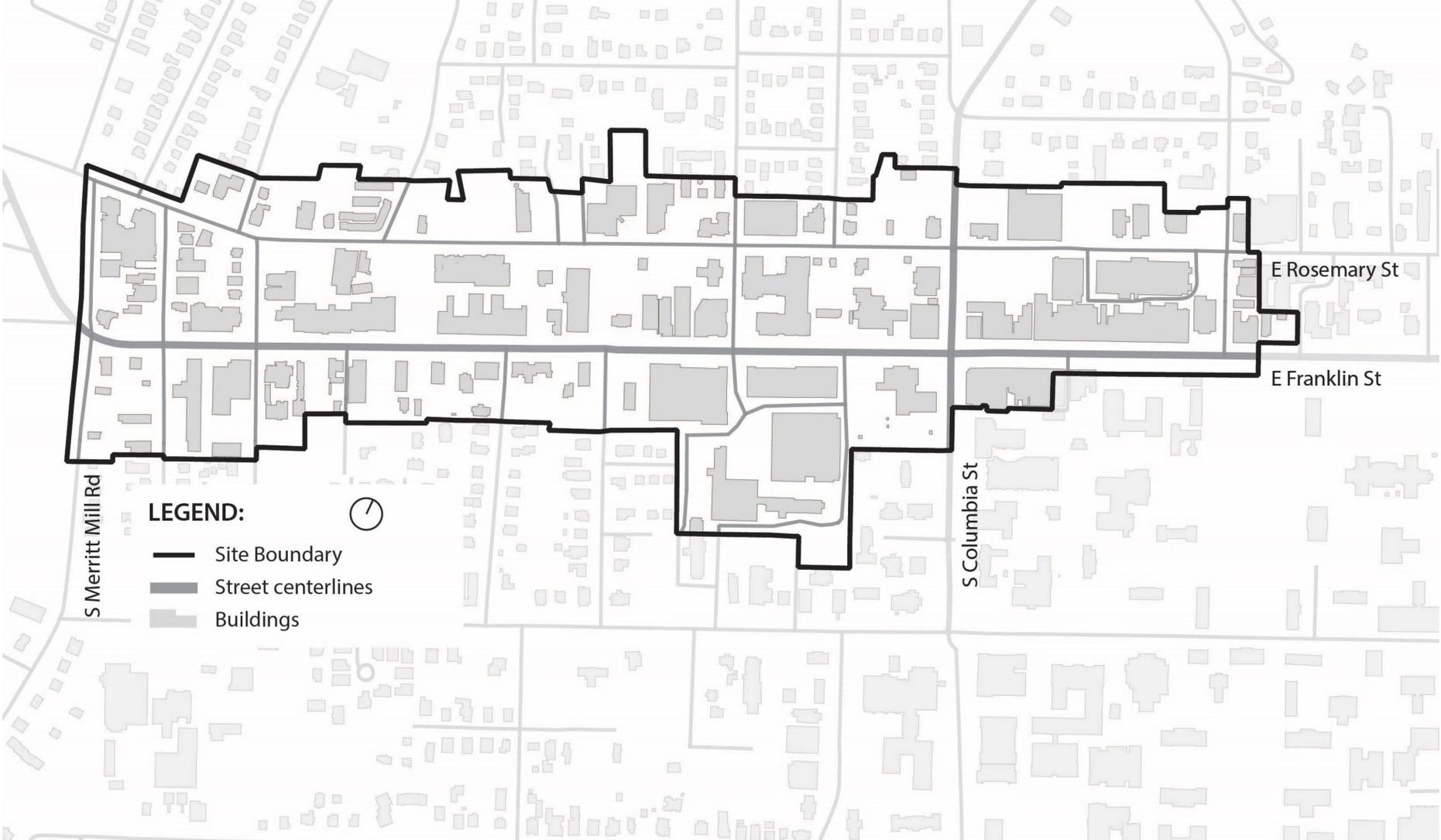
## What does Path as Place mean?

- **PATH** → A road, street, parkway, trail, path, highway (any linear feature for moving things)
- **AS** → Through its design and composition is
- **PLACE** → A defined, memorable location within the built or natural environment



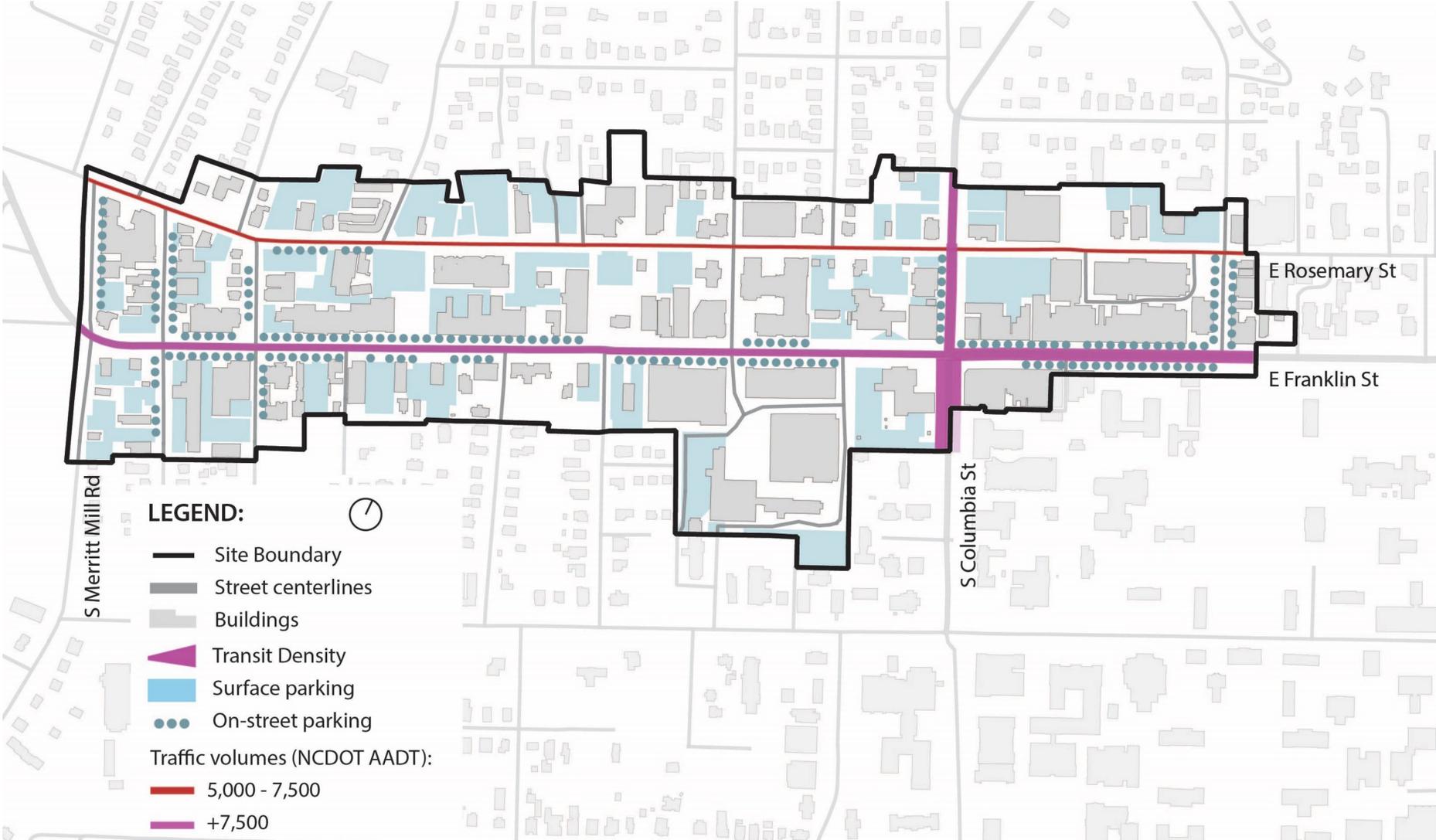
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# Current Street Conditions



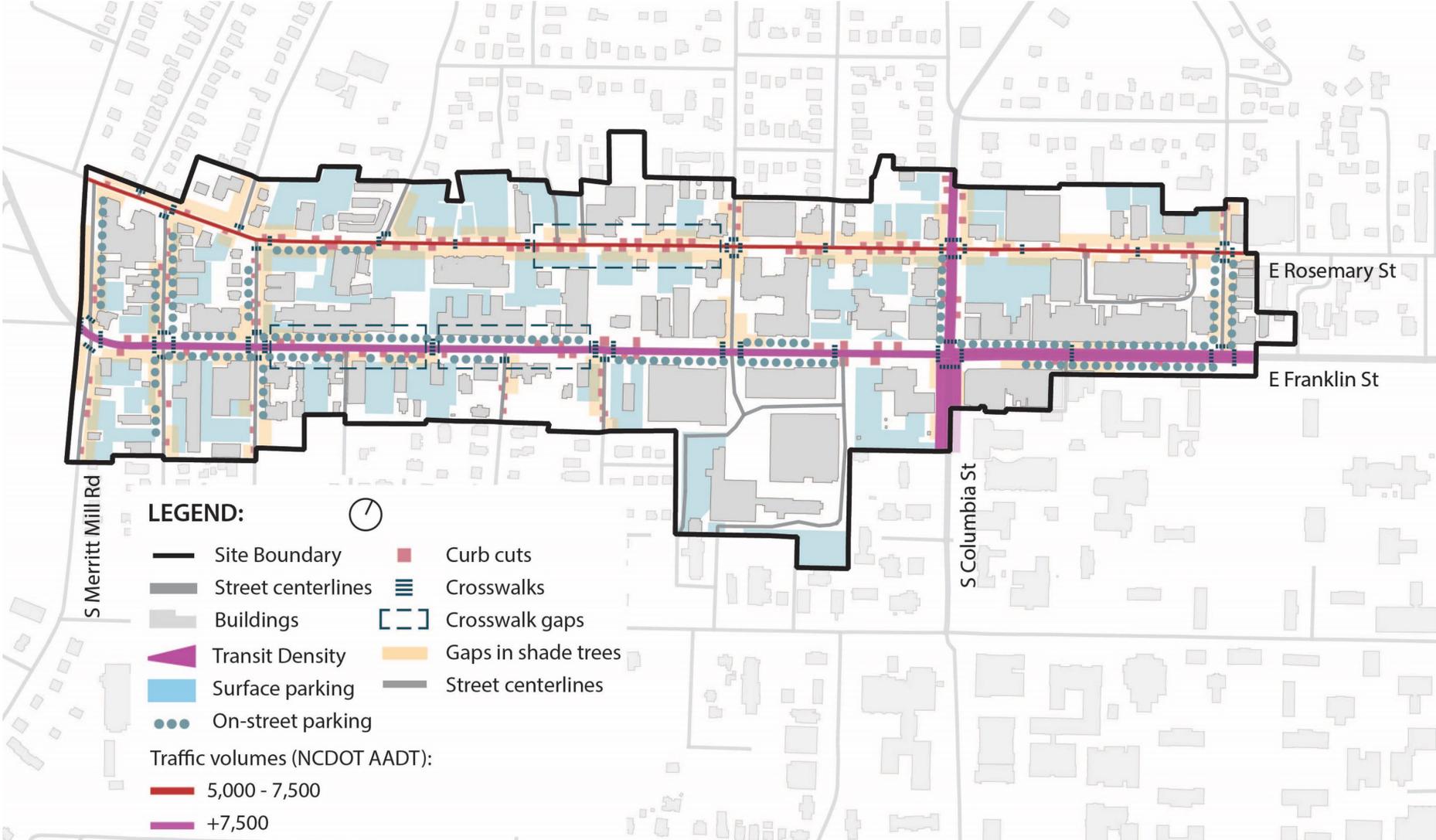
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# Current Street Conditions

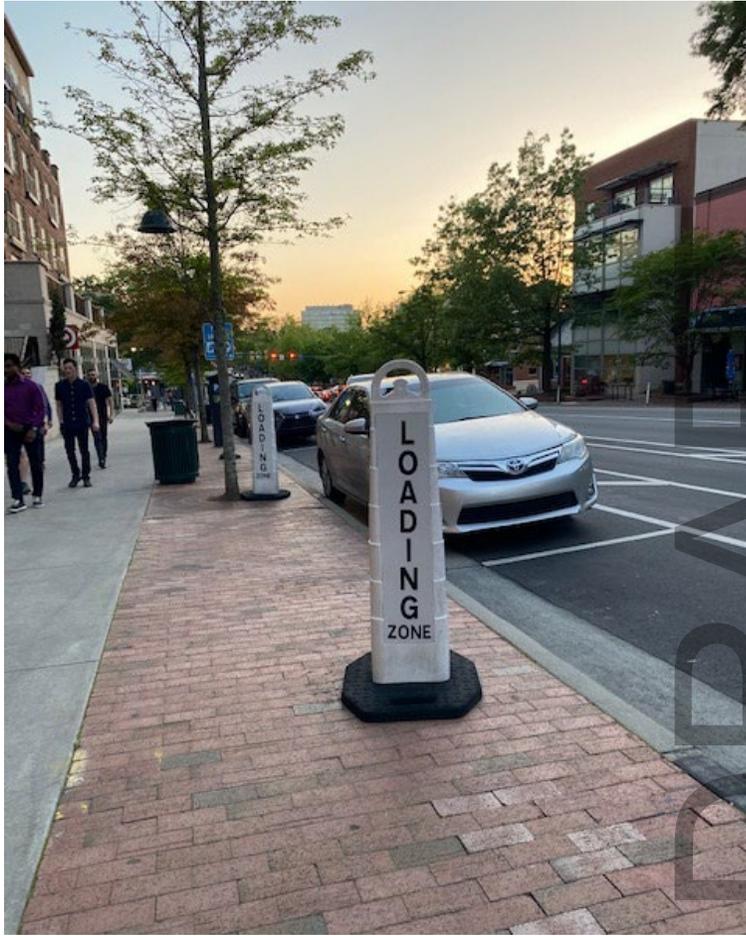
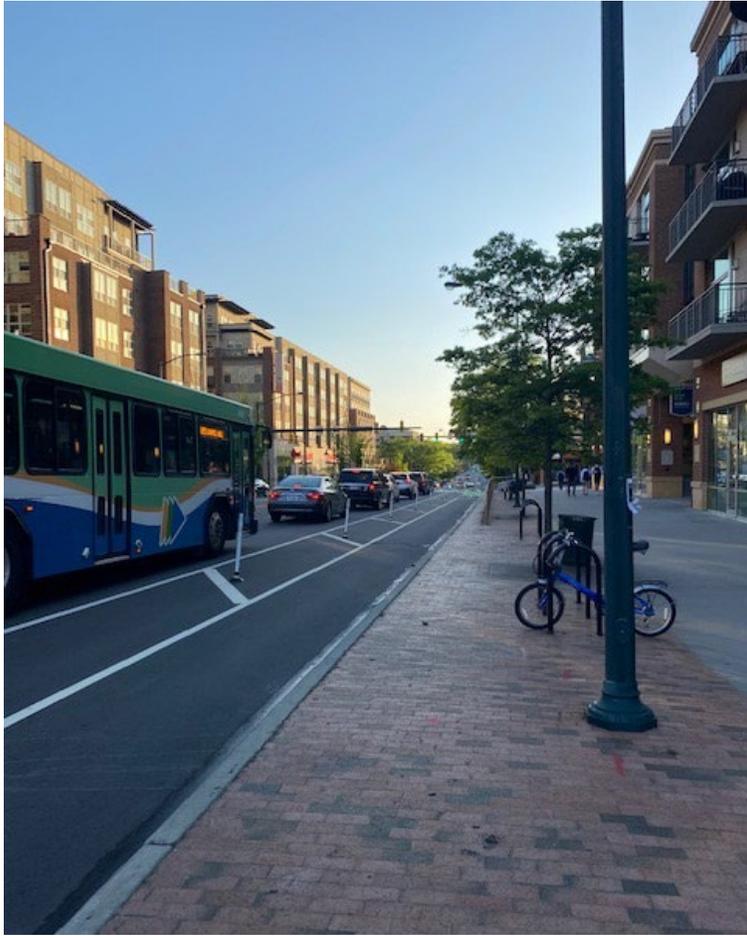


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# Current Street Conditions



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TOOLE  
DESIGN

# Background

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- Purpose of Streets
- A & B Streets
  - Franklin and Rosemary as A Streets
  - Networks
  - Rosemary, Franklin, and Cameron working as a SYSTEM

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# Fundamental

**The purpose of cities:** to advance efficient & effective exchange.

- Labor
- Trade
- Innovation
- Culture
- Capitol
- Ideas
- Goods
- Education
- Services
- Employment
- Specialization
- Entertainment
- Housing
- Governance
- Security
- Health Care
- Opportunity
- Social Contact

The “transportation” purpose of cities is to minimize long trips.

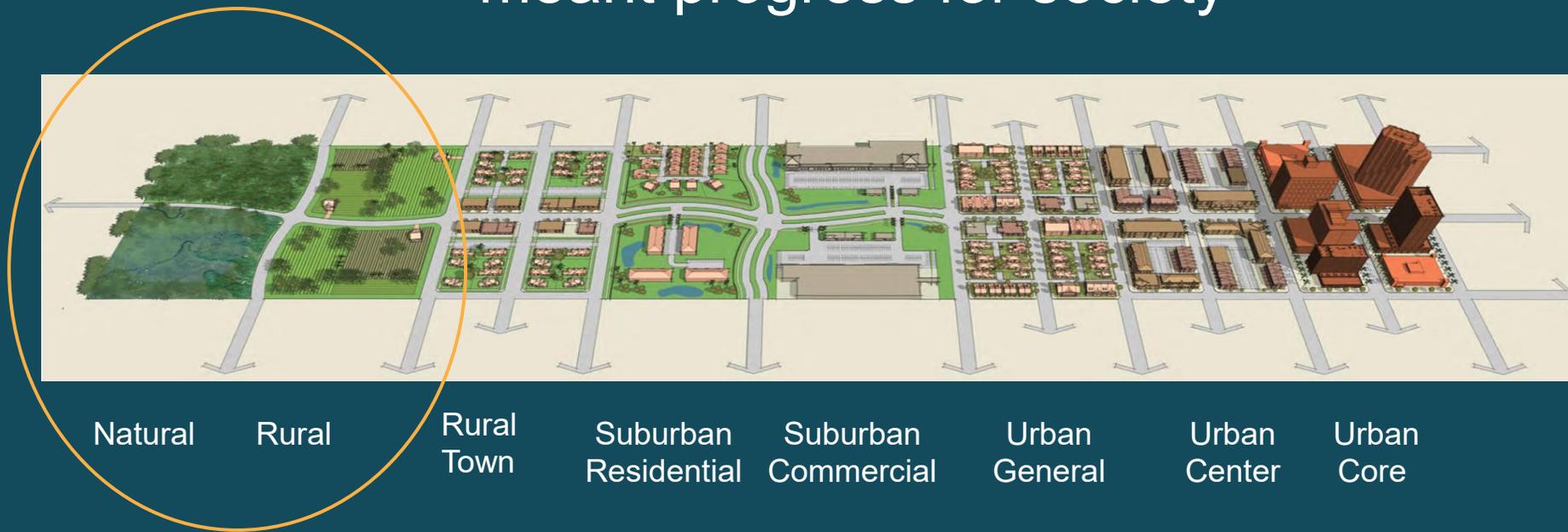
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# Mobility

Outside of cities & metro areas

The movement of people and goods.

Assumption: faster, farther, and in greater numbers meant progress for society

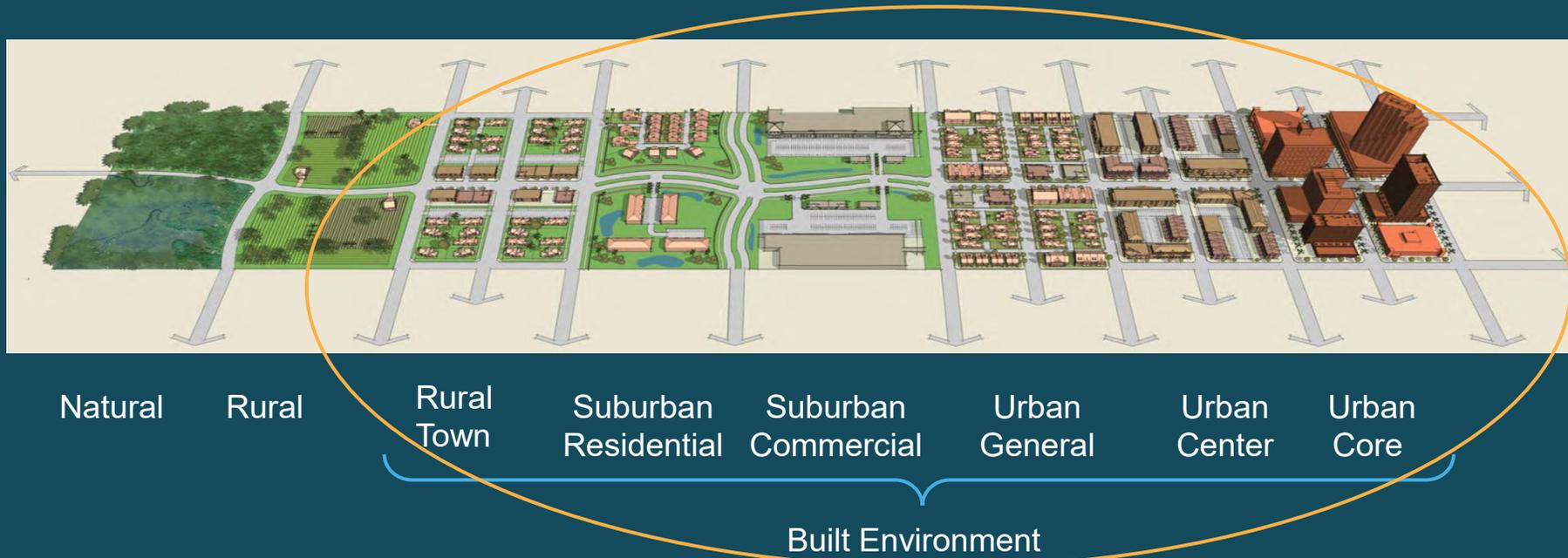


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# Mobility

Within cities and metro areas

The populations' capabilities and strategies to move in order to access what they need to live and thrive within the city/metro area.



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# Mobility (now & in the future)

The **populations'** capabilities and strategies **to move in order to access** what they need to live and thrive within the city/metro area.

Young, elderly, disabled, genders, different income levels, walkers, pedestrians, cyclists, transit users, students,...

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# Mobility (now & in the future)

The **populations'** capabilities and strategies to move in order to access what they need to live and thrive within the city/metro area.

→ Movement is purposeful.

<u>Trip Type</u>	<u>%</u>
work	18.0
work-related	2.6
shopping	20.2
doctor/dentist	1.5
family/personal	24.2
church/school	8.8
social/recreational	24.5
other	0.2

TOOLE  
DESIGN

# Mobility (now & in the future)

The **populations'** capabilities and strategies to move in order to **access** what they need to live and thrive within the city/metro area.

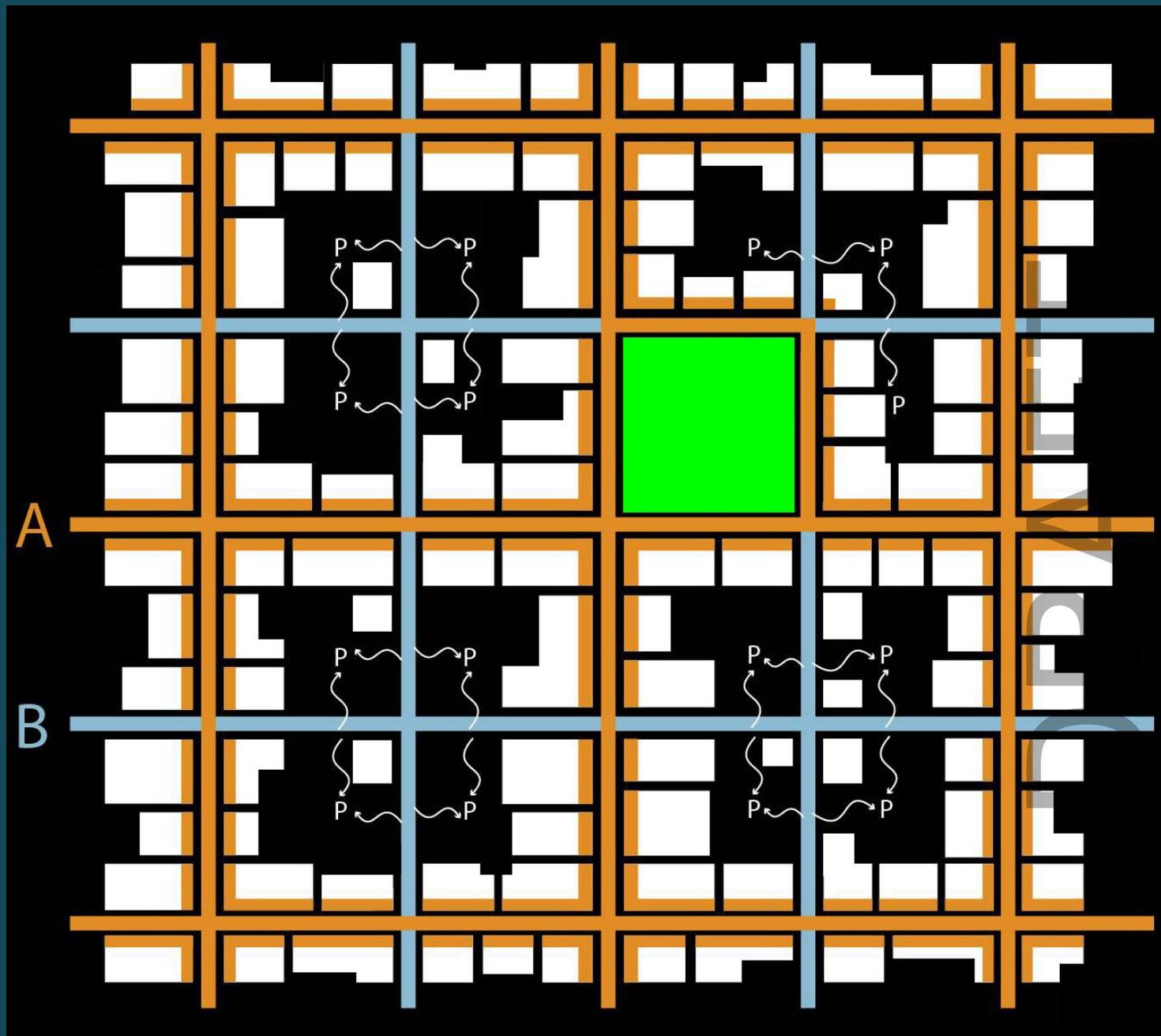
Equity

Young, elderly, disabled, genders, different income levels, walkers, pedestrians, cyclists, transit users, students,...

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# A-Frontage Streets

# B-Frontage Streets

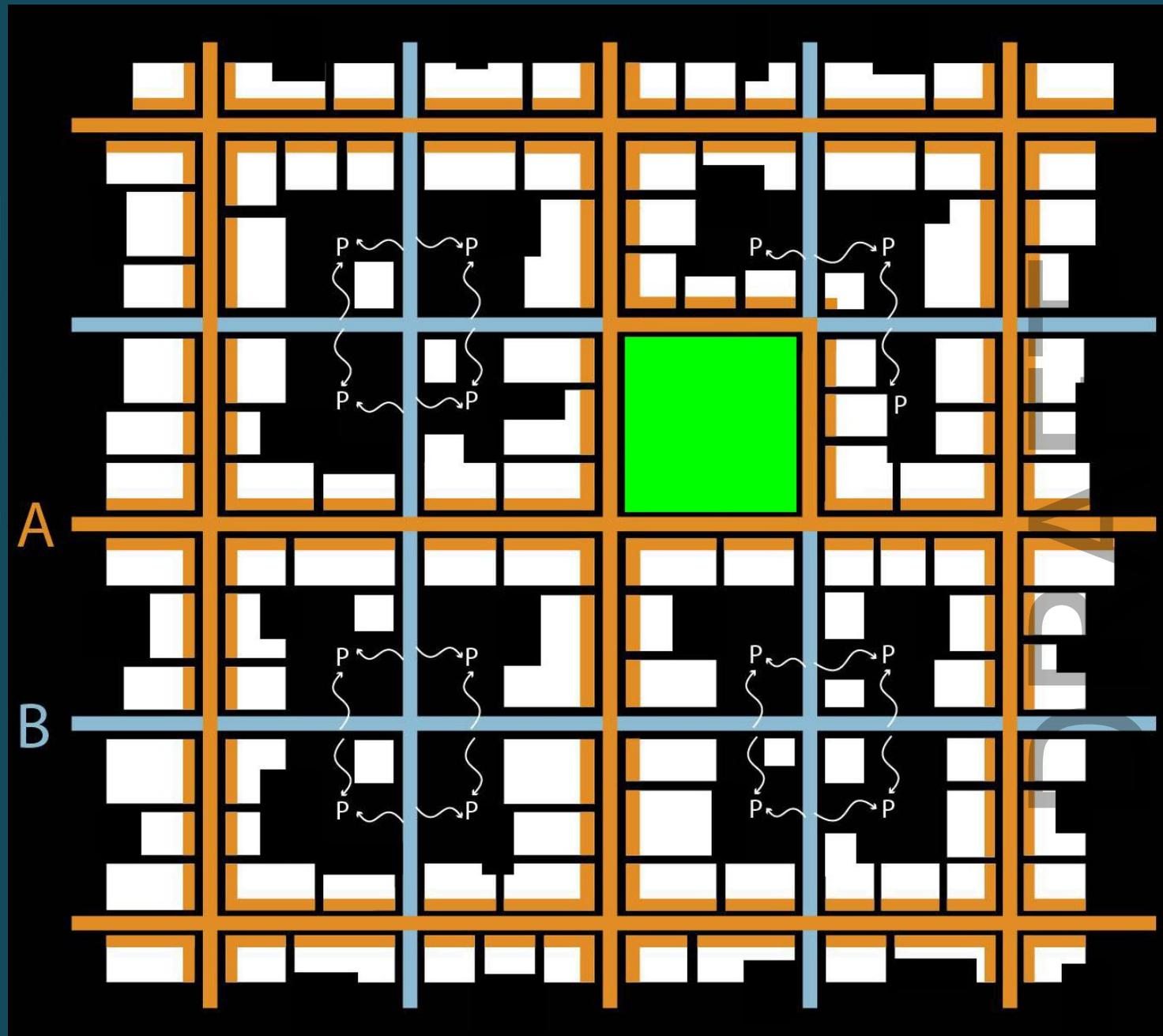


## A-Frontage Streets

A-frontage streets are addressed by buildings, have engaging facades, and have no driveways or service functions.



## B-Frontage Streets



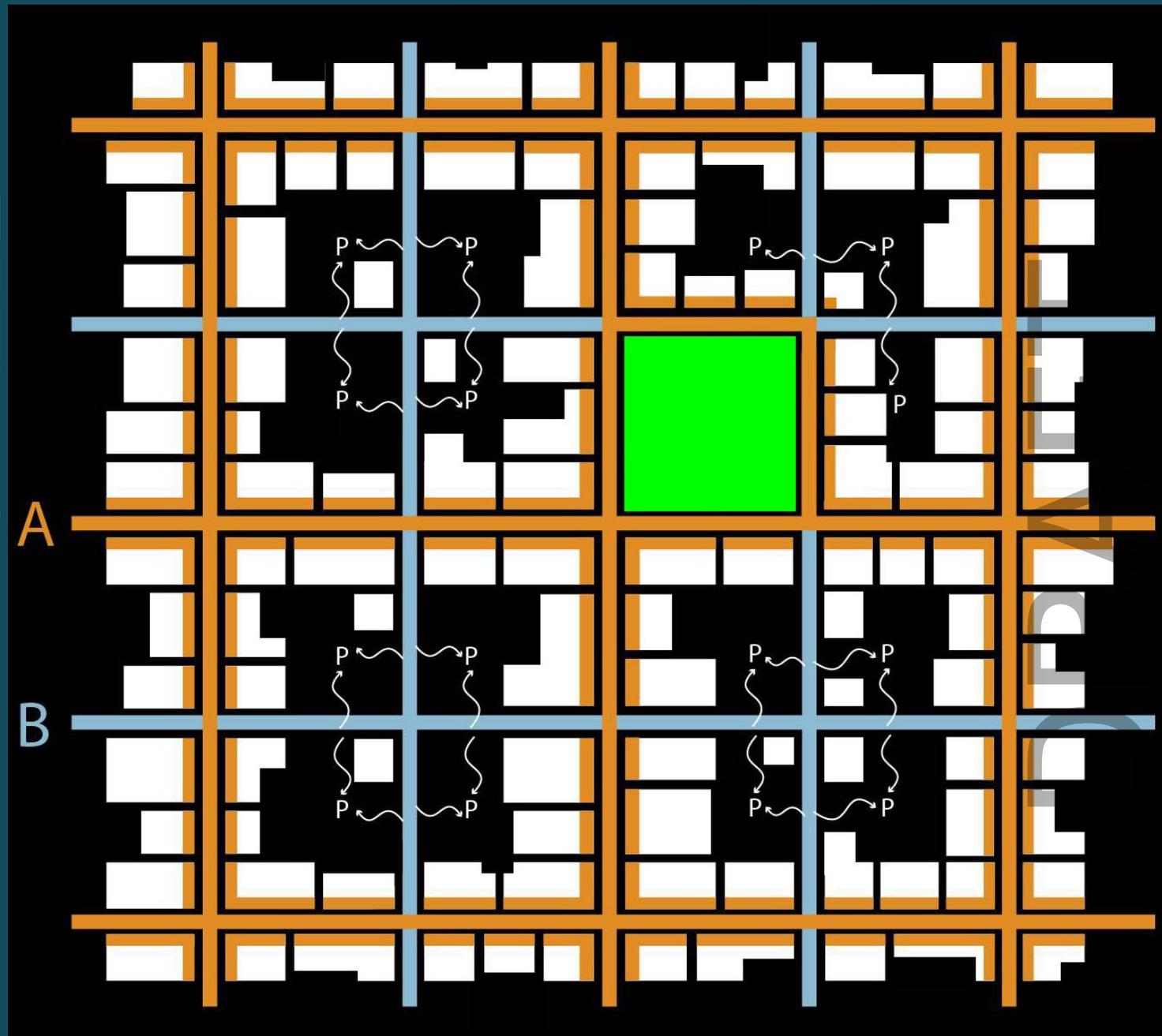
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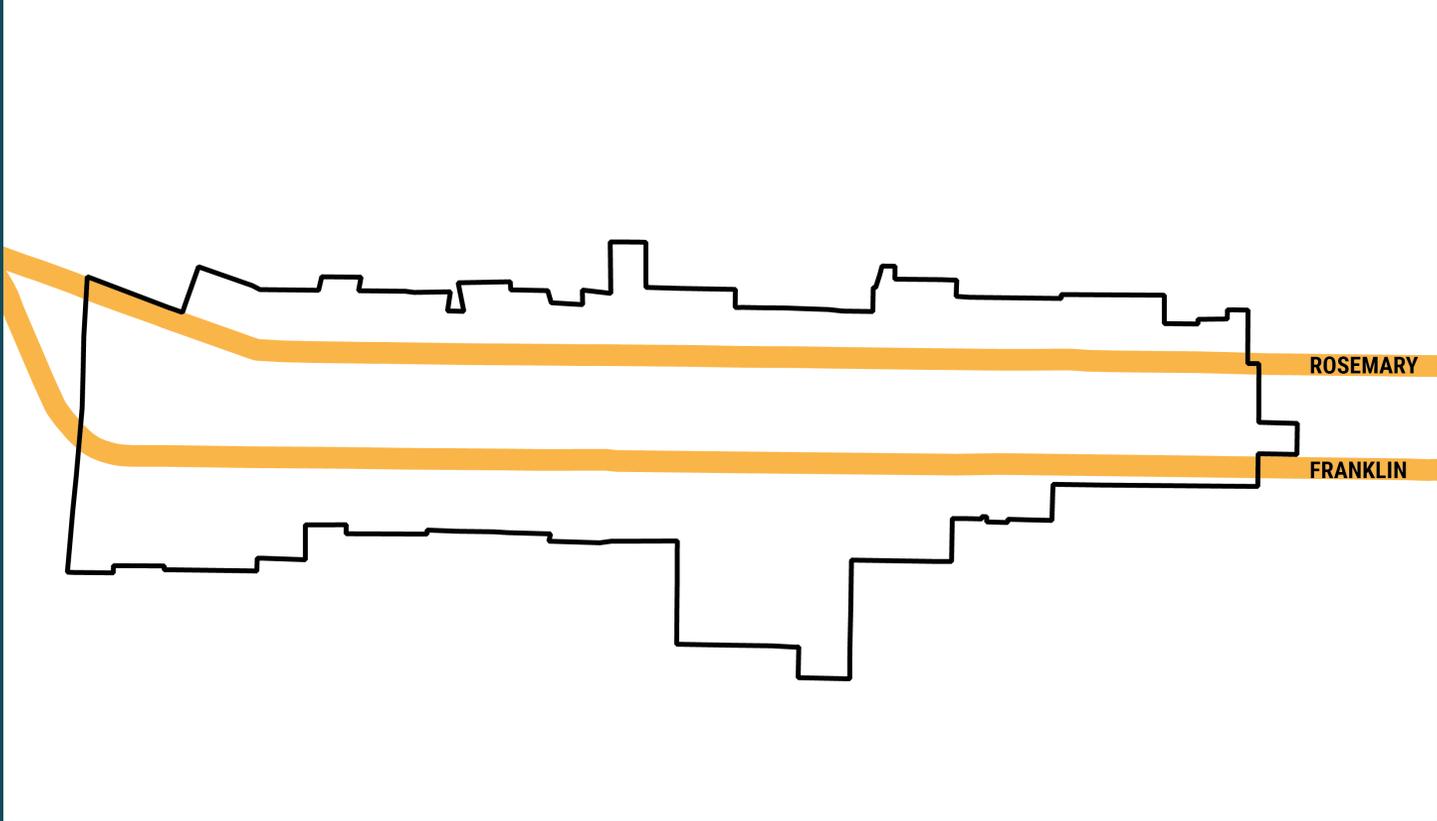


## B-Frontage Streets

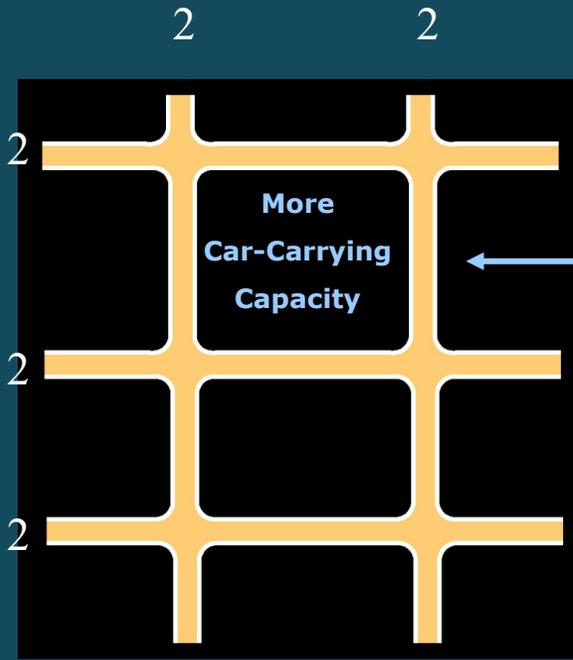
B-frontage streets may or may not be addressed by buildings and provide access for parking and services.



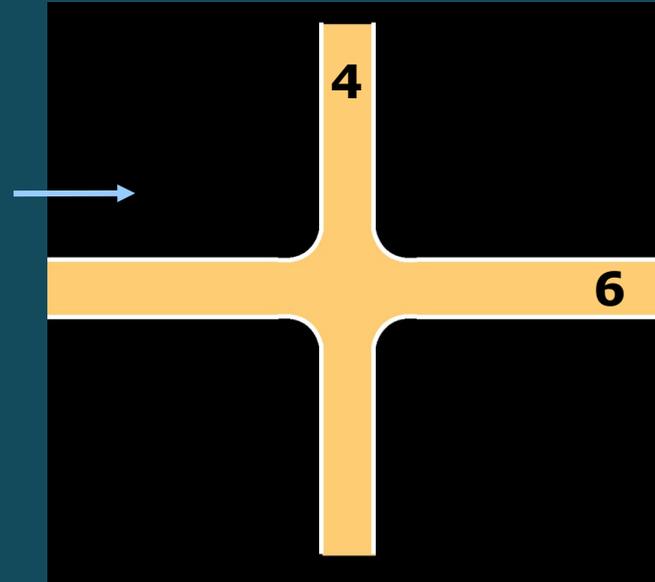
# Chapel Hill's A Streets: Rosemary and Franklin



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Same  
Total  
Lanes



Network  
&  
Scale

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Main St

Merritt Mill Rd

Rosemary St

Franklin St

Cameron Ave

Columbia St

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Main St

Rosemary St

Franklin St

Cameron Ave

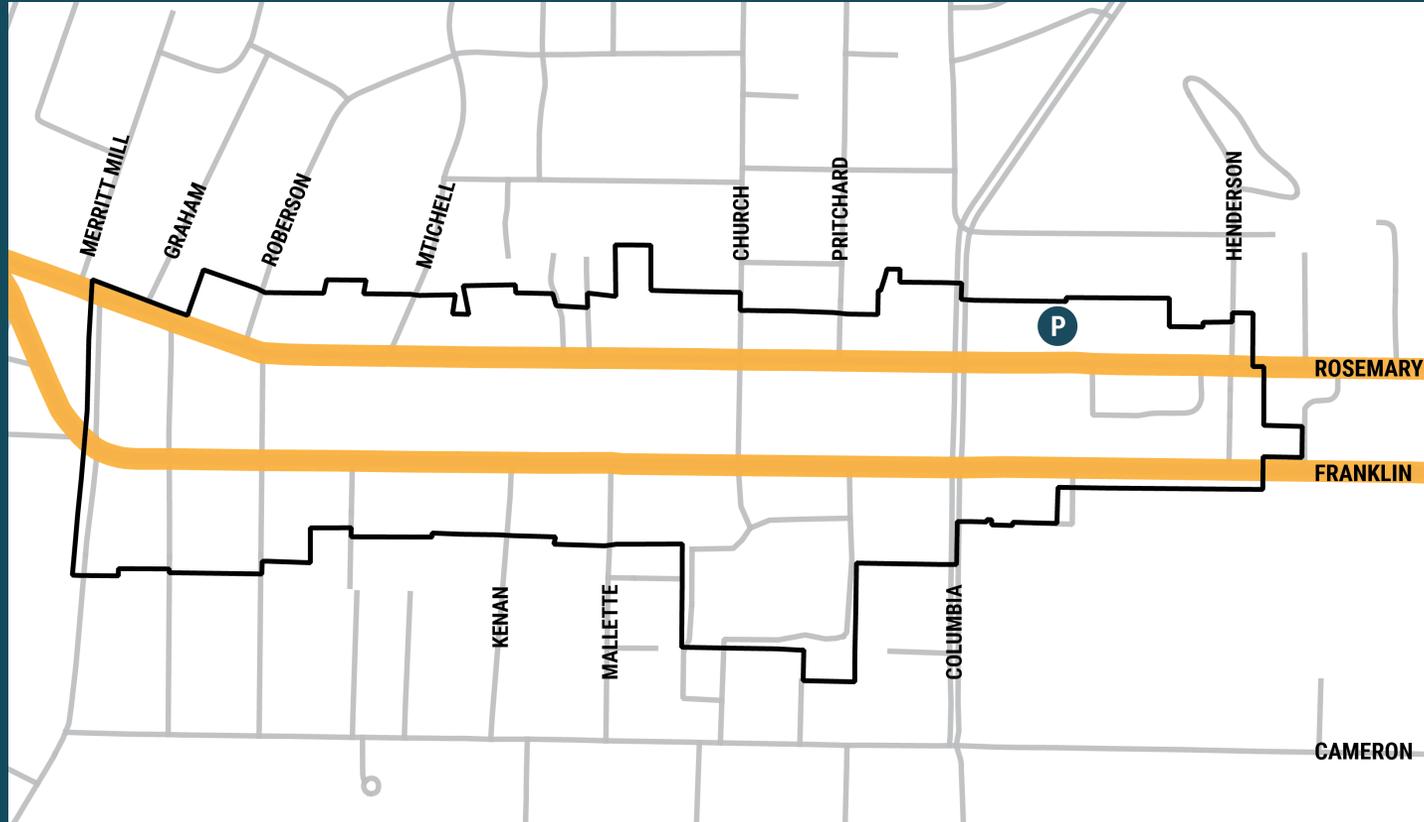
Columbia St

Merritt Mill Rd

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# “A Streets” Rosemary and Franklin: Working in the Network

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# Leaving a Legacy

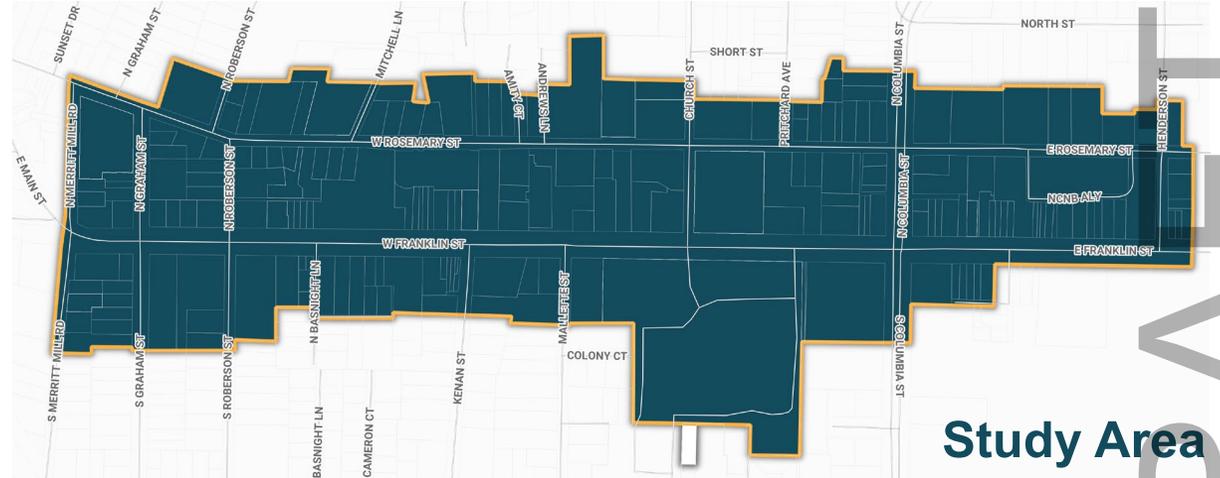
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02  
DRAWING



# Project Purpose

- Establish vision for streets in downtown that provides:
  - Safety for all
  - Vibrancy and economic vitality
  - Connectivity to/between destinations
  - Functionality of streets to access and serve businesses



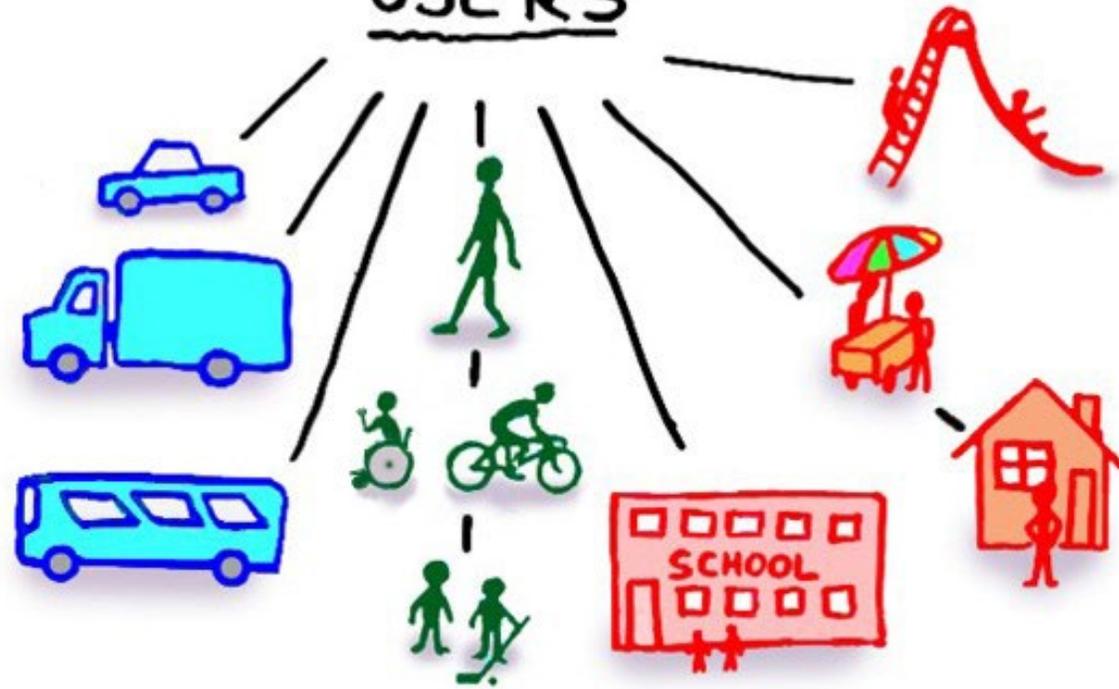
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# Guiding Principles

- More pedestrian space and comfort
- Design for the system
- Establish Rosemary and Franklin as *A Streets*
- Reduce conflicts
- Traffic flow...but slow
- Path as Place



# STREET USERS



MOBILE

PLACE

VULNERABLE

Lockwood

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# Slowing Speeds on Rosemary and Franklin streets

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## 1) Enclosure:

outdoor room, street trees, on-street parking, bulb outs, valley gutters, close buildings



# Slowing Speeds on Rosemary and Franklin streets

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outdoor room, street trees, on-street parking, bulb outs, valley gutters, close buildings

## 2) Engagement:

Interesting things to look at, uncertainty, parked cars, crossings, narrow lanes, texture, short blocks, shop windows, art



# Slowing Speeds on Rosemary and Franklin streets

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## 1) Enclosure:

outdoor room, street trees, on-street parking, bulb outs, valley gutters, close buildings

## 2) Engagement:

Interesting things to look at, uncertainty, parked cars, crossings, narrow lanes, texture, short blocks, shop windows, art

## 3) Deflection:

horizontal and vertical deflection, physical sensation, roundabouts, lateral shifts, raised intersections



# Design Week Reveal

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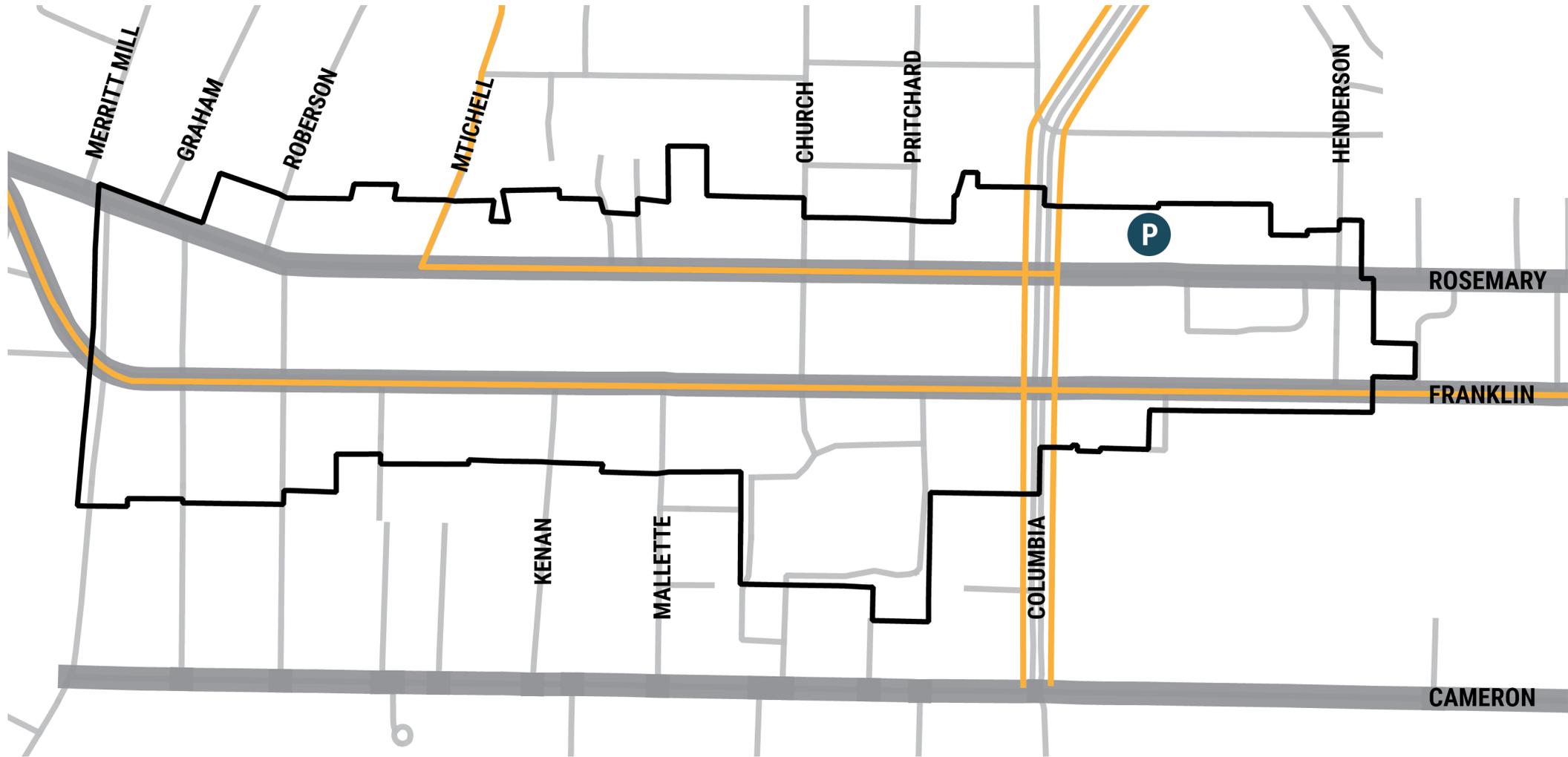




# Transit Connections

LEGEND:

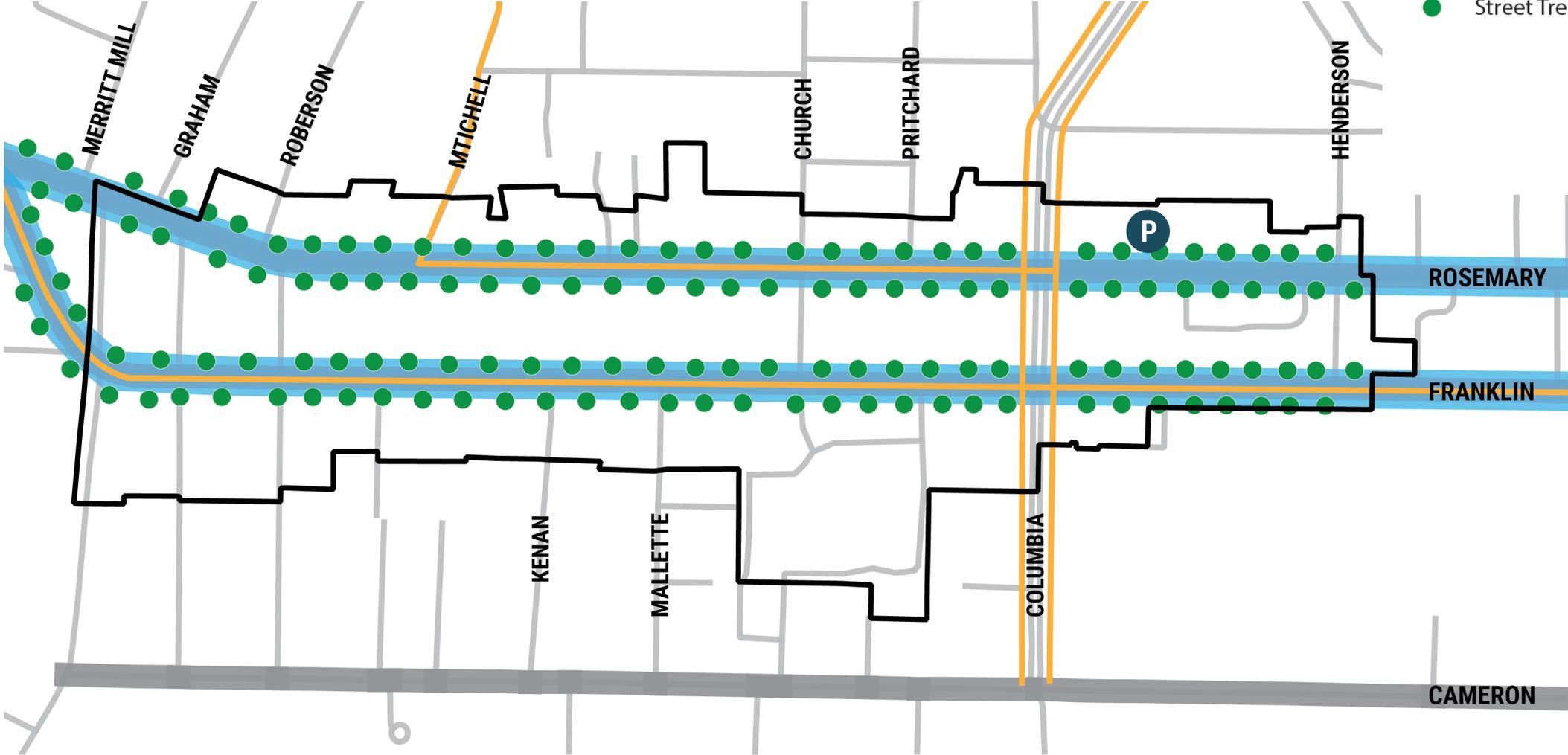
- Street Centerlines (major)
- Street Centerlines (minor)
- Transit Routes



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# Comfortable Pedestrian Space

- LEGEND:
- Street Centerlines (major)
  - Street Centerlines (minor)
  - Transit Routes
  - Street Trees (conceptual)

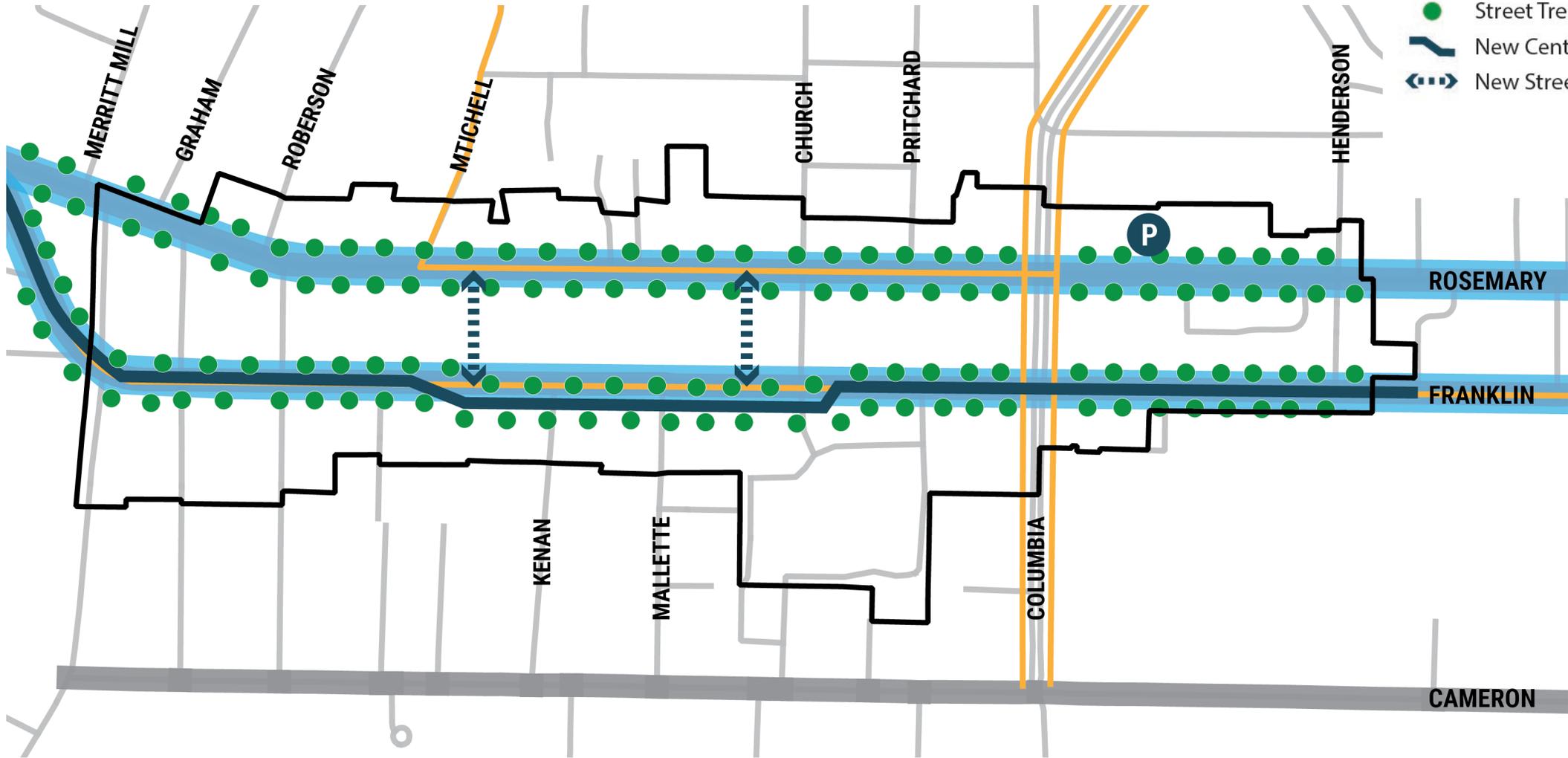


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# New Connections

## LEGEND:

- Street Centerlines (major)
- Street Centerlines (minor)
- Transit Routes
- Street Trees (conceptual)
- New Centerline Shift
- New Street Connections

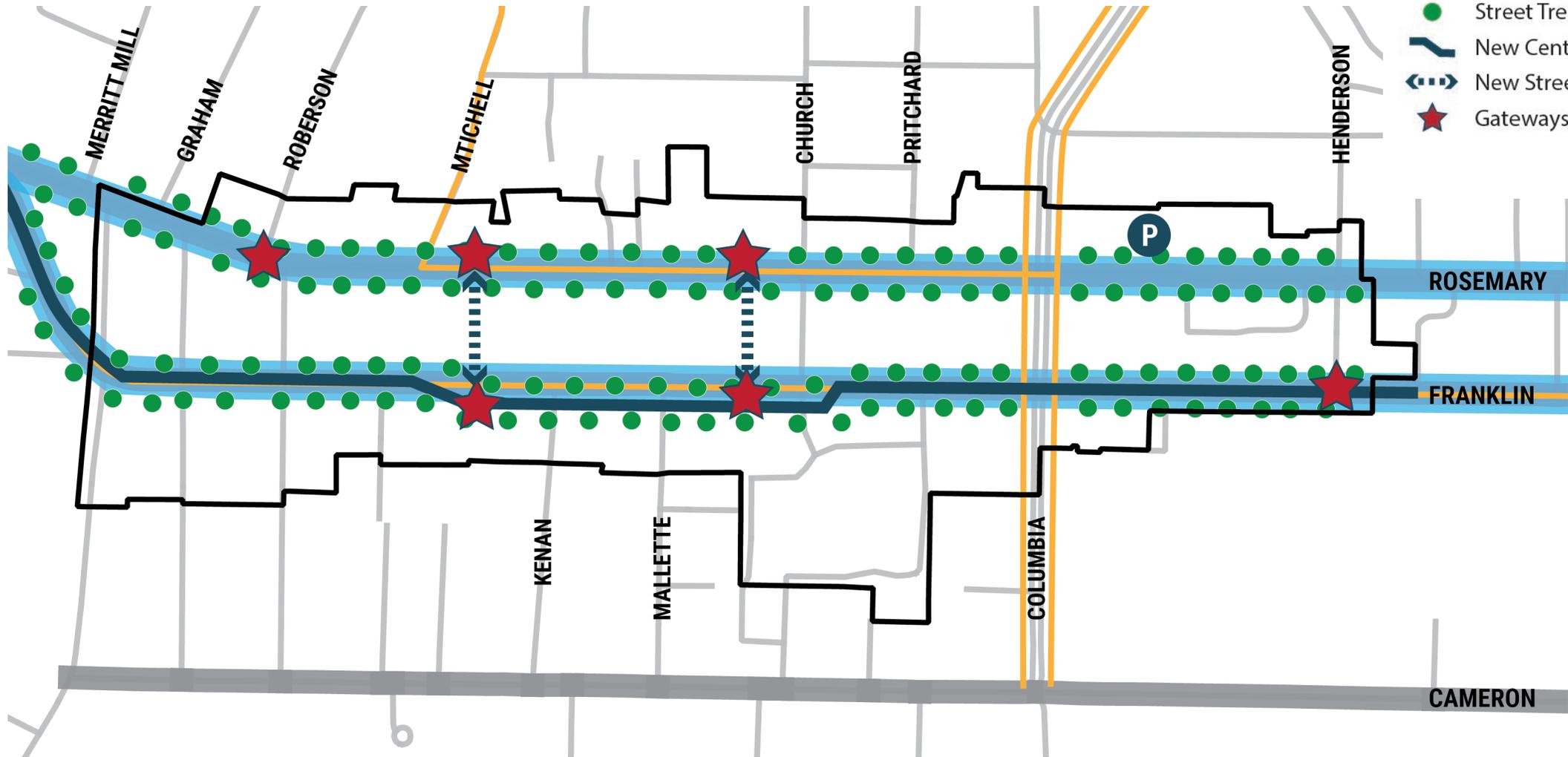


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# Gateways

## LEGEND:

- Street Centerlines (major)
- Street Centerlines (minor)
- Transit Routes
- Street Trees (conceptual)
- New Centerline Shift
- New Street Connections
- Gateways

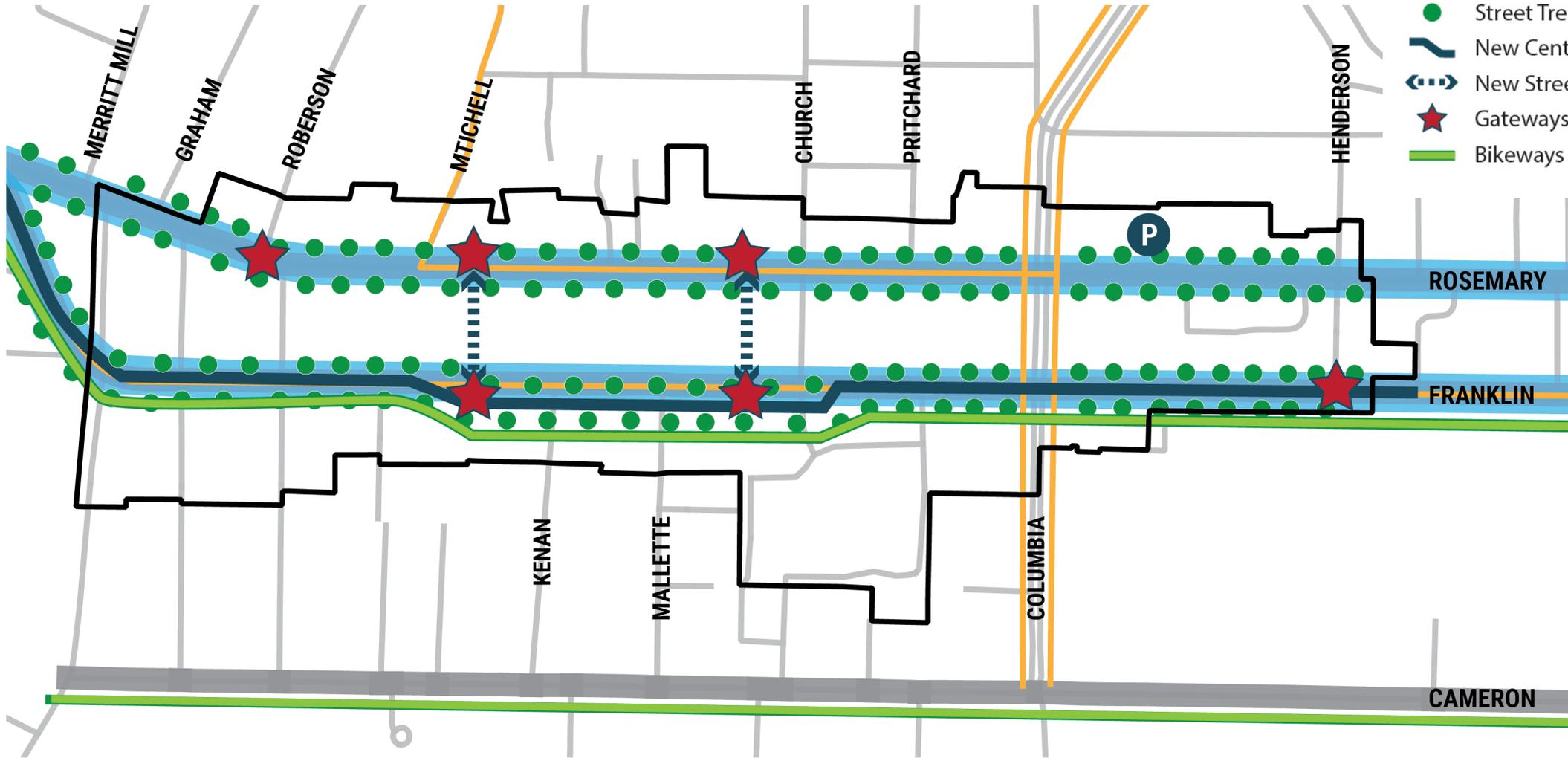


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# High-Quality Bikeways

## LEGEND:

- Street Centerlines (major)
- Street Centerlines (minor)
- Transit Routes
- Street Trees (conceptual)
- New Centerline Shift
- New Street Connections
- Gateways
- Bikeways



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# A Closer Look at Rosemary & Franklin

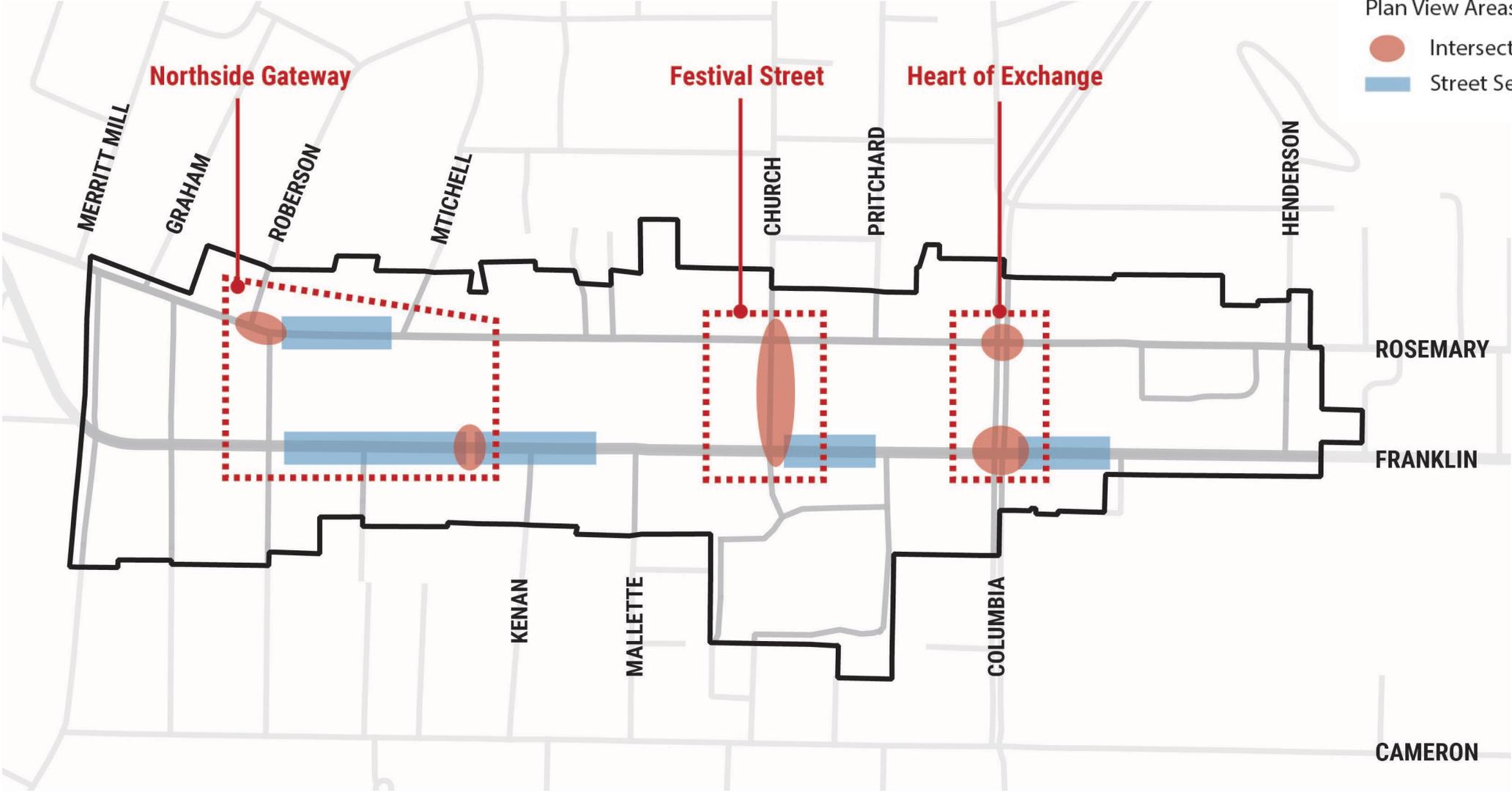
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- ***Rosemary St. is a Front Door to the Downtown District***
  - Wider pedestrian space
  - Comfortable: Lighting and street trees
  - Uses: Residential, Office/Institutional Employment, Civic
- ***Franklin St. is the center of exchange***
  - Wider pedestrian space
  - Comfortable: Lighting and street trees
  - Uses: Restaurant, Civic, Retail, University

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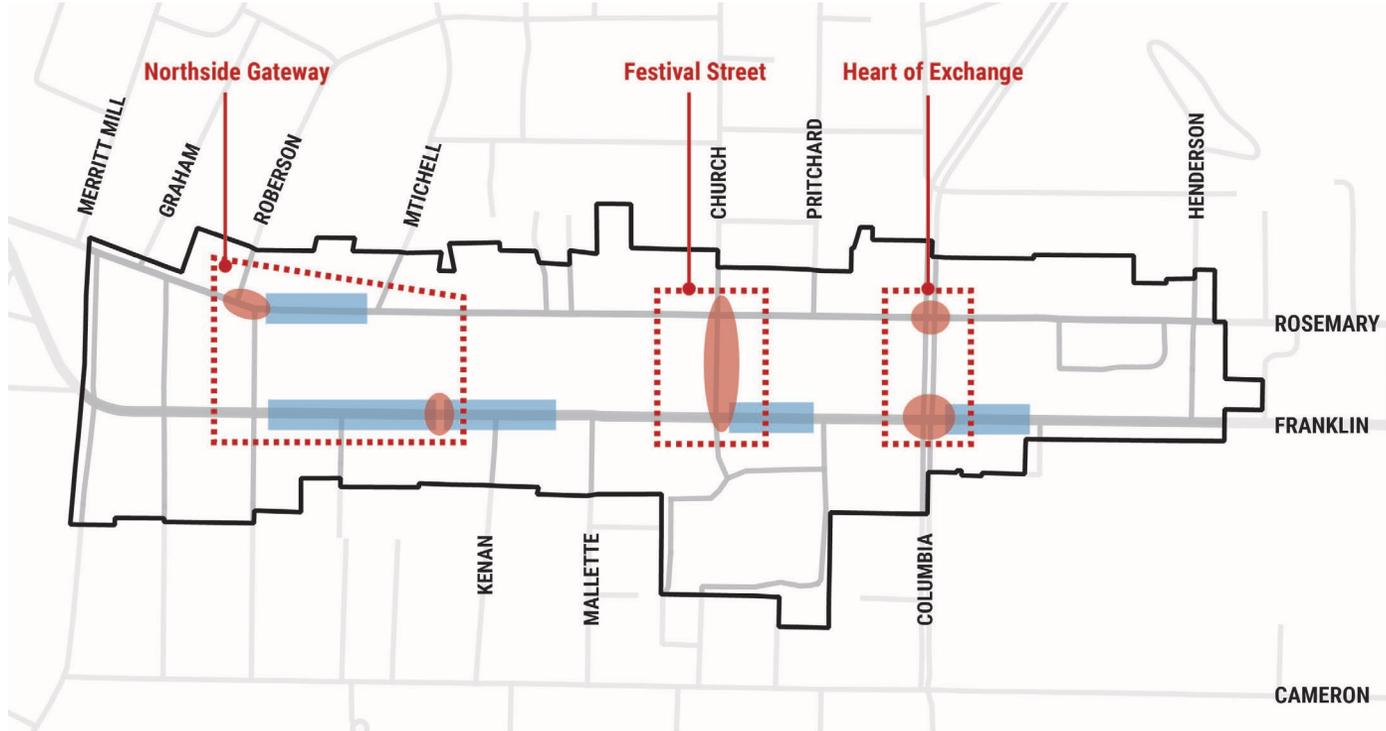
# Key Map

- LEGEND:**
- Street Centerlines
  - Plan View Areas:
    - Intersections/ Special Places
    - ▭ Street Segments



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# Key Changes



## LEGEND:

— Street Centerlines

Plan View Areas:

● Intersections/ Special Places

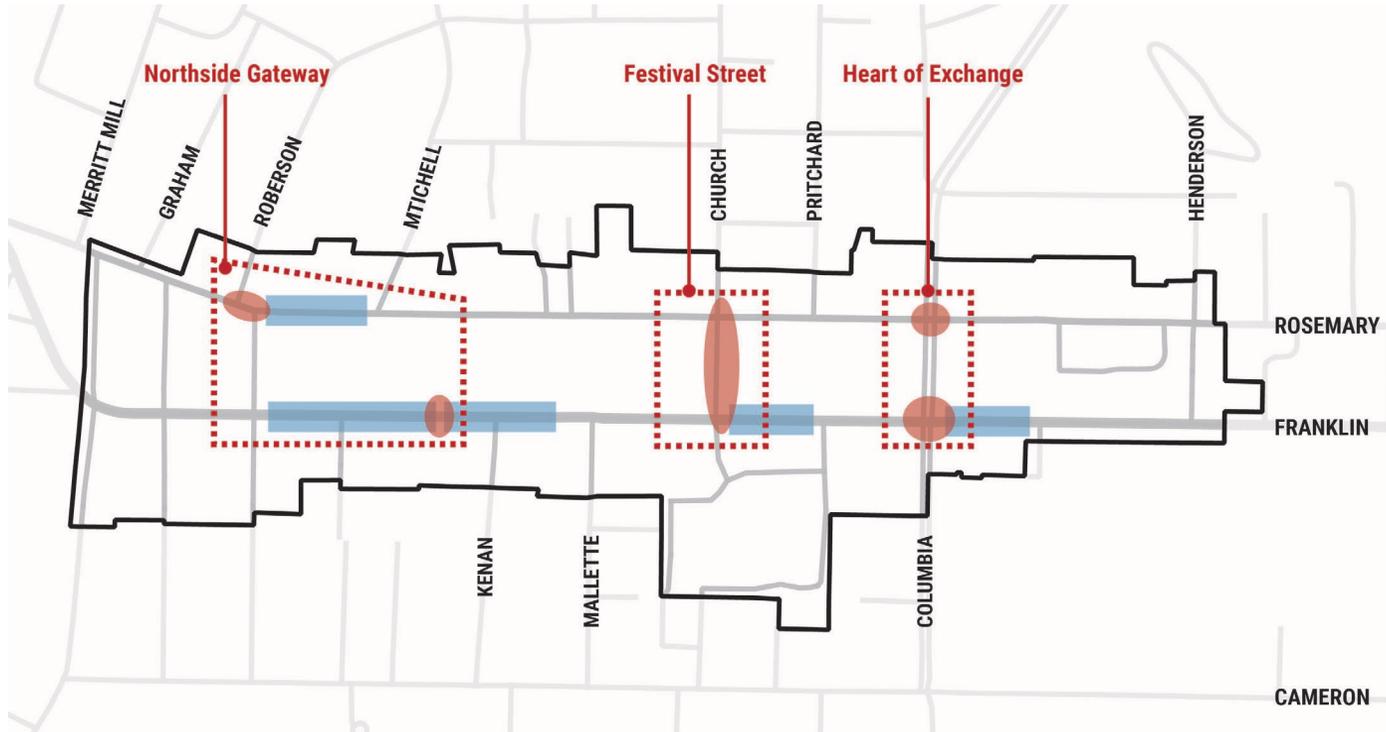
■ Street Segments

## *Rosemary St.*

- No bike lanes
- Continuous street trees
- Designated loading zones

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# Key Changes



## LEGEND:

— Street Centerlines

Plan View Areas:

● Intersections/ Special Places

■ Street Segments

## *Rosemary St.*

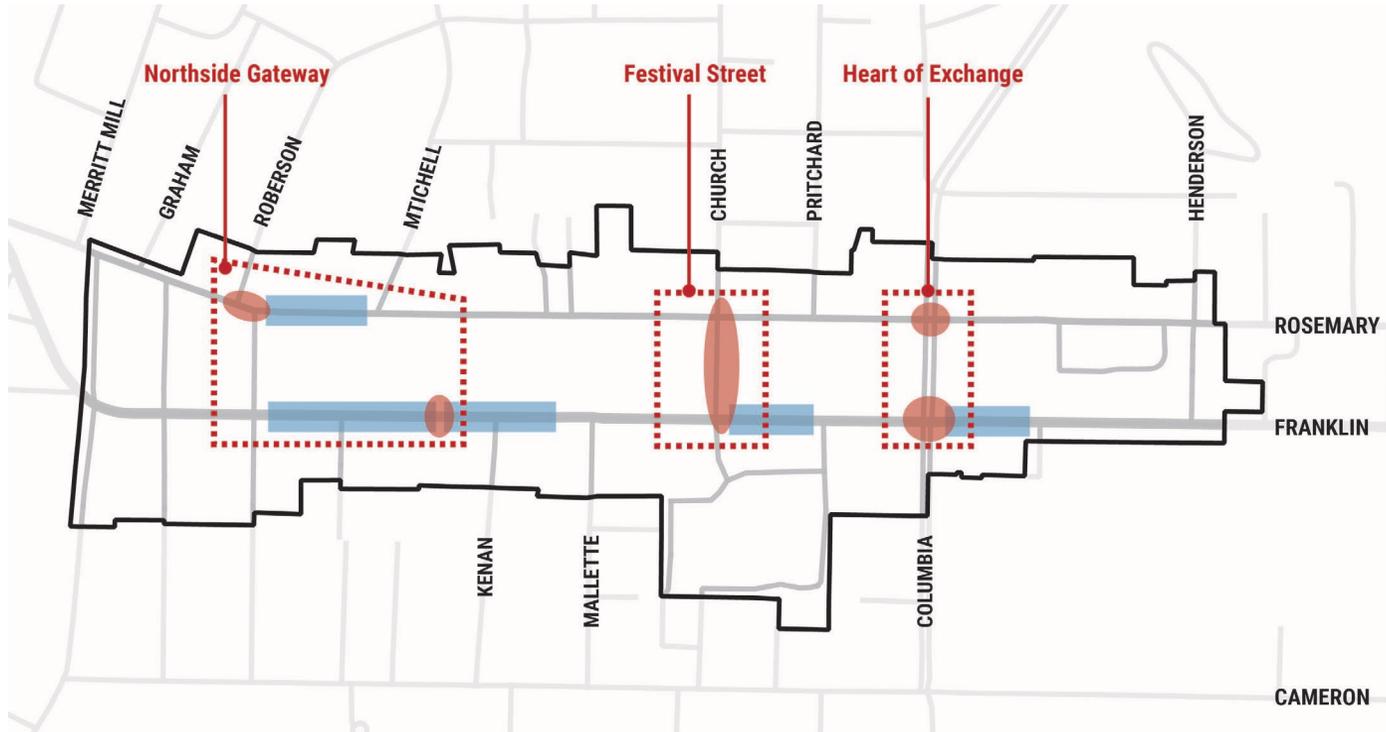
- No bike lanes
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## *Franklin St.*

- Designated bike facility on E. Franklin
- New bikeway type
- Designated loading zones

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# Key Changes



## LEGEND:

— Street Centerlines

Plan View Areas:

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## *Rosemary St.*

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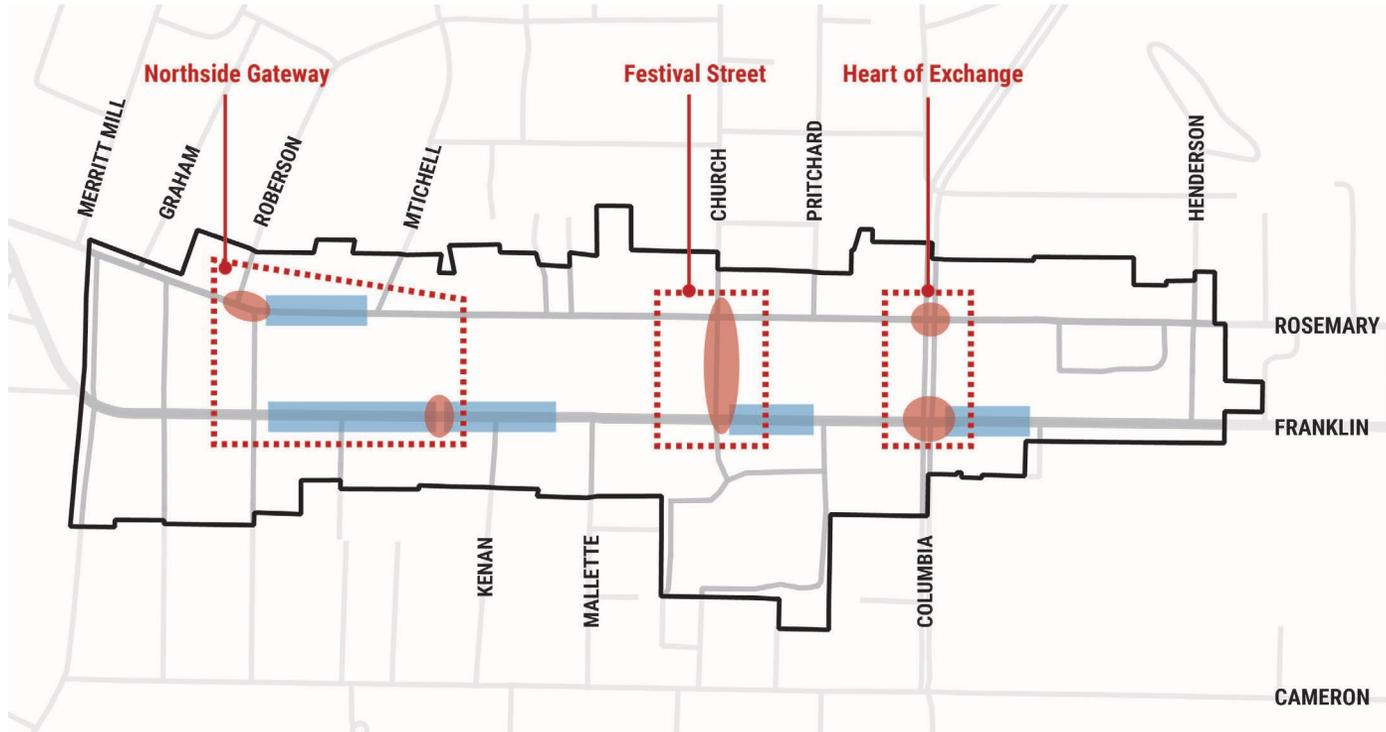
- Designated bike facility on E. Franklin
- New bikeway type
- Designated loading zones

## *Cameron Ave.*

- New bikeway type

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# Key Changes



## LEGEND:

— Street Centerlines

Plan View Areas:

● Intersections/ Special Places

■ Street Segments

## ***Rosemary St.***

- No bike lanes
- Continuous street trees
- Designated loading zones

## ***Franklin St.***

- Designated bike facility on E. Franklin
- New bikeway type
- Designated loading zones

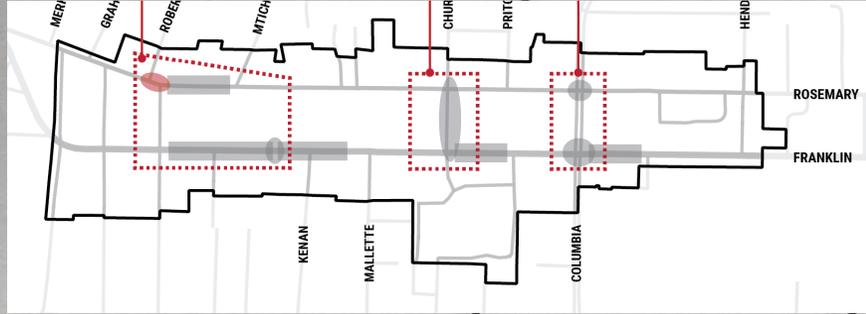
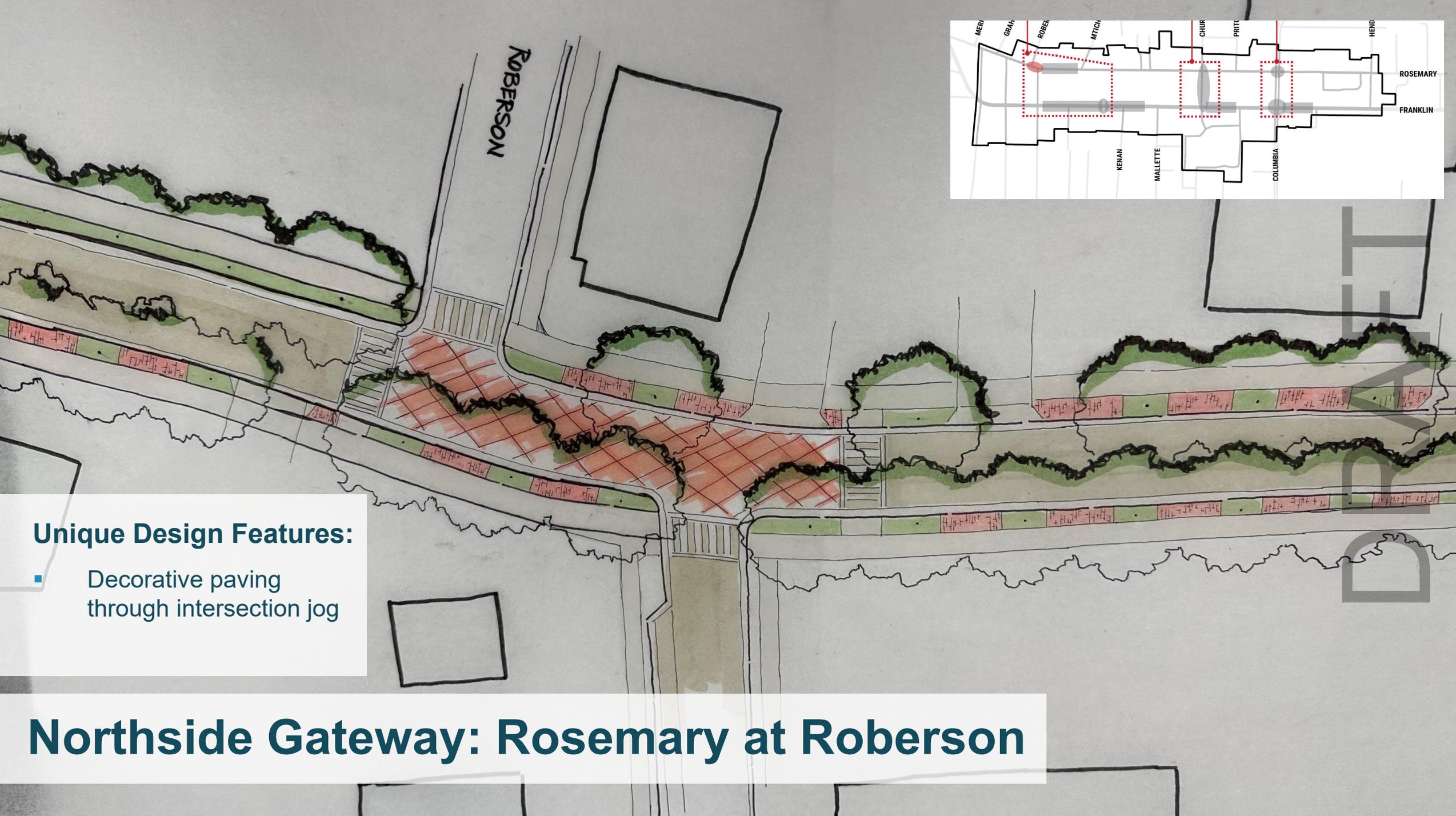
## ***Cameron Ave.***

- New bikeway type

## ***Network-wide***

- Distributing turns across the network to relieve pressure on Columbia St.
- Making Rosemary

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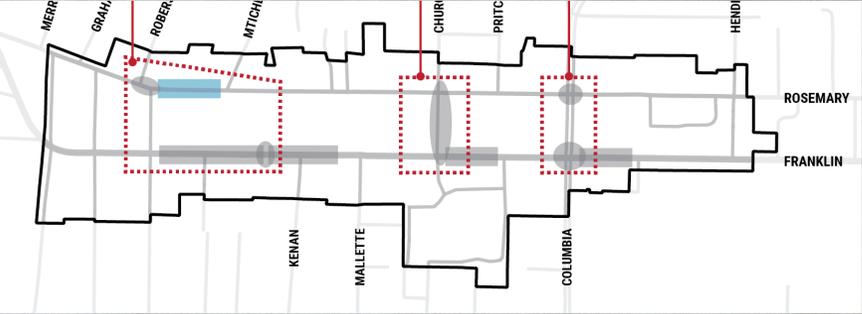
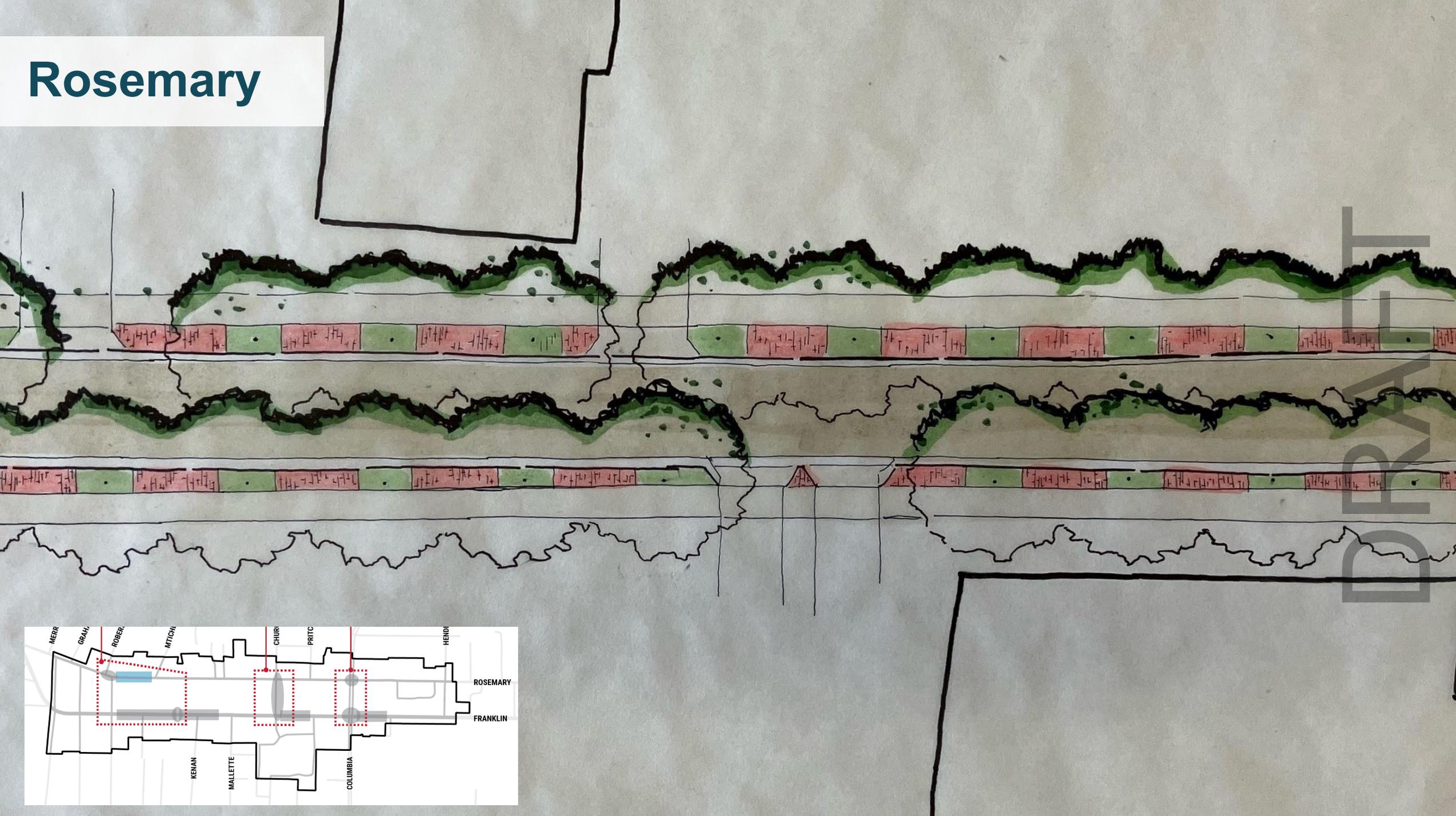


**Unique Design Features:**

- Decorative paving through intersection jog

**Northside Gateway: Rosemary at Roberson**

# Rosemary



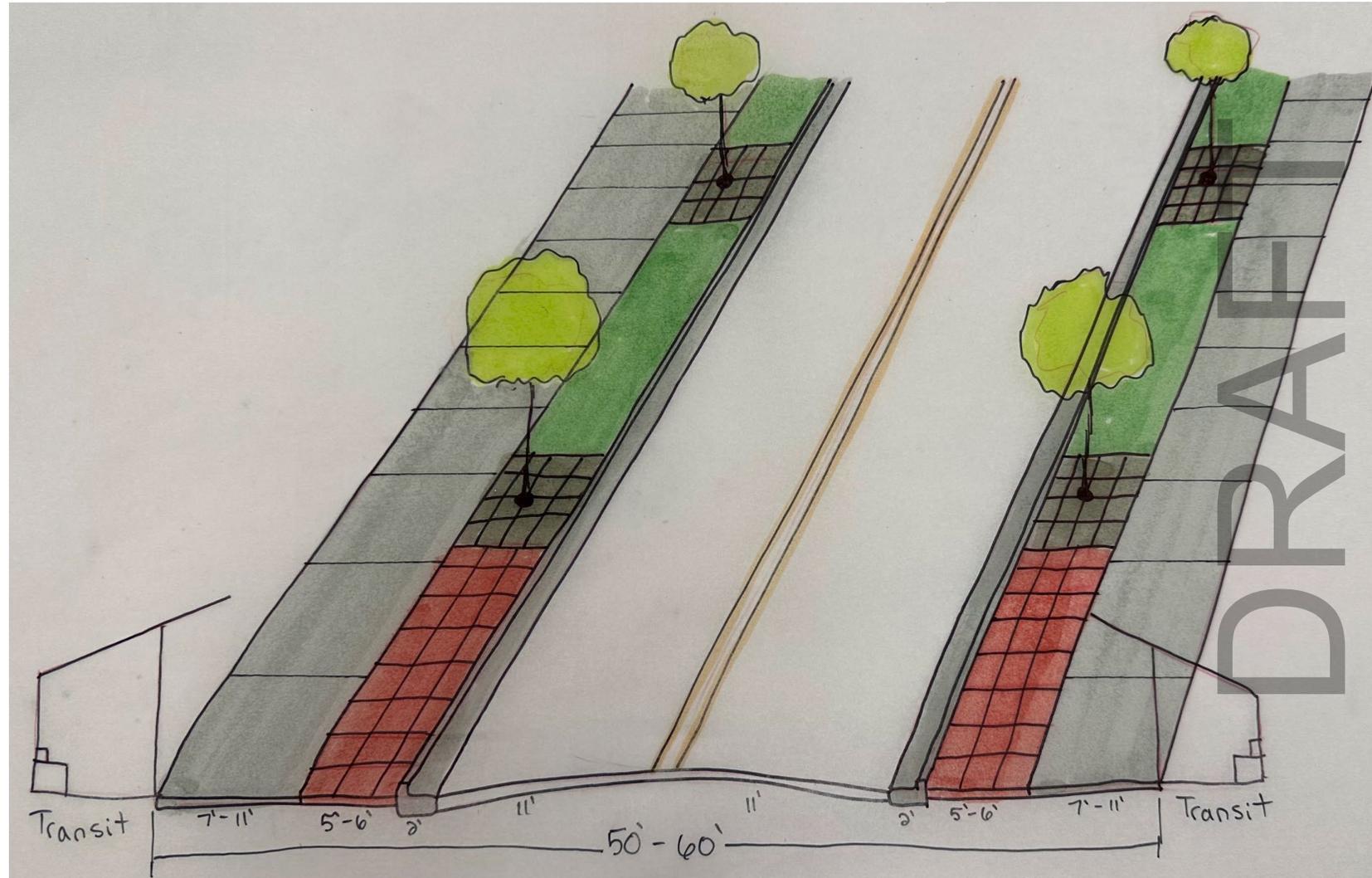
# Rosemary

## Achieving Goals Through Design:

- **Pedestrian comfort:** wider sidewalks, shade, shorter crossings
- **Design the system:** new loading zones, supportive of transit
- **A Streets:** quality pedestrian experience with robust transit
- **Reduce conflicts:** shorter pedestrian crossings
- **Slower traffic:** narrower lanes
- **Path as Place:** connections to distinct streets and intersections

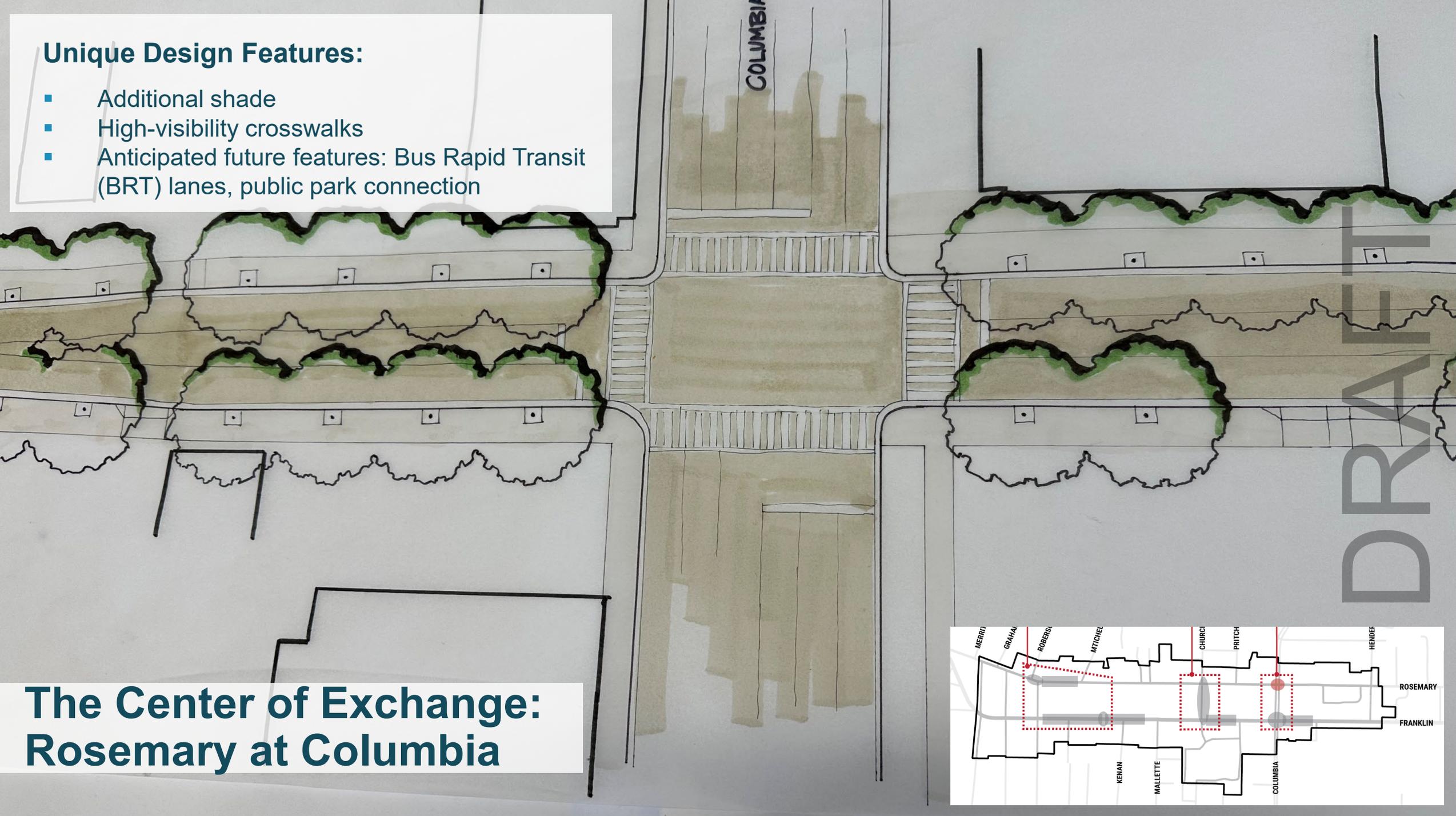
## Considerations:

- Street tree health & soils
- Right-of-way negotiations
- Partnerships for transit stops
- Connections to Franklin



## Unique Design Features:

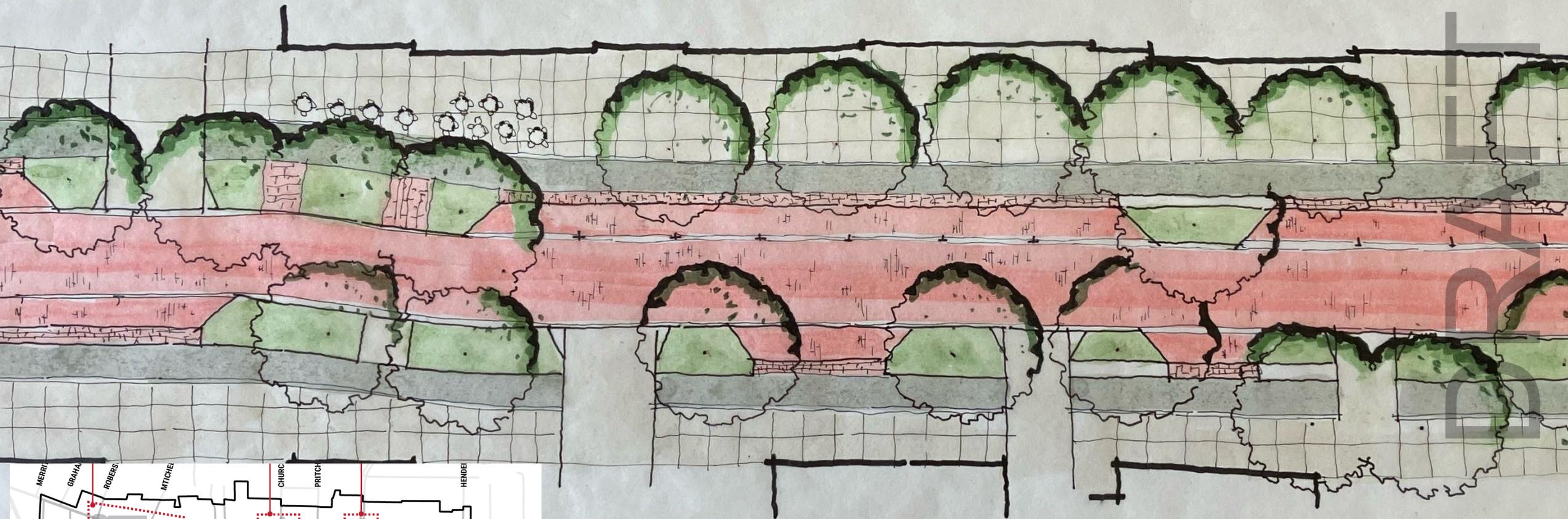
- Additional shade
- High-visibility crosswalks
- Anticipated future features: Bus Rapid Transit (BRT) lanes, public park connection



## The Center of Exchange: Rosemary at Columbia



# W. Franklin: Directional SBLs and Parallel Parking



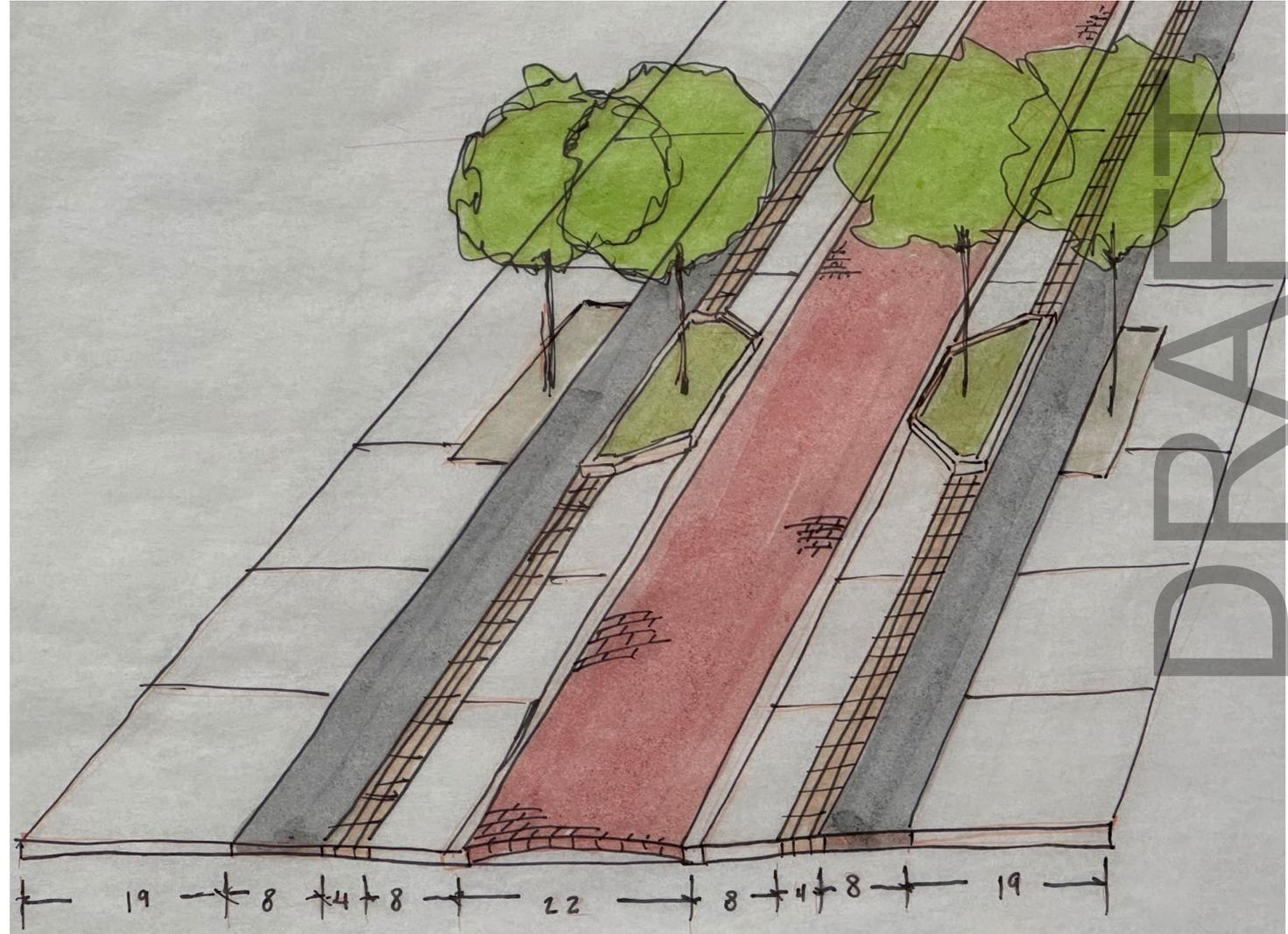
# W. Franklin: Directional SBLs and Parallel Parking

## Achieving Goals Through Design:

- **Pedestrian comfort:** trees in parking islands
- **Design the system:** provides greatest bicycle access to destinations
- **A Streets:** refines current configuration
- **Reduce conflicts:** shorter crossings, parking-protected bike lanes, door zones
- **Slower traffic:** narrower lanes, narrower roadway, tighter corner radii
- **Path as Place:** brick street

## Considerations:

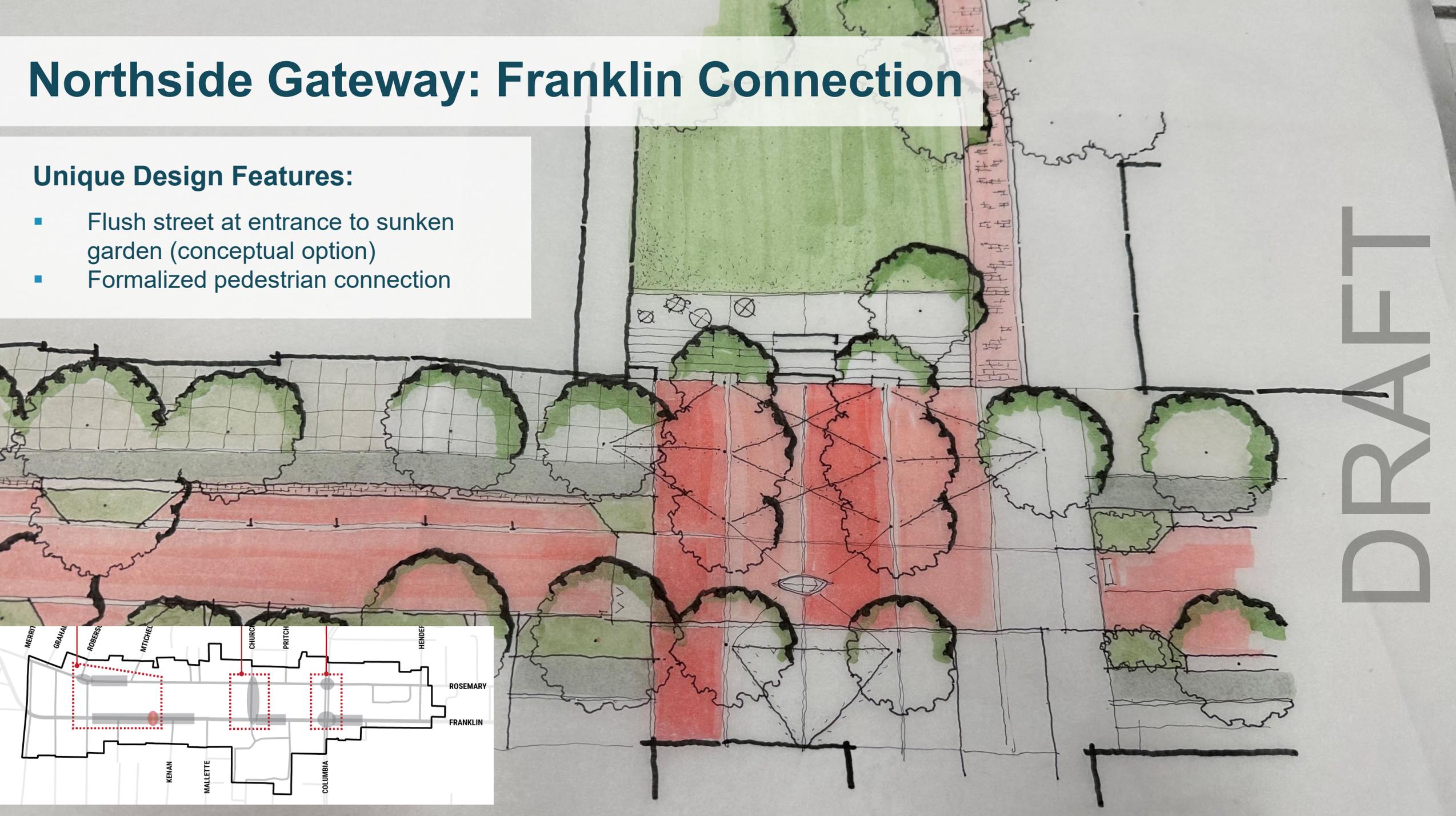
- Space needed for bike lane buffer on each side
- Transition to E. Franklin two-way SBL
- Retaking ownership from NCDOT?



# Northside Gateway: Franklin Connection

## Unique Design Features:

- Flush street at entrance to sunken garden (conceptual option)
- Formalized pedestrian connection



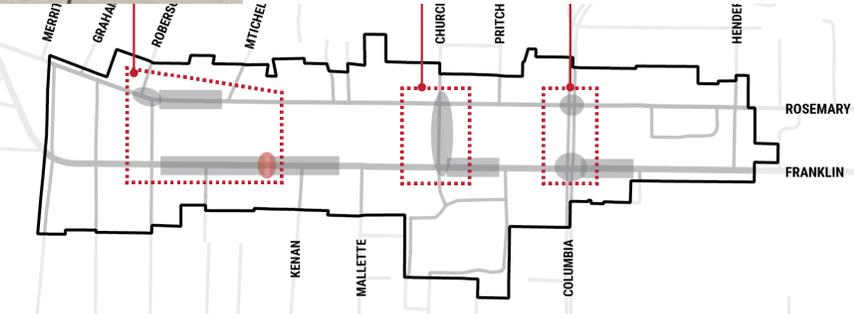
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# Northside Gateway: Franklin Connection



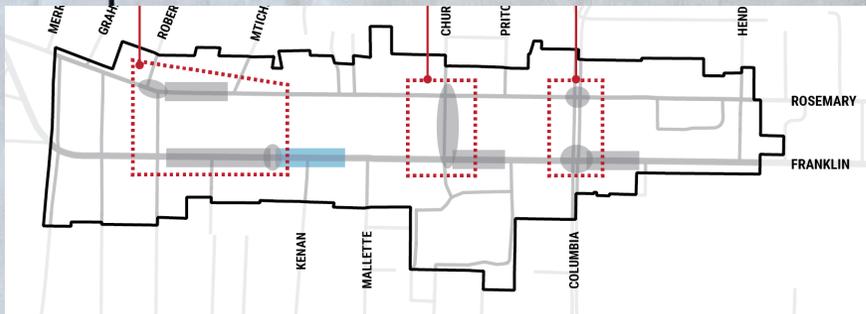
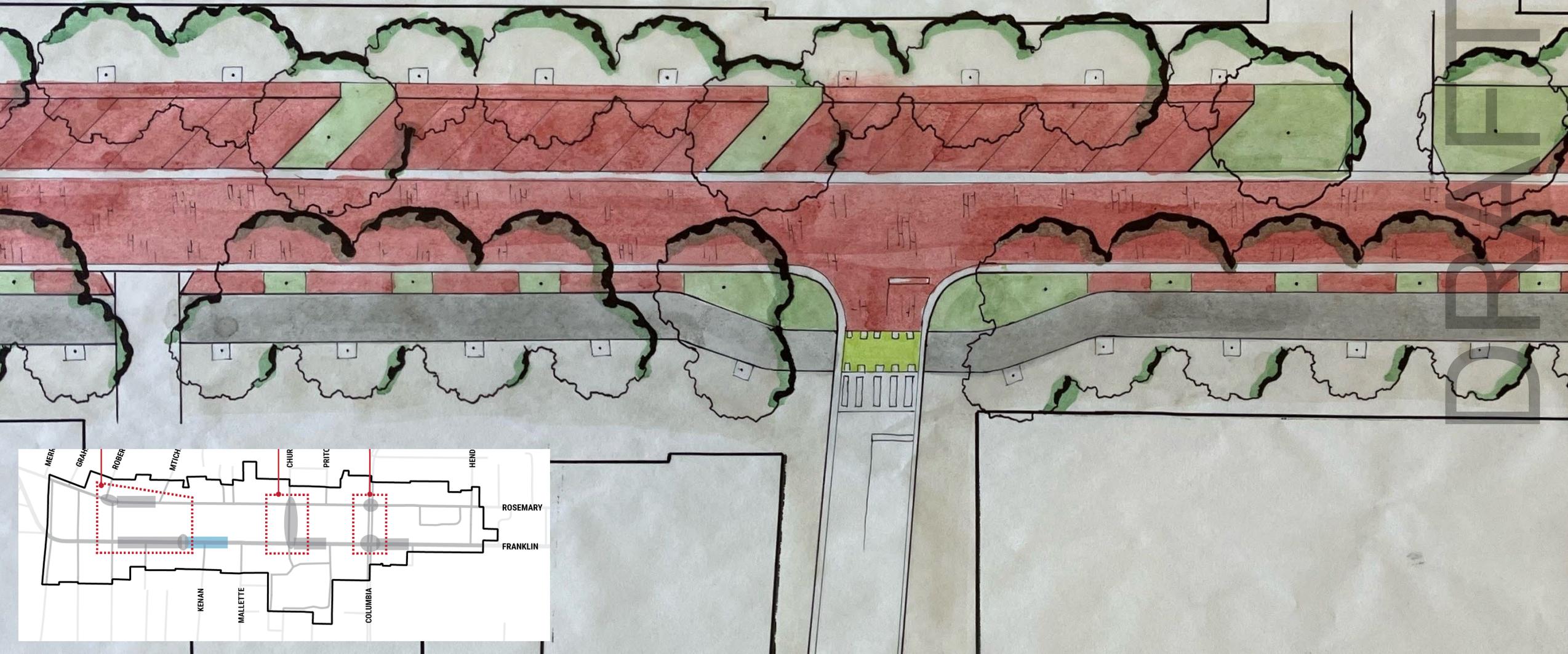
## Unique Design Features:

- Lateral shift in roadway with monumental pedestrian refuge at entrance to sunken garden (conceptual option)



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# W. Franklin: Two-Way SBL and Reverse Angle Parking



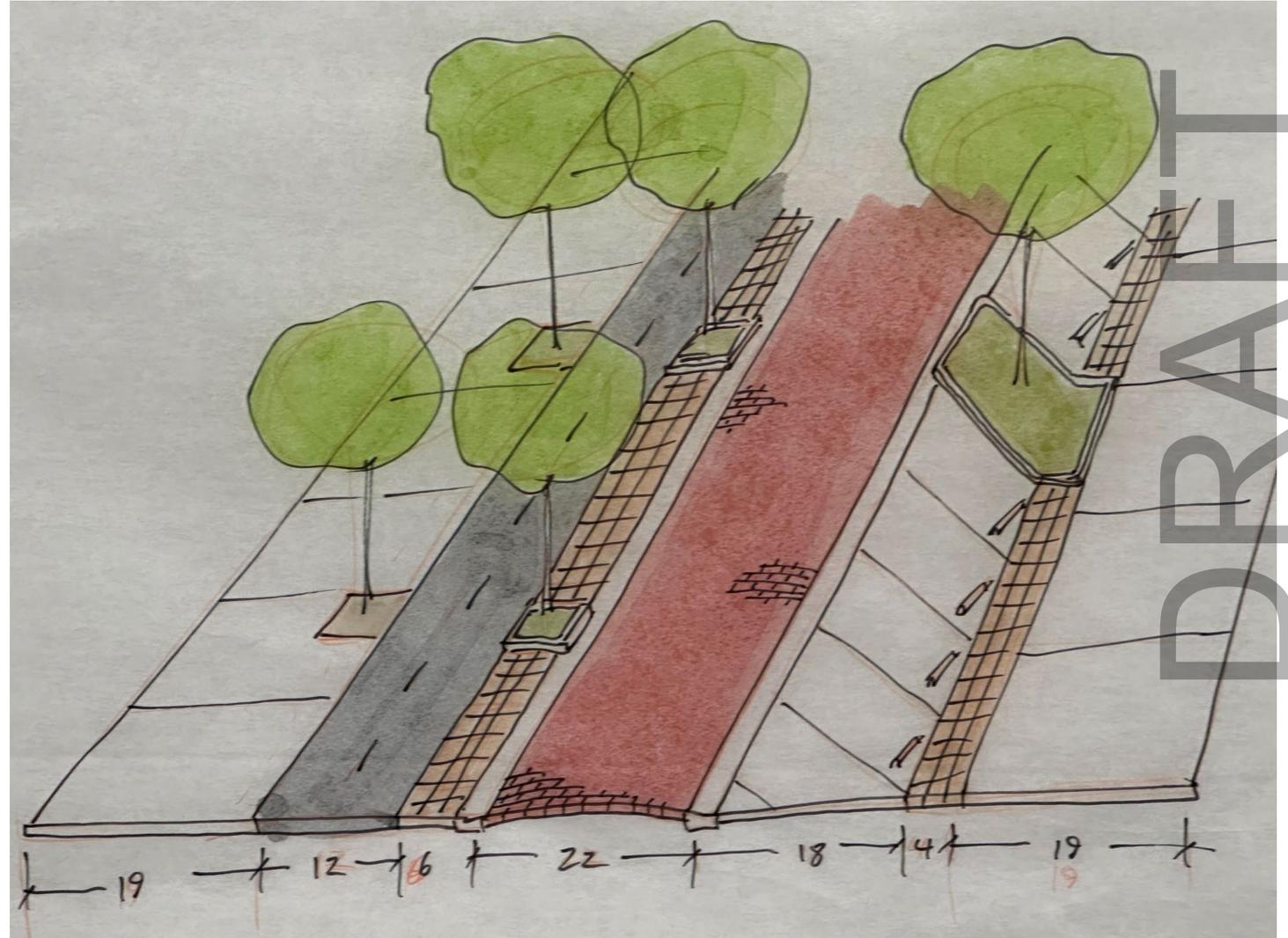
# W. Franklin: Two-Way SBL and Reverse Angle Parking

## Achieving Goals Through Design:

- **Pedestrian comfort:** trees in parking islands,
- **Design the system:** consistent bicycle facility
- **A Streets:** one-of-a-kind street
- **Reduce conflicts:** shorter crossings, no chance of dooring, clear sight lines while entering & exiting parking stall
- **Slower traffic:** narrower lanes, narrower roadway, tighter corner radii
- **Path as Place:** brick street

## Considerations:

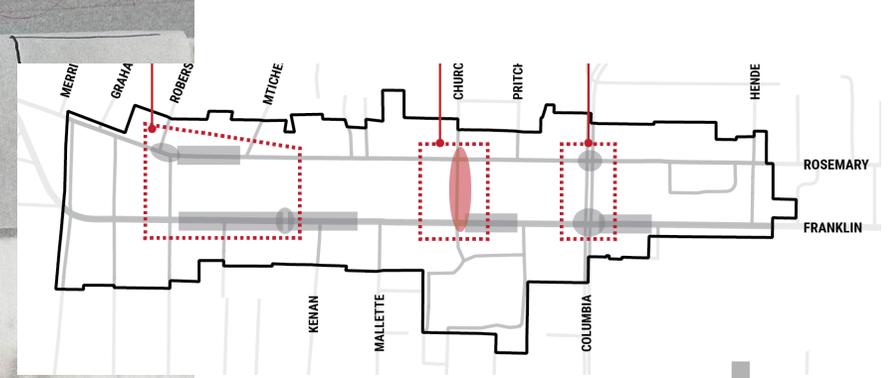
- Loading zones in parking lane
- Bike movements at intersections
- Transition to E. Main (Carrboro) directional bike lanes
- Retaking ownership from NCDOT?



# Church Street: Festival Connector

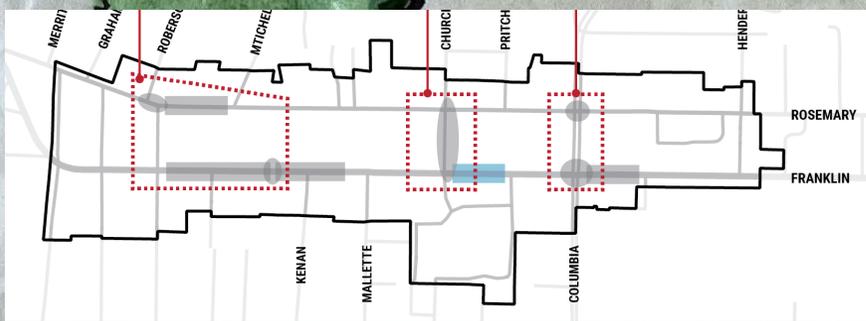
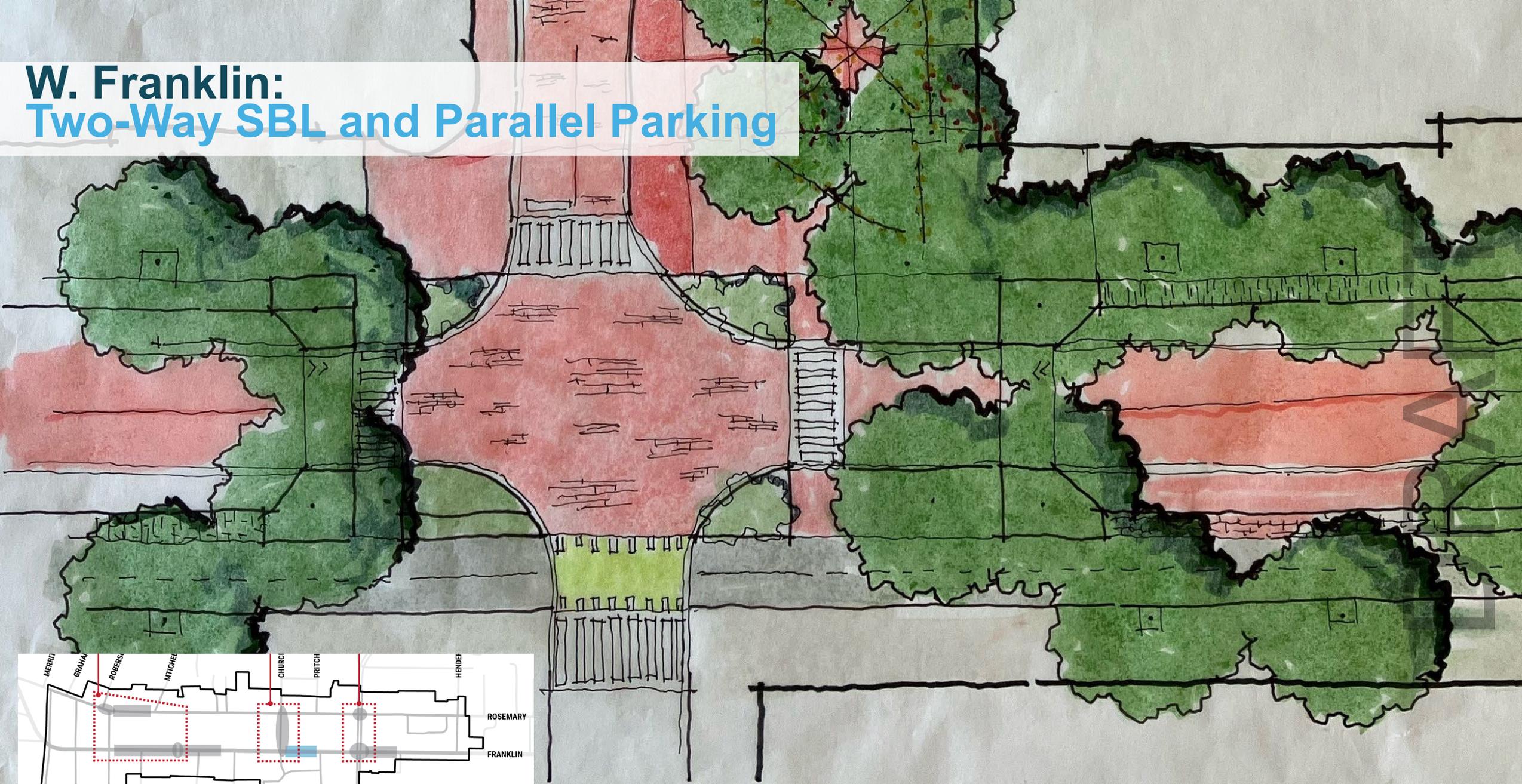
## Unique Design Features:

- Flush street with seamless transition into 140 W. Franklin plaza
- Catenary lighting
- Ample trees for shade and sense of enclosure
- Lateral shift on Franklin just east of Church for traffic calming



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# W. Franklin: Two-Way SBL and Parallel Parking



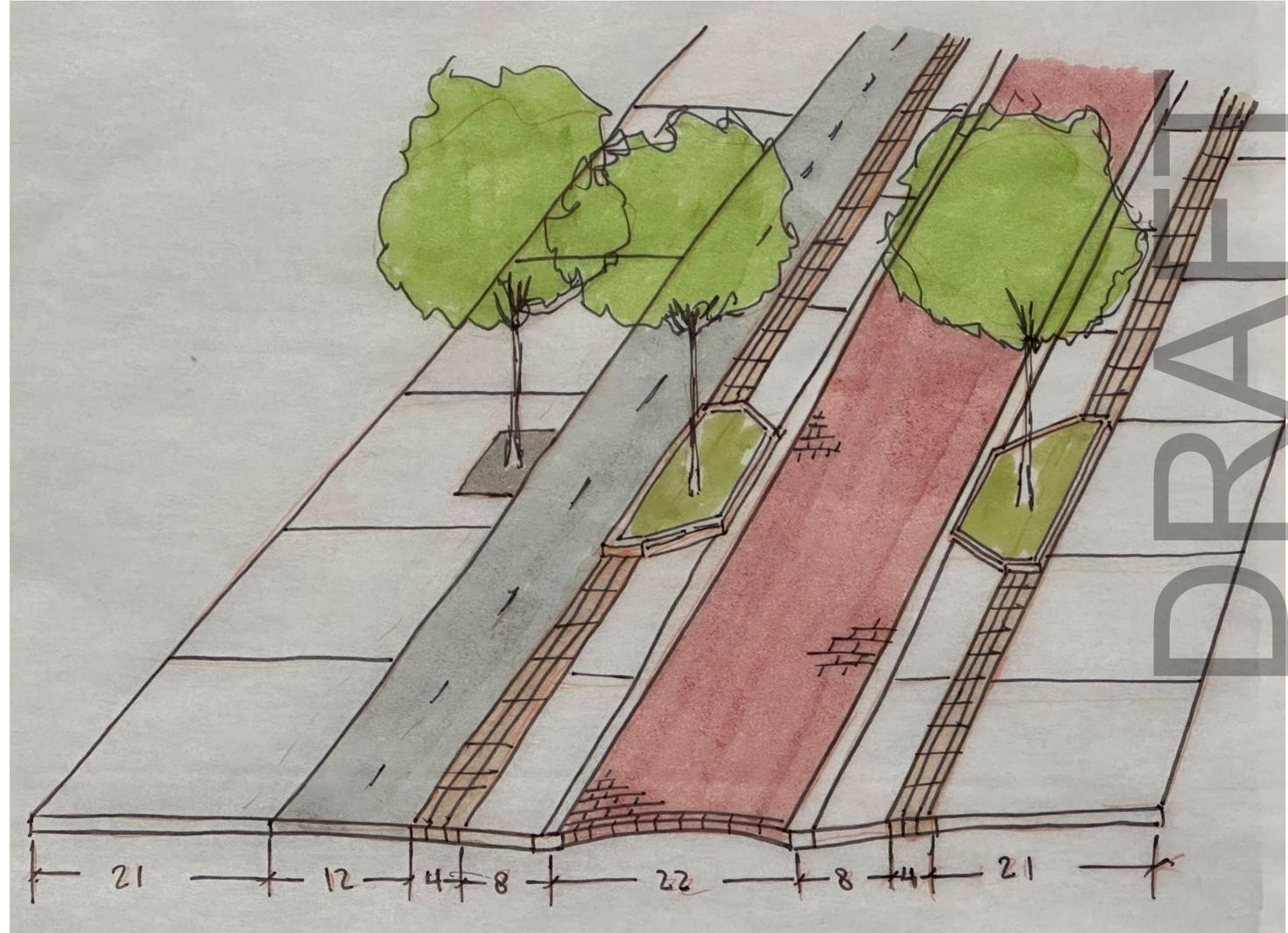
# W. Franklin: Two-Way SBL and Parallel Parking

## Achieving Goals Through Design:

- **Pedestrian comfort:** trees in parking islands, wider sidewalks
- **Design the system:** consistent bicycle facility
- **A Streets:** more space for outdoor dining and gathering
- **Reduce conflicts:** shorter crossings, parking-protected bike lanes, door zone
- **Slower traffic:** narrower lanes, narrower roadway, tighter corner radii
- **Path as Place:** brick street

## Considerations:

- Bike movements at intersections
- Transition to E. Main (Carrboro) directional bike lanes
- Retaking ownership from NCDOT?



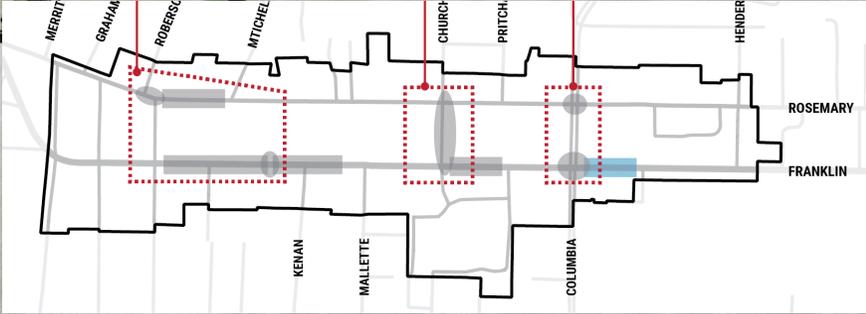
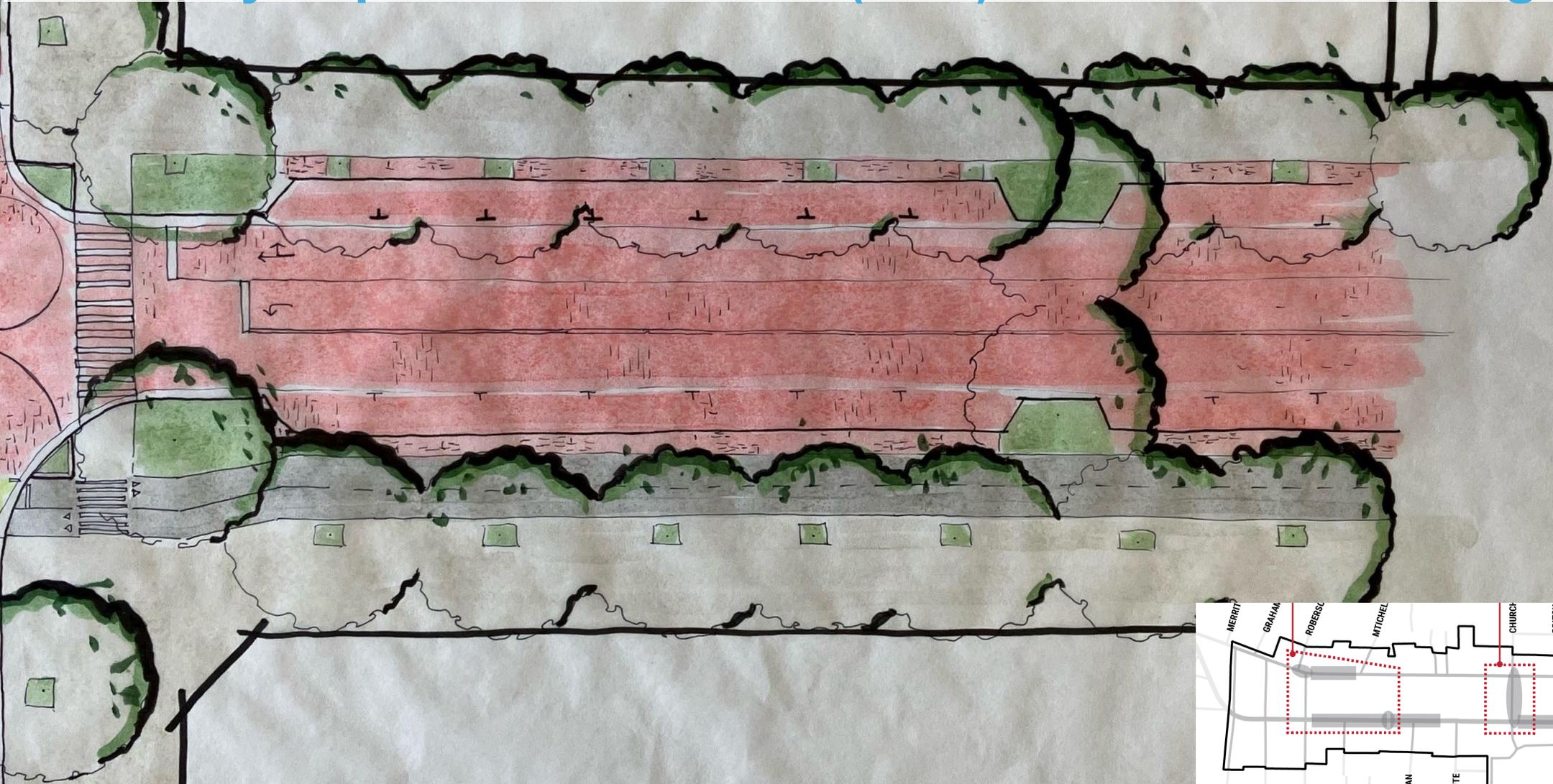
## Unique Design Features:

- Flush intersection with seamless transition into flush street on E. Franklin
- Curb extensions
- On Franklin, removes right-only lanes & one eastbound lane
- Anticipated future features: BRT lanes

## The Center of Exchange: Franklin at Columbia



# E. Franklin: Two-Way Separated Bike Lane (SBL) and Parallel Parking



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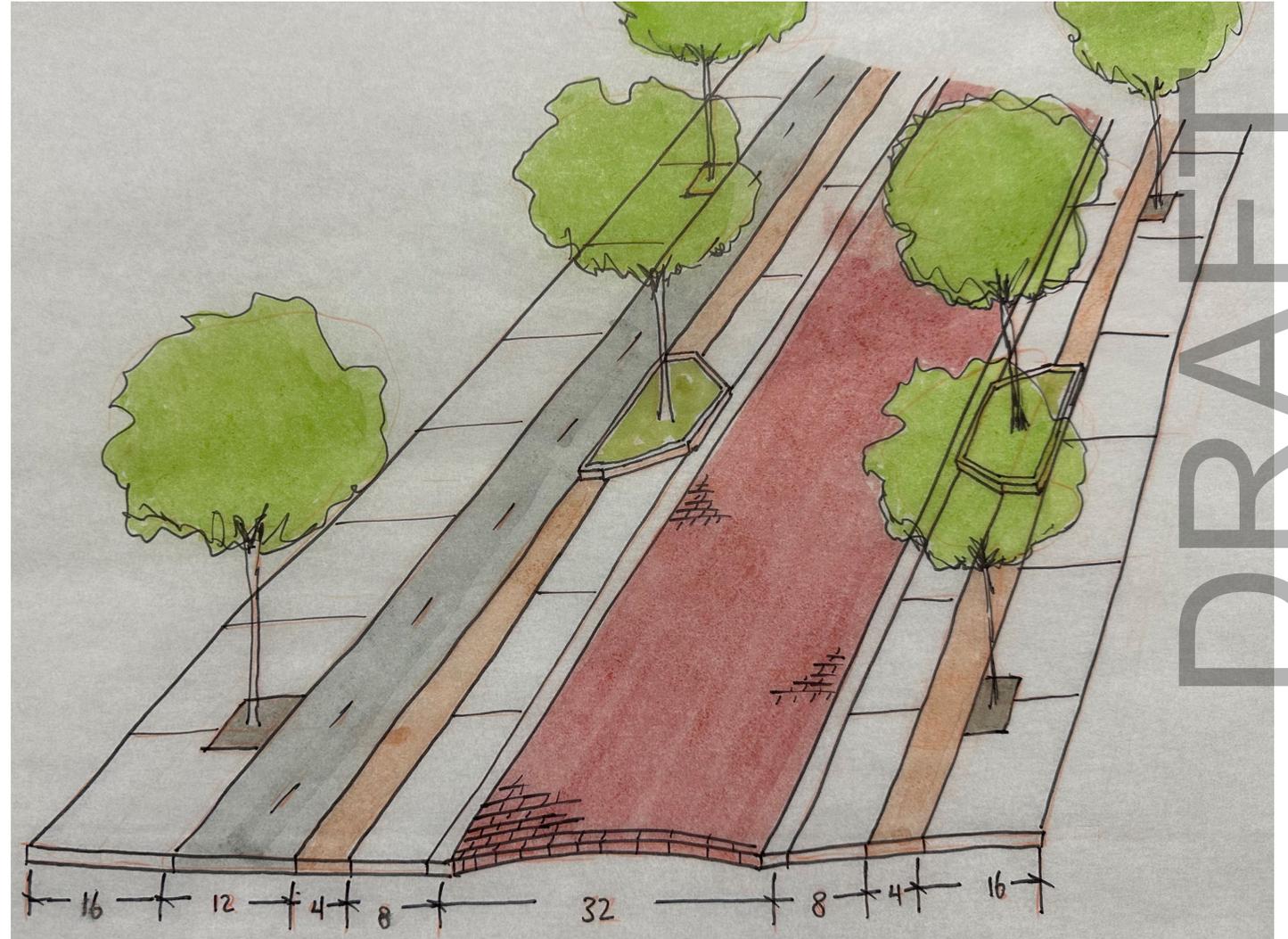
# E. Franklin: Two-Way Separated Bike Lane (SBL) and Parallel Parking

## Achieving Goals Through Design:

- **Pedestrian comfort:** trees in parking islands, more separation from traffic
- **Design the system:** diverts thru-traffic, encourages use of Rosemary **A Streets**: New space for landscape and furnishings
- **Reduce conflicts:** shorter crossings, new bike facility, parking-protected bike lanes, door zones
- **Slower traffic:** narrower roadway, tighter corner radii
- **Path as Place:** brick street

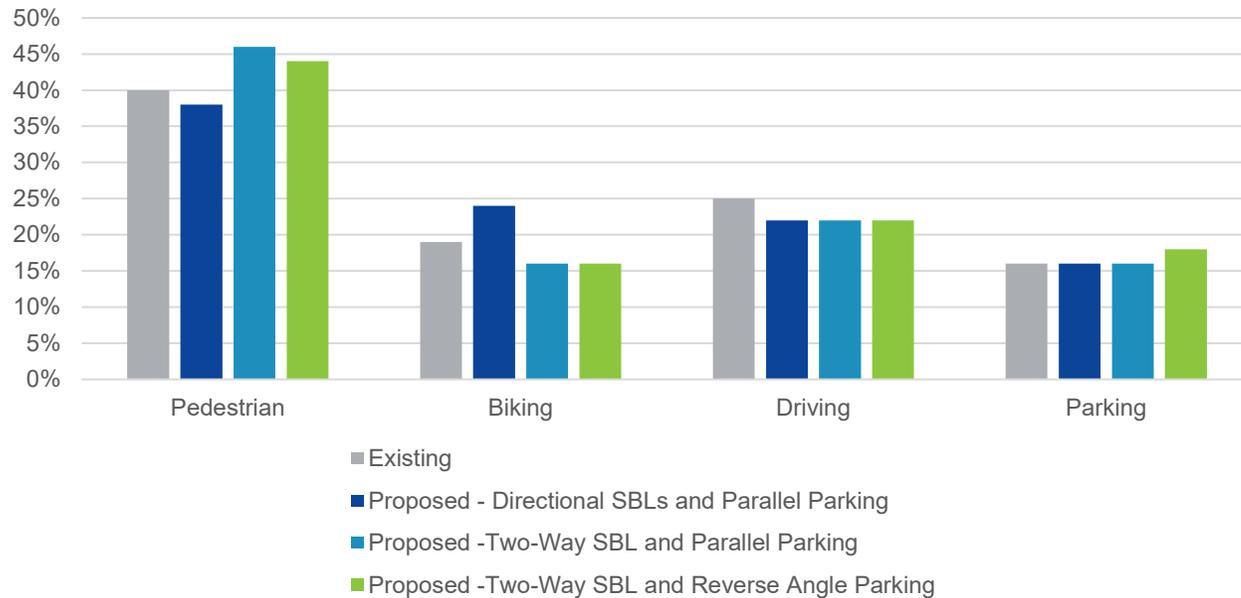
## Considerations:

- Testing proposed lane removal
- Bike transition into McCorkle Place
- Emphasizing existing alleys
- Retaking ownership from NCDOT?

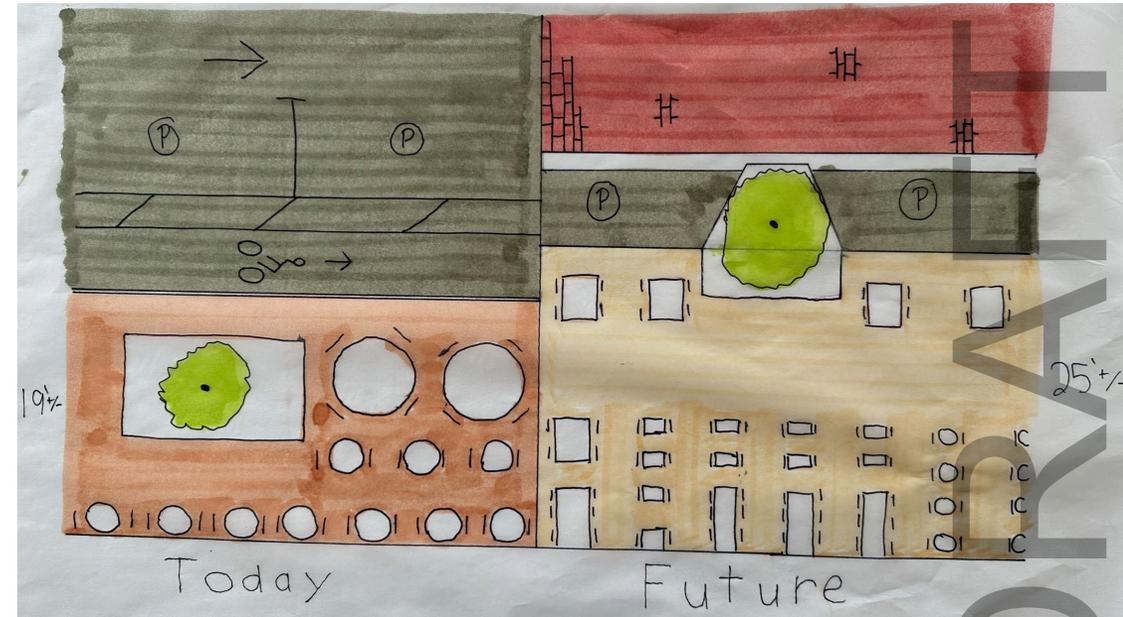


# Street Space by User

W. FRANKLIN ST.  
Approximate Space by User



\* Design details (e.g., bike lane buffers, landscape placement, etc.) influence these percentages



# Next Steps

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04  
DRAFT



# Mobility Study Document

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- Refinement
- Comments will be considered during document creation
- Deliver Mobility Vision
- Set the foundation for streetscape effort

