



MOVE DURHAM
CENTRAL DURHAM
TRANSPORTATION STUDY

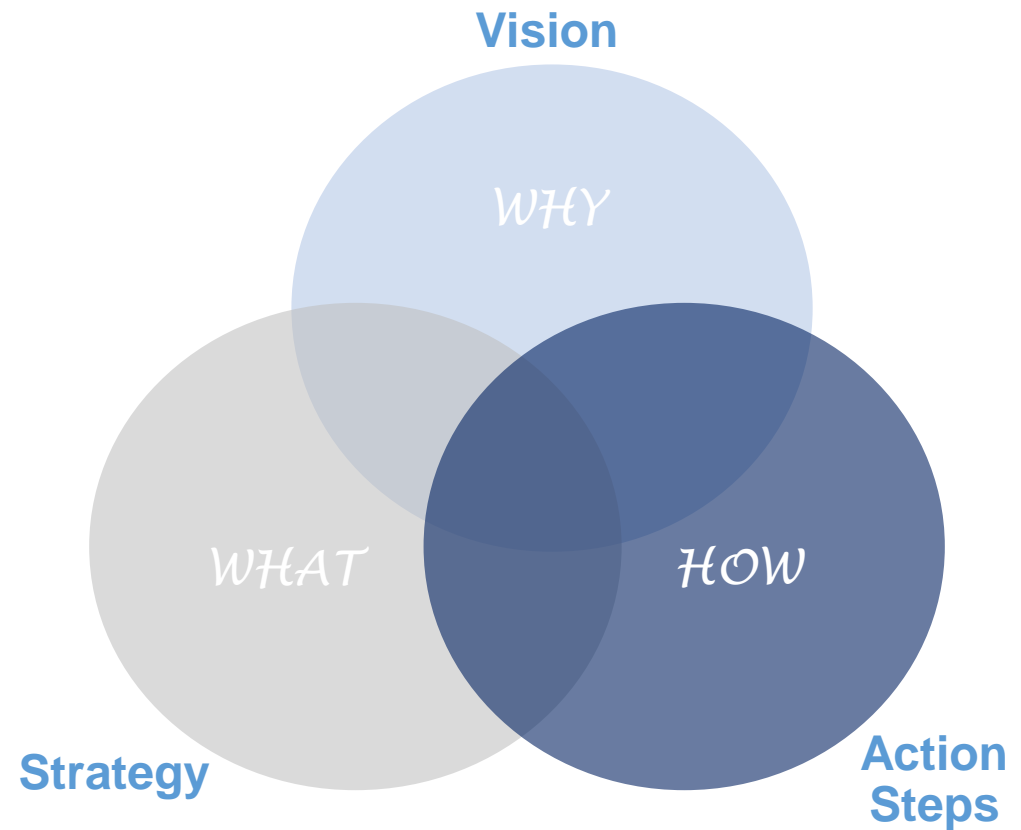
Project Overview





Project Scope

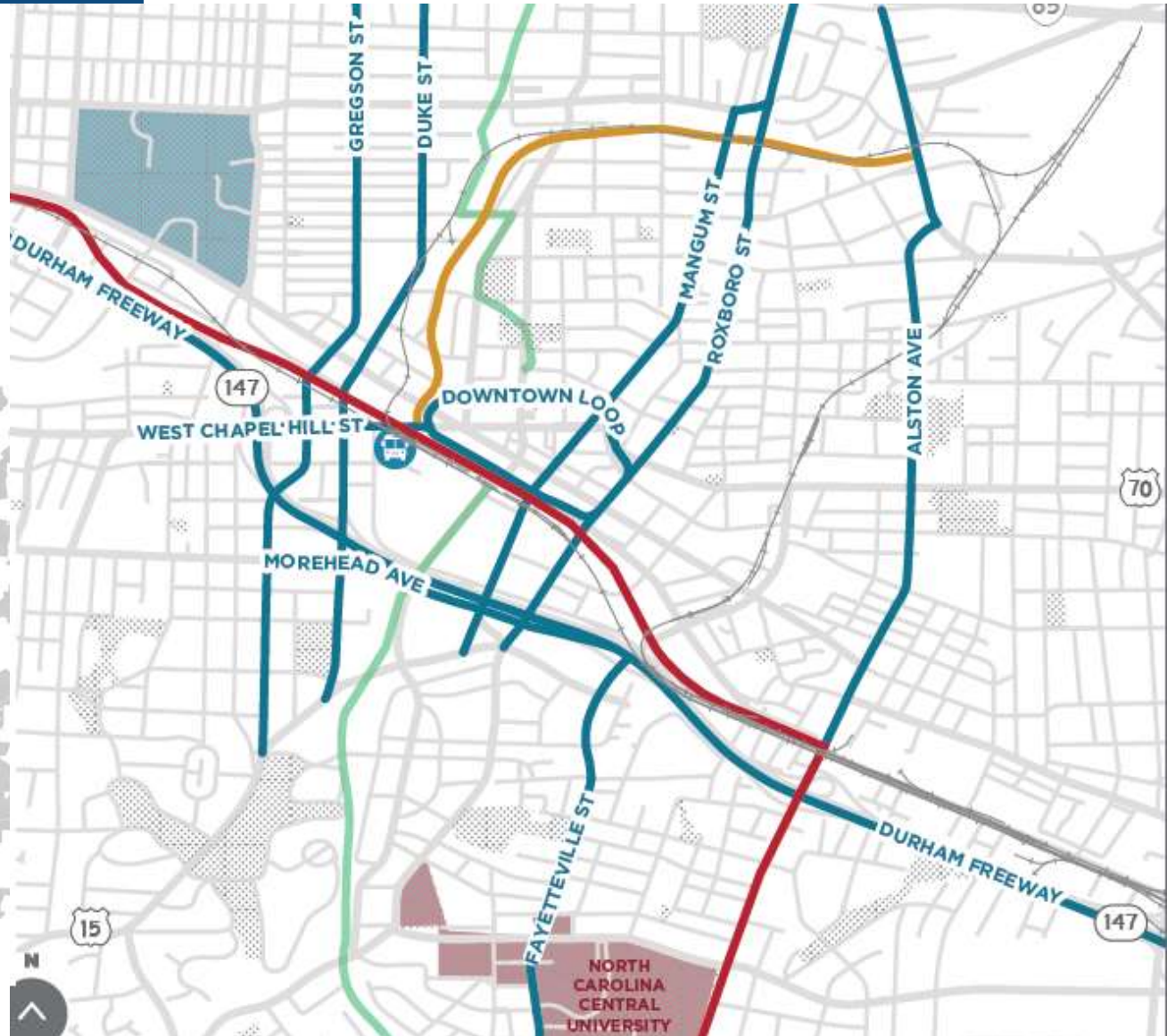
- **Establish** mobility goals, strategic vision and priorities
- **Collect** data and conduct assessment
- **Engage** the community (throughout the process)
- **Participate** in concept development exercises
- **Develop** a draft and final downtown transportation study





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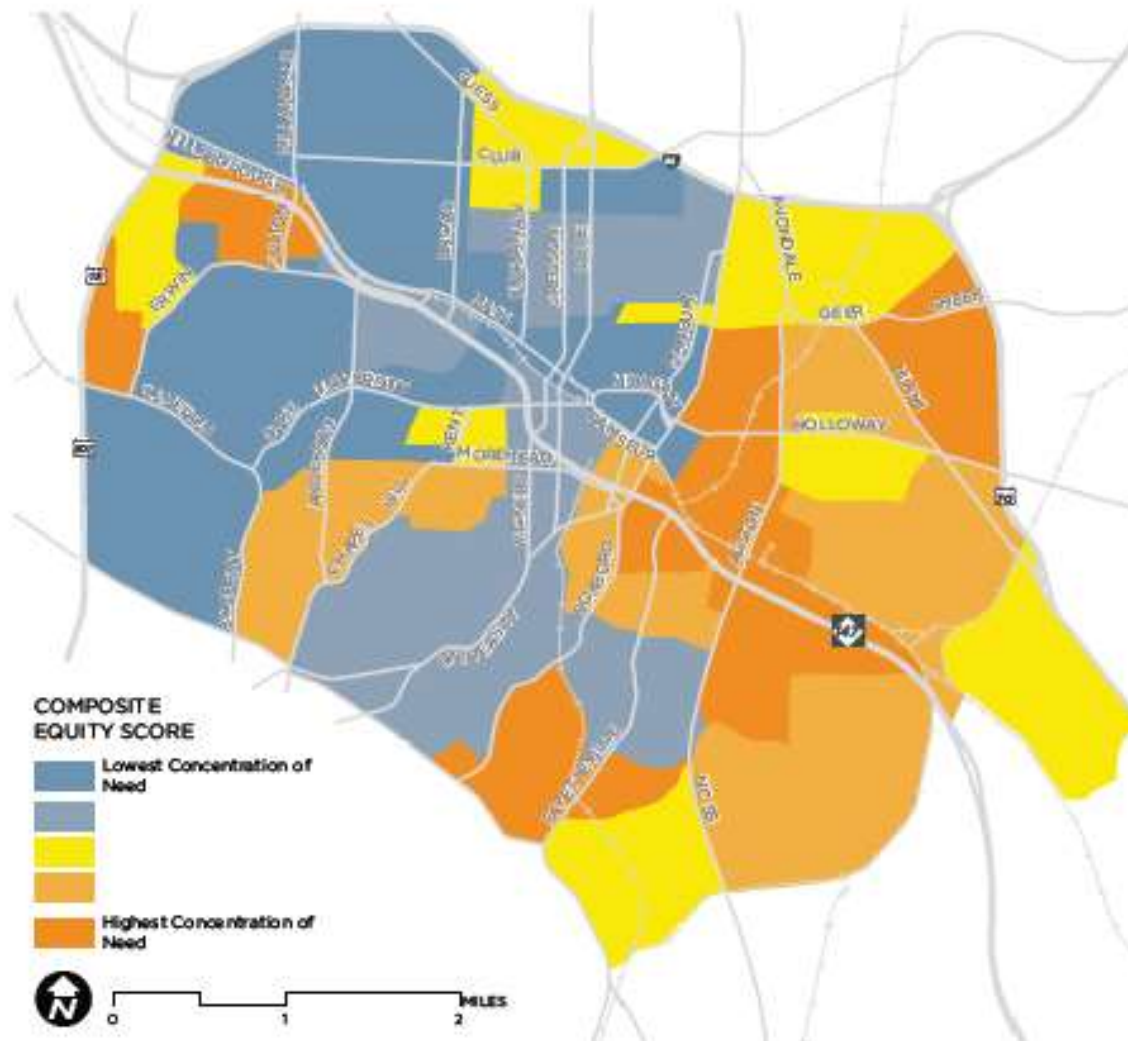
Study Area





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Equitable Access





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Our Vision

Whether traveling by bus, foot, bike or car, people in Central Durham will be able to move safely and reliably.

A more convenient and connected multimodal transportation network will ensure that moving in Central Durham is affordable and equitable for all.



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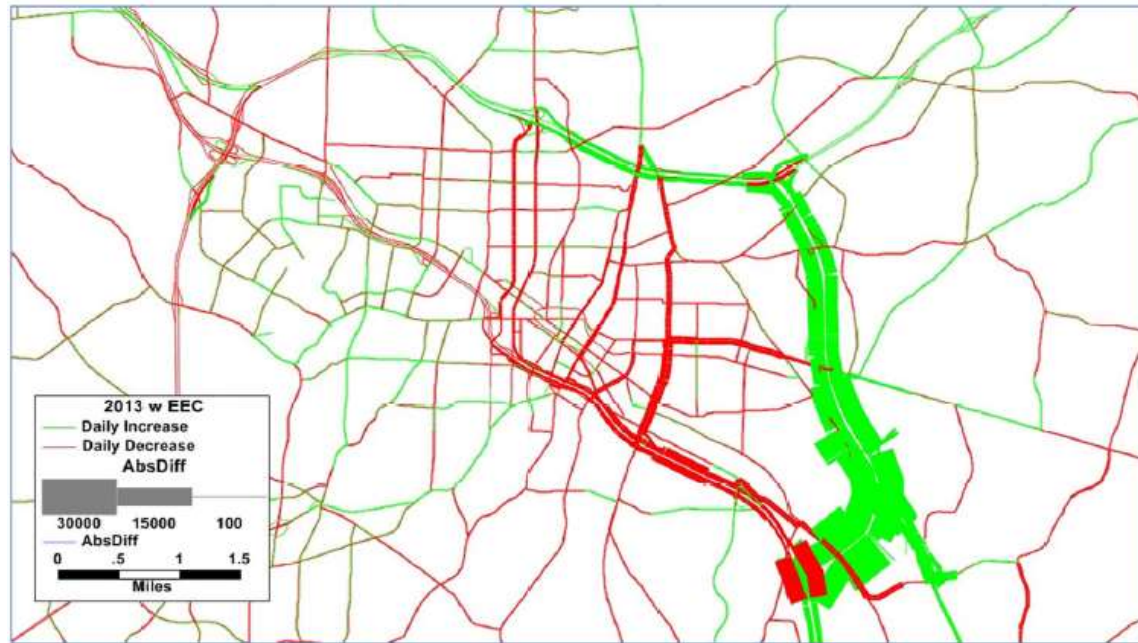
Priority Corridors





Existing Conditions

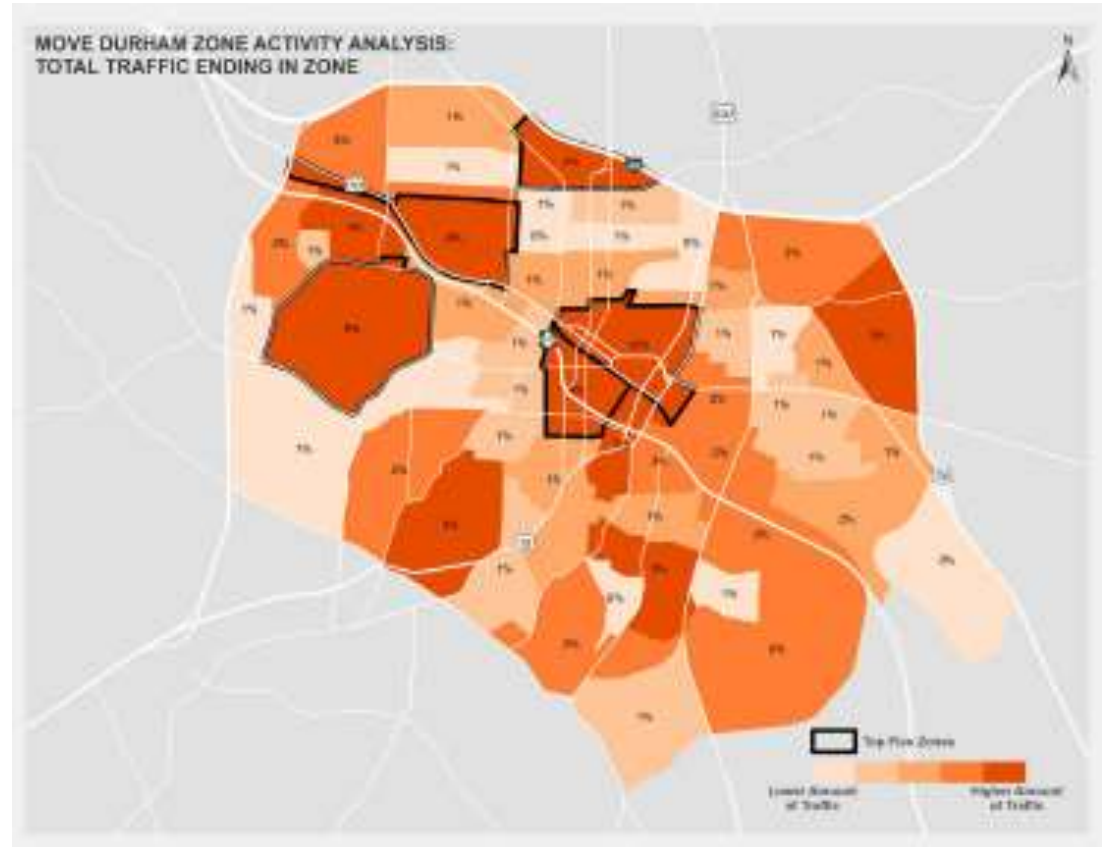
- Safety Analysis
- Equity Analysis
- Destination Generators
- Traffic Volumes
- Travel Patterns
- Traffic Forecasting
- Land Use
- Previous Planning + Design Efforts





Existing Conditions

- Safety Analysis
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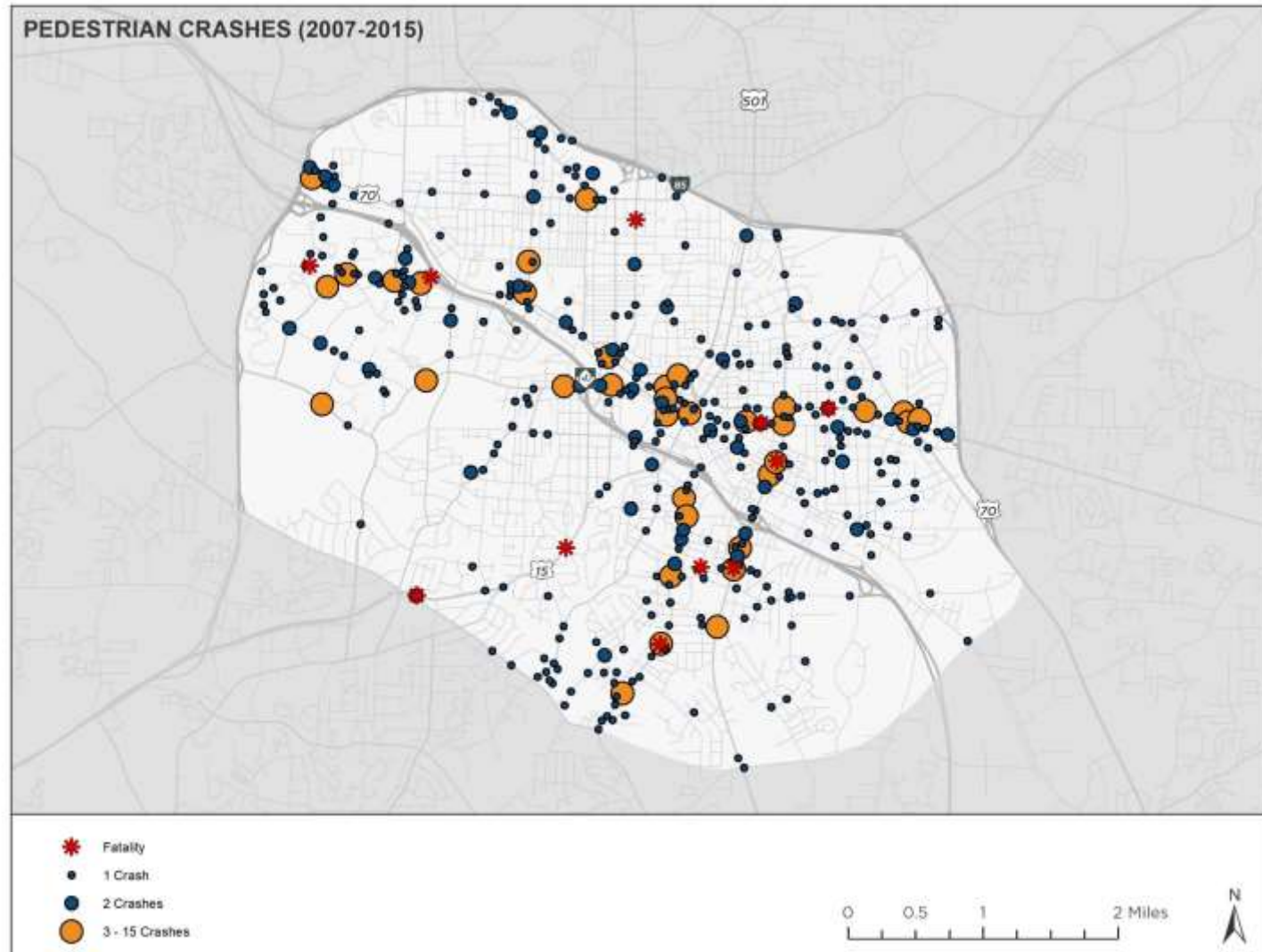
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Pedestrian Crashes

High Crash Corridors
(Major + Minor Arterials Only)



Alston Ave
Fayetteville St
Erwin Rd
Holloway St
Miami Blvd





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Trip Length

All Trips, Every Day

Easy Walk
0-1 miles,
15 minute walk



**Moderate Walk or
Easy Bike Ride**
0-2 miles,
30 minute walk,
15 minute bike ride



Moderate Bike
Ride 0-5 miles,
35 minute bike ride

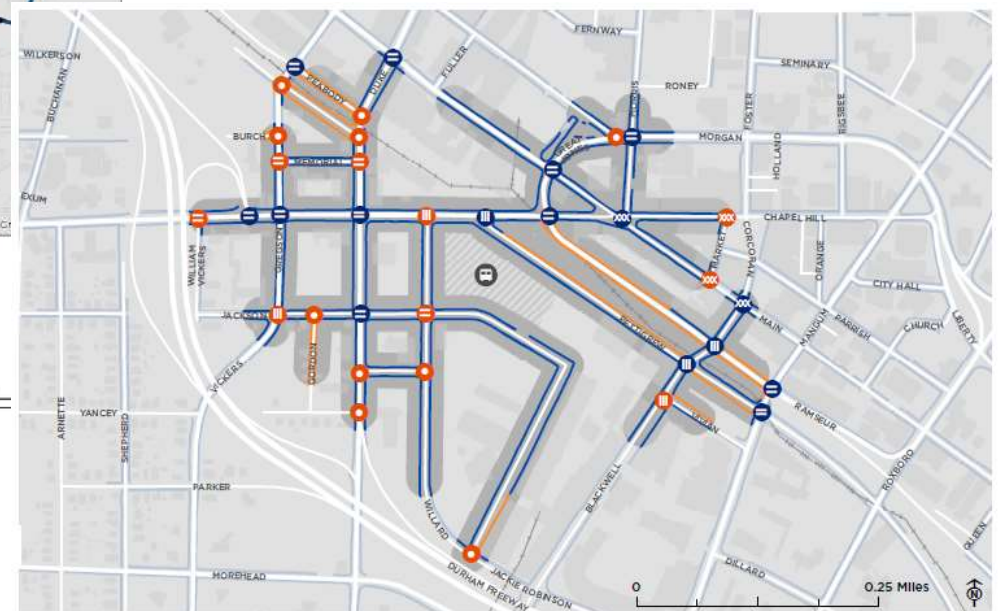
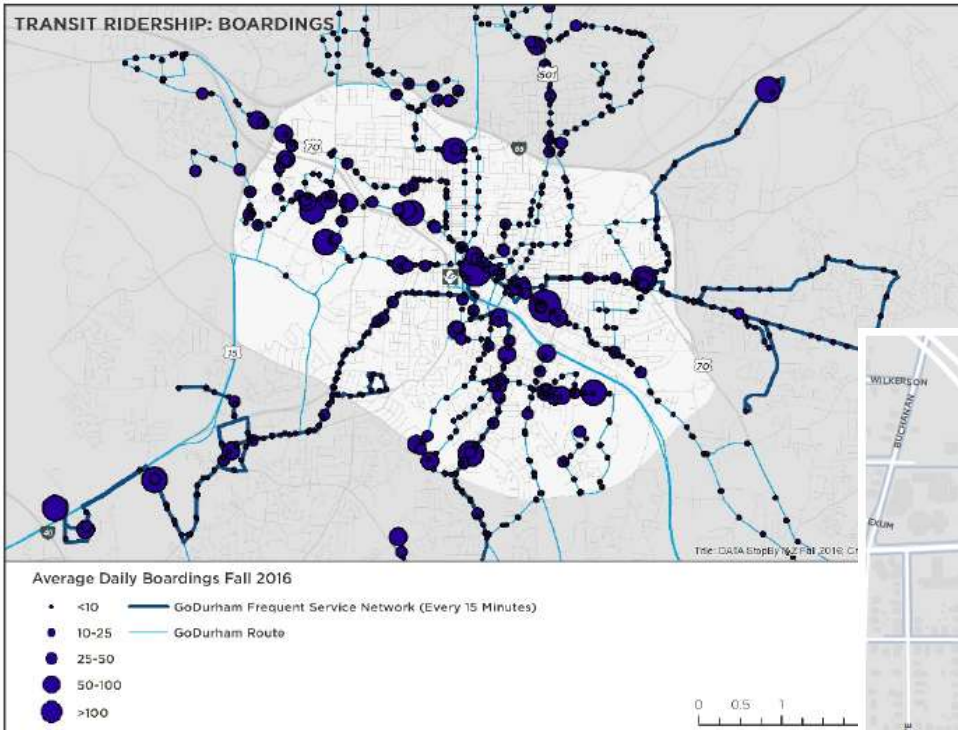


Drive Only
5+ miles





Transit Access



- Durham Bus
 - Quarter-Mile Walkshed via all Streets
 - Existing
 - Missing Sidewalk within Quarter-Mile Walkshed
 - Traffic Signal with Pedestrian Signal
 - No Traffic
 - High Visibility Crosswalks
 - Textured Crosswalks
 - Traditional
 - No
- Approximately 1.4 Miles of Sidewalk are needed to complete the quarter-mile walkshed

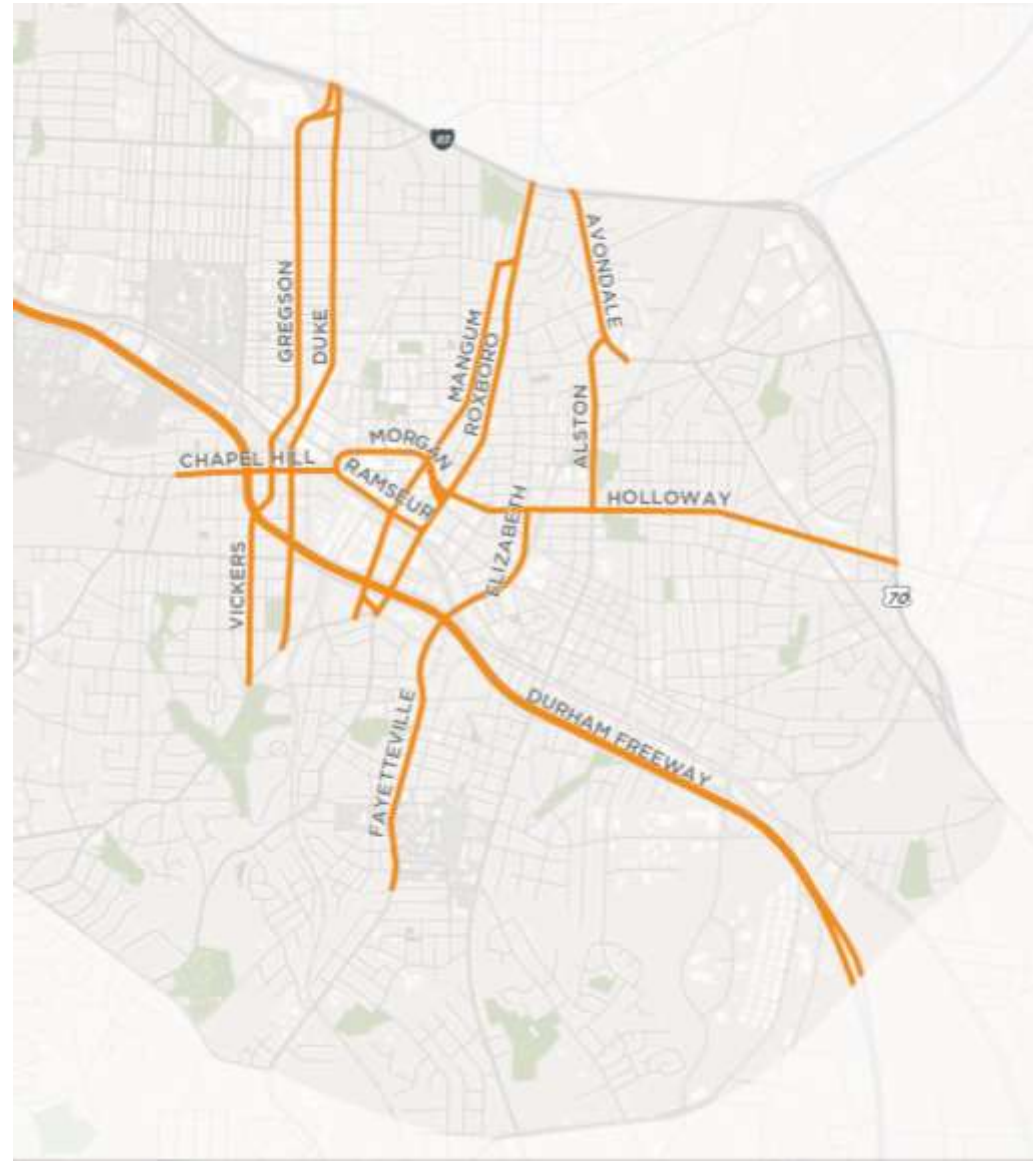


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Priority Corridors

Primary Goals:

- Introduce High Frequency Transit + Improved Access
- Increase Biking
- Increase Walking
- Calm Traffic
- Increase Safety (Reduce Crashes + Increase Comfort)
- Improve Streetscapes





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Public Engagement Phase II



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What We Did





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Outreach Summary



2,589

Corridor
Surveys
Completed

1,372 **1,217**

Online
Entries

Paper
Entries



40

Freeway Specific
Surveys



13

Community
Events
Attended

Encouragement
Tactics Include:

- Interactive activities
- Bicycle Raffles
- Food
- City of Durham Gear
- Child Activities



11

Community
Presentations

+

Intercept
Surveys at:

- North Carolina
Central University
- Durham Tech
- Chapel Hill
Street



1,196

Projects Flyers
sent to
community
residences
adjacent to
priority
corridors



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Outreach Summary



Online
Surveys



Paper
Surveys



Community Events
+ Presentations

Avondale Dr & Alston Ave

68

220

12

Chapel Hill St

159

104

8

Downtown Loop

171

114

8

Duke St & Gregson St/Vickers St

396

125

7

Durham Freeway

144

165

6

Fayetteville St & Elizabeth St

124

142

14

Holloway St

70

173

10

Mangum St & Roxboro St

240

174

9



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What We Heard – by Mode



Improved Crossing at
Intersections
+ Sidewalks

Street Trees

More Lighting,
Security, and Police
Presence

Increase ADA
Accessibility

Better Maintenance

Traffic Calming



Protected/Buffered
Lanes

Bicycle Boulevards

Shared-Use Paths

Bike Lane
Improvements



Better Bus Stops

Better Lighting

More Trash Cans at
Bus Stops

Dedicated Bus
Lanes/BRT

More Route Options

More Frequent Buses



Traffic Calming

Fix Potholes

Improved Parking
Availability

More Free Parking

More Speed
Enforcement

Complete Streets

Less Traffic

Two-Way Street
Conversions



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What We Heard – by Corridor

Sidewalks and
Safer Crossings



All Corridors

Better Bus Stops



Avondale Dr &
Alston Ave

Elizabeth St/
Fayetteville St

Holloway St

Bike Lanes



Downtown Loop

Roxboro St &
Mangum St

Chapel Hill St

Street Trees/Public Art



Elizabeth St/
Fayetteville St

Chapel Hill St

Downtown Loop

On Street Parking



Downtown Loop

Holloway St



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Quotes

“Traffic along Avondale Dr. is extremely high making it difficult for me/my family to cross the street to get to the bus stop. The number of dump trucks/large vehicles on Avondale Dr is very high making noise and traffic a huge problem.”

“This should be a major foot traffic route [Chapel Hill St] to help the local businesses. Widen the sidewalks and install some art, maybe flowerboxes.”

“The crossing at Roxboro/Knox St is impossible as a pedestrian or bicyclist during rush hour or at any hour for children. It is the only reason I can't allow my kids to go to Duke Park on their own, an 8 minute walk from our house.”

“Police these streets [Duke/Gregson]. Cars fly by and I have seen many scary pedestrian/motorists moments.”

“Walking along Elizabeth/Fayetteville in the summertime means there's no shade, there's plenty of trash, and you definitely don't feel safe as a woman walking alone.”



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Recommendations



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NCDOT Statement

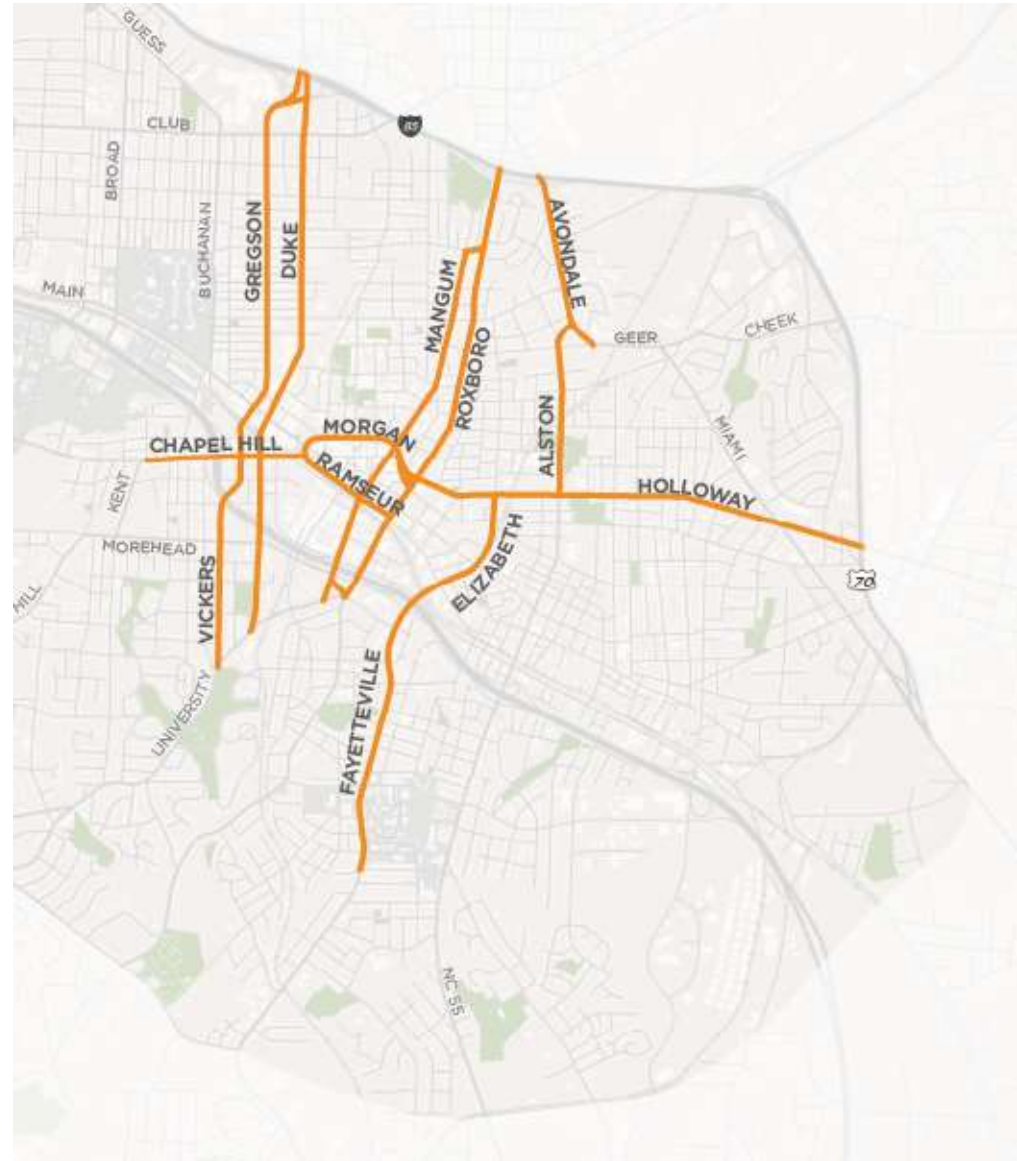
- “We are committed to improving streets for all users and the type of changes noted in the plan is consistent with our Complete Streets Policy and Guidelines.”
- However, approval would be provided on a case-by-case basis considering the following:
 - Roadway capacity and need for turn lanes
 - Changing Character of Roadway
 - “The State Highway system inside corporate limits is intended to consist of major streets and highways necessary to move volumes of traffic efficiently and effectively from points beyond the corporate limits to major business, industrial, governmental and institutional destinations located inside municipalities.”



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Short-Term Recommendations

- Reduce speed limit to 25mph + adjust signal progression
- Repair sidewalks & fill in gaps
- Improve pedestrian crossings:
 - Leading pedestrian intervals
 - Banning right turn on red
 - Pedestrian refuge islands, curb extensions, better crosswalks
- Improve bus stop amenities
- Add bike lanes and intersection improvements where feasible





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Program Funding

Project Type	CIP Funding	Short-term Corridor Funding Needs
Sidewalk Repair	Ongoing funding in 10-Year CIP FY21 \$772,500/year	\$1.6 - \$1.7 million
Pedestrian Signals & Crosswalks	Ongoing funding in 10-Year CIP FY21 \$345,050/year	\$2.8 - \$5.6 million
Sidewalk Gaps & Corridor Construction	No CIP funds after FY23 Current funding all programmed	\$2.0 - \$2.2 million
Bike Facilities	No CIP funds after FY20 Current funding all programmed	\$2.0 - \$8.0 million
Bus Stop Improvements	\$3.6 million *Durham County Transit Plan	\$210,000 - \$420,000



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Long-Term Vision

Streetscape Improvements



Avondale Dr &
Alston Ave

Elizabeth St/
Fayetteville St

Holloway St

Two-Way Conversion



Downtown Loop

Roxboro St & Mangum
St

Duke St &
Gregson St/Vickers Ave

Transit Priority



Elizabeth St/
Fayetteville St

Roxboro St &
Mangum St

Downtown Loop

Holloway St

Separated Bikeway



Chapel Hill St

Elizabeth St/Fayetteville St

Roxboro St &
Mangum St

Downtown Loop

Avondale Dr &
Alston Ave



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Planning Level Cost Estimates

Corridor	Long-Term Vision Planning-Level Cost Estimate
Avondale Dr & Alston Ave	\$3 – \$4+ million
Chapel Hill St	\$2 – \$3+ million
Downtown Loop	\$13 – \$20+ million
Duke St & Gregson/Vickers St	\$8 – \$12+ million
Fayetteville St & Elizabeth St	\$3 – \$5+ million
Holloway St	\$1+ million
Mangum St & Roxboro St	\$5 – \$7+ million
Total	\$35 – 52+ million



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Implementation Considerations

- Increased Roadway Maintenance
- Funding Scenarios
 - Durham County Transit Plan
 - State/Federal Grant Opportunities
 - Additional CIP Funding
 - Transportation Bond Referendum
 - Private Development
- Pilot Project Opportunities
- Equitable Engagement





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- Improve interchange crossings and improve connectivity where feasible
- Coordination with NCDOT TIP project development
- Coordination during Comprehensive Plan Update
- Develop an equitable community engagement plan to understand needs and concerns related to the Freeway

Durham Freeway



Looking east at the Durham Freeway from Briggs Ave overpass



Looking north at Duke St overpass



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Questions?

