





CHARLOTTE.
TRANSPORTATION

Bicycle Network Development

Charlotte-Mecklenburg
Planning Commission
July 7, 2014

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CDOT

Today's Discussion

- Background
- Growing Our Bicycle Network
- Types of Facilities
- Factors We Consider
- Partnerships

Types of Bicyclists

Strong and Fearless

Enthused and Confident

Interested but Concerned

Types of Bicyclists

What are we trying to achieve?

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What Are We Trying to Avoid?

How We Grow Our Network

- Signed bike routes on lower volume/speed streets
- Bike lanes or multi-use paths on higher volume/speed streets
- Greenways and bike/ped connections
- Other network facilities

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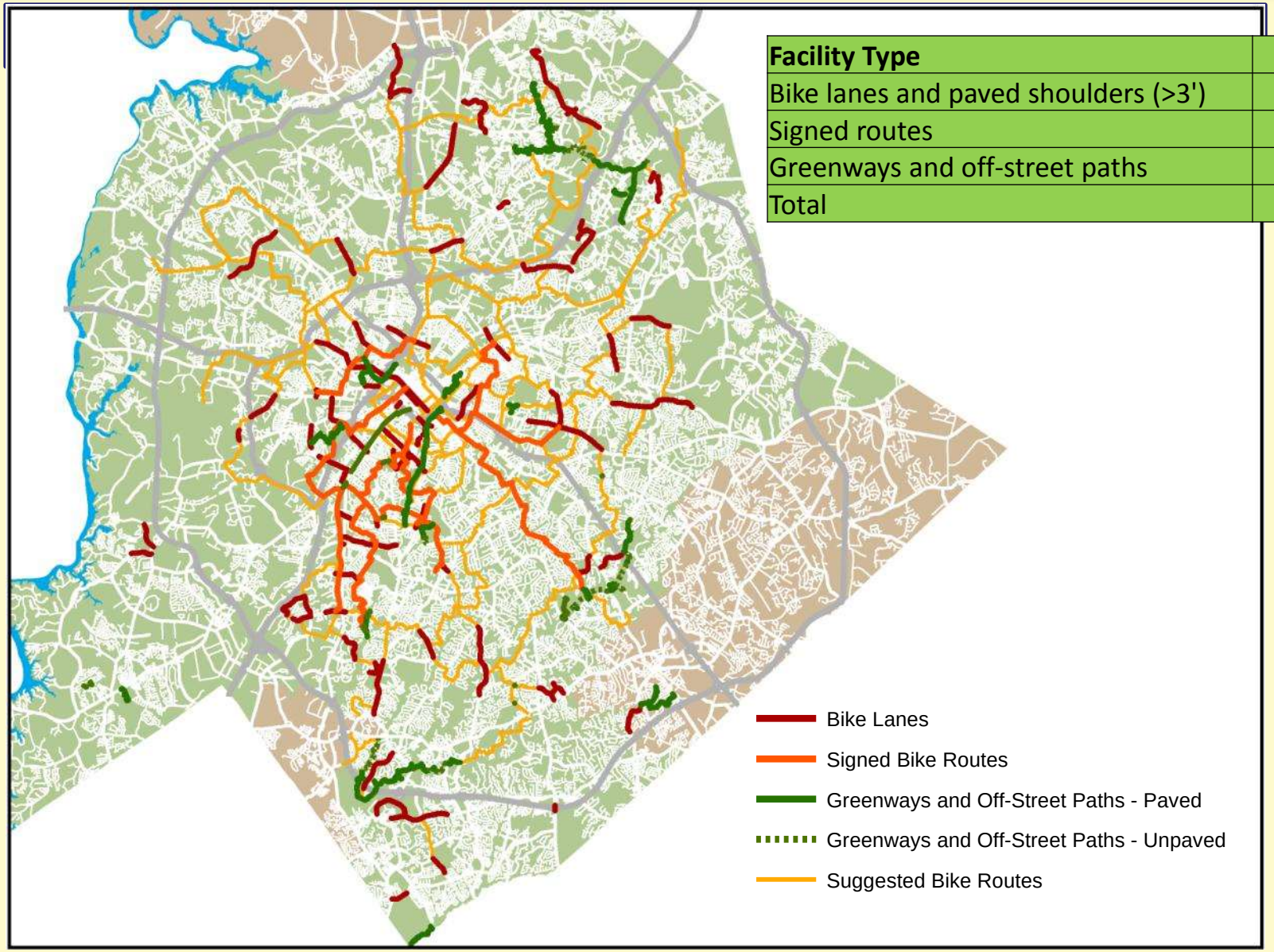
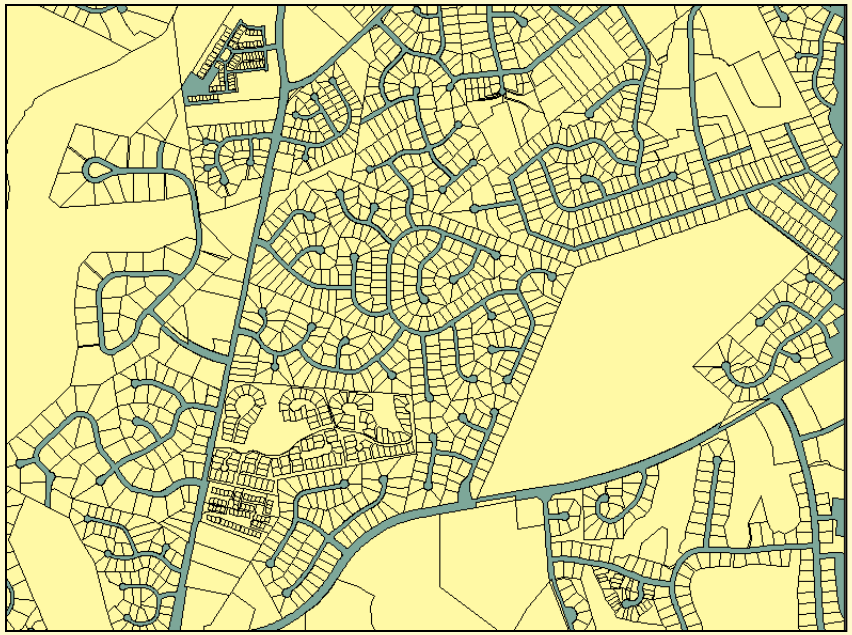
Growing Our Bike Network



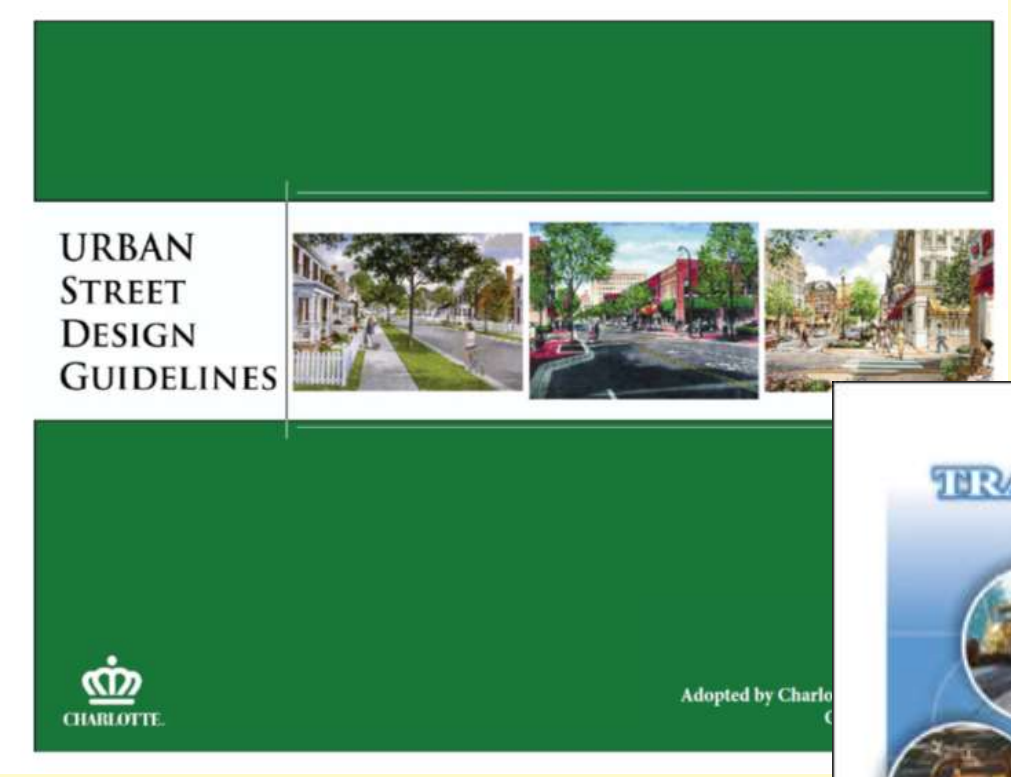
Facility Type	Miles
Bike lanes and paved shoulders (>3')	75
Signed routes	55
Greenways and off-street paths	44
Total	174

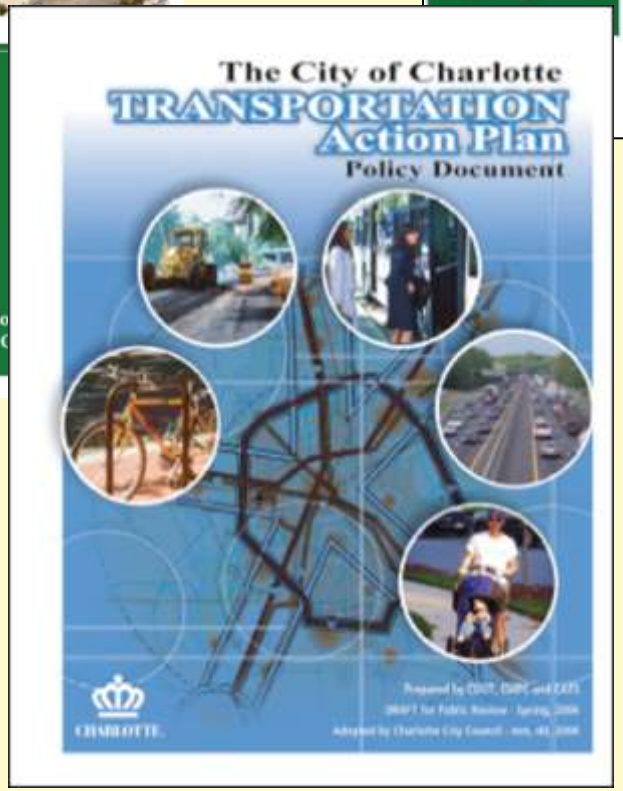
Factors to Consider

- Not enough streets (poor network can affect route and design options)
- Designing for context
- NCDOT streets and CDOT streets



How Have We Approached Creating New Network?





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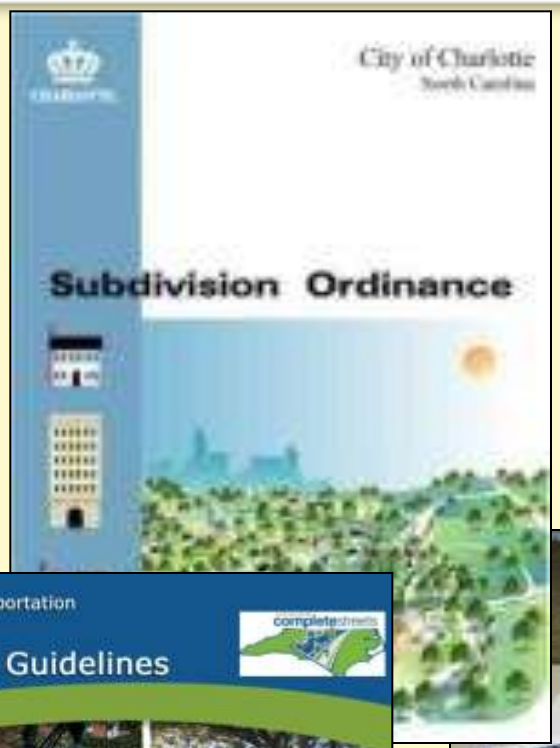
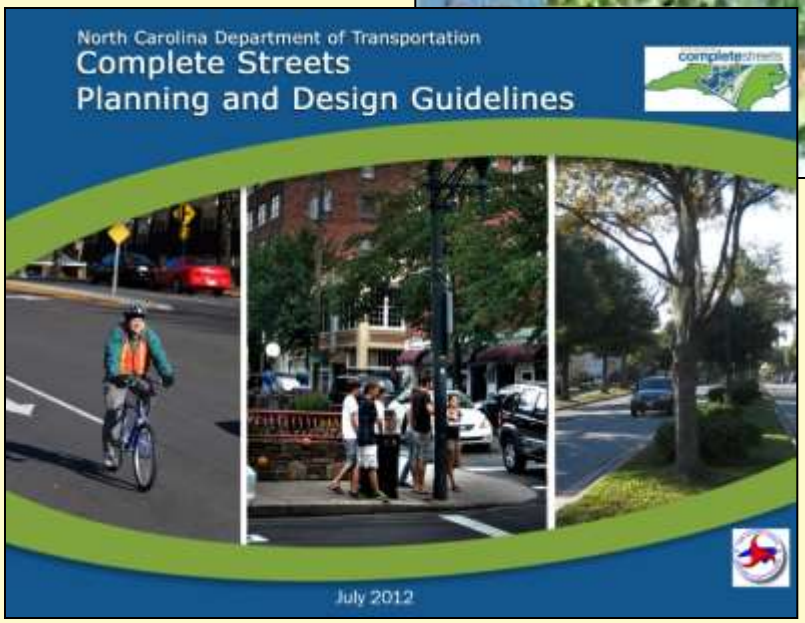
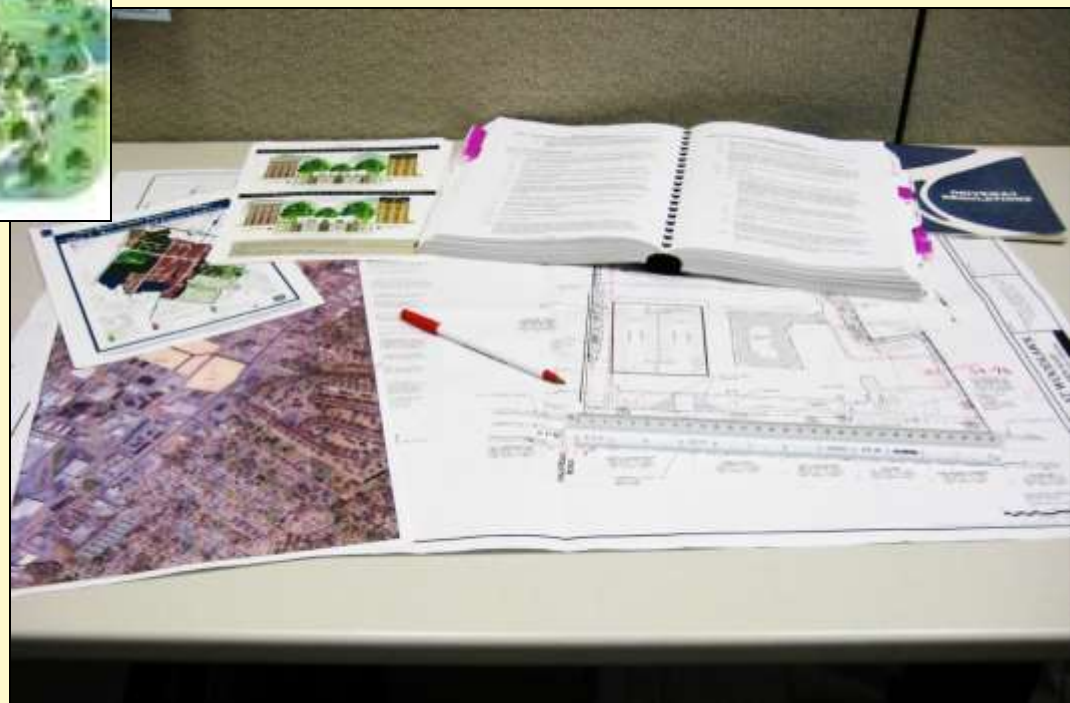

City of Charlotte
North Carolina
Subdivision Ordinance


North Carolina Department of Transportation
Complete Streets
Planning and Design Guidelines
July 2012



Factors That Affect Specific Designs

- ROW
- Structures
- Maintaining existing curb
- Funding
- Context (land uses, driveways, etc.)

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"Sharrows"

Wide Outside Lane

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Bike Lanes on Most Thoroughfares

Bike Lanes Not Needed on Local Streets

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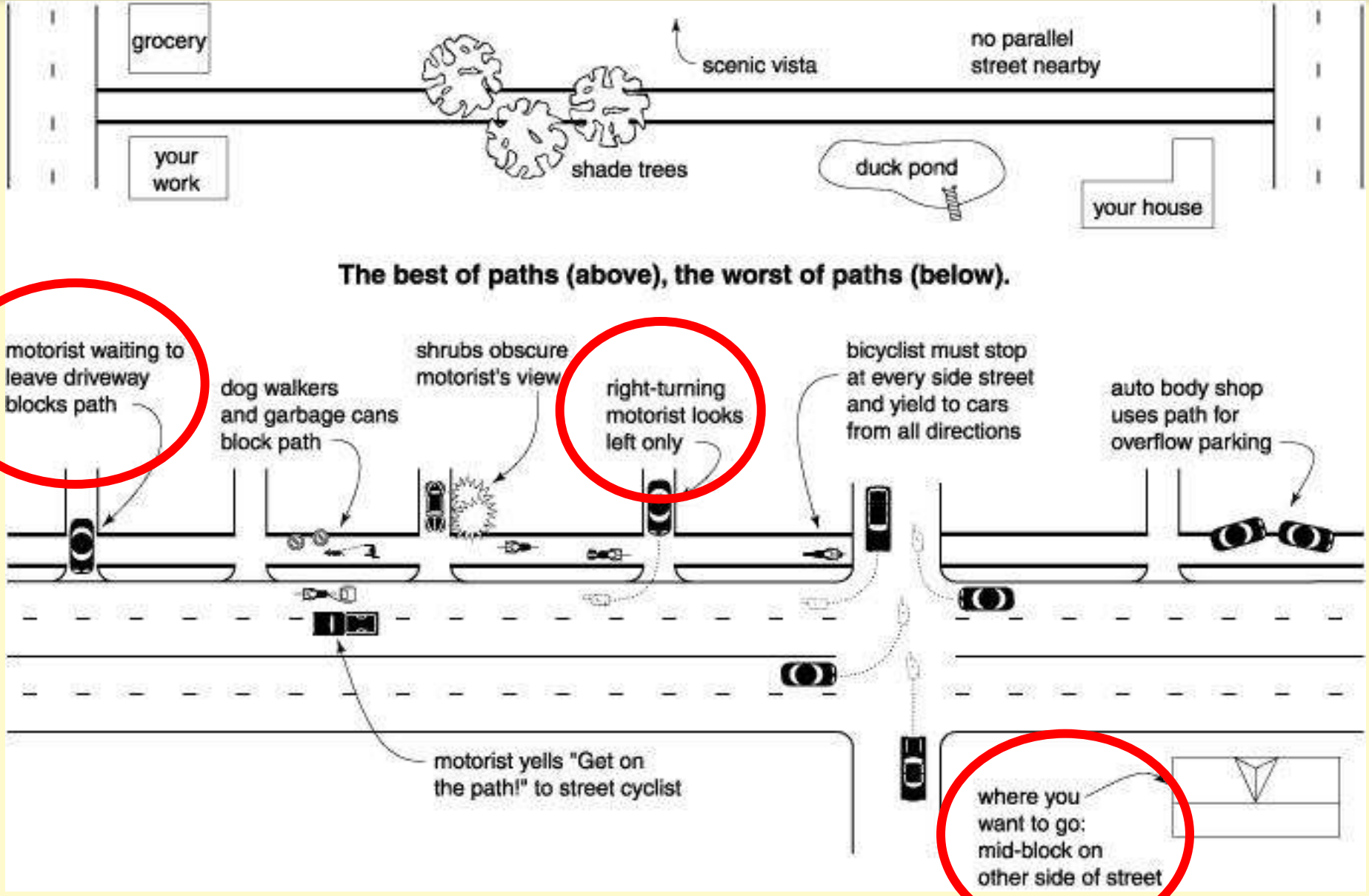
Buffered Bike Lanes

Sidepaths

Multi-Use Paths/Sidepaths



Sidepath Suitability Criteria

Sidepath Crossing Risk

How many points ***per mile*** does the proposed path score?

Residential Driveway	1 pt.	Minor Street (<1,000 ADT)	2 pts.
Commercial Driveway	2 pts.	Major Street (>1,000 ADT)	4 pts.*

1 - 8 pts.	low risk: use special care to treat intersections
8 -16 pts.	moderate risk: pursue alternatives
> 16 pts.	high risk: path not recommended

* crossing of a street with >10,000 ADT without a signal automatically moves the proposed path into the high risk category

The above scoring is based upon a threshold of 12 residential driveways or 6 minor streets per mile. Beyond this, a cyclist would face more than 1 driveway every 30 seconds, or 1 street every minute, at which point the safety and the utility of the sidepath deteriorates dramatically.

Cycle Tracks

Buffer space for car doors and loading/unloading

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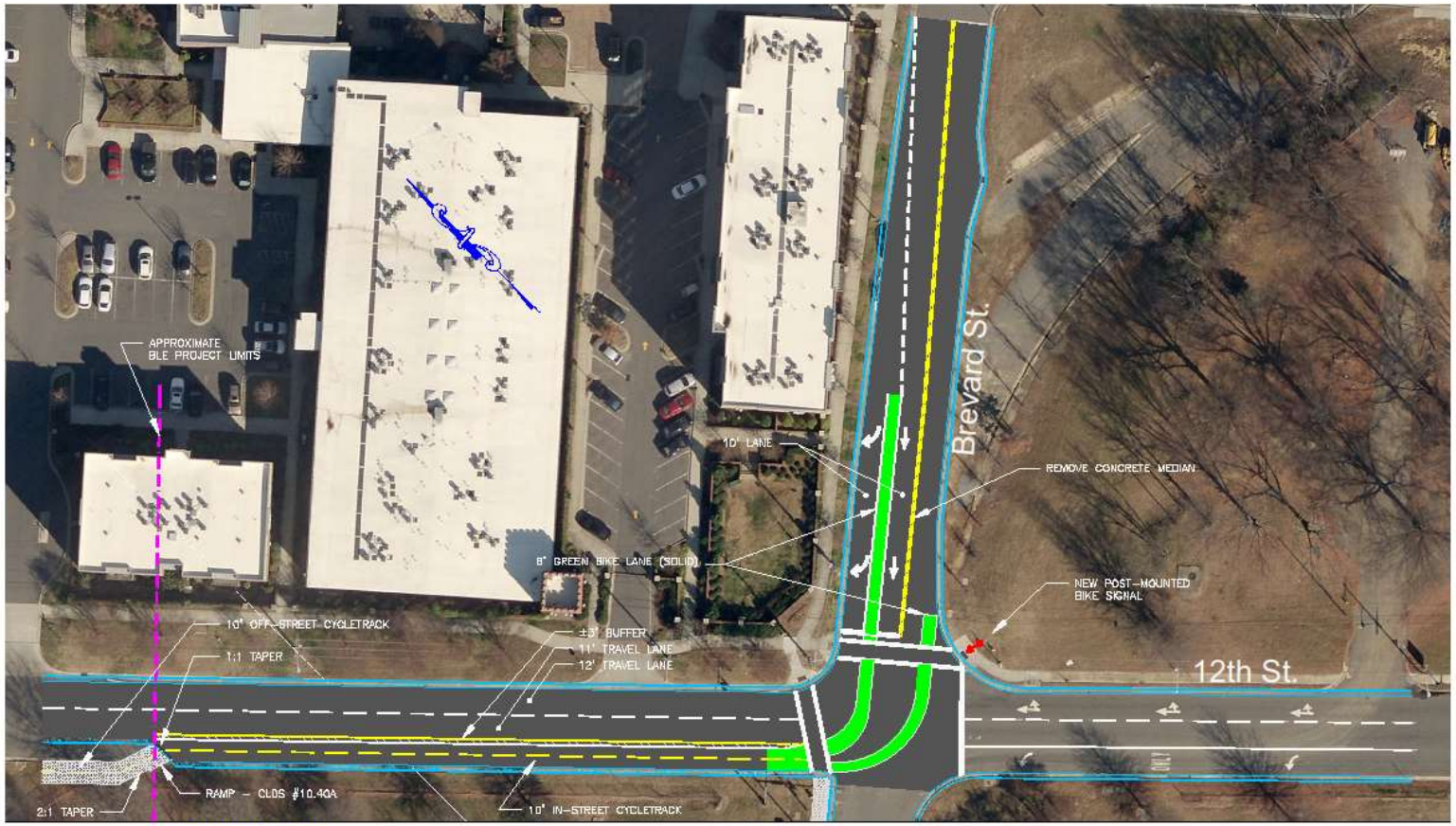
Cycle Tracks

12th Street Cycle Track



12th St. Cycletrack
CONCEPT

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Greenways

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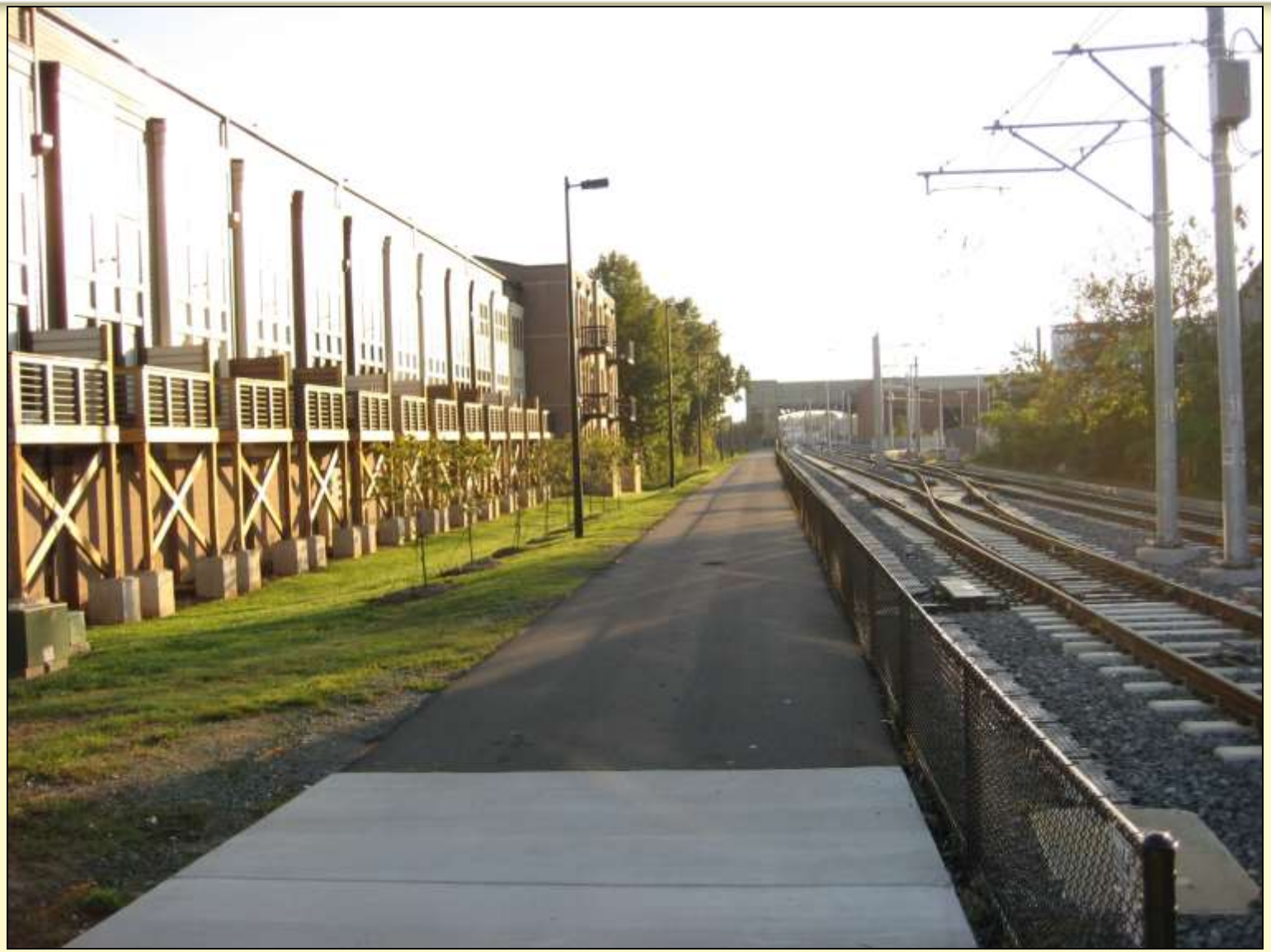
LYNX Rail Trail



Cross-Charlotte Trail

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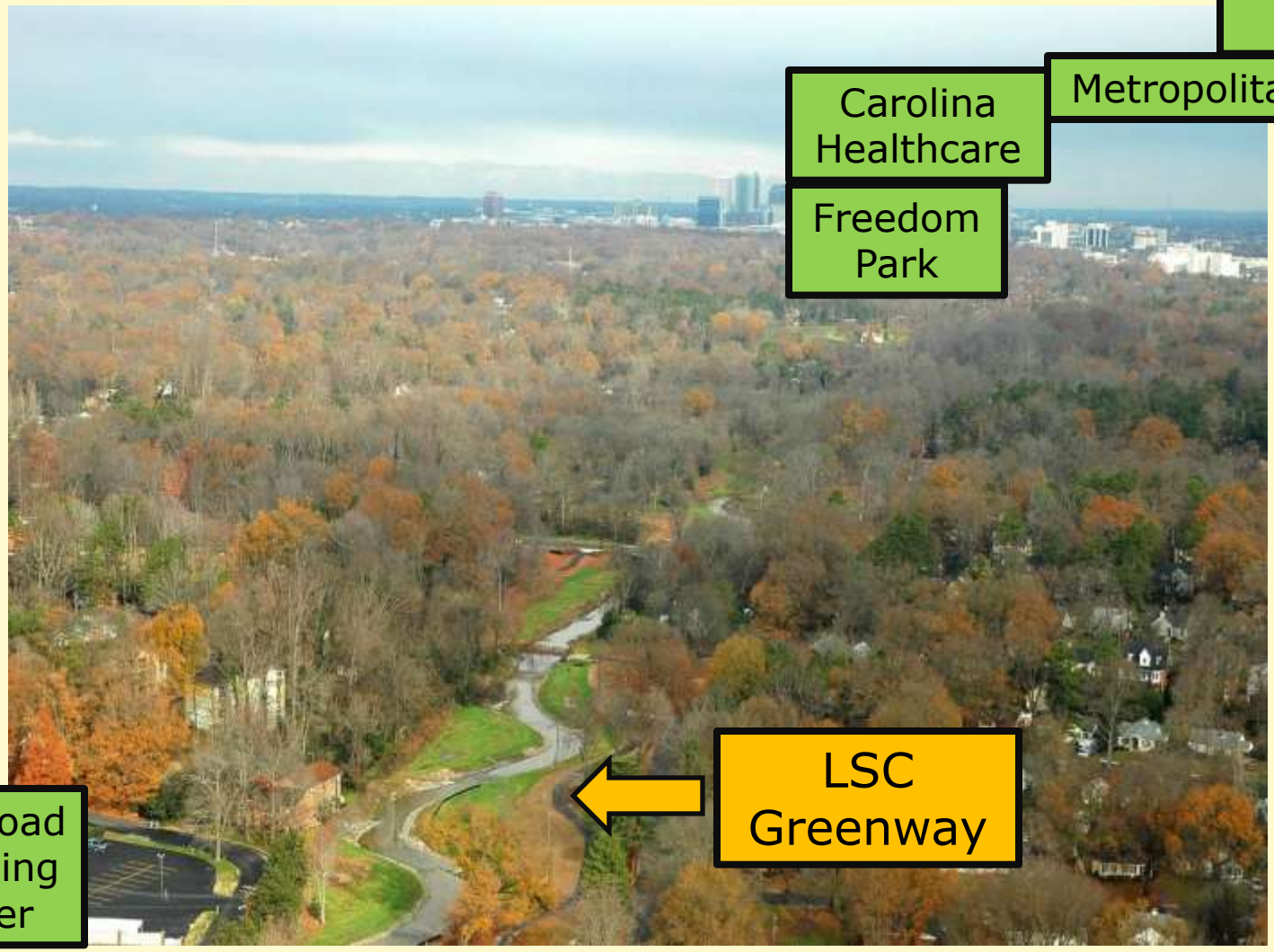
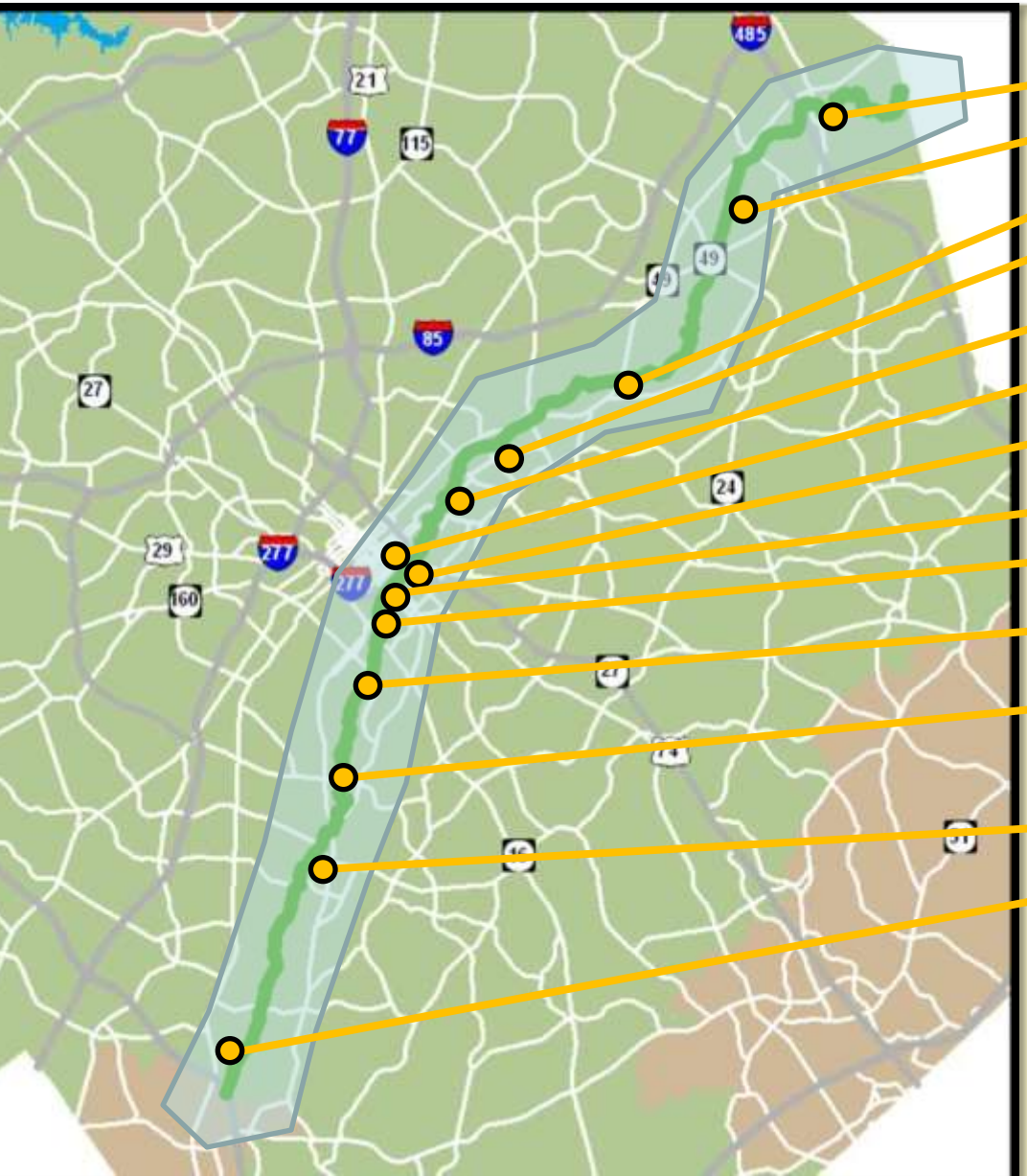
4 miles…imagine 26 miles!

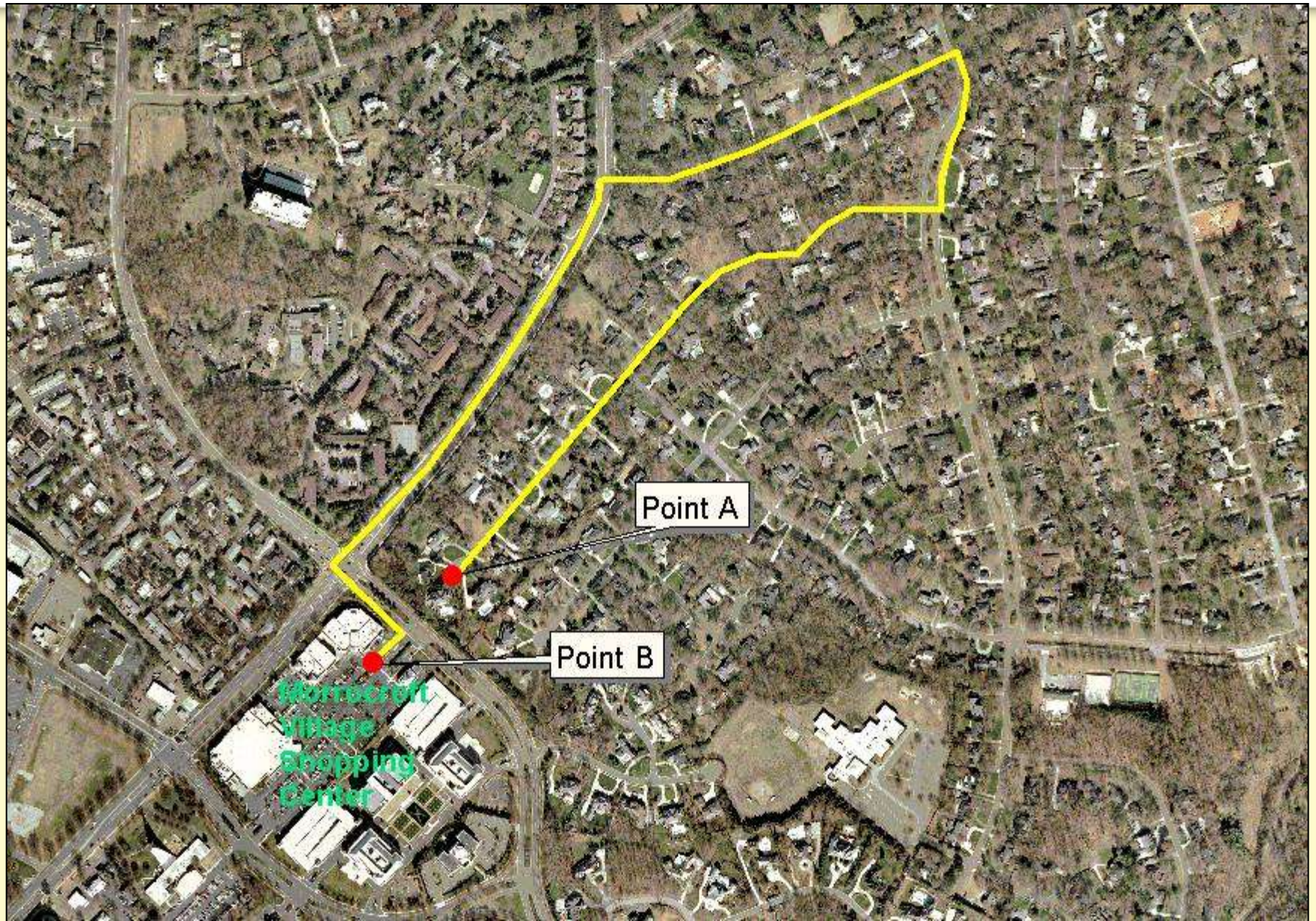


Cross-Charlotte Trail
It's about Connections



- Verizon Amphitheater
- UNCC
- Blue Line Extension
- NoDa district
- Cordelia Park
- Uptown Charlotte
- CPCC
- The Metropolitan
- Carolinas Medical Center
- Freedom Park
- Park Road Shopping Center
- Park Road Park
- Carolina Pavilion
- Adjacent neighborhoods
- **80,000 residents and 98,000 jobs within ½ mile**

Connections



Creating Connections

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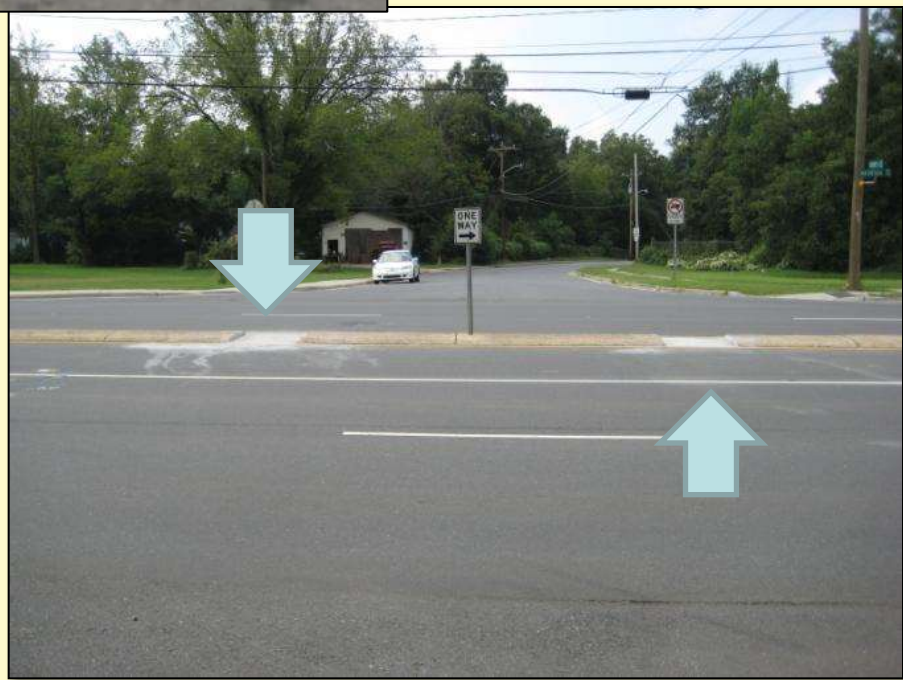
Crossings, Too



Crossings

South Tryon/I-277

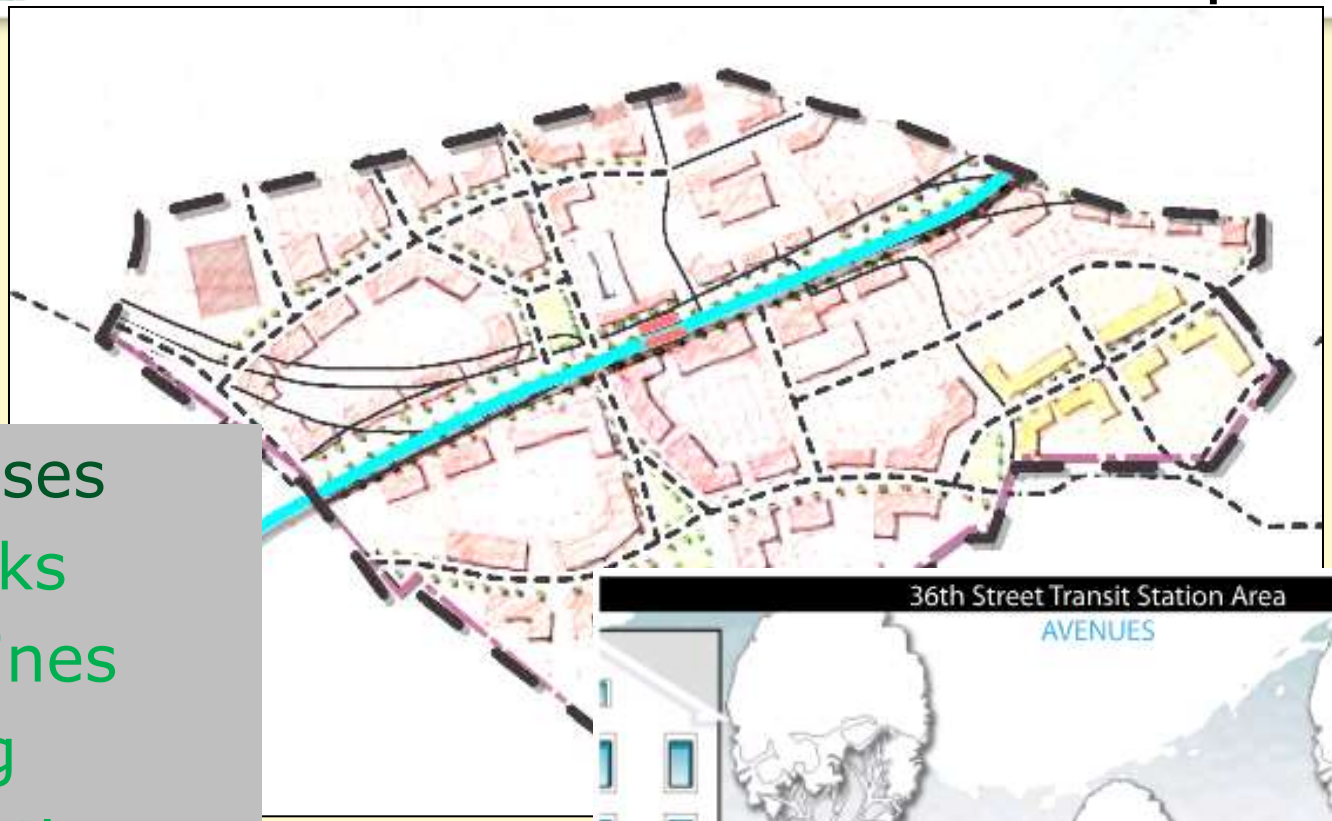
Clanton Rd/I-77

How Are Bike Facilities Implemented?

- Community Investment Plan (CIP)
- Collaborative efforts (Park and Rec, Schools, NCDOT)
- Maintenance (re-surfacing, bridge replacement)
- Area plans (cross-sections, connectivity, land development patterns, etc.)*
- Land development projects (reviews, guidelines, standards, etc.)*

* Planning Commission

How Can Planning Commission Help?



- Land Uses
- Setbacks
- Curb Lines
- Parking
- Connections and easements
- Driveways/ access

Our Approach Summarized – We:

- Recognize many types of cyclists
- Recognize a variety of contexts
- Have policies in place and tools to fit most circumstances
- Have identified preferred facilities for most circumstances
- Apply the best possible facility under the known context and constraints
- Are always looking at new approaches

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Questions?