

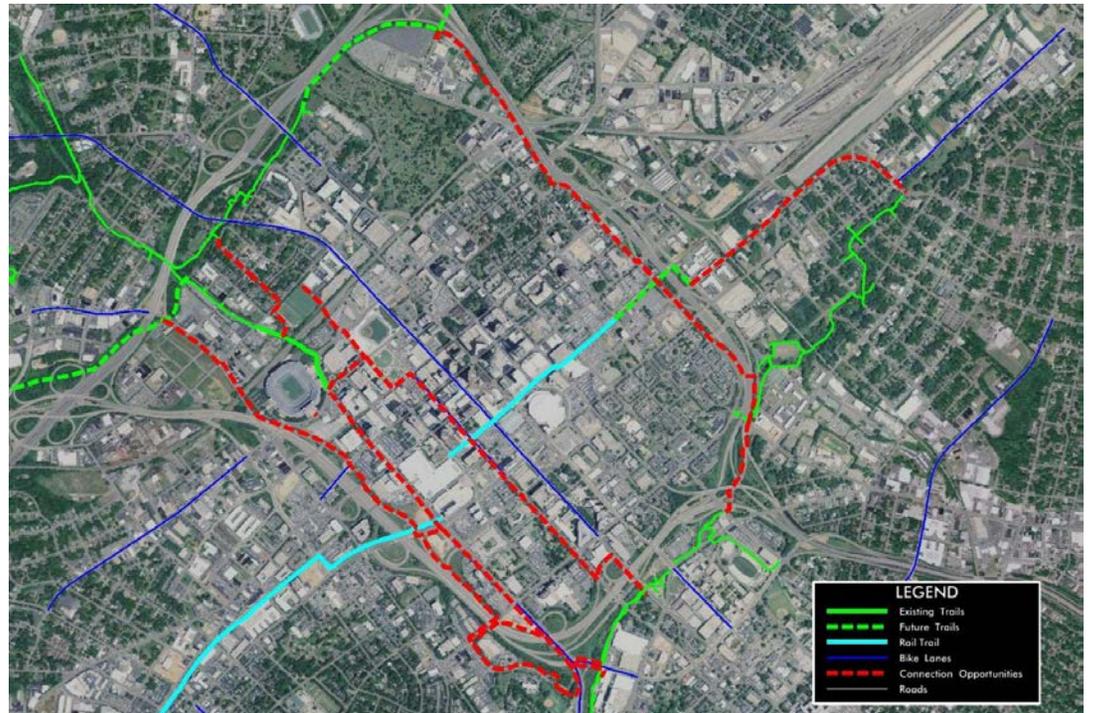


STEWART

City of Charlotte
Uptown Urban Trails
Connectivity Study
Stakeholder Meetings

Planning Team

Uptown Urban Trails
Connectivity Study



Project Schedule

- Project Kickoff/Scoping Meeting – 3/30
- Signed Contract / NTP – April
- Data Collection / Fieldwork – 4/1 to Present
- Belk Bike Tour – 5/26
- Uptown Bike Tour – 6/9
- Stakeholder Meetings - 6/14 to 6/16
- Public Open House – 9/20
- Public Meeting #2 – November
- Submit Draft Study - December

Project Background

As part of an overall strategy to connect urban trails and greenways (existing and proposed, adjacent to and through Uptown Charlotte), the City has hired Stewart Inc. to provide analysis, concepts and recommendations to connect the following facilities through Uptown via more connected, comfortable and safer bicycle and pedestrian facilities:

The future Mooresville to Charlotte Trail to the east of Uptown

Little Sugar Creek Greenway (which serves as a portion of the Cross Charlotte Trail and the Carolina Thread Trail) to the south/southeast of Uptown



Irwin and Stewart Creek Greenways to the west of Uptown

The Charlotte Rail Trail to the south of Uptown (currently includes a critical gap between South End and Uptown separated by the John Belk Freeway).

Design Criteria Balance

LOW

Safety



Biking



Walking



Maintenance



Capacity
(Automobiles)



Parking



Identity



Transit



Cost



Complete Networks are Diverse

Most Protected



Grade Separated Greenway



At-Grade Multi-Use Path



Protected Bike Lane (Parked Cars)



Protected Bike Lane (Curb)



Separated Bike Lane



Buffered Bike Lane



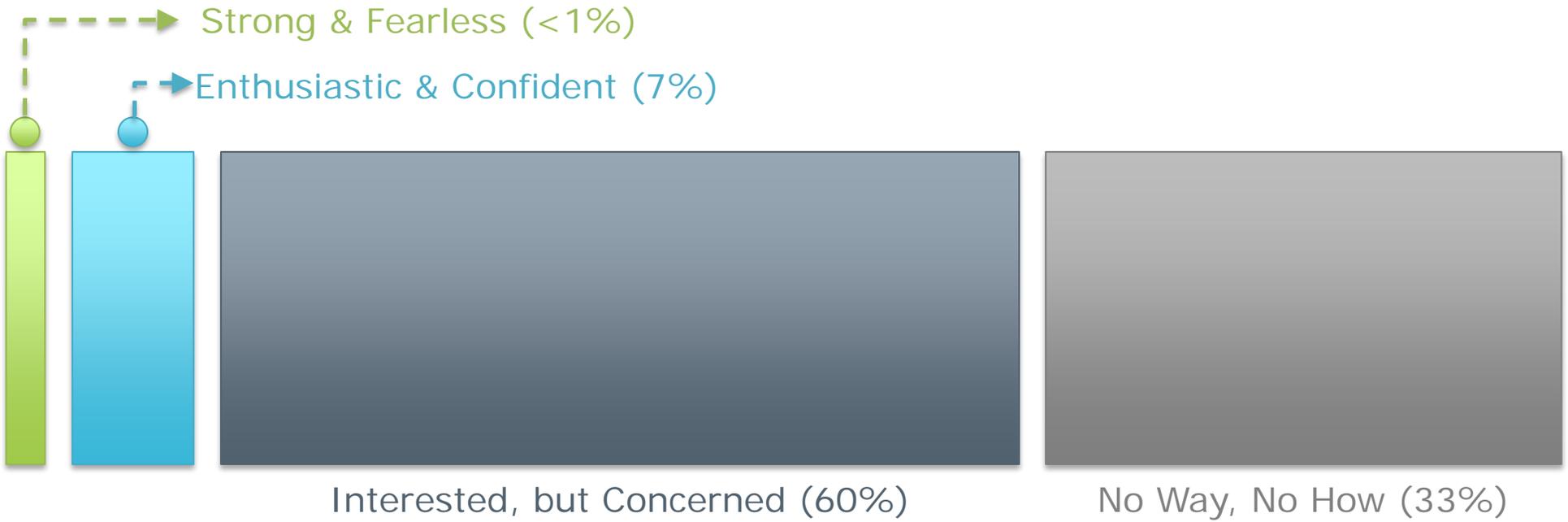
Bike Lane



With Traffic

Least Protected

Four Types of Transportation Cyclists





Who Attended?



CHARLOTTE MECKLENBURG

LIBRARY



UNC CHARLOTTE



Culture For All.

South End
Neighborhood Association



CAROLINA
THREAD
TRAIL



STEWART



CHARLOTTE
CENTER
CITY



IMAGINON
THE JOE & JOAN MARTIN CENTER



DUKE
ENERGY

SUSTAIN
CHARLOTTE
www.sustaincharlotte.org



Mecklenburg County
Park and Recreation
*The Natural Place
To Be...*

QUEEN CITY
BICYCLES



charlotte agenda

- Teaching Moment - What We Look For In Implementation



Parking Decks

Ingress/Egress



Intersections

Turning Movement Conflicts



Speeds

Edge Friction Levels



Shade

Presence & Location



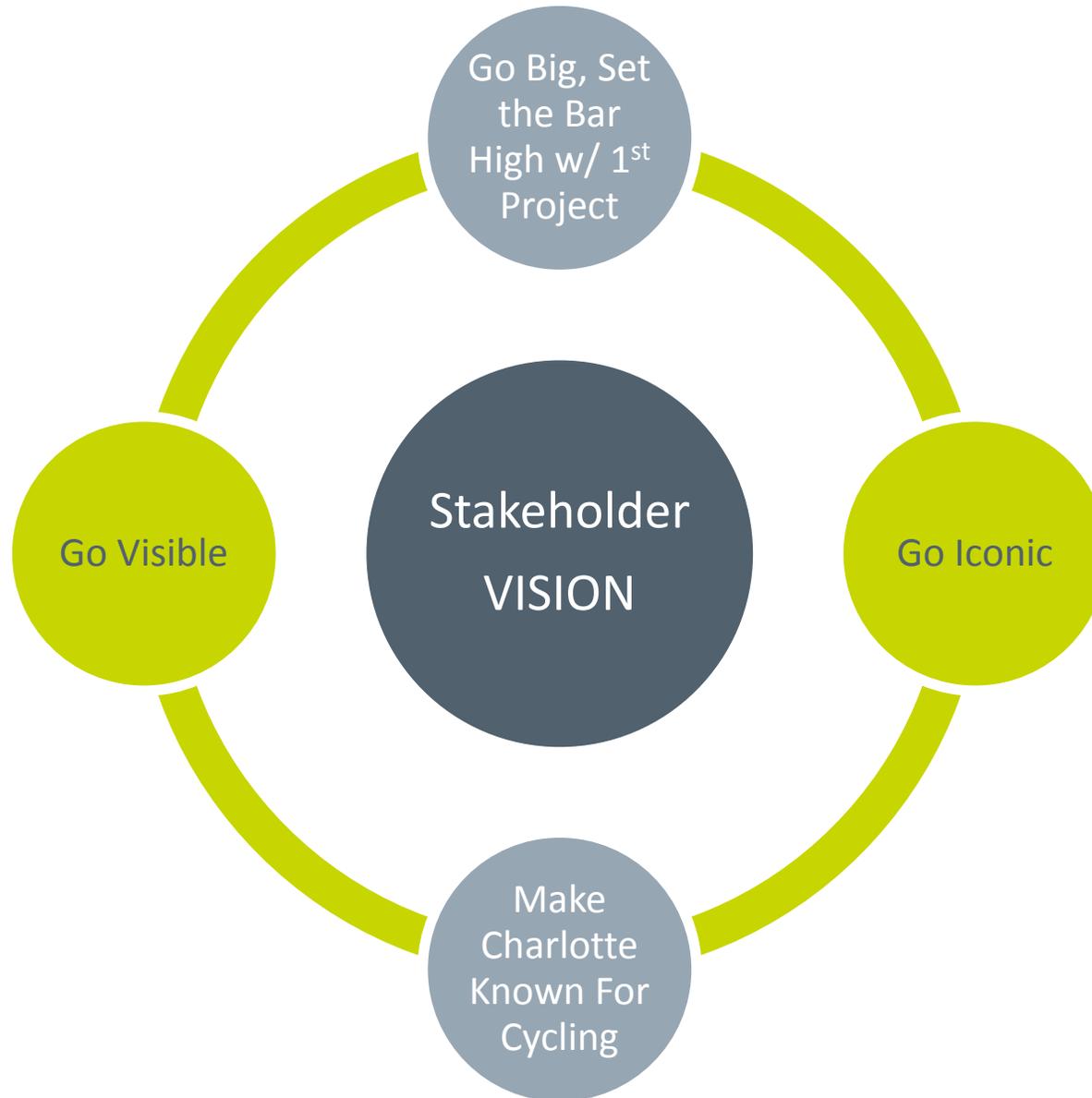
Roadway Typical Section

Lanes / Pavement Widths /
Continuity



Interaction with Transit

Stop Locations /
Track Placement



What Have Stakeholders Seen? What Are The Cities Doing?

- Going Big
- Investing in Iconic Corridors
- Transit Integration
- Shade
- Accommodating All User Types
(8 80 Cities Philosophy)
- Providing Separated Facilities
- Placemaking
- Prioritizing and Funding Bike/Ped Facilities
- Political Will

Minneapolis



Austin

Memphis



- Seamless Transitions Between Facility Types – Good Wayfinding Critical
- High Visibility Change = **Do It Right**
- Need Better Signage/Notifications of Parking Deck Ingress/Egress Locations
- Continued Development of New Parking Decks Increases Potential for Conflicts with Cyclists/Pedestrians
- Bike Community Is Amenable to Not Having The Most Direct Route (Trade-off for Safety)
- Terrain Consideration Important To Promote Usage by All User Types
- Green Paint Helps

Desirable:

Tryon St

Trade St

6th St / 7th St

Davidson St

South Blvd / Caldwell St

Church St

Stonewall St

W 5th St

Not As Desirable:

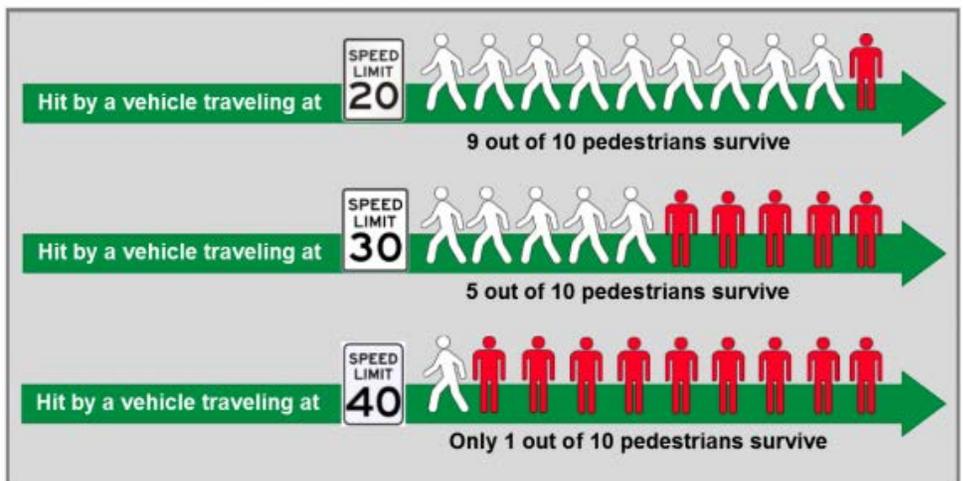
Graham St

College St

Church St

Speeds – Stakeholder Observations

- Create Consistent Speeds
- Speeds Need to Be Enforced
- Nothing Discourages Driving In Uptown
- Problems With I-277 Ramps
 - Hard to Slow Down and Make the **Transition from Highway Space to Public Space**
- One-Way (Faster) vs. Two Way (Slower)
- Many Uptown Streets Are Overbuilt (Too Wide)
- Terrain Has a Great Impact on The Variation in Speeds Between Motorists and Cyclists



- Consistent Speeds
- Reduce Speeds – “20 is Plenty”
- Enforcement
- Design for Desired Speed –
Increase Edge Friction
 - Parked Cars
 - Separated/Protected Bike Facilities
- Convert Some Existing One-Way Streets to Two-Way Streets



Bicycle Facility Type Preferences Exercise



Uptown Urban Trails Connectivity Study Stakeholder Meetings Interactive Bicycle Facility Type Preferences/Comfort Level Exercise

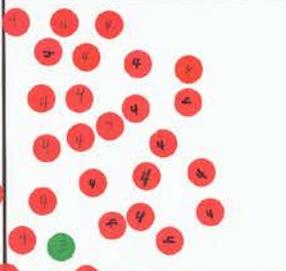
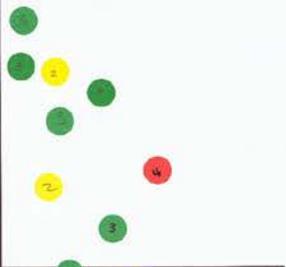
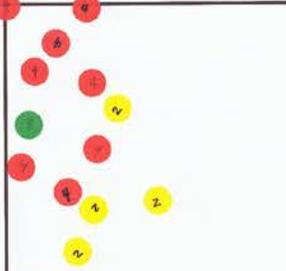
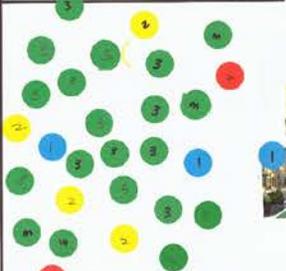
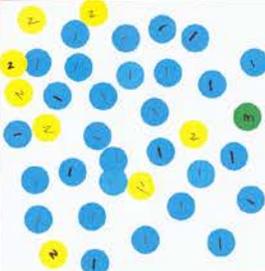
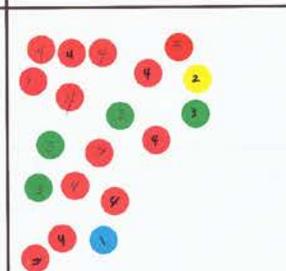
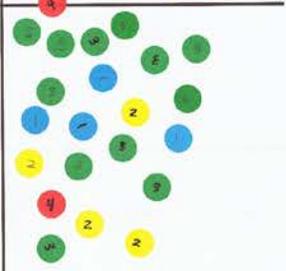
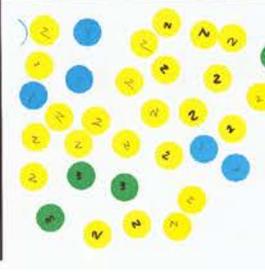


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Protected (ONE WAY OR TWO WAY)
Voting Box

Unseparated

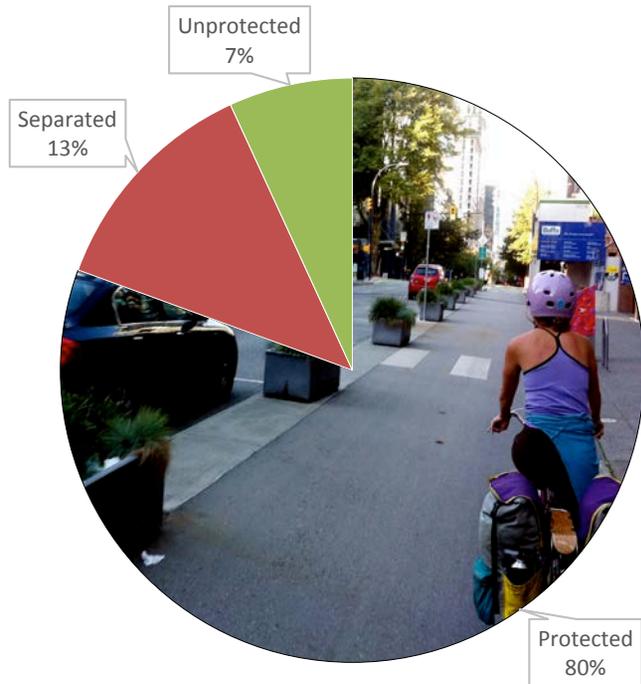
Buffered

Facility	Voting Box	Facility	Voting Box	Facility	Voting Box
 <p>With Traffic, No Accommodation</p>		 <p>Painted Buffer</p>		 <p>Median Protected</p>	
 <p>Sharrows</p>		 <p>One-Way Painted Buffer & Flexible Bollards</p>		 <p>Anchored Bollards or Planters</p>	
 <p>Conventional Bike Lanes</p>		 <p>Two-Way Buffered with Paint & Flexible Bollards</p>		 <p>Raised</p>	
				 <p>Protected with Parked Cars</p>	

Key:

- Blue Dot = 1st Choice - Facility Type You Would Most Like to See Implemented
- Yellow Dot = 2nd Choice - Next Facility Type You Would Like to See Implemented
- Green Dot = 3rd Choice - Additional Facility Type You Would Like to See Implemented
- Red Dot = Least Preferred - Facility Type You Least Prefer to See Implemented

Most Desirable (Blue/Yellow Dots)



Least Desirable (Red Dots)

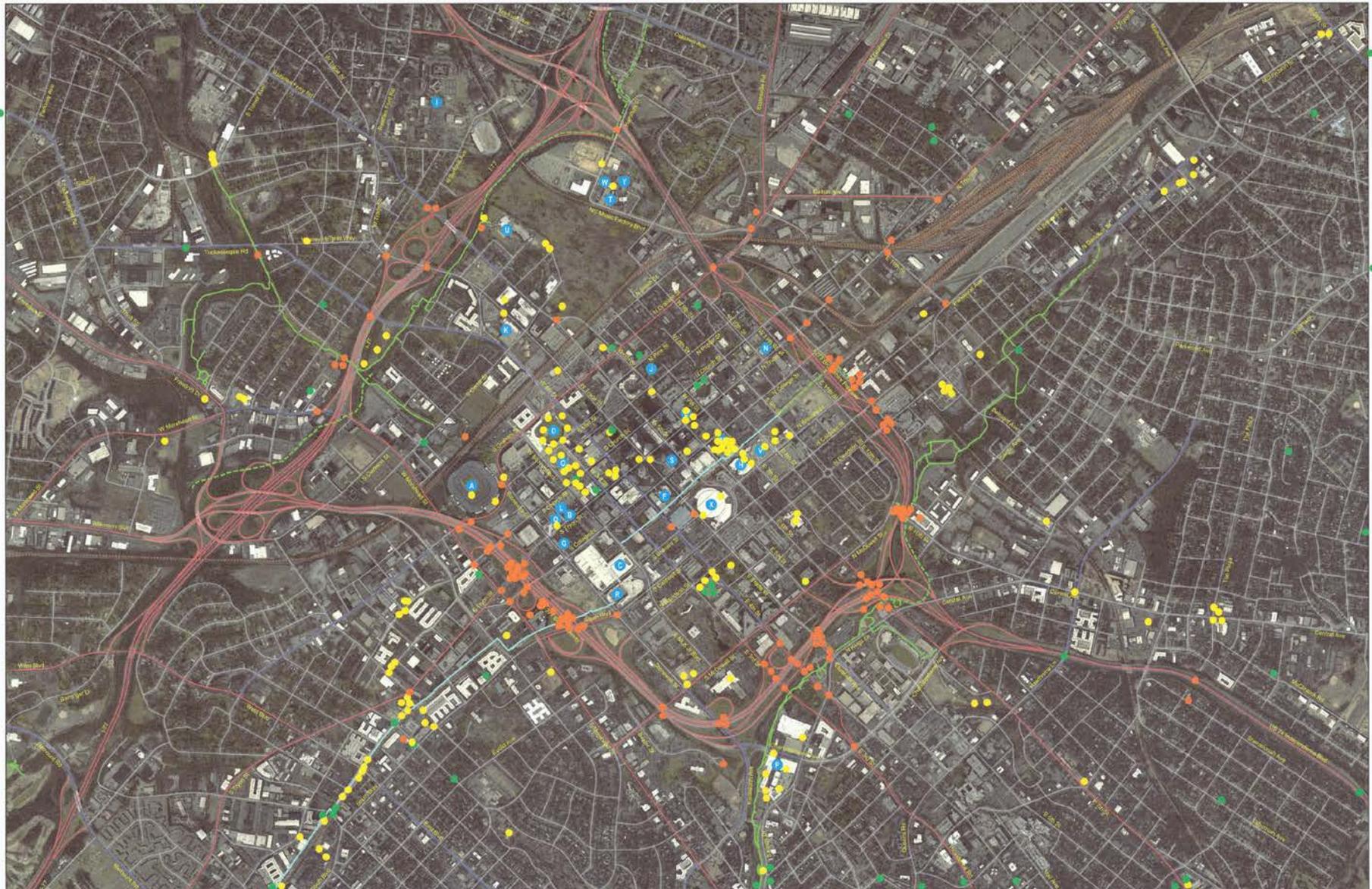


Protected
 Separated
 Unprotected
 Protected
 Separated
 Unprotected

Top 3 Preferred Facility Types:

1. Planter Protected
2. Parking Protected
3. Painted Buffer with Flexible Bollards

Origin/Destination Mapping Exercise



- Points of Interest**
- | | | | | |
|----------------------------------|--|----------------------------------|------------------------------|--|
| A Bank of America Stadium | F EpiCentre | X Johnson & Wales University | M Metropolitan Midtown | U Ray's Splash Planet |
| B Bechtler Museum of Modern Art | G Harvey B. Gantt Center for African-American Arts & Culture | L Knight Theater | O Mint Museum Uptown | V First Ward Park |
| C Charlotte Convention Center | H ImaginOn: The Joe & Joan Martin Center | N Levine Museum of the New South | K NASCAR Hall of Fame | W The Fillmore |
| D BB&T Ballpark | J Johnson C. Smith University | S McColl Center for Visual Art | B Blumenthal Performing Arts | T Time Warner Cable Arena |
| E Discovery Place & IMAX Theatre | P Fourth Ward Park | R Romare Bearden Park | I AvidXchange Music Factory | Y Uptown Amphitheatre at AvidXchange Music Factory |

CHARLOTTE

Uptown Urban Trails Connectivity Study Stakeholder Meetings
Interactive Origin-Destination Mapping Exercise

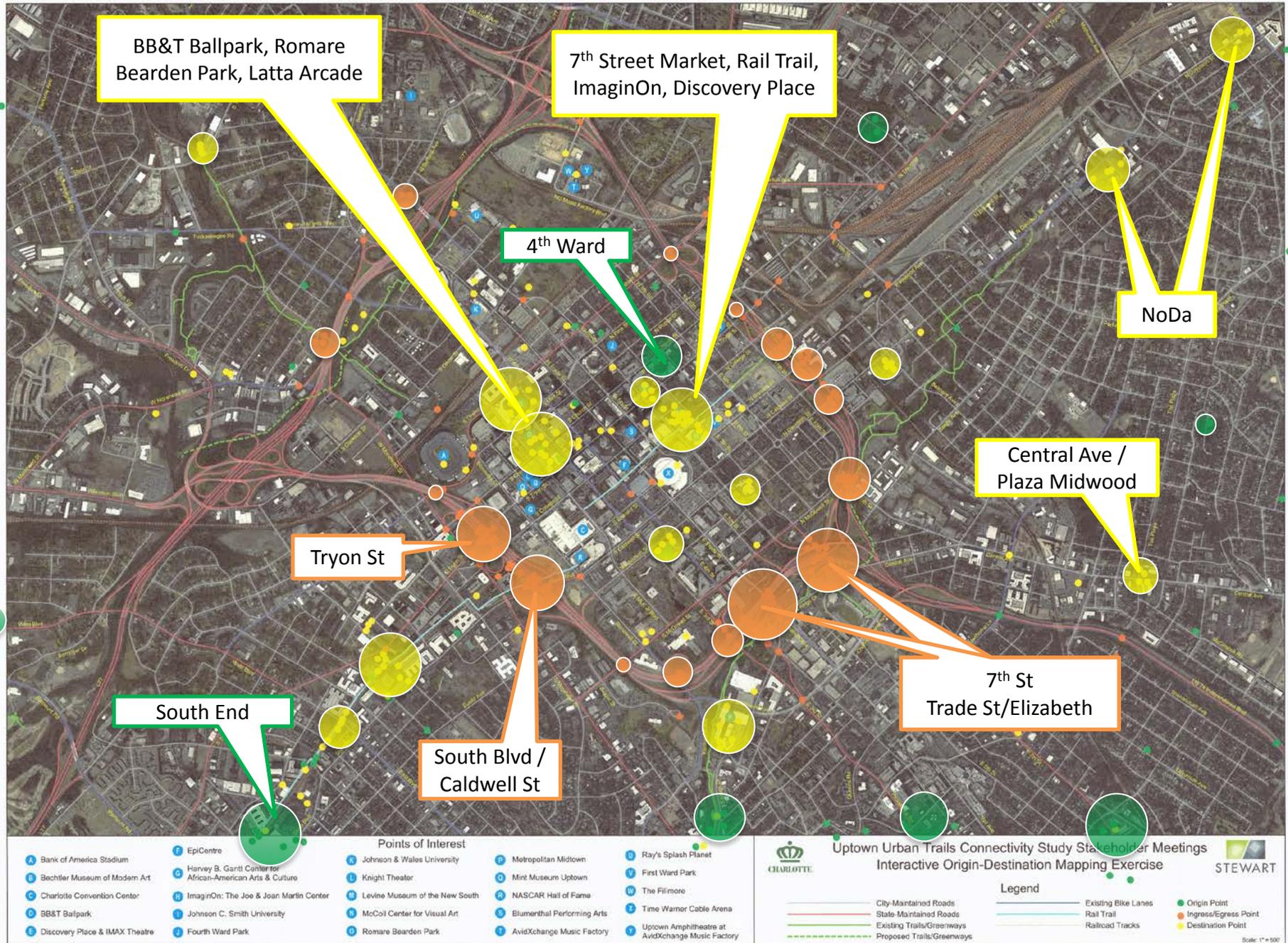
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Legend

City-Maintained Roads	Existing Bike Lanes	Origin Point
State-Maintained Roads	Rail Trail	Ingress/Egress Point
Existing Trails/Greenways	Railroad Tracks	Destination Point
Proposed Trails/Greenways		

Scale: 1" = 500'

Results



integrated transportation network recommendations

ITN-4. Create a True City of Bikes

Bicycling is healthy, sustainable and convenient. It should be a preferred mode of transportation for getting around Center City. Differences between user abilities, comfort levels and trip purposes will require a range of on-street and off-street connections, end-of-trip facilities, bike sharing, signage and wayfinding.

ITN-4a. Create a network of dedicated and shared bicycle facilities to foster easy access and mobility throughout Center City.

The area should include options for bicyclists ranging from shared roadways to bicycle lanes to multi-use pathways, including facilities that foster quick, efficient and safe bicycling options for commuters. Riders of different ages and skill levels have varied comfort levels and preferences when it comes to bicycle facilities. While all streets within Center City should accommodate bicycles in the travel lanes, CDOT should explore opportunities for additional separated bicycle facilities such as "cycle tracks", bicycle lanes and shared lanes on streets with low traffic speeds and volumes.

ITN-4b. Provide a range of quality end-of-trip facilities throughout Center City to encourage and support bicycle commuting. A variety of short-term and long-term bicycle parking solutions should be implemented in Center City. These should

range from additional bike racks to shower facilities for employees and residents. Reduced auto parking requirements could be linked to provision of bicycle parking facilities. In addition, clothes changing and shower facilities should be provided at or near major employment centers.

ITN-4c. Develop a bike share system for residents, employees and visitors to offer flexibility for those wanting an alternative way of getting around Center City. A bike share system can significantly reduce the use of automobiles in Center City by providing employees, students and residents with a quick and inexpensive means of running errands and making impromptu trips during the day. Electric bicycles can broaden the appeal of the program and extend the range of trips that could be made using a shared bicycle.

ITN-4d. Seek funding to refine and implement the City of Charlotte Bicycle Plan. The City of Charlotte Bicycle Plan includes a comprehensive collection of recommendations for improving cycling throughout the community including connections to and through Center City. The City should update the plan regularly and continue to seek local, state and federal funding to implement the plan recommendations.



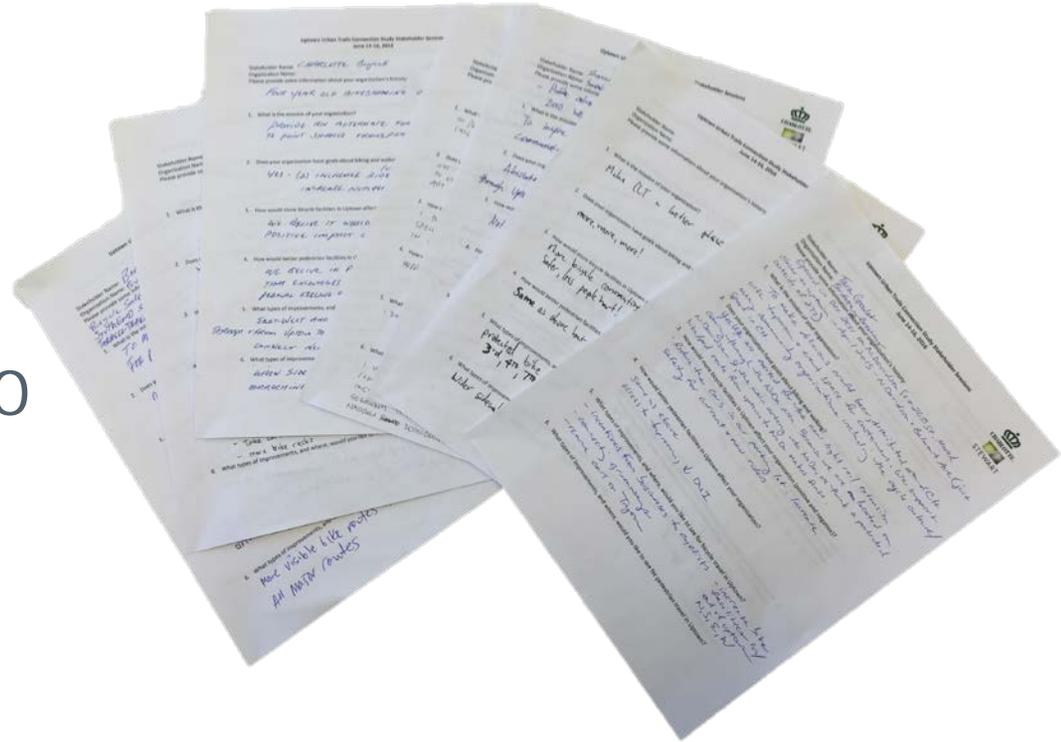
End-of-trip facilities, with parking, lockers and showers, are vital to making the area a true City of Bikes.



A flexible, easy-to-use bike share system should be installed in Uptown and then extended out to surrounding neighborhoods.

- Increased Volume of Users in Uptown
 - Increasing Ridership Over Time
- Types of Users on New Facilities
 - Mirrors Those on Existing Greenway Facilities (Families/Less Experienced Users)
- First Facility Implementation Sets the Bar for Success
- Charlotte Facilities as a Destination
 - Iconic Corridor
 - High Visibility
- Increased Connectivity
- Mode-Shift
 - Increase in Bicycle Commuters
 - Increased B-Cycle Trips / Expansion of B-Cycle Stations
- Culture/Mentality Shift
 - Drivers Recognize and Respect Cyclists
 - Cyclists Better Educated on the “Rules of the Road” and Consistently Display Good Cycling Etiquette
 - Cyclists Move From An Individual Mindset to a Collective Mindset

- Further Analysis of Stakeholder Input
- Public Open House – 9/20
- Network/Corridors Evaluation



“There are always trade-offs in anything worthwhile. I think it is necessary to push the boundaries of what is possible so that we can **achieve something meaningful.**”

- Comment From Stakeholder Questionnaire

Questions?