1 - Work Session Agenda

Documents:

1 - WORK SESSION AGENDA.PDF

2 - Pedestrian Safety Study

Documents:

2 - PEDESTRIAN SAFETY STUDY.PDF

CITY COUNCIL OF THE CITY OF GREENVILLE
WORK SESSION MEETING

Monday, September 26, 2022 - 3:30 p.m.

Greenville City Hall, Council Chambers, 206 S. Main Street

Citizens may access the meeting at the following web address:
https://www.greenvillesc.gov/1694/Online-Meetings

CITY COUNCIL: Mayor Knox White; Councilmember Wil Brasington; Councilmember John DeWorken, Councilmember Dorothy Dowe, Councilmember Lillian Flemming; Councilmember Ken Gibson; Councilmember Russell Stall

CITY STAFF: City Manager John McDonough, City Attorney Leigh Paoletti; City Clerk Camilla G. Pitman

AGENDA

1. Call to Order **3:30 p.m.**

2. Pedestrian Safety Study **3:30 p.m.**
(Presented by Engineering Services Director Clint Link)

3. Executive Session (S.C. Code §30-4-70): **4:15 p.m.**
NOTE: City Council will leave the Work Session to conduct an Executive Session which is not open to the public. The Work Session meeting will adjourn following the completion of the Executive Session. No action will be taken prior to adjourning the meeting.

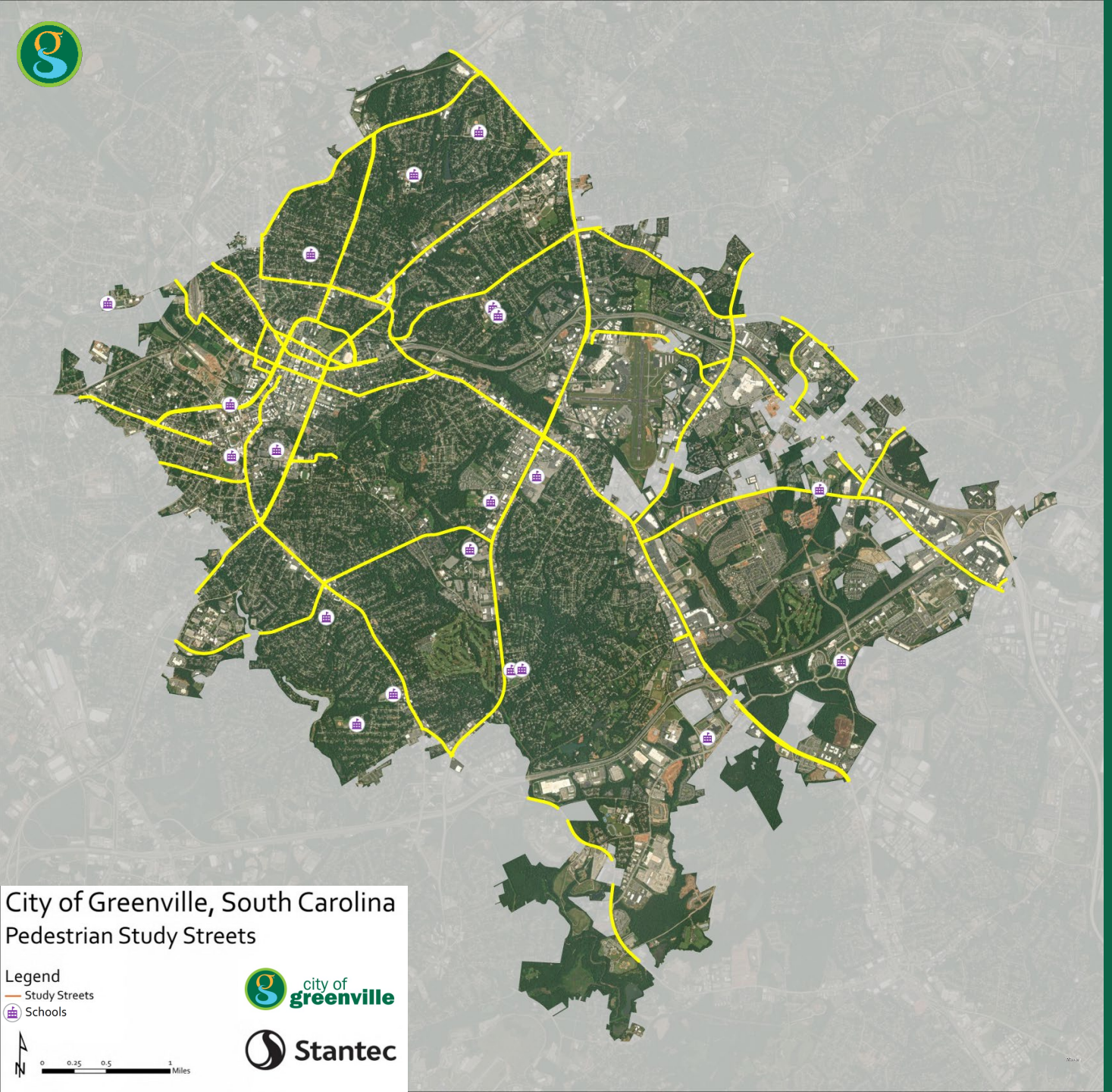
a. Unity Park Maintenance Facility
(Presented by Deputy City Manager Brandon Madden and Office of Management and Budget Director Matt Efird)

b. Boards and Commissions Updates
(Presented by City Clerk Camilla Pitman)

4. Adjourn **5:30 p.m.**

city of greenville

City of Greenville Pedestrian Safety Action Plan



Project Overview

Goal – Increase safety by reducing the rate and number of fatal and injury crashes involving pedestrians.

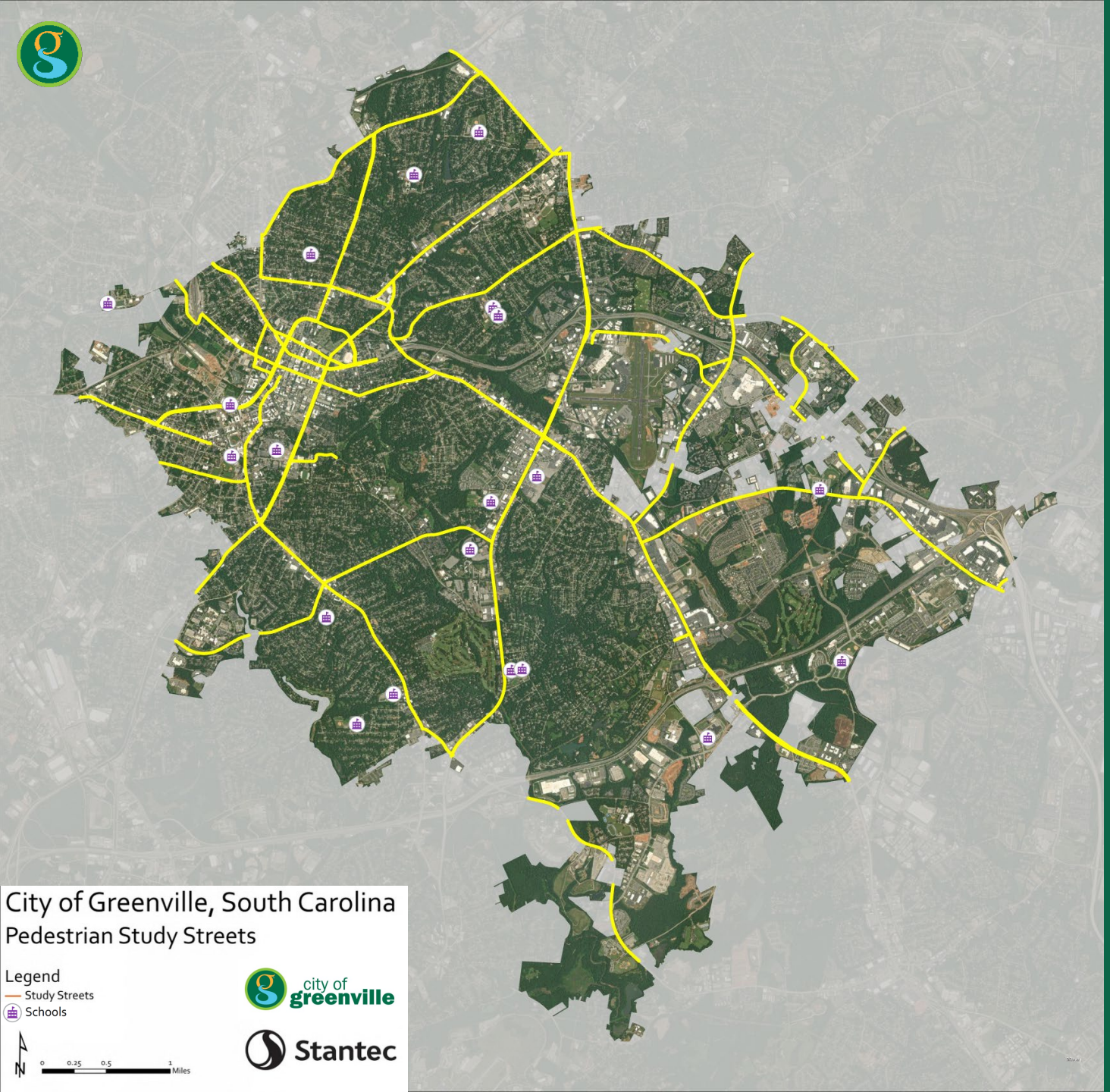
Study Area

46 Total Corridors:

- Highest traffic volumes;
- High pedestrian crash experience.

18 School Zones

**The study is to be complementary to SCDOT's statewide Pedestrian Safety Plan.*



46 Study Corridors

Academy Street
Augusta Street
Beattie Place
Broad Street
Buncombe Street
Butler Avenue
Chick Springs Road
Church Street
College Street
Congaree Road
Dunbar Street
East Parkins Mill Road
Faris Road
Garlington Road
Haywood Road
Keith Drive
Laurens Road
Main Street
Mauldin Road
McBee Avenue
McDaniel Avenue
Mills Avenue
Mohawk Drive
North Street
Old Augusta Road
Patewood Drive
Pelham Road
Pendleton Avenue
Pete Hollis Boulevard
Pleasantburg Drive
Poinsett Highway
Richardson Street
River Street
Roper Mountain Road
Roper Mountain Road Ext.
Rutherford Road
Rutherford Street
Spring Street
Stone Avenue
University Ridge
Vardry Street
Verdae Boulevard
Wade Hampton Boulevard
Washington Street
Woodruff Road
Woods Lake Road

Crash Data

Pedestrian Collisions 2016 to 2021

- Location
- Direction of Travel
- Date/Time
- Road Surface Condition
- Lighting Condition
- Weather Condition
- Contributing Factor(s)
- Traffic Control Type/Crosswalk Available

GIS Data

City of Greenville, SCDOT, Census Tracts

- Average Annual Daily Traffic
- Posted Speed Limit
- Number of Travel Lanes
- Functional Classification
- Demographics
- School Locations
- Public Park Locations
- Transit Stop Locations

Data Collection ☑ → Data Analysis → Location Prioritization → Countermeasure Identification → Safety Improvement Project List

COMPLETE

Public Engagement

Public

- Three public meetings over the life of project
- Public survey with 1,026 comments and ideas

Stakeholder Groups

- Neighborhood Association Members
- City, County, State Transportation Officials,
- City of Greenville, including police, fire and school officials
- General Public

High Crash Locations

Approximately 53% of all Pedestrian Collisions in the past six years happened on these 15 Streets

①	Augusta Street	6%
②	North Pleasantburg Drive	5.5%
③	Laurens Road	4.5%
④	River Street	4.5%
⑤	South Main Street	4%
⑥	North Main Street	3.5%
⑦	Woodruff Road	3.5%
⑧	South Pleasantburg Drive	3.5%
⑨	Woods Lake Road	3%
⑩	South Academy Street	3%
⑪	Dunbar Street	2.5%
⑫	West North Street	2.5%
⑬	West Washington Street	2.5%
⑭	Rutherford Street	2.5%
⑮	Pendleton Street	2.5%

High Risk Locations

Roadway Characteristics	Class of Roadway
	Number of Lanes
	Speed Limit
Proximity to Services	School Zones
	Parks
	Alcohol Sales
	Shelters
Demographics	% of Poverty
	Transit Stops/Mile
	% Households w/o Vehicle
Crash Risk	Population Density
	Crash History
	AADT

Data Collection → Data Analysis → **Location Prioritization** ☑ → Countermeasure Identification → Safety Improvement Project List

COMPLETE

Roadway Characteristics	Class of Roadway
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	Shelters
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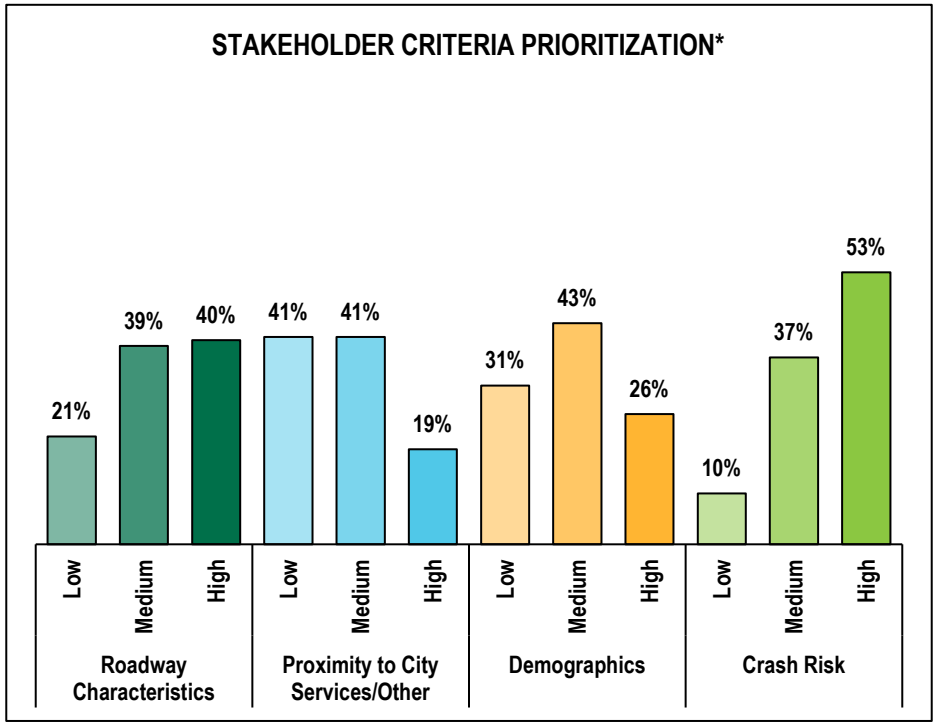
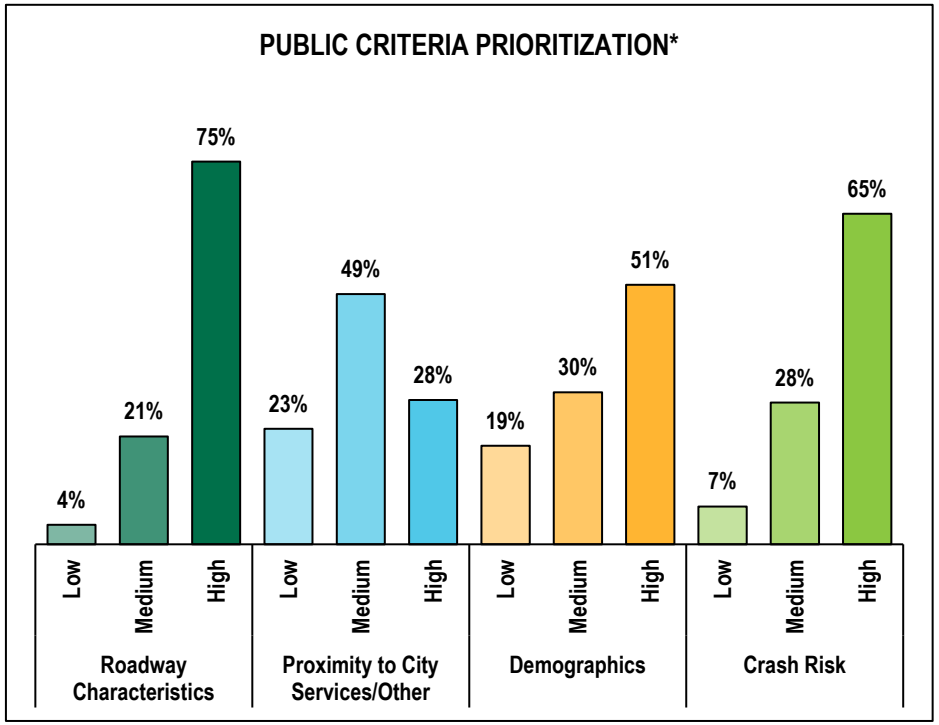
	Transit Stops/Mile
	% Households w/o Vehicle
Crash Risk	Population Density
	Crash History
	AADT

How Stakeholders and the Public Set Priorities



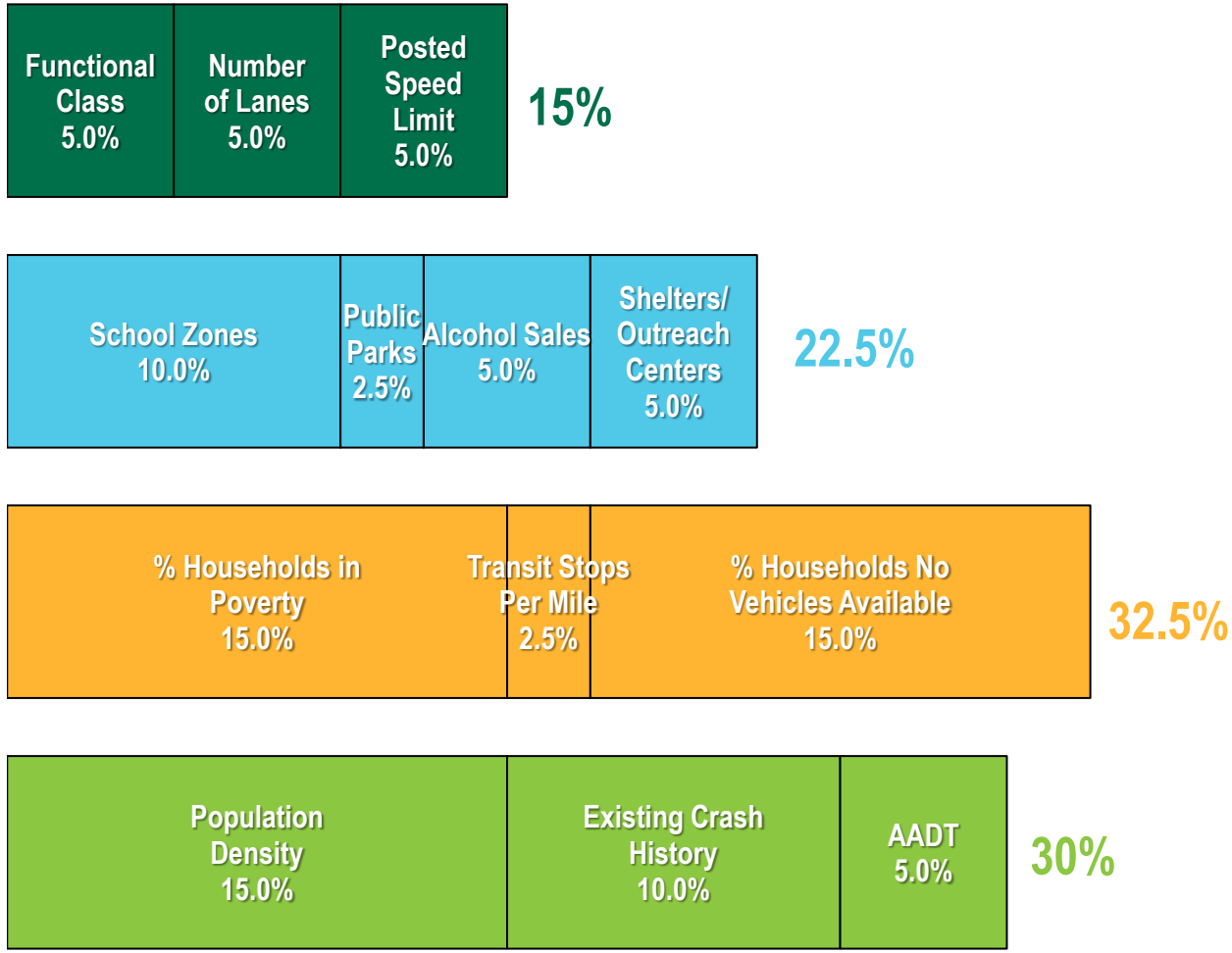


**Percentage of respondents marking "low", "medium", or "high" for each subcategory. Percentages add up to 100% for each of the four subcategories*

Data Collection → Data Analysis → **Location Prioritization** ☑ → Countermeasure Identification → Safety Improvement Project List

COMPLETE

Roadway Characteristics	Class of Roadway	5%
	Number of Lanes	5%
	Speed Limit	5%
Proximity to Services	School Zones	10%
	Parks	2.5%
	Alcohol Sales	5%
	Shelters	5%
Demographics	% of Poverty	15%
	Transit Stops/Mile	2.5%
	% Households w/o Vehicle	15%
Crash Risk	Population Density	15%
	Crash History	10%
	AADT	5%



Data Collection → Data Analysis → **Location Prioritization** ☑ → Countermeasure Identification → Safety Improvement Project List

COMPLETE

Calculating Safety

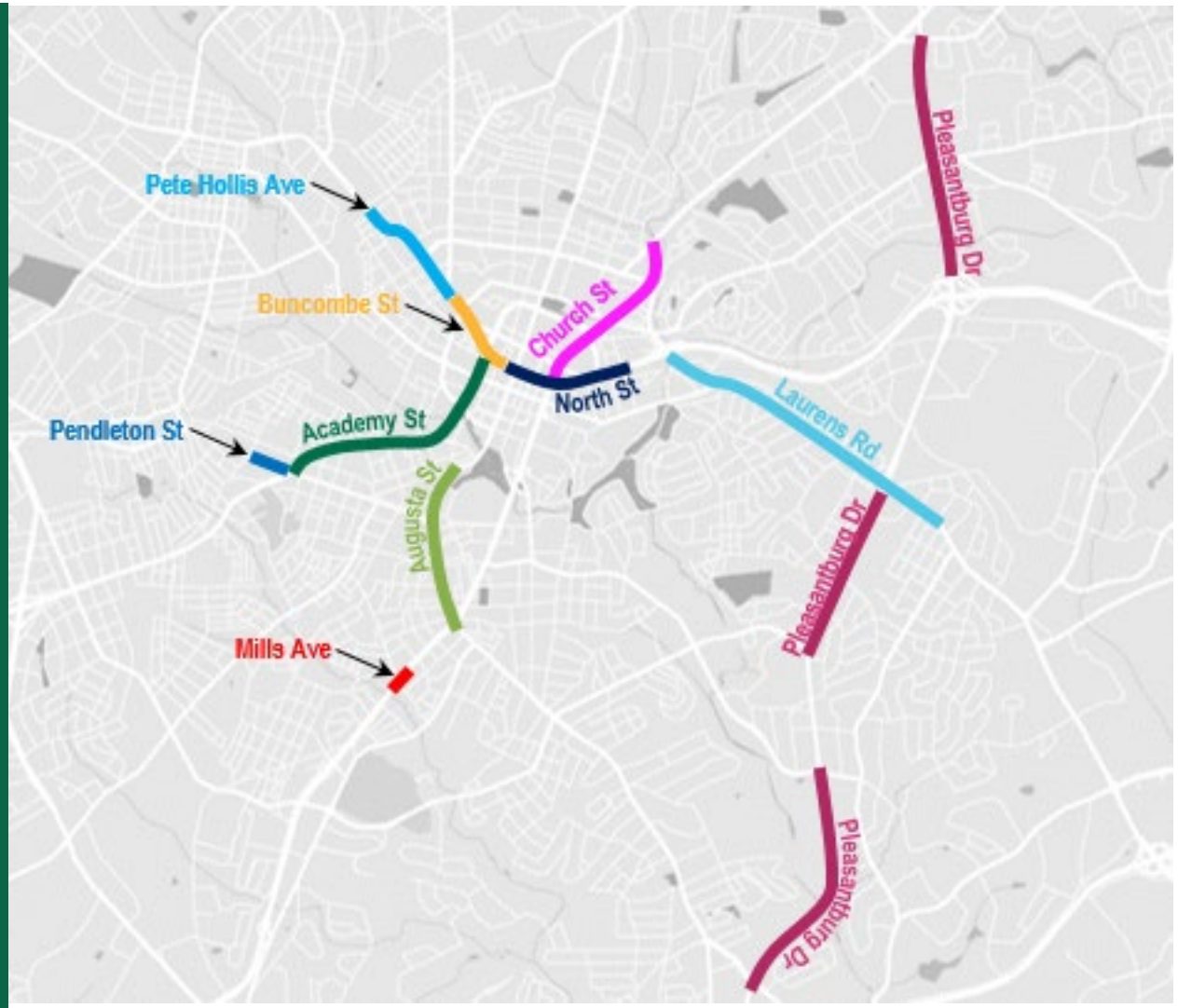
		Prioritize Each Factor		Assign Score for Each Study Corridor		
Roadway Characteristics	Class of Roadway	5%	×	Local	–	Principal Arterial
	Number of Lanes	5%		Two	–	Six
	Speed Limit	5%		25 MPH	–	45 MPH
Proximity to Services	School Zones	10%		< 1 Mile	–	> 1 Mile
	Parks	2.5%		< 1 Mile	–	> 1 Mile
	Alcohol Sales	5%		< 1 Mile	–	> 1 Mile
	Shelters	5%		< 1 Mile	–	> 1 Mile
Demographics	% of Poverty	15%		0 – 5%	–	> 20 %
	Transit Stops/Mile	2.5%		>8	–	<4
	% Households w/o Vehicle	15%		0 – 5%	–	> 25 %
Crash Risk	Population Density	15%		< 100/mile^2	–	>2000/mile^2
	Crash History	10%		0/mile	–	>20/mile
	AADT	5%		<5000	–	>45000

= **Weighted Score for Each Corridor Allows Ranking of Corridor Priorities**

Ten Corridors Selected for Further Study

Based on score and public input

Buncombe Street	Pete Hollis Boulevard
Pleasantburg Drive	North Street
Academy Street	Mills Avenue
Laurens Road	Pendleton Street
Augusta Street	Church Street



Other Projects in Progress

College Street
(City of Greenville)

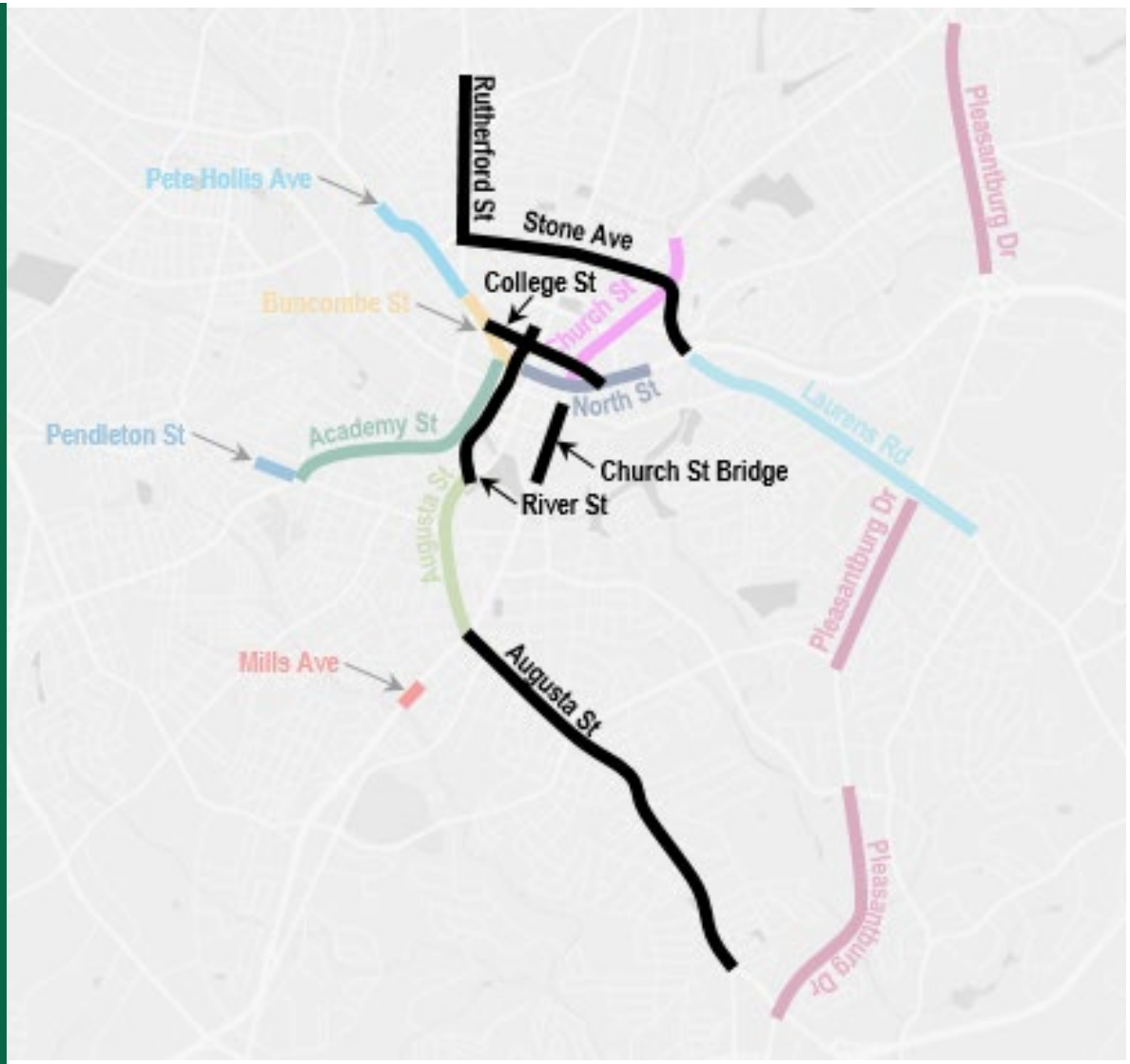
Augusta Street
(City of Greenville)

Church Street Bridge
(City of Greenville)

Stone Avenue
(City of Greenville)

River Street
(SCDOT RSA)

Rutherford Street
(SCDOT RSA)



Data Collection → Data Analysis → Location Prioritization → **Countermeasure Identification** → Safety Improvement Project List

ONGOING

Lighting
Crash Reduction = 42%

Walk Signal
Crash Reduction = 13%

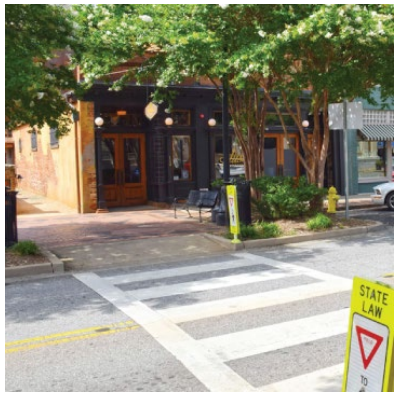
Signal Cycles for Pedestrians Only

Curb Radius Reduction
Vehicles must slow to make a sharper turn

High-Visibility Crosswalks
Crash Reduction = up to 40%

Countdown Signal
Crash Reduction = up to 10%

Right-Turn Lane
Slows turning vehicles



Curb Extensions
Add separate space for pedestrians

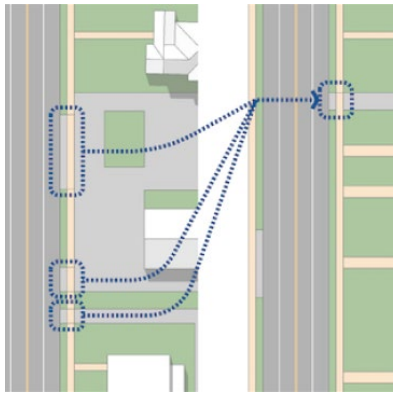
Data Collection → Data Analysis → Location Prioritization → **Countermeasure Identification** → Safety Improvement Project List

ONGOING

Mid-block Signals
Crash Reduction = 42%

Sidewalks Crash Reduction = 65-85%
Paved Shoulder Crash Reduction = 71%

Yield to Pedestrian Sign
Provides warning to drivers



Access Management
Crash Reduction = 25-31%

Flashing Beacons
Crash Reduction = 45%

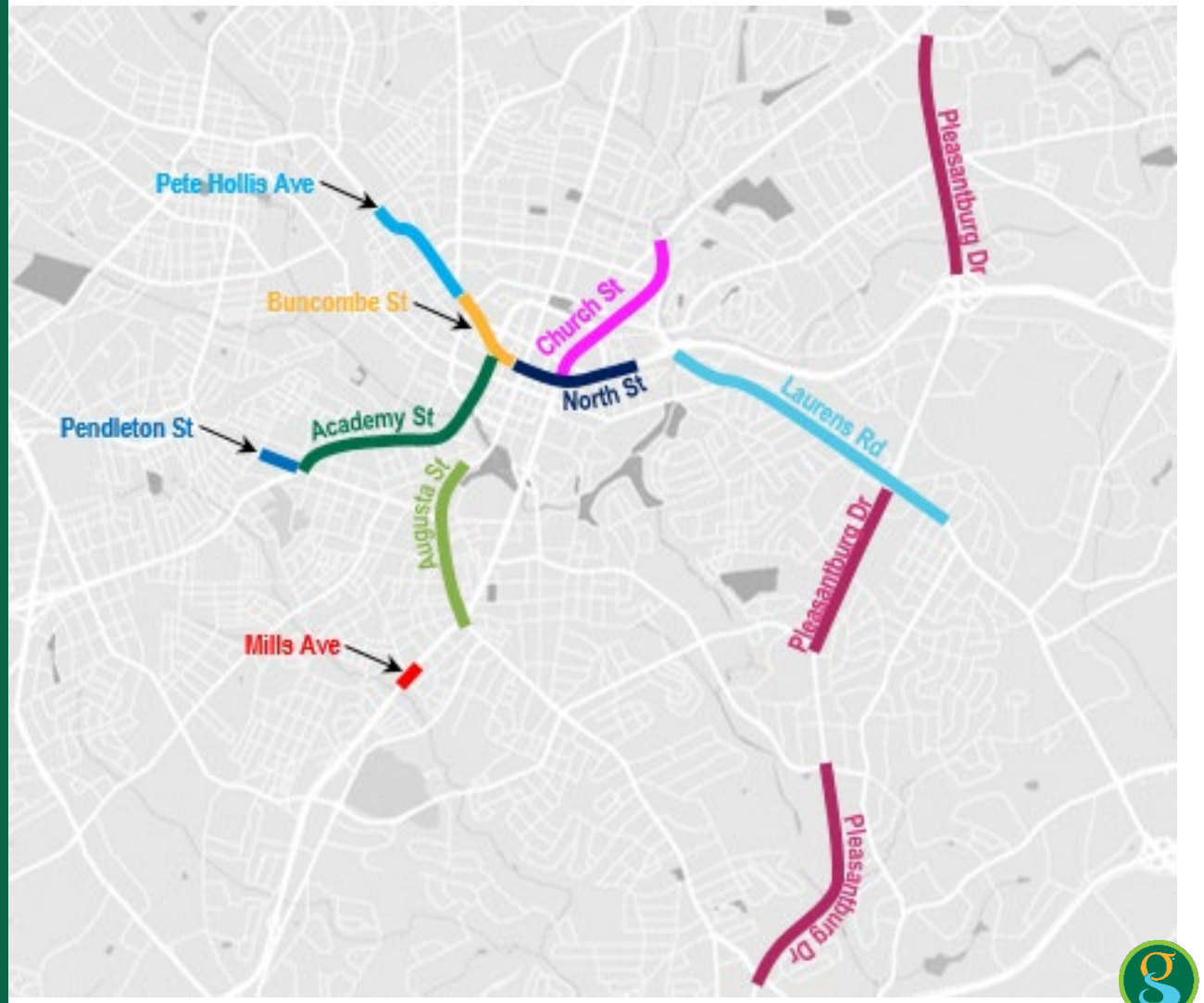
In-Street Crossing Sign
Alerts drivers to right of way

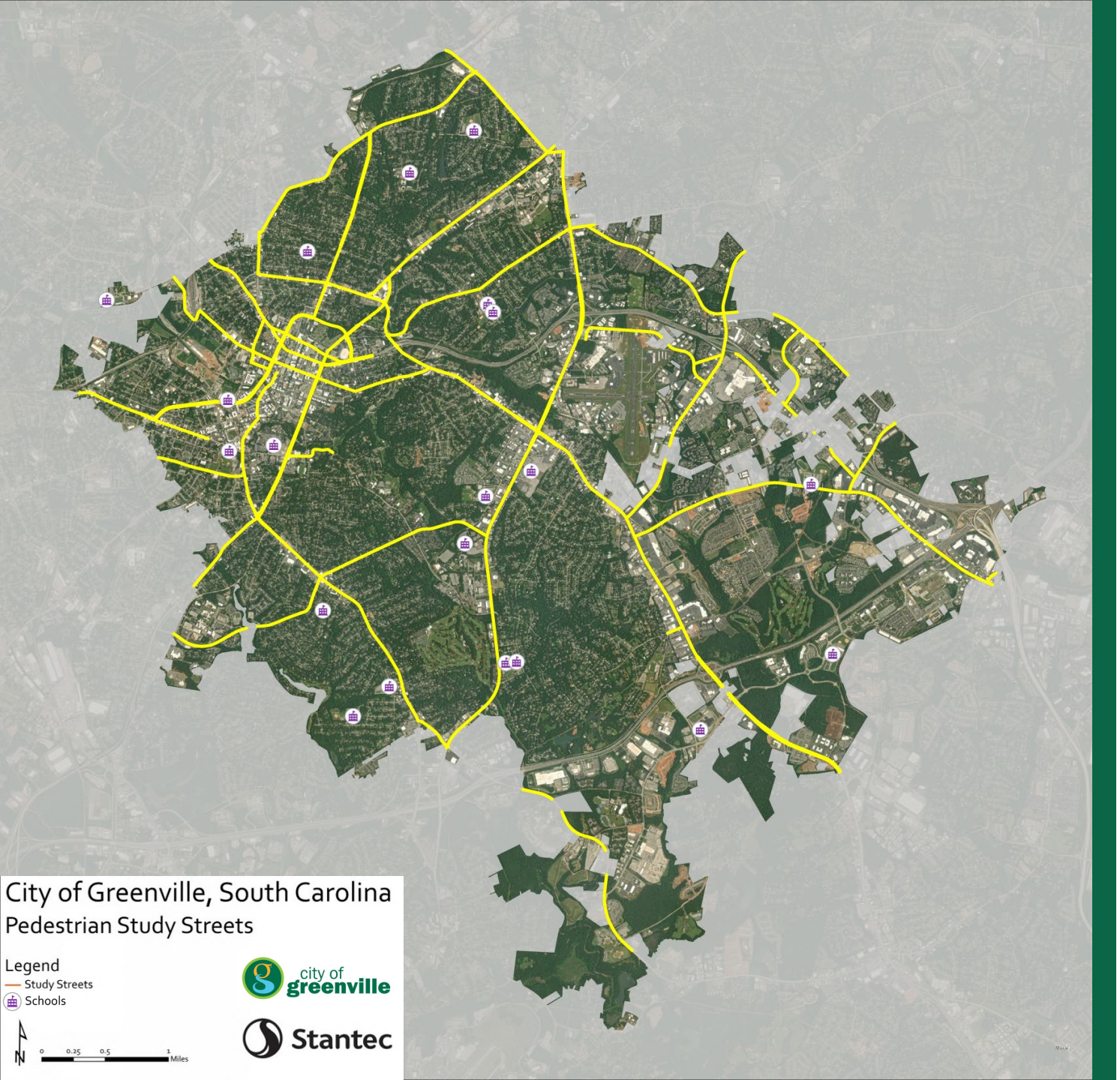
Raised Crossing Crash Reduction = 45%
Refuge Island Crash Reduction = 56%

Speed Humps/Tables
Reduces vehicle speeds

Prioritization of Corridors + Countermeasure Identification =

- List of High-Priority Safety Improvement Projects
- Implement in the Study Area Zones
- Include Education and Enforcement Strategies





18 School Zone Corridors

- Tomassee Avenue
- Waccamaw Avenue
- Betty Spencer Drive
- Parkins Mill Road
- Windmont Drive
- Wilton Street
- Karen Drive
- White Oak Drive
- Millennium Boulevard
- North Summit Drive
- McAlister Road
- E Park Avenue
- Fairforest Way
- W Earle Street
- Townes Street
- Gower Street
- Hudson Street
- Twin Lake Drive

School Zone Corridor Analysis: Conditions Evaluated

- Type of school
- Length of school zone
- Speed limit(s)
- Signage/indicator present
- Land use
- Pedestrian facilities present

  (sidewalk, crosswalks, enhanced features, etc.)
- Laneage of adjacent roadway
- Traffic calming devices present
- Bicycle facilities present
- Additional safety-related notes

School Zone Improvement Options

- Upgrade crosswalks/warning signs
- Use warning signs consistently
- Add pedestrian safety treatments

High-Visibility Crosswalks
Crash Reduction = up to 40%

Yield to Pedestrian Sign
Provides warning to drivers

Flashing Beacons
Crash Reduction = 45%

In-Street Crossing Sign
Alerts drivers to right of way

Next Steps

- Field Reviews
- Finalize Countermeasure Identification
- Benefit/Cost Analysis
- Develop List of Safety Projects
- Final Report (December 2022)