

Beaufort County

**SC 46/ SC 170
Corridor
Safety
Analysis**

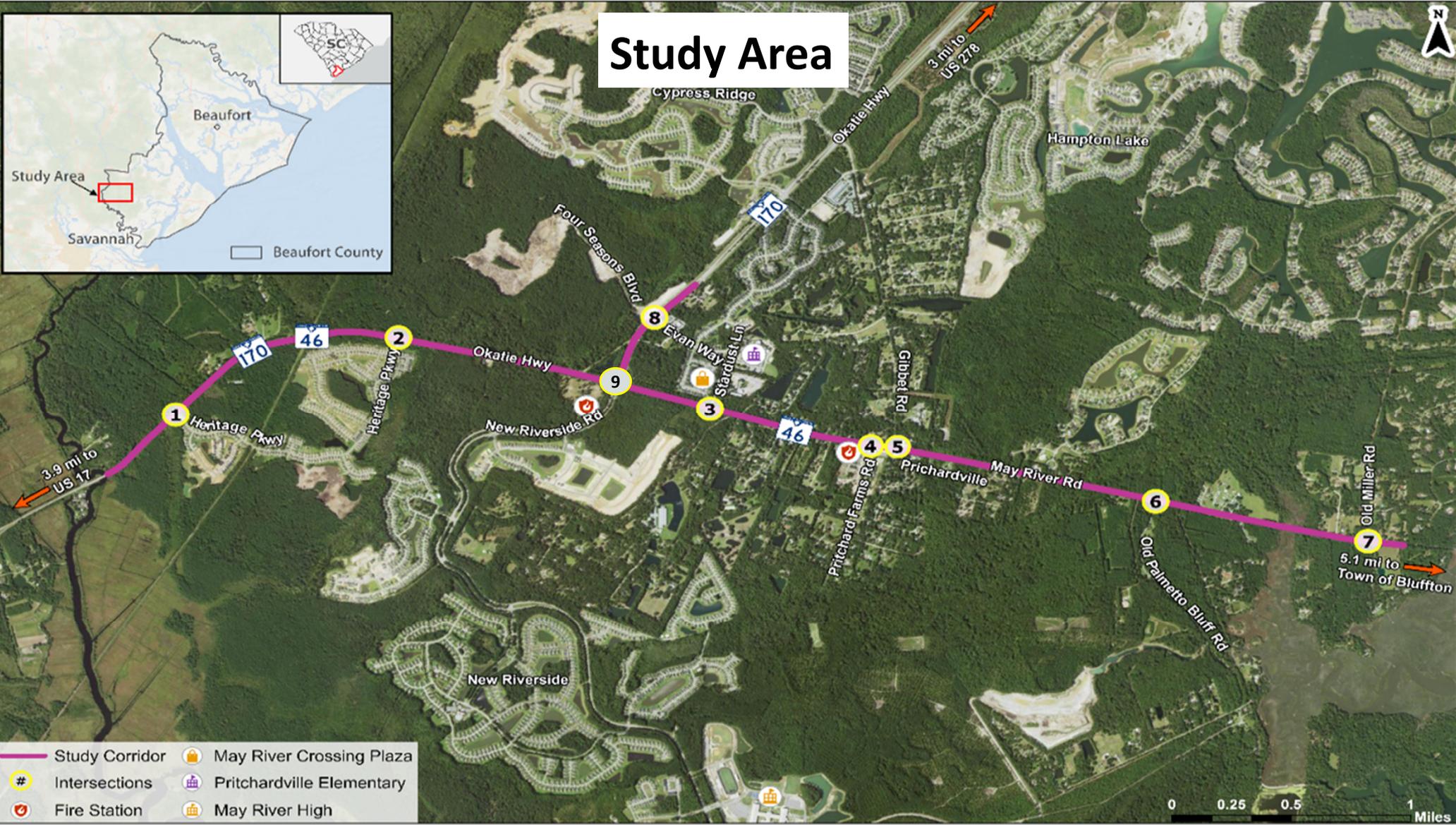
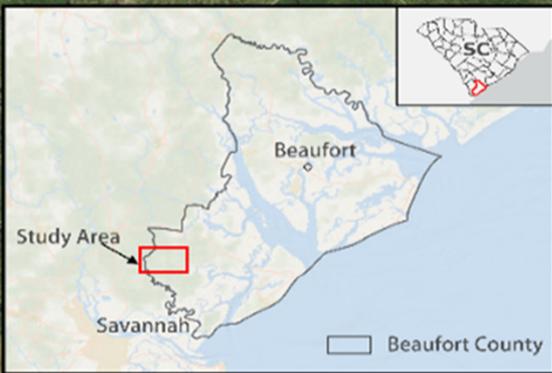
2023

Presentation Agenda

- Purpose & Scope
- Existing Conditions
- Crash Analysis
- Traffic Analysis
- Recommendations



Study Area



- Study Corridor
- Intersections
- Fire Station
- May River Crossing Plaza
- Pritchardville Elementary
- May River High

Purpose and Scope

Purpose and Scope

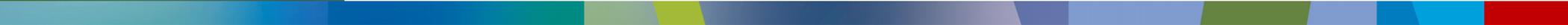
Purpose

- Identify improvements to roadway safety and capacity, as well as bicycle, pedestrian safety and mobility within the corridor
- Maintain scenic byway characteristics of SC 46
- Minimize tree impacts





Existing Conditions



Existing Traffic Volumes



Average Annual Daily Traffic (AADT)

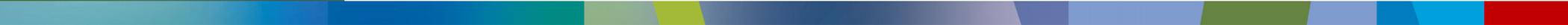


Source:
2022 AADT - SCDOT Historic Traffic
Count Database

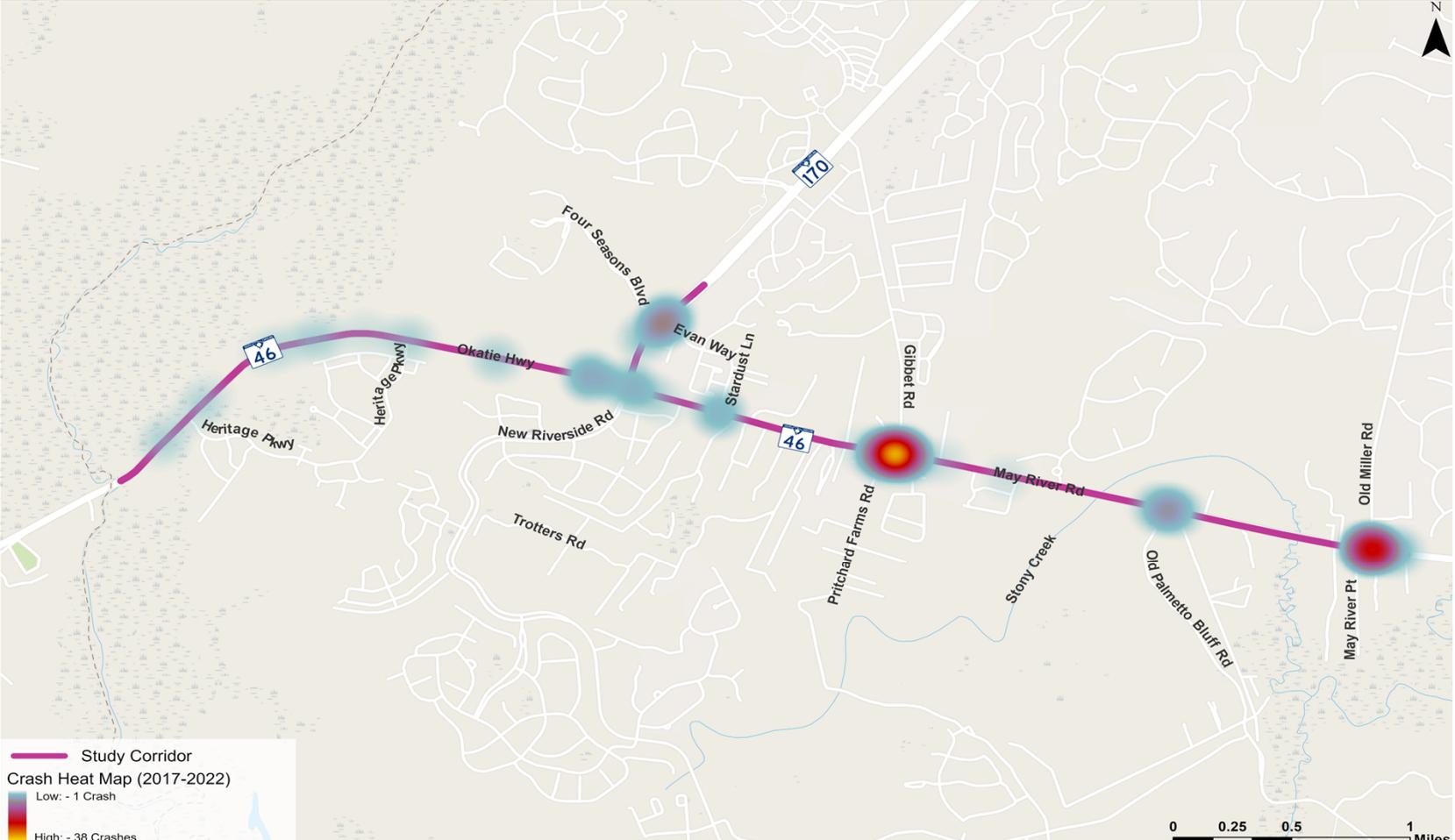


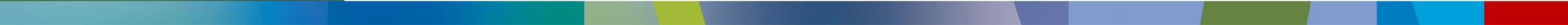


Crash Analysis



Crash Heat Map – 2017-2022





Traffic Analysis

Growth Rate Analysis

CYPRESS RIDGE



FIGURE 1
SITE PLAN

MAY RIVER CROSSING
(TOWN CENTRE @ NEW RIVERSIDE)



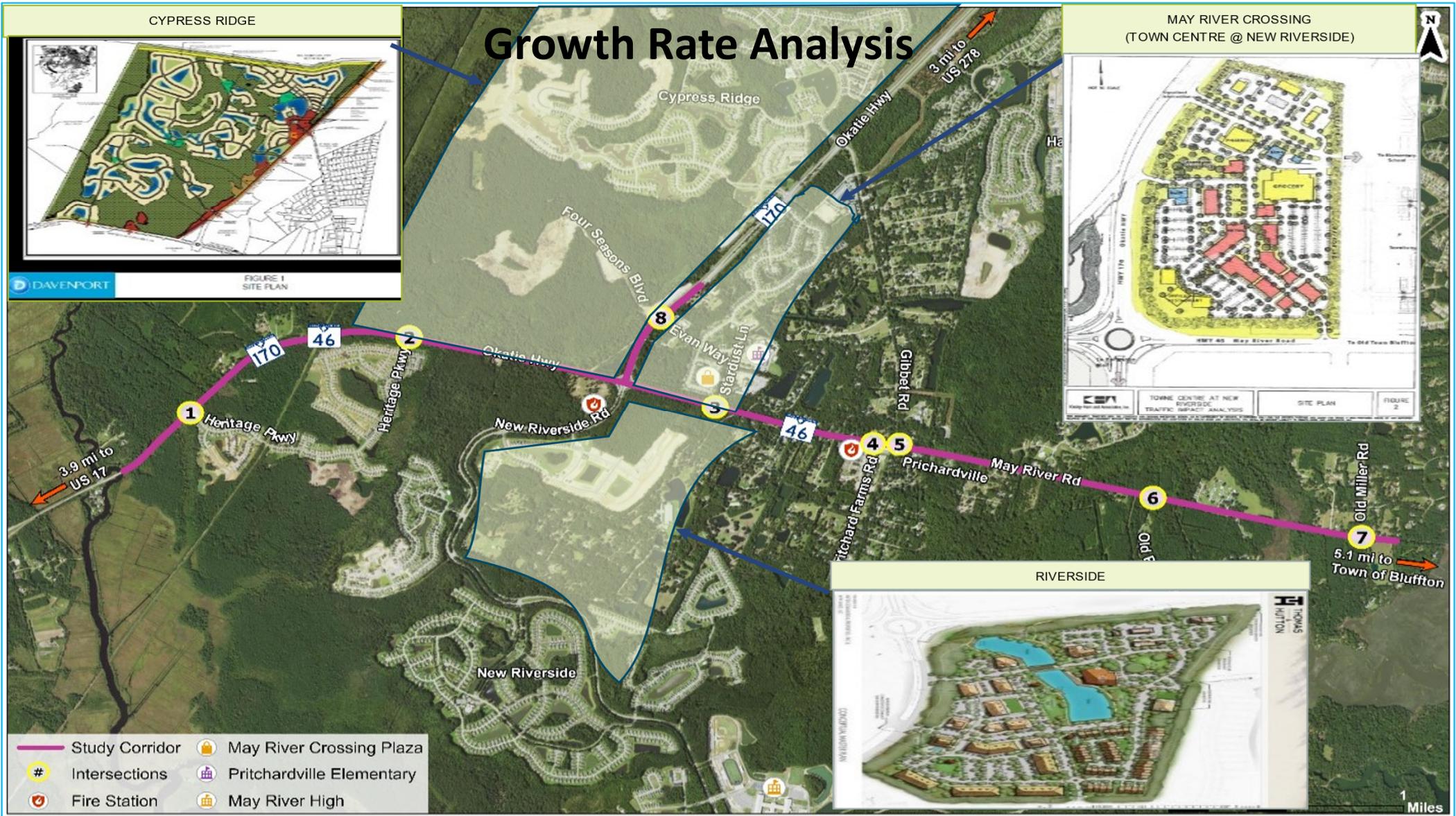
TOWNE CENTRE AT NEW RIVERSIDE
TRAFFIC IMPACT ANALYSIS
SITE PLAN
FIGURE 2

RIVERSIDE



1 Miles

- Study Corridor
- # Intersections
- Fire Station
- May River Crossing Plaza
- Pritchardville Elementary
- May River High

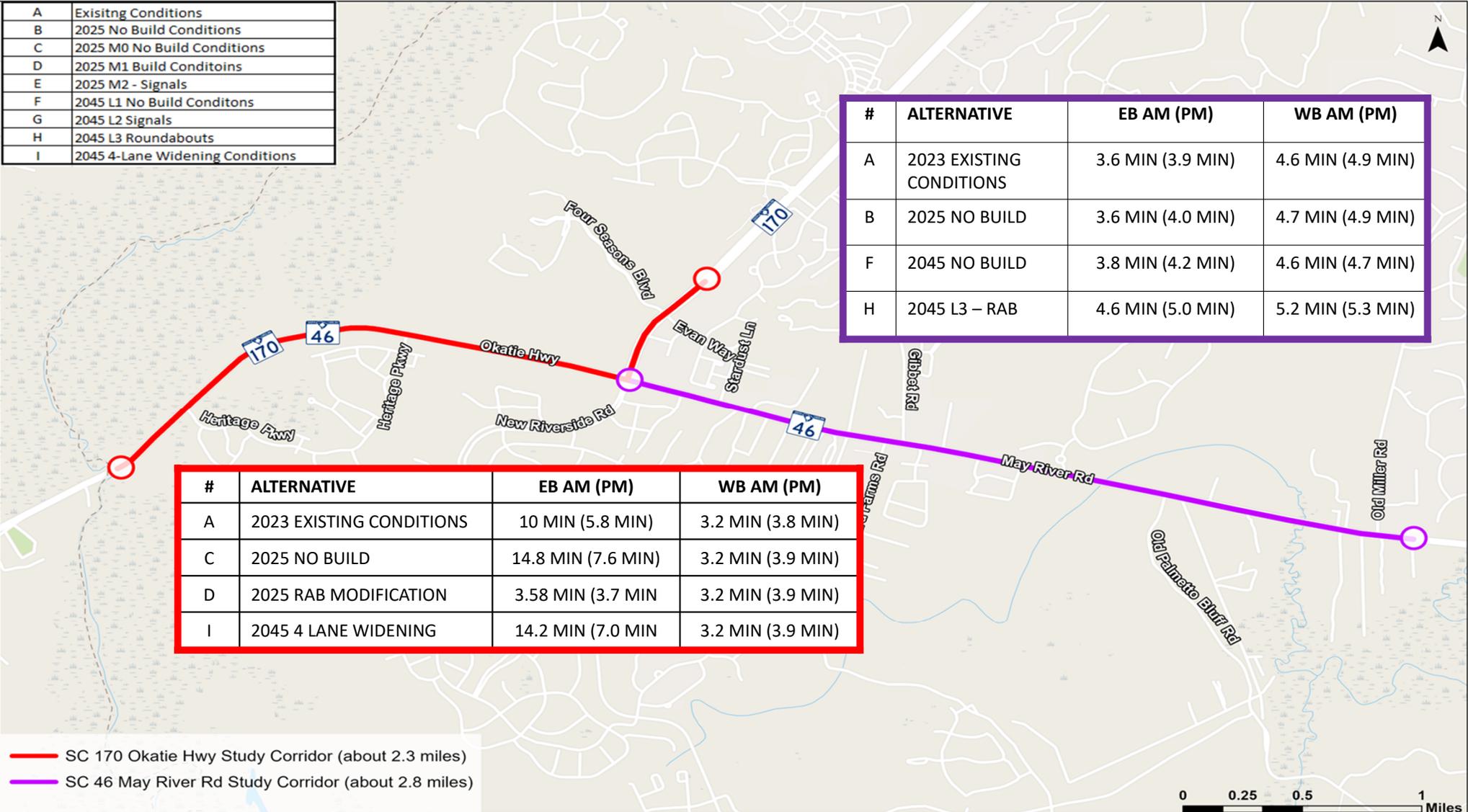


A	Existing Conditions
B	2025 No Build Conditions
C	2025 M0 No Build Conditions
D	2025 M1 Build Conditions
E	2025 M2 - Signals
F	2045 L1 No Build Conditions
G	2045 L2 Signals
H	2045 L3 Roundabouts
I	2045 4-Lane Widening Conditions

#	ALTERNATIVE	EB AM (PM)	WB AM (PM)
A	2023 EXISTING CONDITIONS	3.6 MIN (3.9 MIN)	4.6 MIN (4.9 MIN)
B	2025 NO BUILD	3.6 MIN (4.0 MIN)	4.7 MIN (4.9 MIN)
F	2045 NO BUILD	3.8 MIN (4.2 MIN)	4.6 MIN (4.7 MIN)
H	2045 L3 – RAB	4.6 MIN (5.0 MIN)	5.2 MIN (5.3 MIN)

#	ALTERNATIVE	EB AM (PM)	WB AM (PM)
A	2023 EXISTING CONDITIONS	10 MIN (5.8 MIN)	3.2 MIN (3.8 MIN)
C	2025 NO BUILD	14.8 MIN (7.6 MIN)	3.2 MIN (3.9 MIN)
D	2025 RAB MODIFICATION	3.58 MIN (3.7 MIN)	3.2 MIN (3.9 MIN)
I	2045 4 LANE WIDENING	14.2 MIN (7.0 MIN)	3.2 MIN (3.9 MIN)

— SC 170 Okatie Hwy Study Corridor (about 2.3 miles)
 — SC 46 May River Rd Study Corridor (about 2.8 miles)





Recommendations & Mitigations



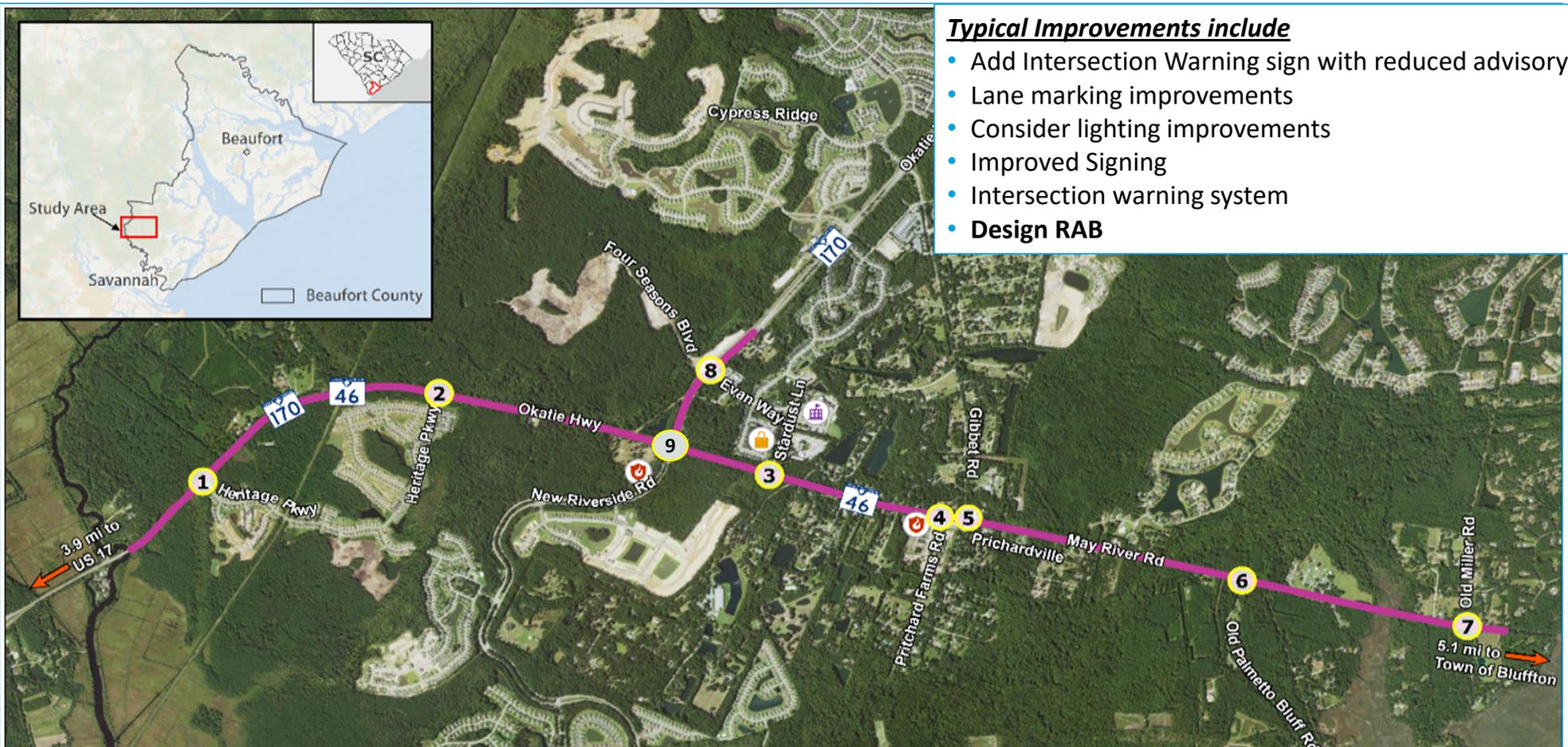
SC 46 Corridor

Short, Mid and Long Term Countermeasures

Short Term Safety Countermeasures

Typical Improvements include

- Add Intersection Warning sign with reduced advisory speed
- Lane marking improvements
- Consider lighting improvements
- Improved Signing
- Intersection warning system
- **Design RAB**



Short Term Improvement at SC 46 & SC 170 RAB Modifications - 2025



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& Hunt**

SC 46 & SC 170 ROUNDABOUT
BEAUFORT, SOUTH CAROLINA

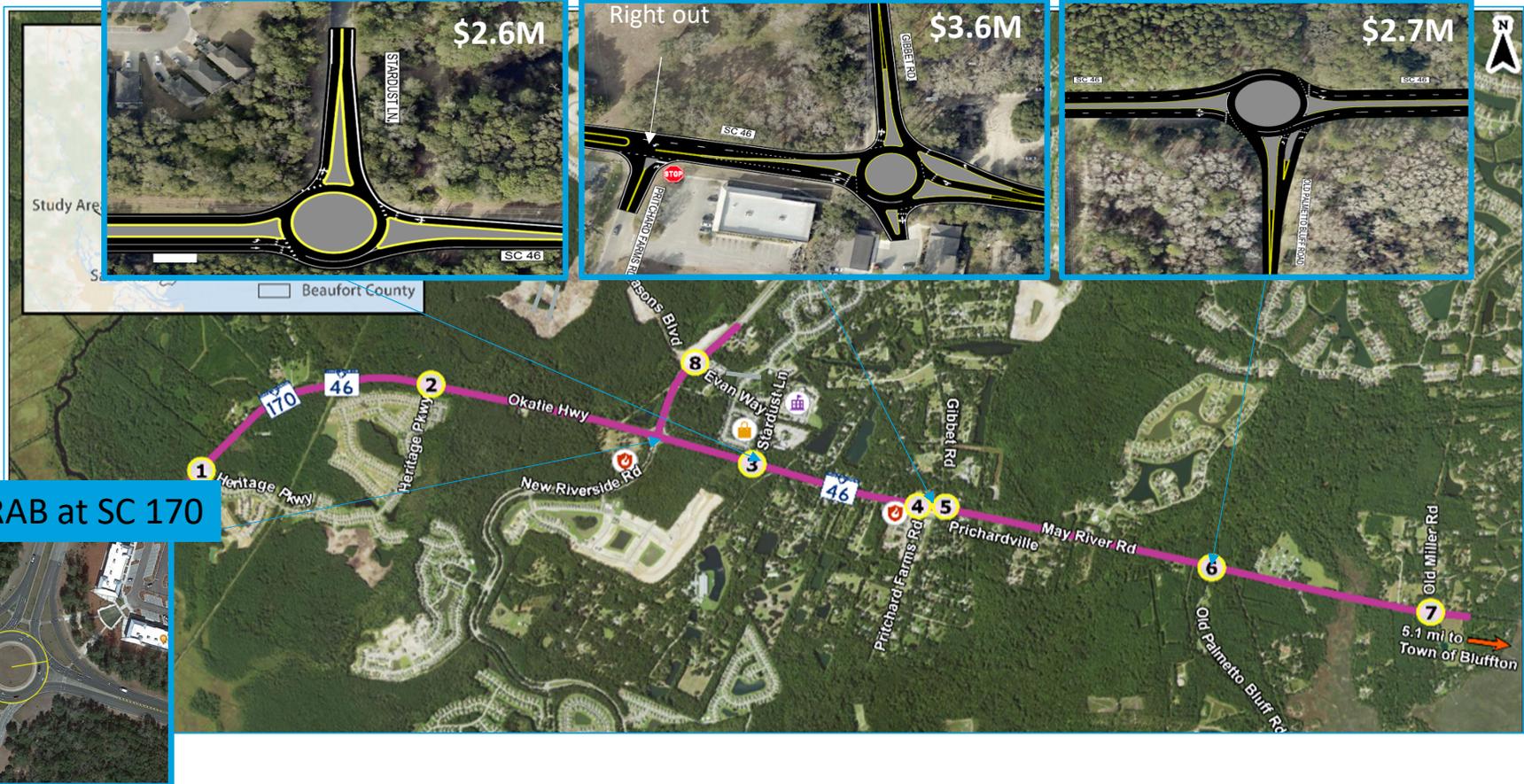


2025
ROUNDABOUT IMPROVEMENTS

Mead&Hunt

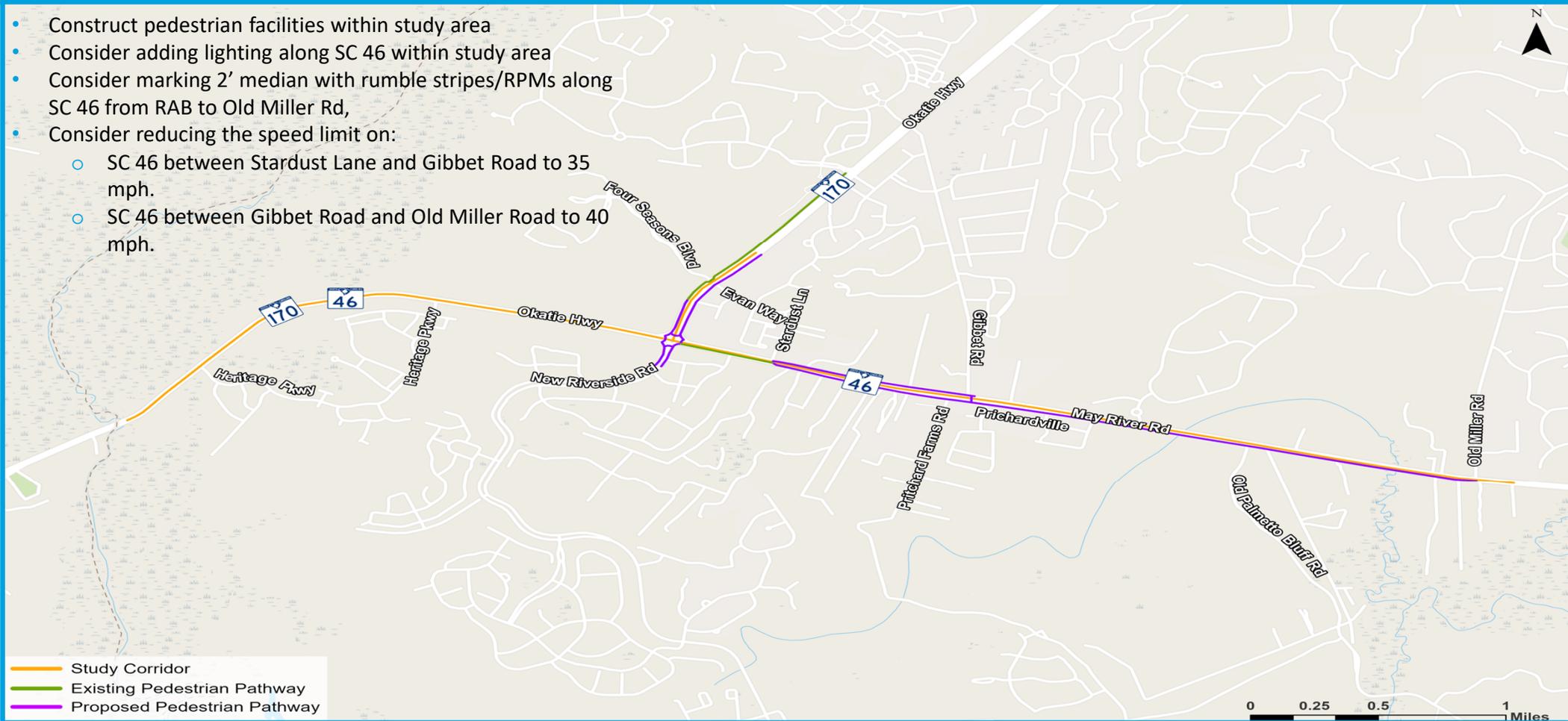
Mid - Term Safety Counter Measures

Install RABs at Stardust Ln, Gibbet Rd, Old Palmetto Bluff Rd



Other Mid Term Recommendations

- Construct pedestrian facilities within study area
- Consider adding lighting along SC 46 within study area
- Consider marking 2' median with rumble stripes/RPMs along SC 46 from RAB to Old Miller Rd,
- Consider reducing the speed limit on:
 - SC 46 between Stardust Lane and Gibbet Road to 35 mph.
 - SC 46 between Gibbet Road and Old Miller Road to 40 mph.



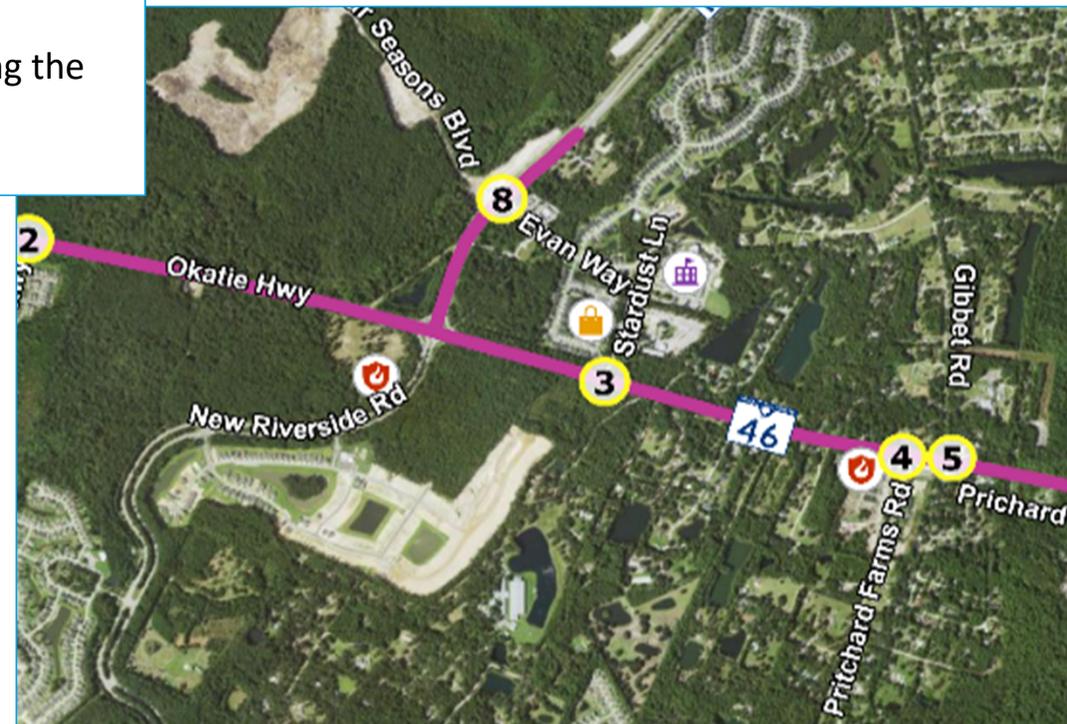
SC 170 / Evan
Way/ Four
Seasons

Short, Mid and Long Term Countermeasures

Short Term Safety Countermeasures

SC 170 / Evan Way / Four Seasons Blvd

- Revise lanes to thru/left, right only and add delineation marking thru intersection
- Add Intersection Warning sign with 35 mph advisory speed
- Add short skips to show edge of travel lane.
- Consider lighting and markers to assist motorists into entering the correct side of the median
- **Design R-CUT**



Mid-Term Recommendation – Construct R-CUT

TABLE 25: \$5.2M



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SC 170 AT EVAN WAY
BEAUFORT, SOUTH CAROLINA



2045
SIGNALIZED RCUT WITH
STCP-CONTROLLED MEDIAN
U-TURNS

Mead&Hunt

Long-Term Recommendation – Re-evaluate need to signalize U-turns



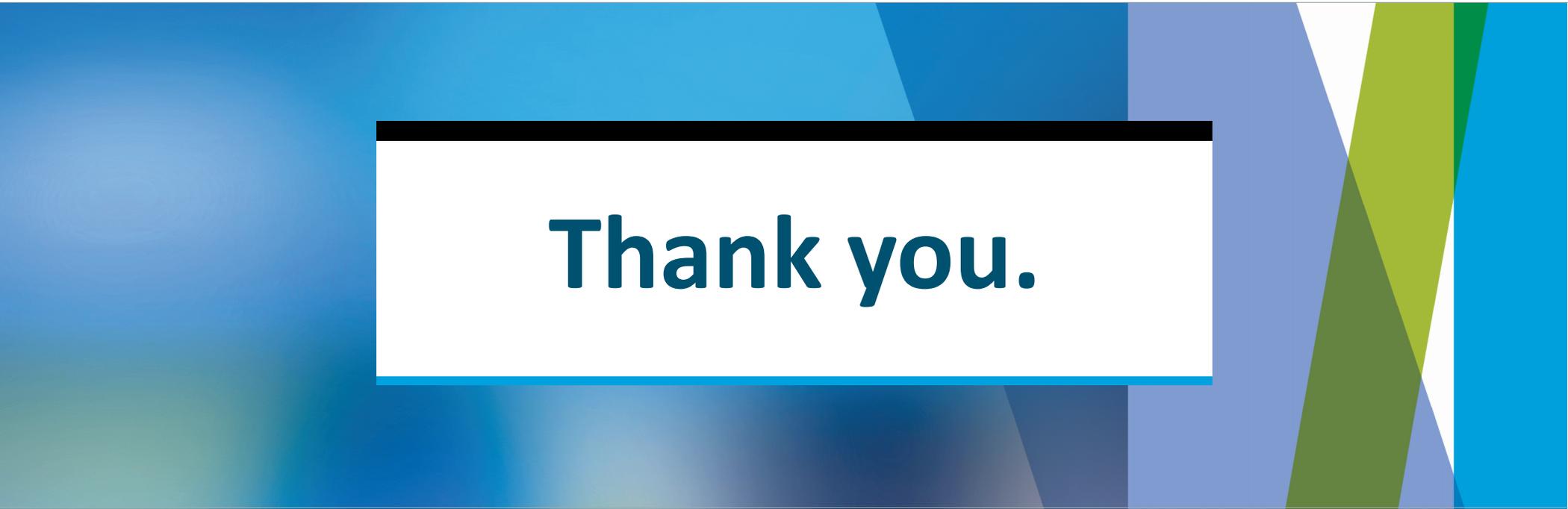
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SC 170 AT EVAN WAY
BEAUFORT, SOUTH CAROLINA



2045
SIGNALIZED RCUT WITH
PARTIAL SIGNAL-CONTROLLED
MEDIAN U-TURNS

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Thank you.