# NC 98 Corridor Study

www.NC98corridor.com

#NC98study

November 8, 2017

98 CORRIDOR STUDY

NC CAMPO • DCHC MPO • NCDOT

# WHERE & WHAT

## Project Study Area:

- 27-miles from U.S. 70 in Durham Co. through Wake Co. to U.S. 401 in Franklin Co. (approximately a quarter mile (1/4) on either side of N.C. 98)

## This study will evaluate:

Safety & Mobility

Planned & Existing Roads

Transit

Bicycle/ Pedestrian Facilities

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# EXISTING CONDITIONS

## Environmentally Sensitive Areas

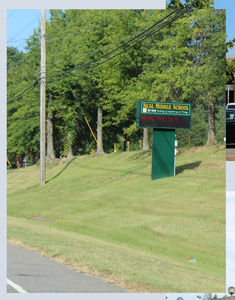


- Falls Lake, Little River, & Neuse River Watersheds
- Shinleaf Recreation Area
- Parks
- Trails

## Several Types of Land Uses

- Transportation
- Recreational
- Agricultural
- Residential
- Educational Institutions
- Natural Environment
- Commercial

## Traffic Generating Facilities






- Schools
- Churches
- Shopping centers
- Activities

## Recreation

- Cycling
- Boating
- Camping
- Parks & Trails
- Golf

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# N.C. 98 STUDY SCHEDULE

Project Kick-Off

We are here

DEC 16 | JAN 17 | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC | JAN 18 | FEB | MAR | APR | MAY | JUN | JUL

REVIEW EXISTING INVENTORY & PLANS

TRANSPORTATION ANALYSIS

CONCEPTUAL DESIGN

IMPLEMENTATION PLAN

PUBLIC INVOLVEMENT

SOT

SOT

SOT

SOT

**Visioning Public Events**
Public Meetings
Pop-up Events

**Conceptual Design Preference Public Events**
Public Meetings
Pop-up Events

**Informational Session on Recommendations**
Public Meetings

**Study Oversight Team (SOT) Meeting**

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# PUBLIC PARTICIPATION

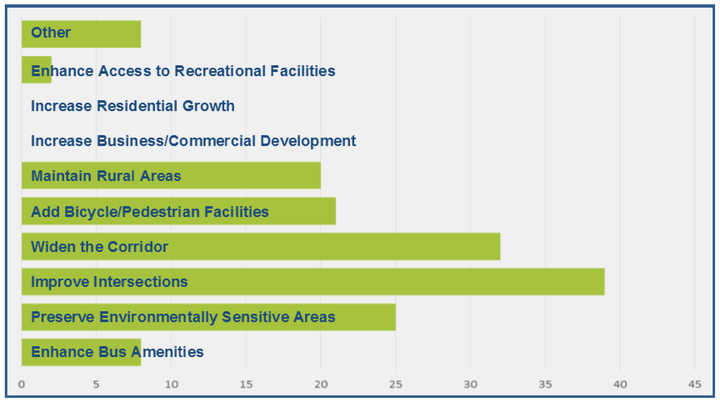
## PUBLIC MEETINGS

**PARTICIPATION**

73 Attendees between Wake Forest & Durham

45 Submitted a Comment Form

**CORRIDOR PRIORITIES**




## ONLINE PARTICIPATION

### NC98CorridorStudy.com

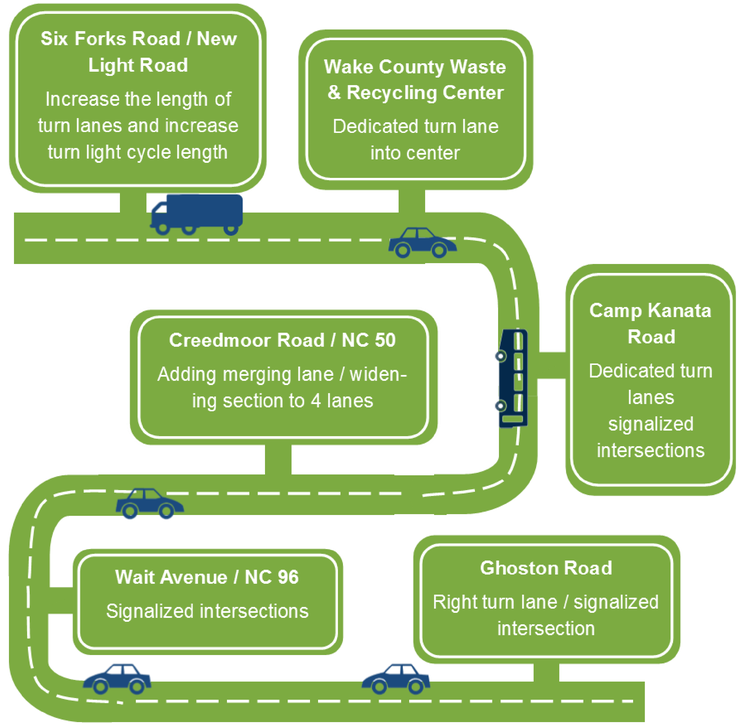
Feb 23 – Apr 5


### #NC98Study

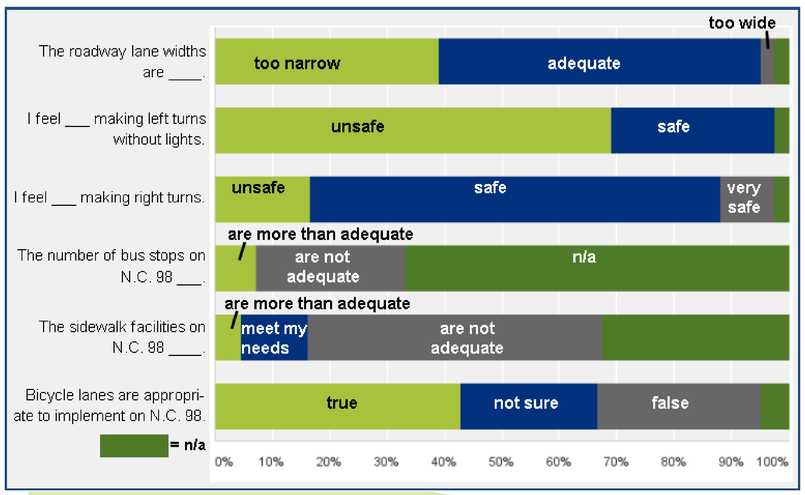
13,664 impressions

1,847 reaches

## REOCCURING CROWDSOURCE MAP THEMES *As of March 27




## OPPORTUNITIES ALONG THE CORRIDOR


Website Comment Submissions / Sign-up : 53

Interactive Crowdsource Map Comments: 558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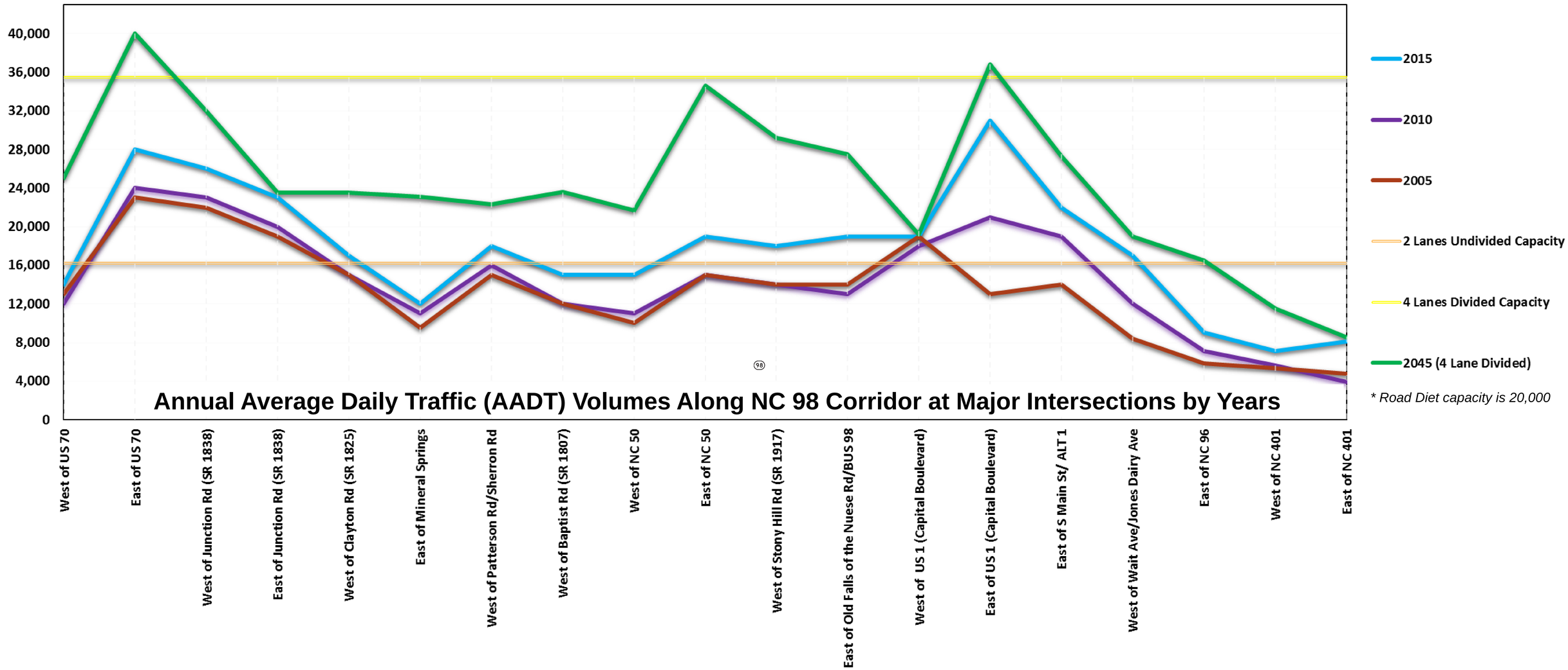
# TRAFFIC ANALYSIS




**Annual Average Daily Traffic (AADT) Volumes Along NC 98 Corridor at Major Intersections by Years**

** Road Diet capacity is 20,000*

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# CRASH DATA





















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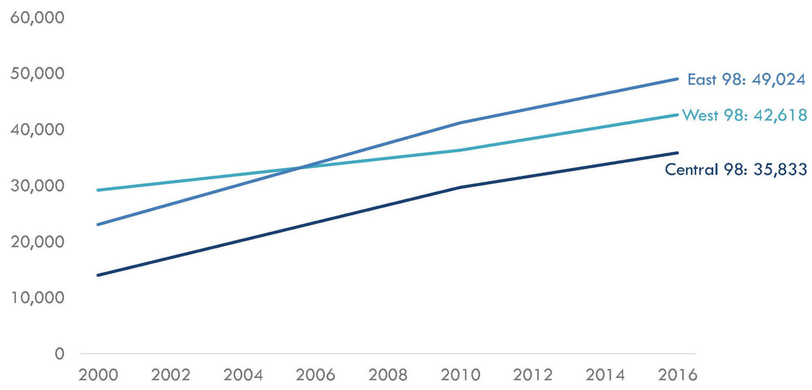
# ECONOMIC ANALYSIS

## POPULATION GROWTH

The NC 98 Corridor has seen significant growth since 2000, most notably in the Central and East sections.

*Total Population, 2000-2016*

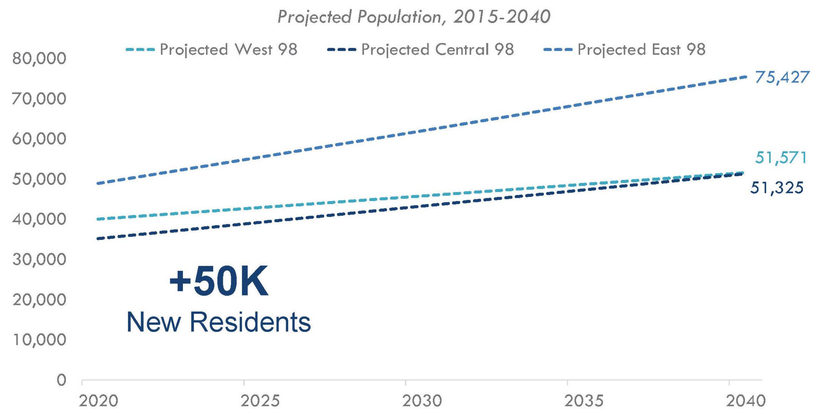



Source: ESRI Business Analyst



Based on CAMPO projections, the corridor is expected to add over 50,000 people by 2040.

*Projected Population, 2015-2040*

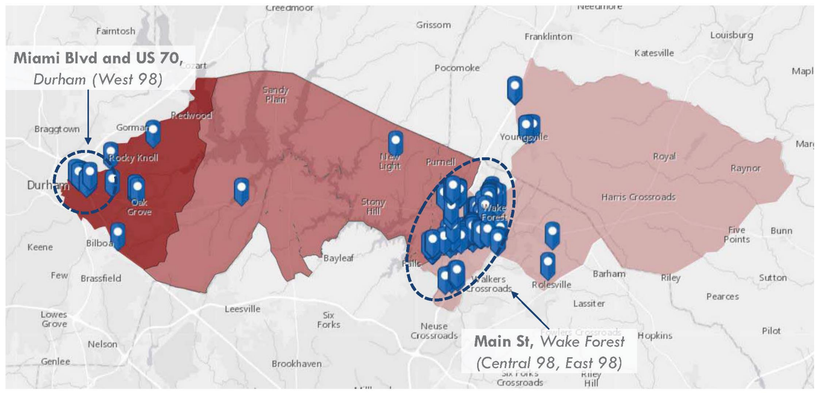



Source: ESRI Business Analyst, CAMPO, DCHC



## COMMERCIAL GROWTH

Existing commercial office buildings have clustered along Miami Boulevard in Durham and Main Street in Wake Forest.

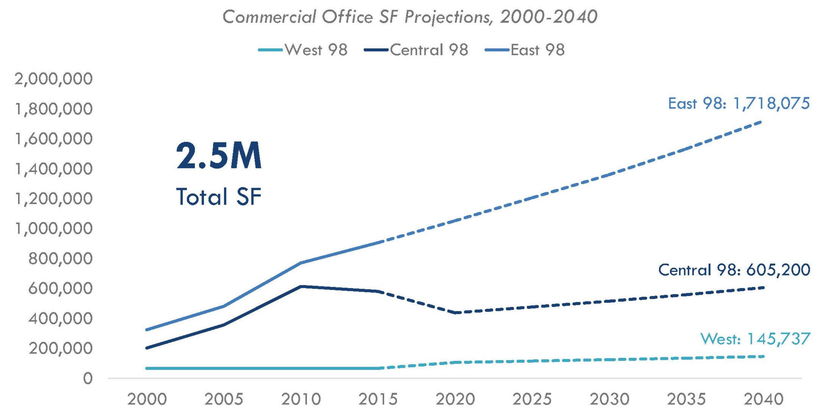



Source: CoStar, ESRI



The Study Area could add an additional 1 million SF in commercial office space by 2040, primarily owing to growth in East 98.

*Commercial Office SF Projections, 2000-2040*




Source: CoStar, CAMPO



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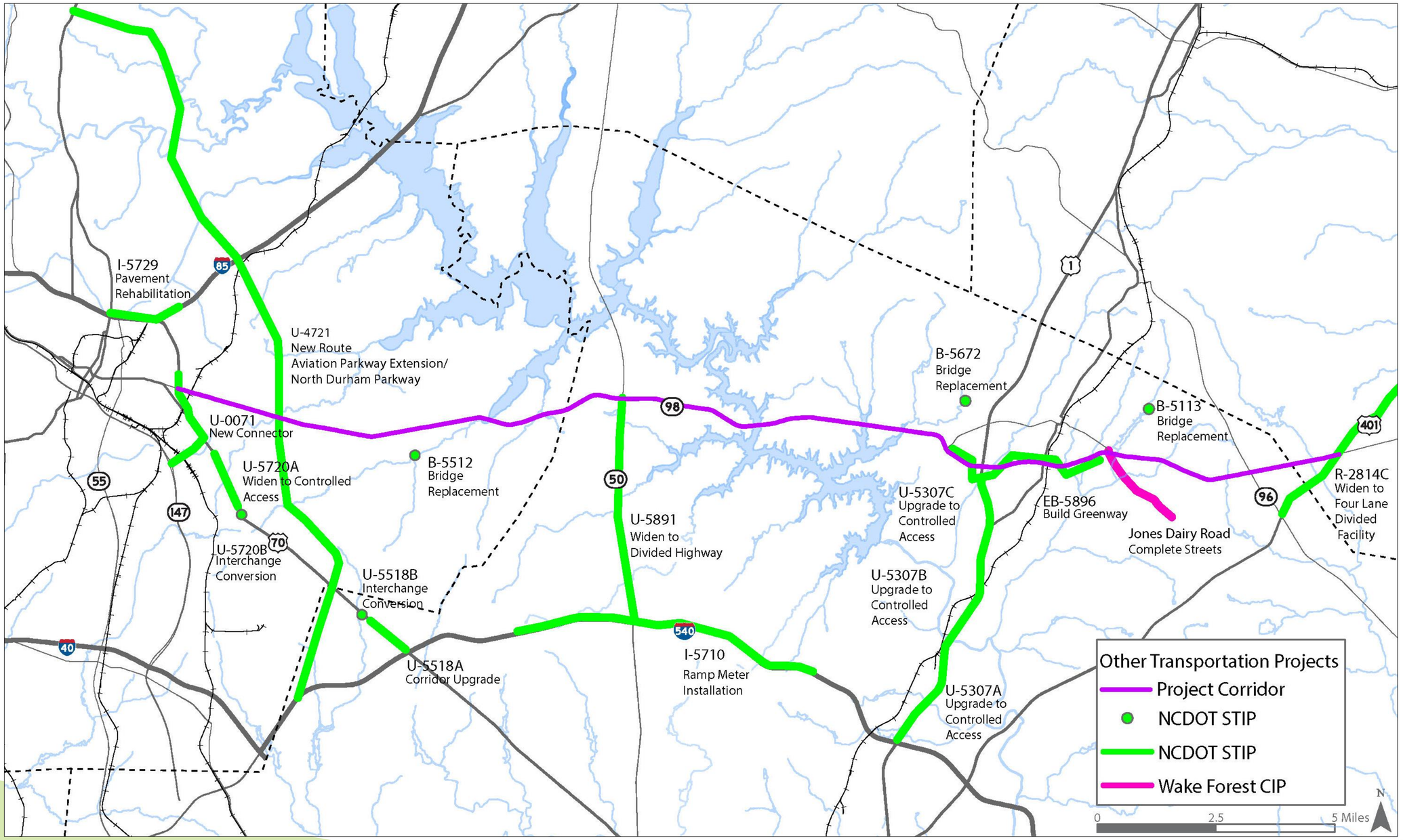
# AREA PROJECTS ALONG NC 98

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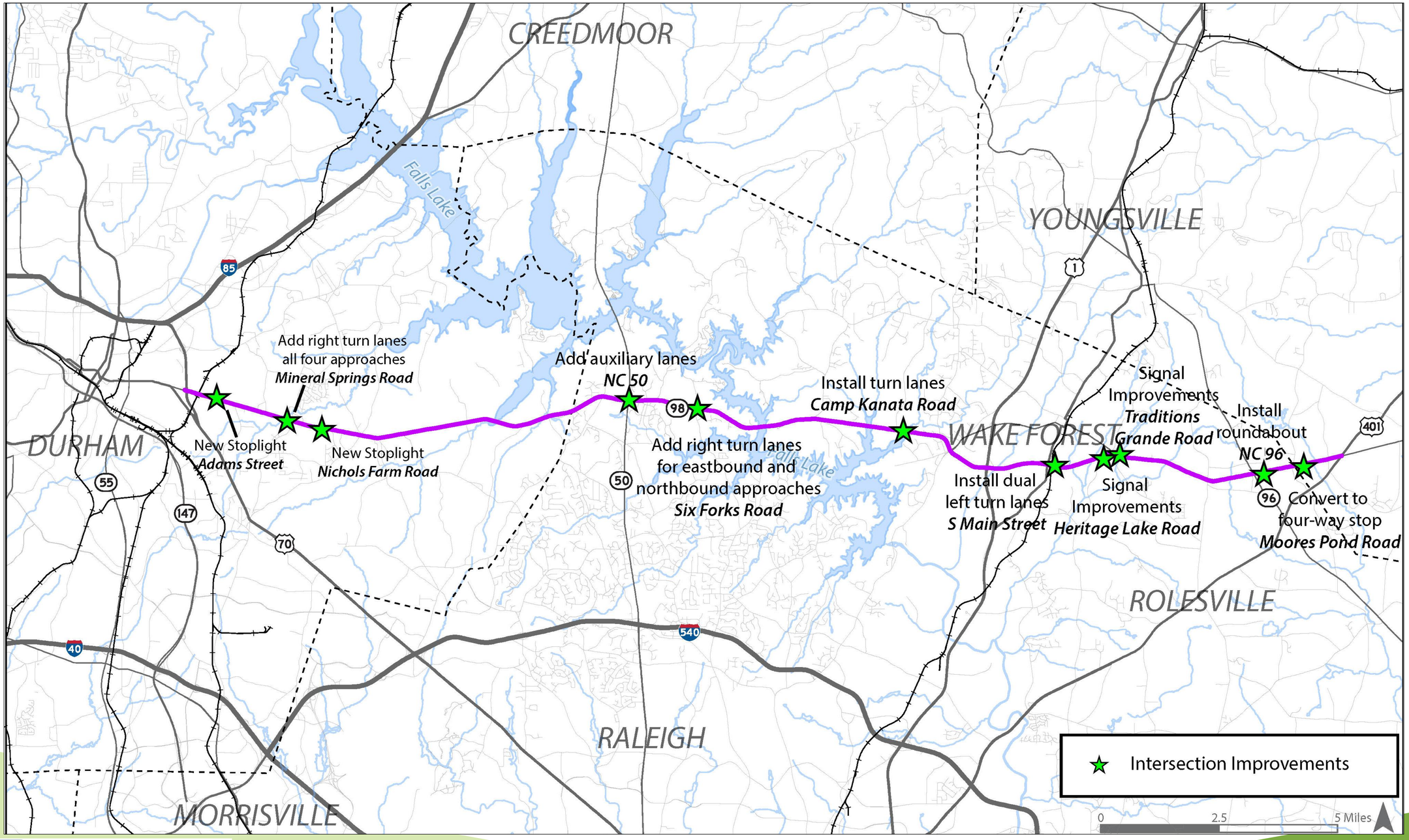
# SHORT-TERM IMPROVEMENTS

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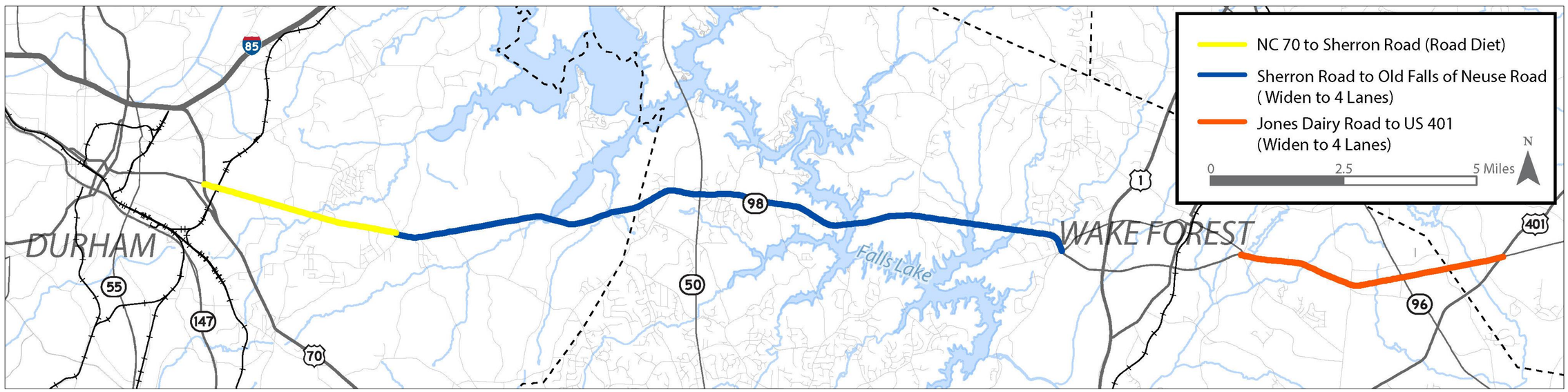
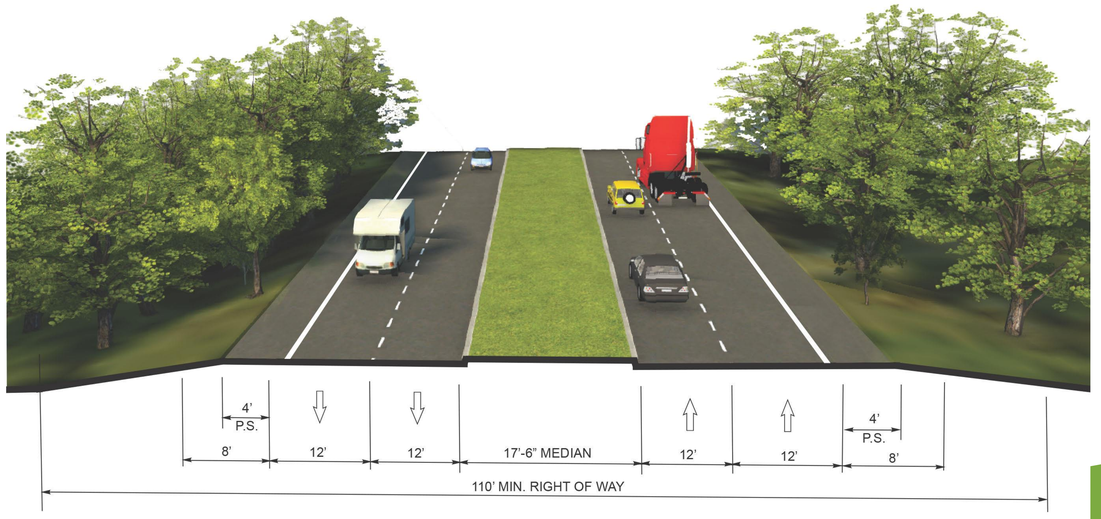
# LONG-TERM IMPROVEMENTS




***Road Diet is dependent on Sherron Road being widened to 4 lanes and the Northern Durham Parkway being built.***

## *Road Diet – Potential Cross Section*


## *4 Lane Widening– Potential Cross Section*

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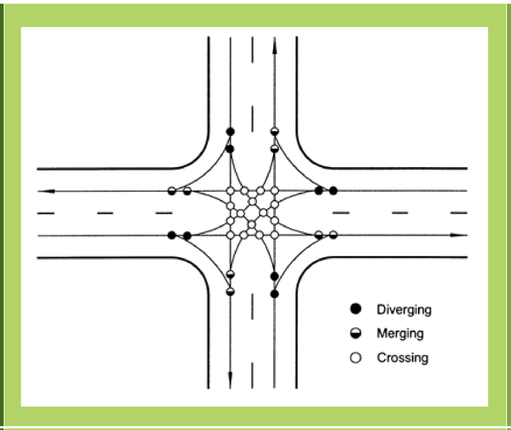
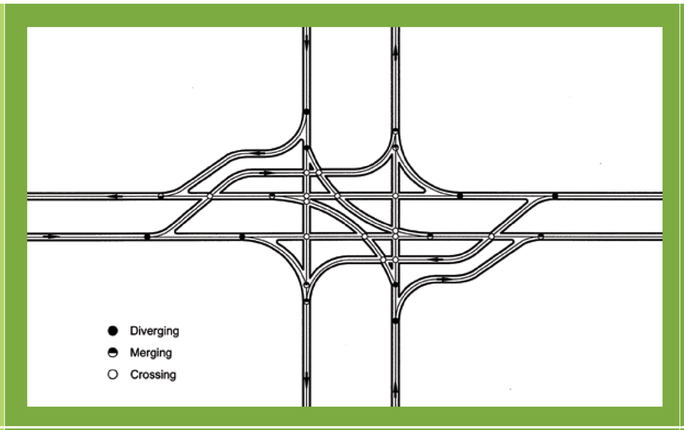
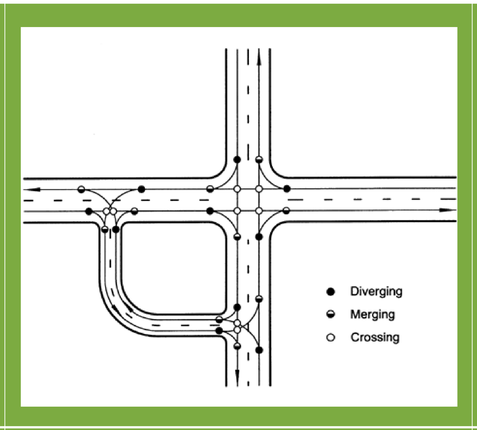
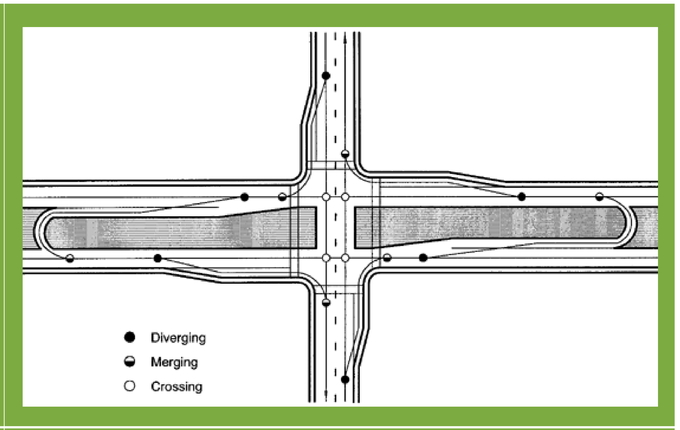
# INTERSECTION TREATMENTS

## INTERSECTION CONFLICT POINTS

| | Traditional Intersection | Continuous Flow Intersection | Quadrant Intersection | Median U-turn |
|---|---|---|---|---|
| |  |  |  |  |
| Total Conflict Points | 32 | 30 | 28 | 16 |

## Indirect Left-Turn Treatments:

- Remove the left-turning vehicles from the flow of traffic without causing them to stop in a through-traffic lane (as a traditional intersection may)
- Improve safety by reducing the number of conflict points as shown above
- Reduce the number of signal phases to provide more green time for traffic
- Increase capacity

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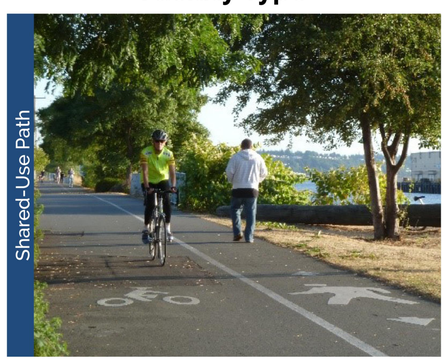
# PEDESTRIAN & BICYCLE

## POTENTIAL BICYCLE AND PEDESTRIAN FACILITIES

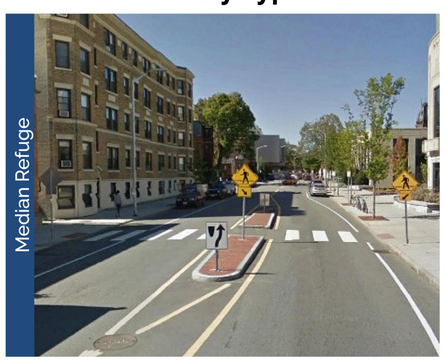
### Facility Type




### Description

- A shared-use path is defined as a trail permitting more than one type of user. Paths serve as part of a transportation circulation system and support multiple recreation opportunities, such as walking, bicycling, and inline skating. A shared-use path is physically separated from motor vehicular traffic with an open space or barrier.

### Facility Type




### Description

- A median refuge or island provides in-street refuge along the route of a pedestrian crossing.
- The refuge width is ideally 7'+ to fit bicycles.
- The approach to vehicle travel lanes must be ADA-compliant.


- Bike lanes designate an exclusive space for bicyclists through the use of pavement markings, striping, and signage. The bike lane is located adjacent to motor vehicle travel lanes and flows in the same direction as motor vehicle traffic. Bike lanes are typically on the right side of the street. Benefits include providing obvious space on the road for cyclists and sending a message to other road users to expect cyclists.


- High visibility striping should be used at crossing areas.
- A 4' minimum width should be used for ADA-accessible curb ramps.
- A push button with audible status should be present at the crossing.
- A pedestrian countdown signal should be present.


- A buffered bicycle lane is a bike lane with additional striping or hatching (buffer) adjacent to it.
- The buffer may separate the bicycle lane from motor vehicle travel, parking, or both.
- The buffer width is typically 2'-3'.


- Rapid flashing beacons are used to increase visibility of pedestrians as they cross the roadway at uncontrolled crosswalks.
- This beacon is pedestrian-activated (i.e., the signal will only flash if a pedestrian has pushed a button, indicating that they need to cross the street).

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# Questions

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