

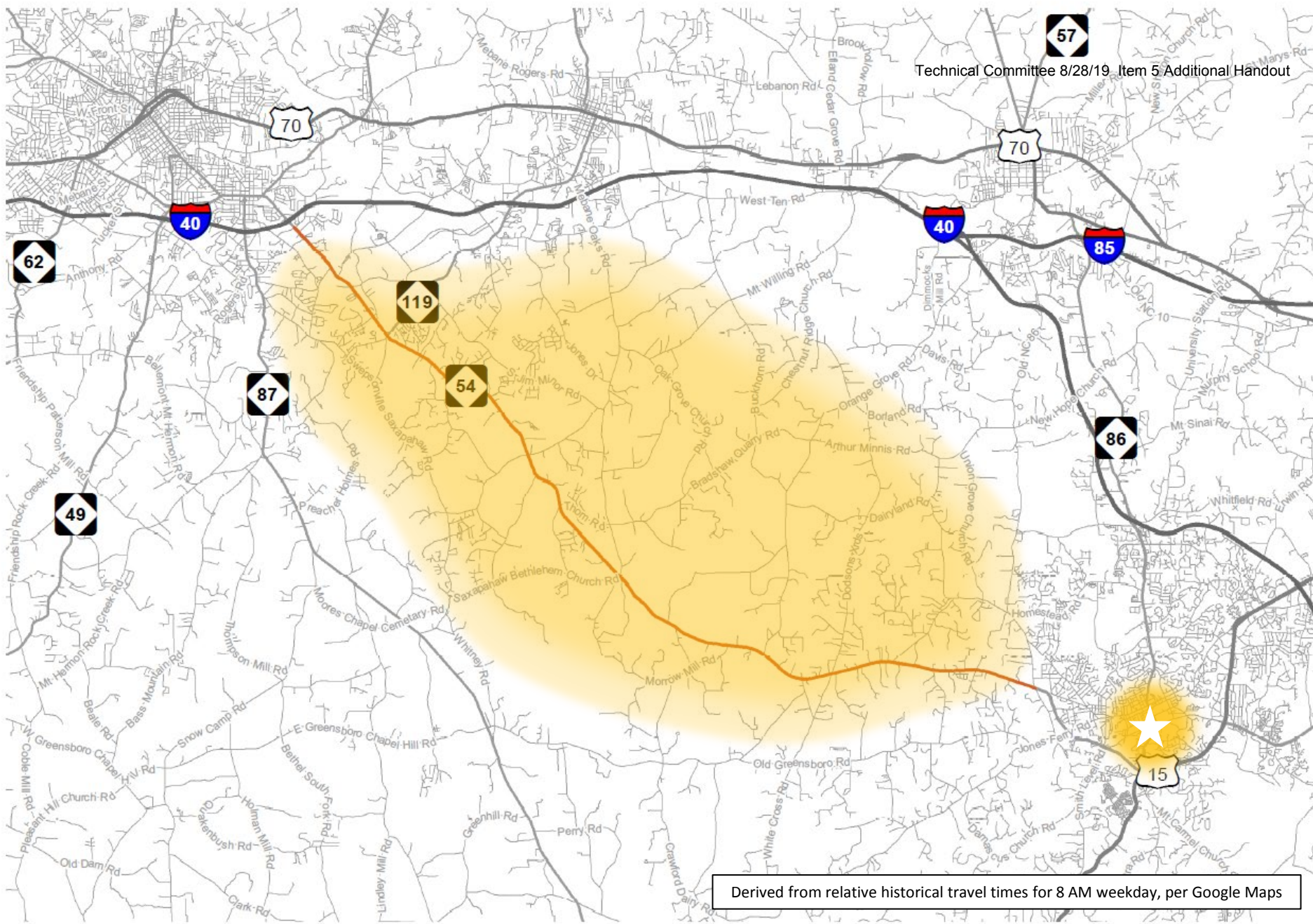


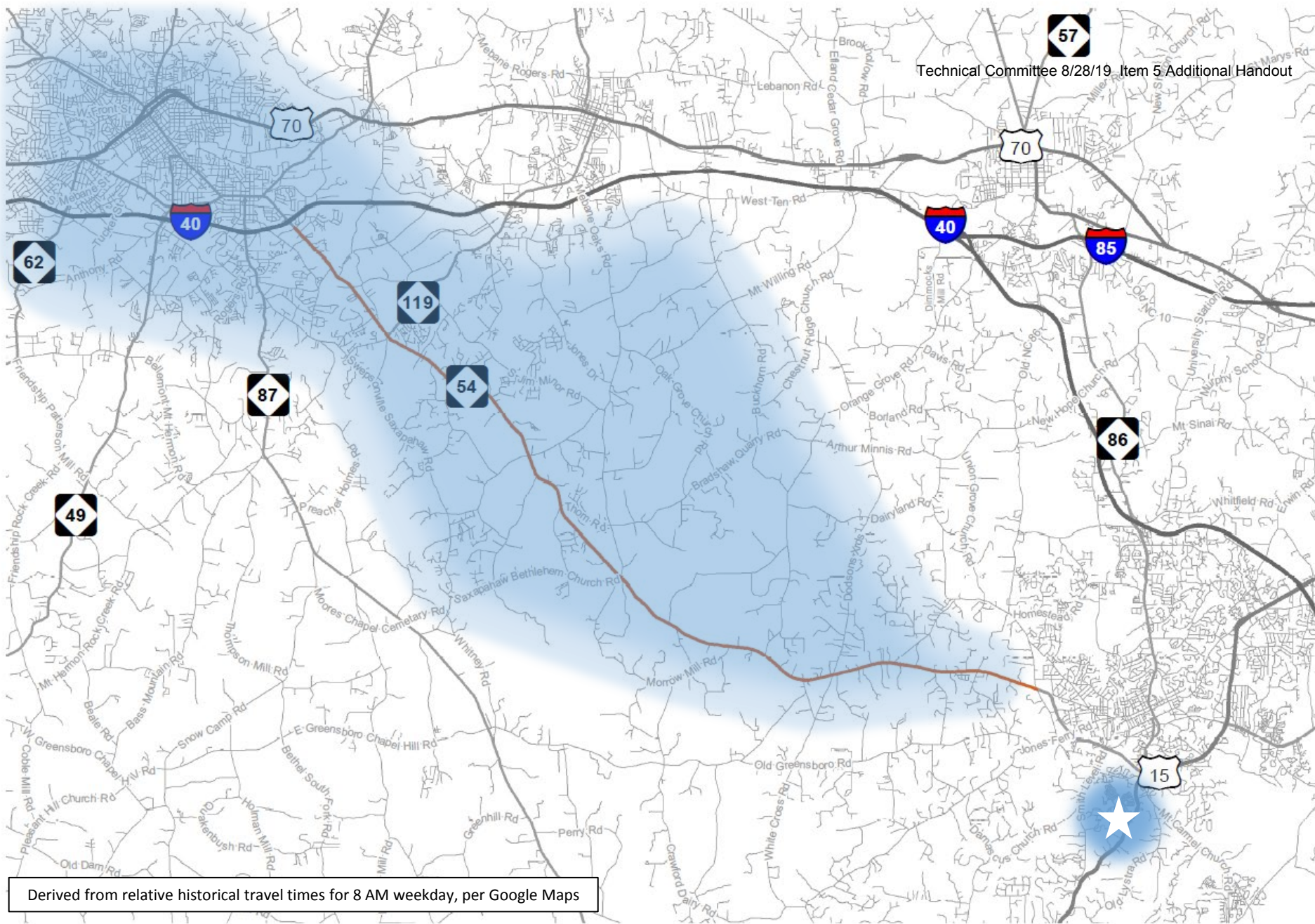
NC 54 West Corridor Study

Supplemental Trip Analysis

Presented by
Don Bryson, VHB

DCHC MPO
August 28, 2019





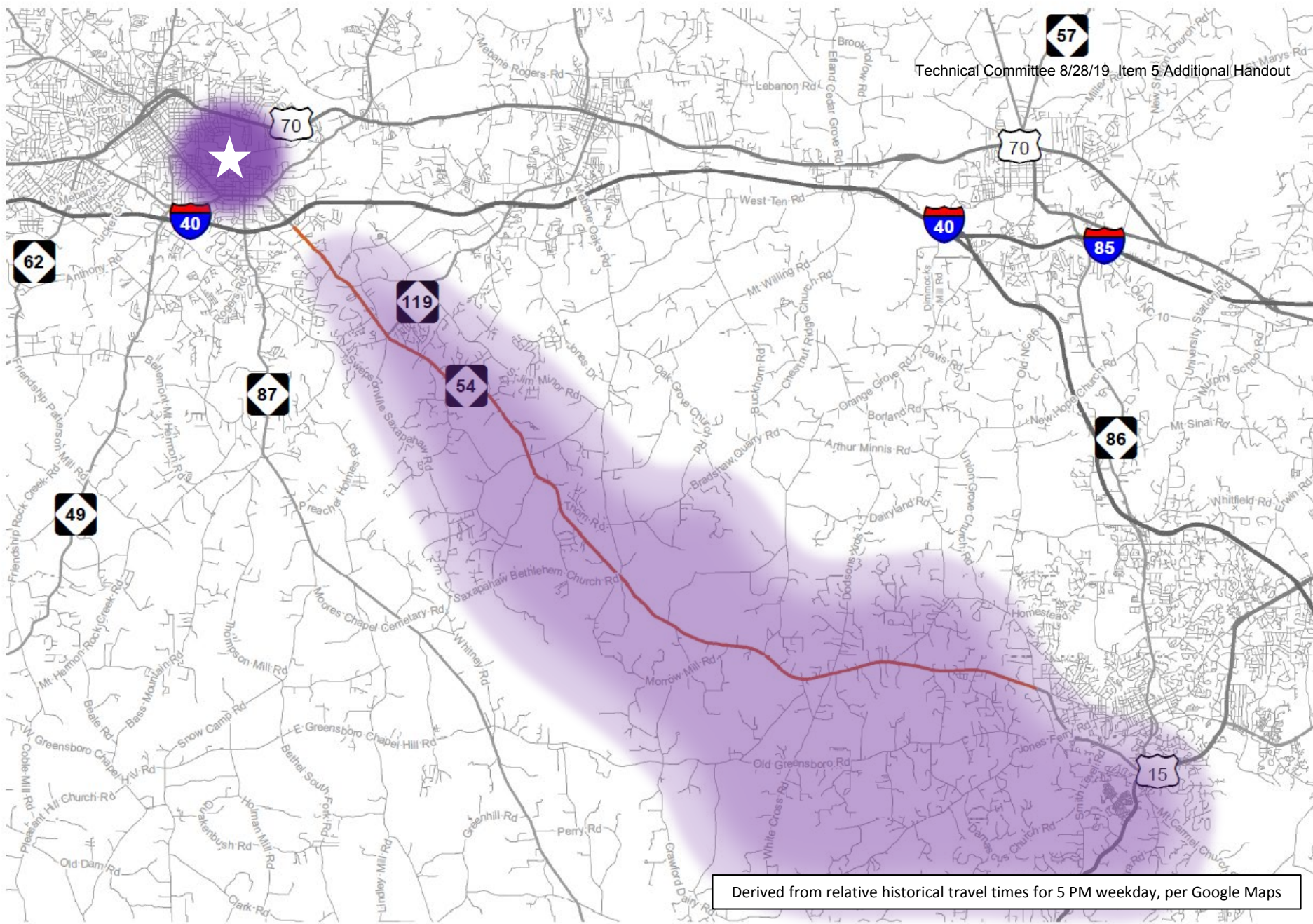
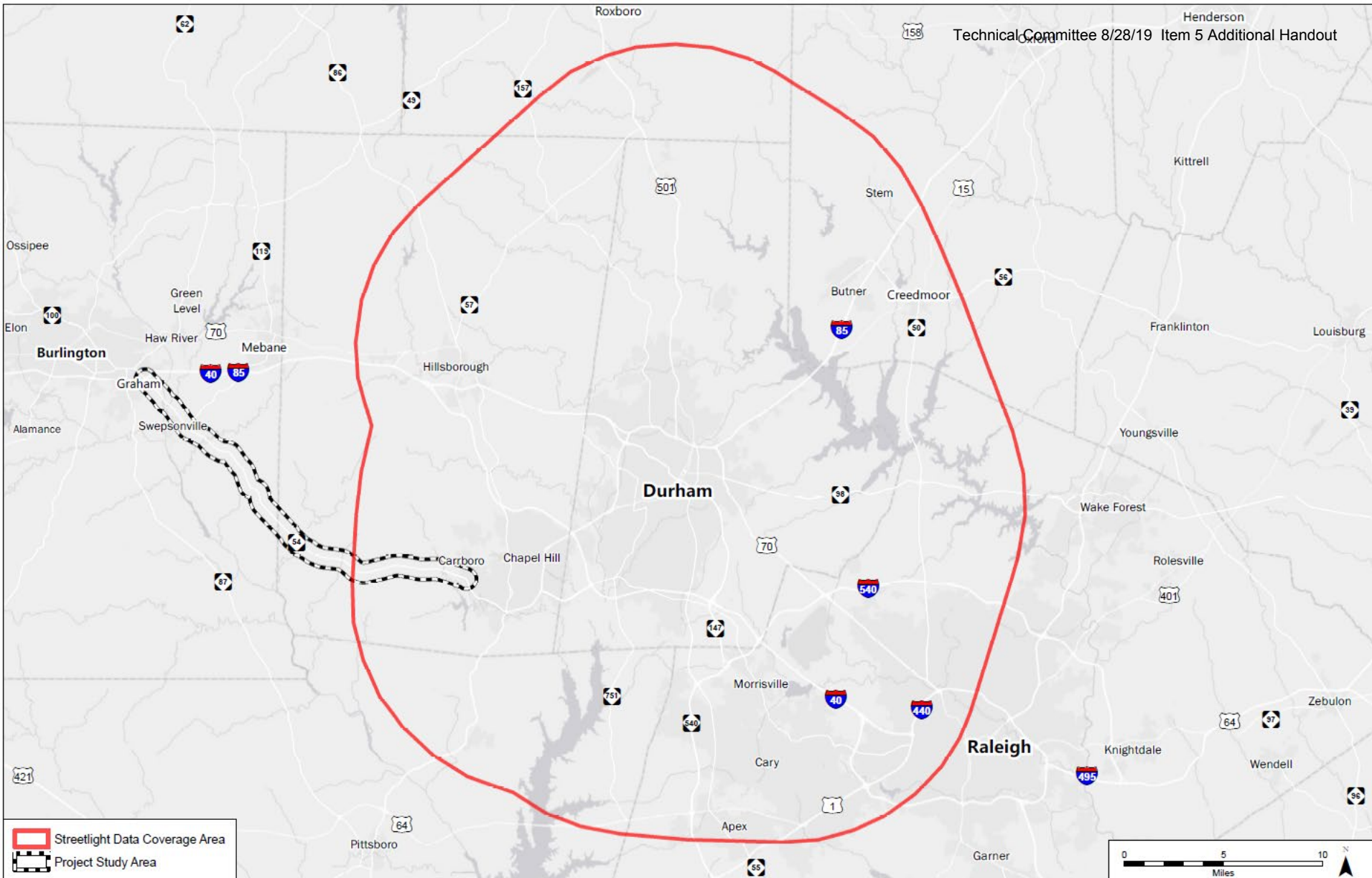


Figure 3: Estimated NC 54 Travelshed for Trips to Burlington



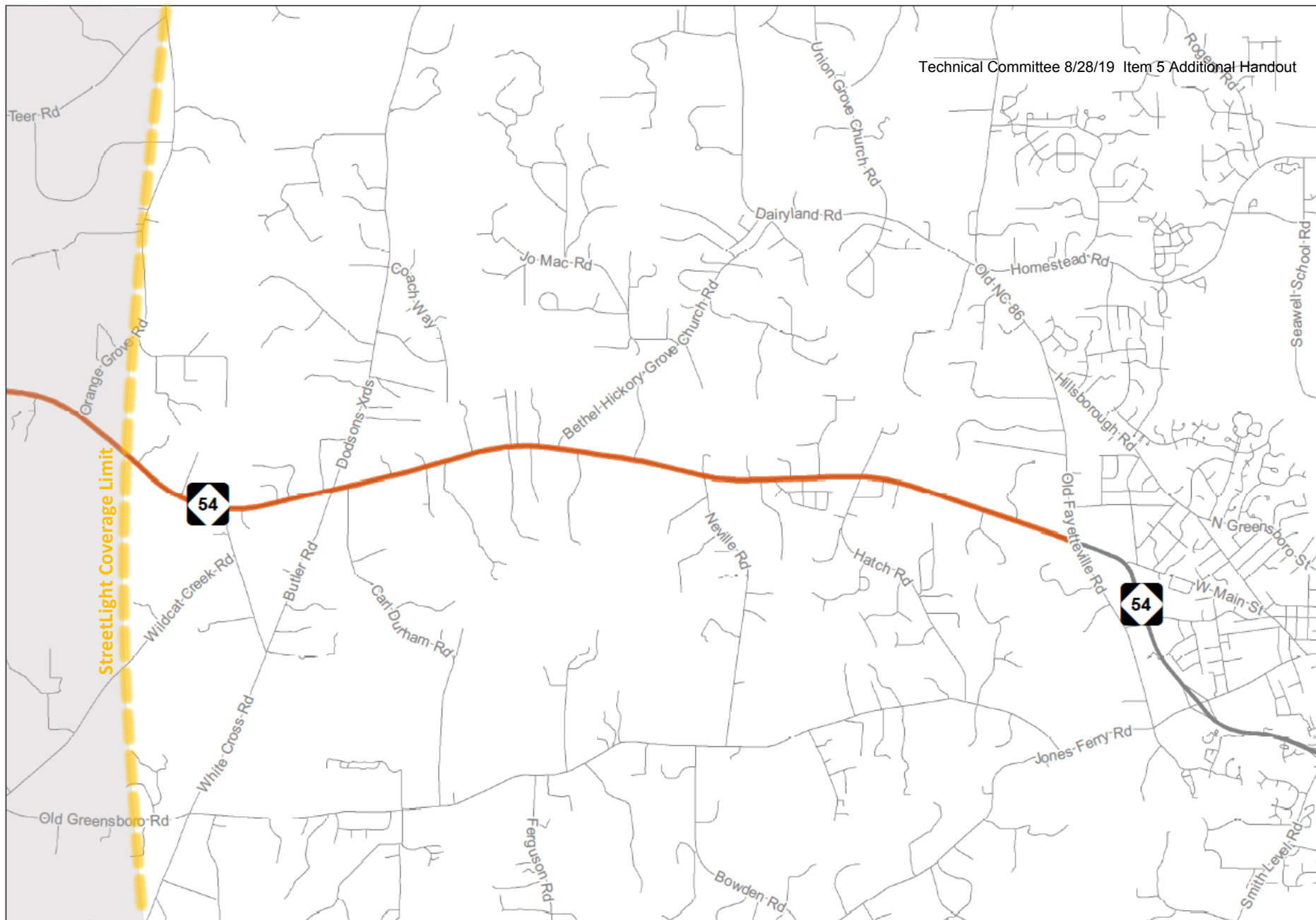


Figure 5: NC 54 Corridor Segment for StreetLight Origin-Destination Analysis

Daily Vehicle-Trip Distribution (StreetLight InSight Data)

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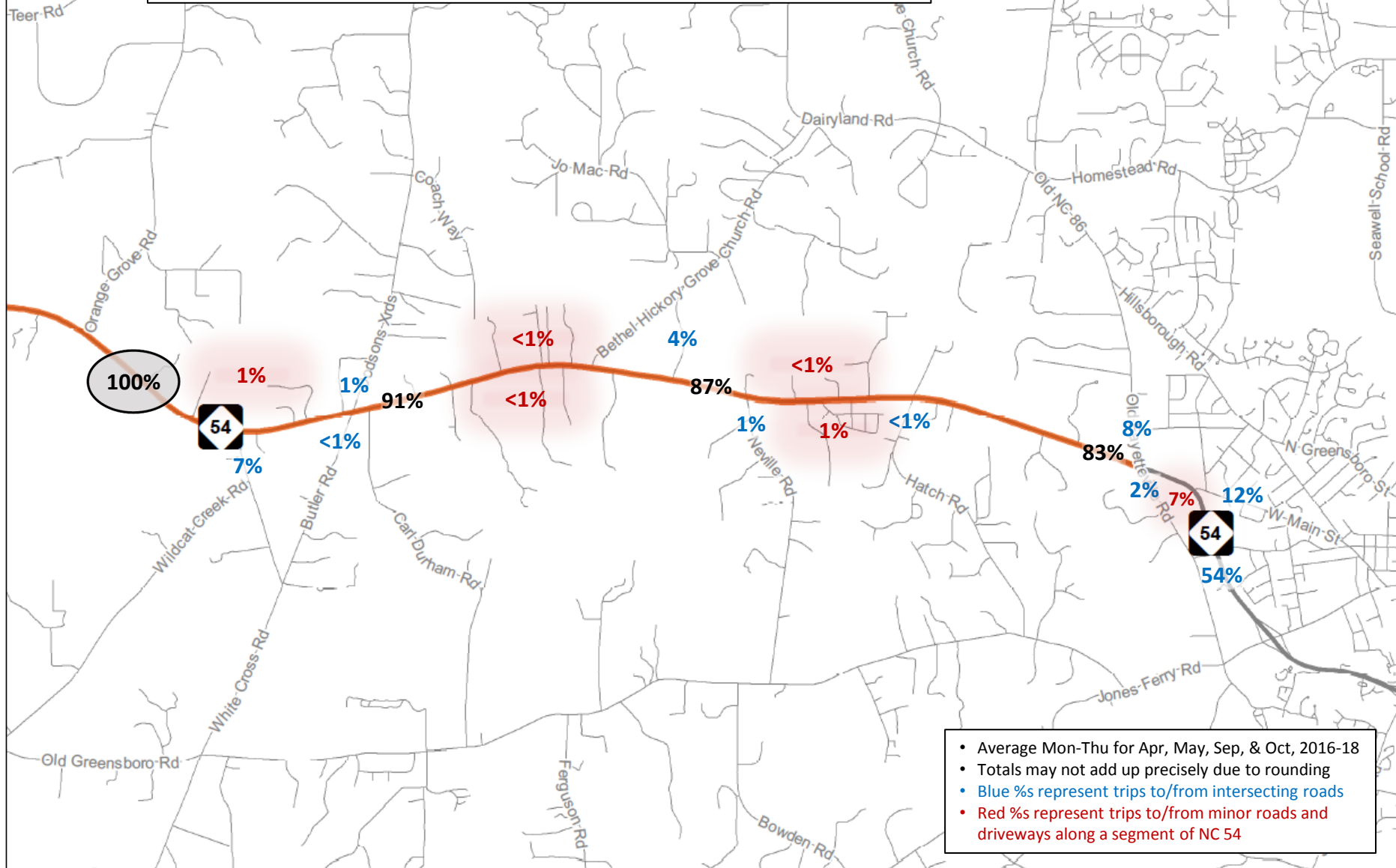


Figure 6: Origin-Destination Analysis – NC 54 East of Orange Grove Road

AM Peak Vehicle-Trip Distribution (StreetLight InSight Data)

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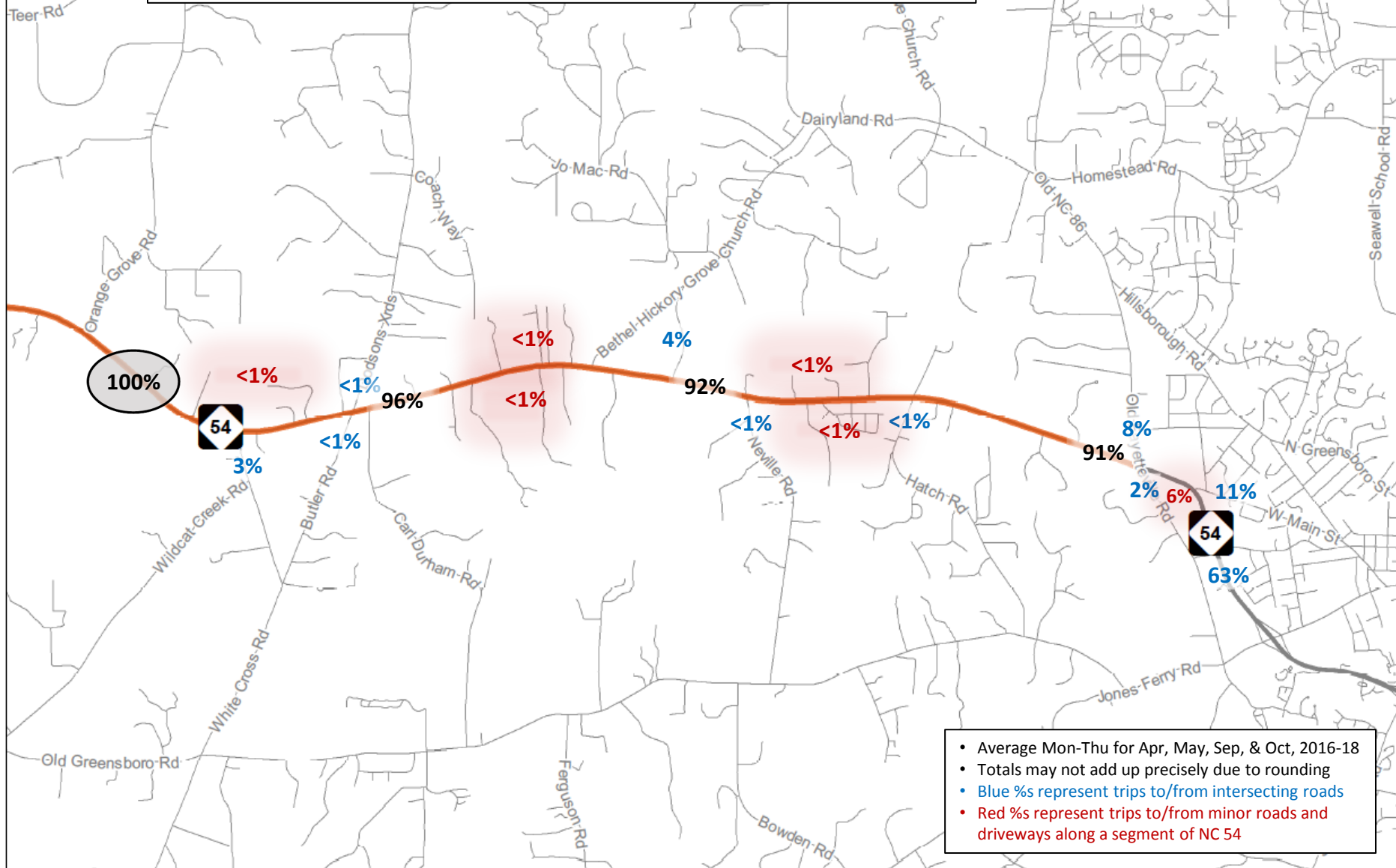


Figure 7: Origin-Destination Analysis – NC 54 East of Orange Grove Road

Daily Vehicle-Trip Distribution (StreetLight InSight Data)

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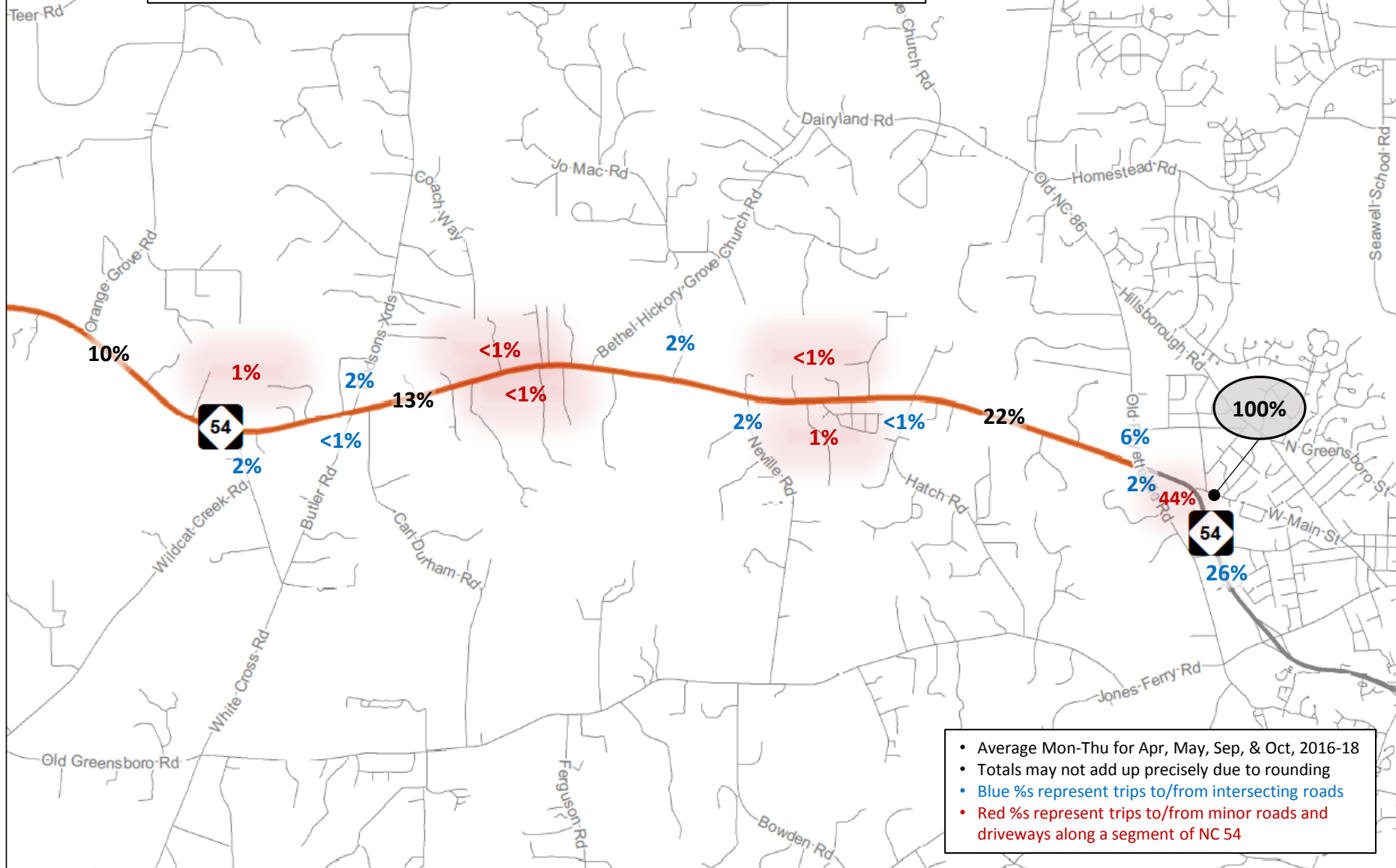


Figure 8: Origin-Destination Analysis – West Main St East of NC 54 Bypass

Daily Vehicle-Trip Distribution (StreetLight InSight Data)

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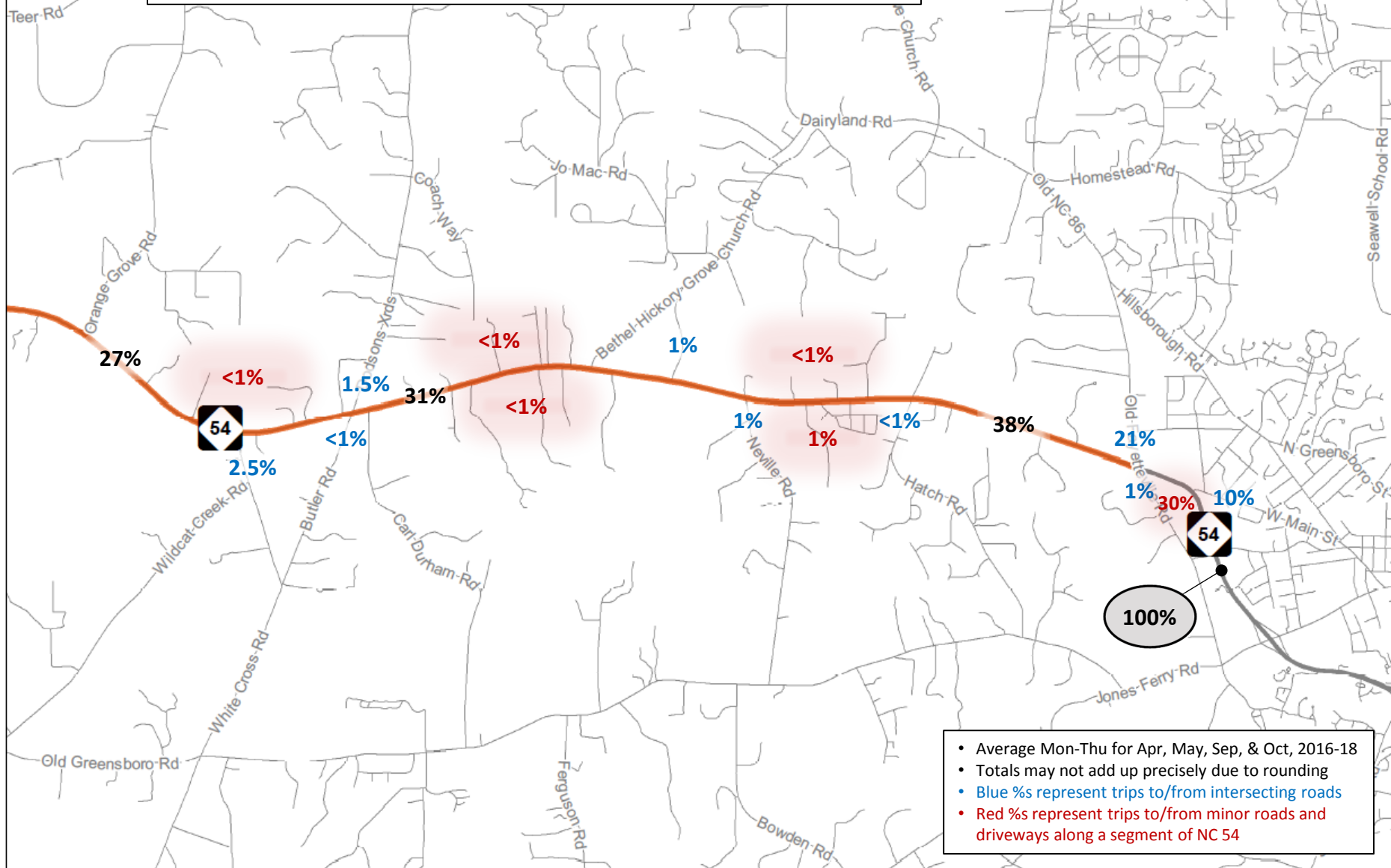
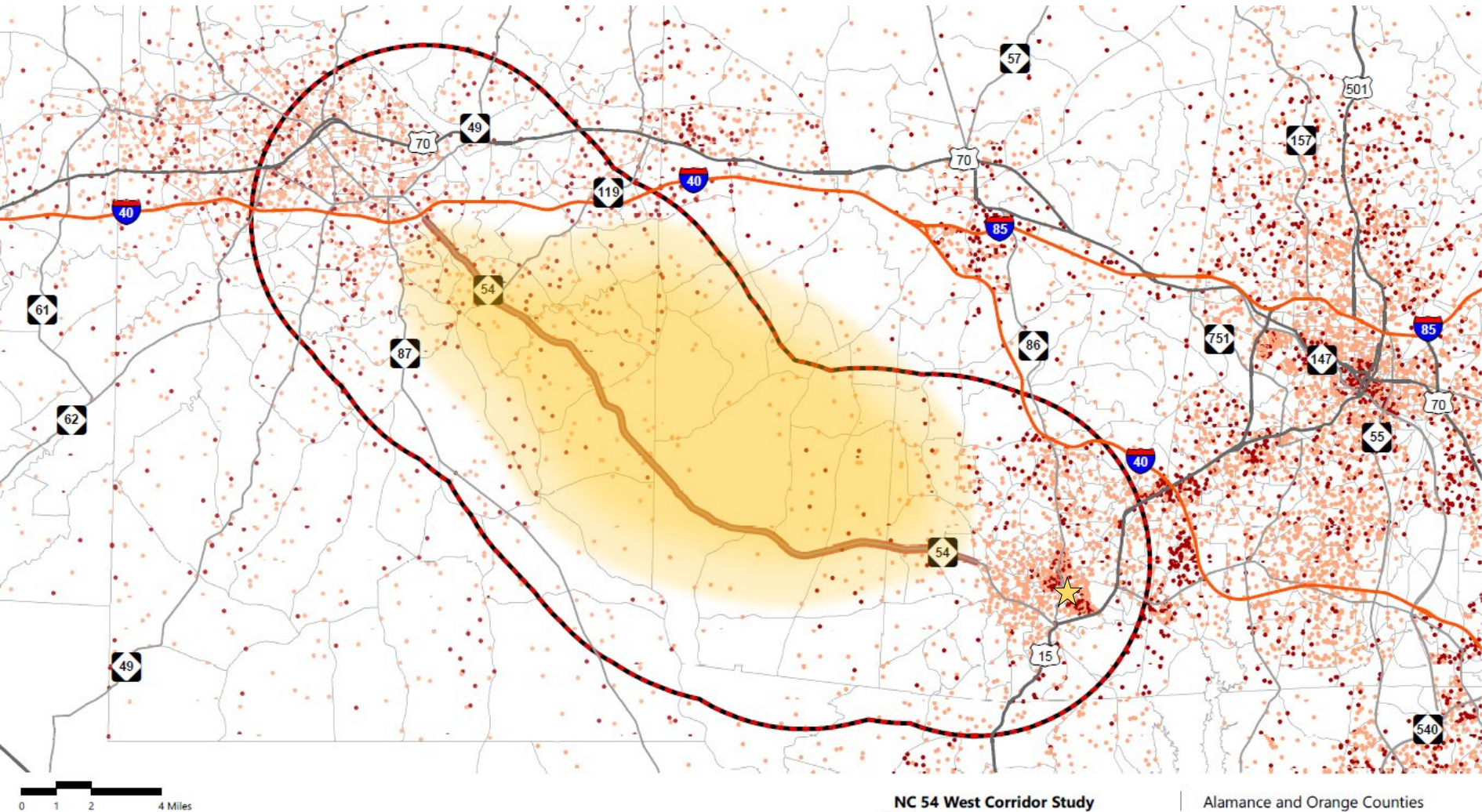


Figure 9: Origin-Destination Analysis –NC 54 Bypass South of West Main St

Figure 10: TRM & PTRM Population Growth (2013 – 2045)

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NC 54 West Corridor Study

Alamance and Orange Counties

5 Mile Project Buffer

Project Corridor

Population 2017 v 2045

1 Dot = 100

Population 2017 to 2045

Population 2017

TRM & PTRM Socio-Economic Data (2013-2045)

Source Info: NCDOT, VHB, NCOneMap,
Alamance County, Orange County

Figure 11: TRM & PTRM Employment Growth (2013 – 2045)

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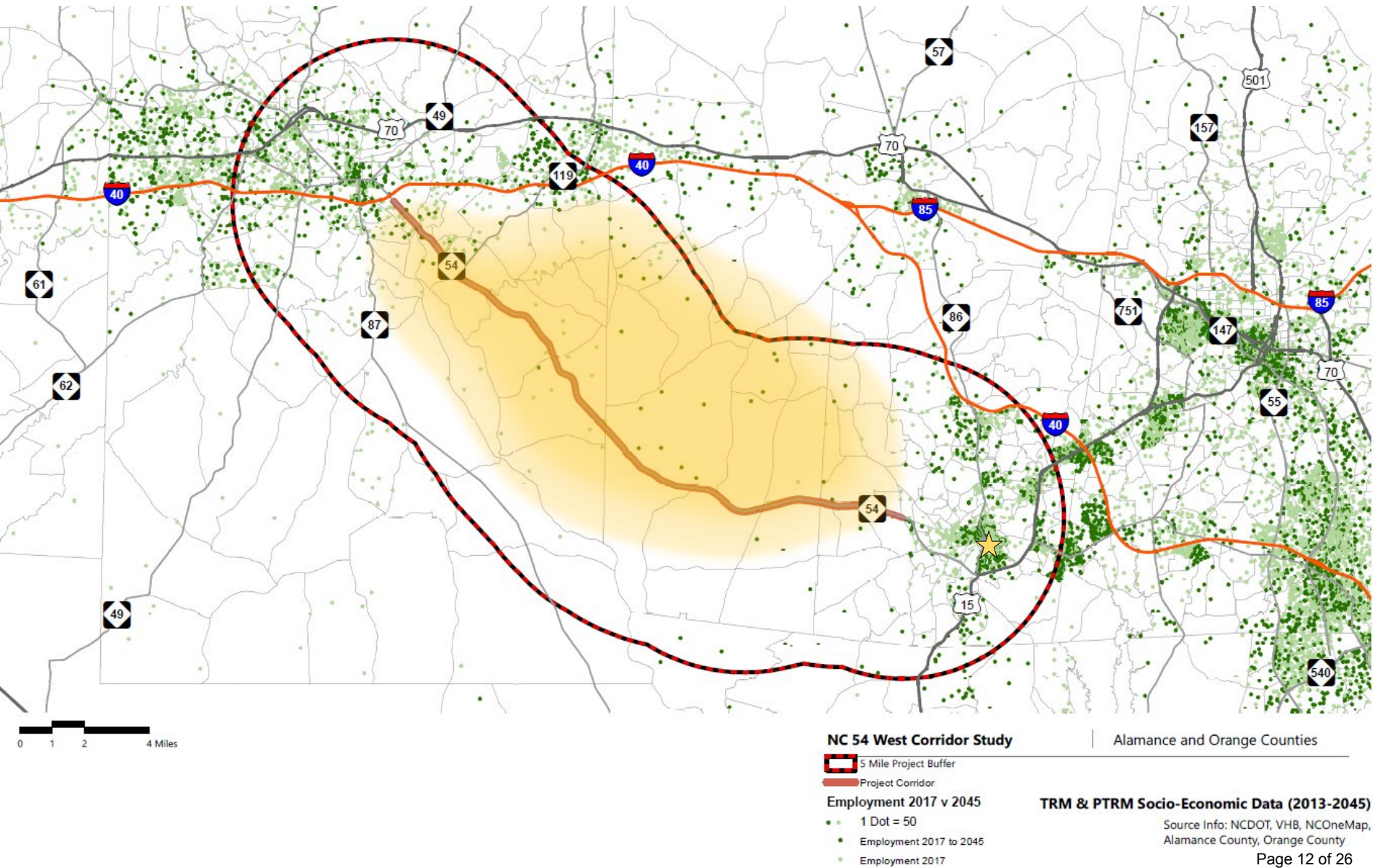


Figure 10a: TRM & PTRM Population Growth (2013 – 2045)

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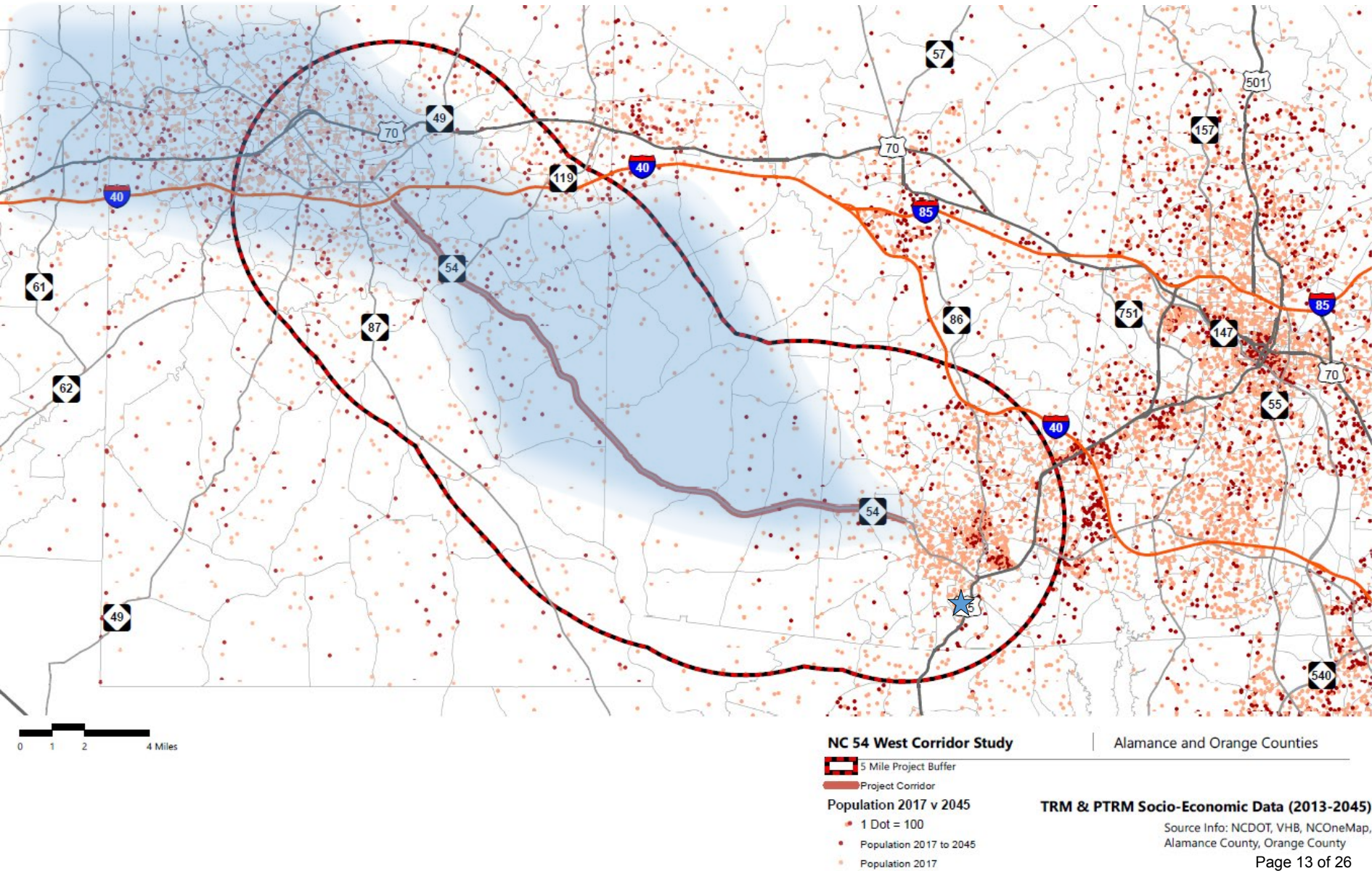
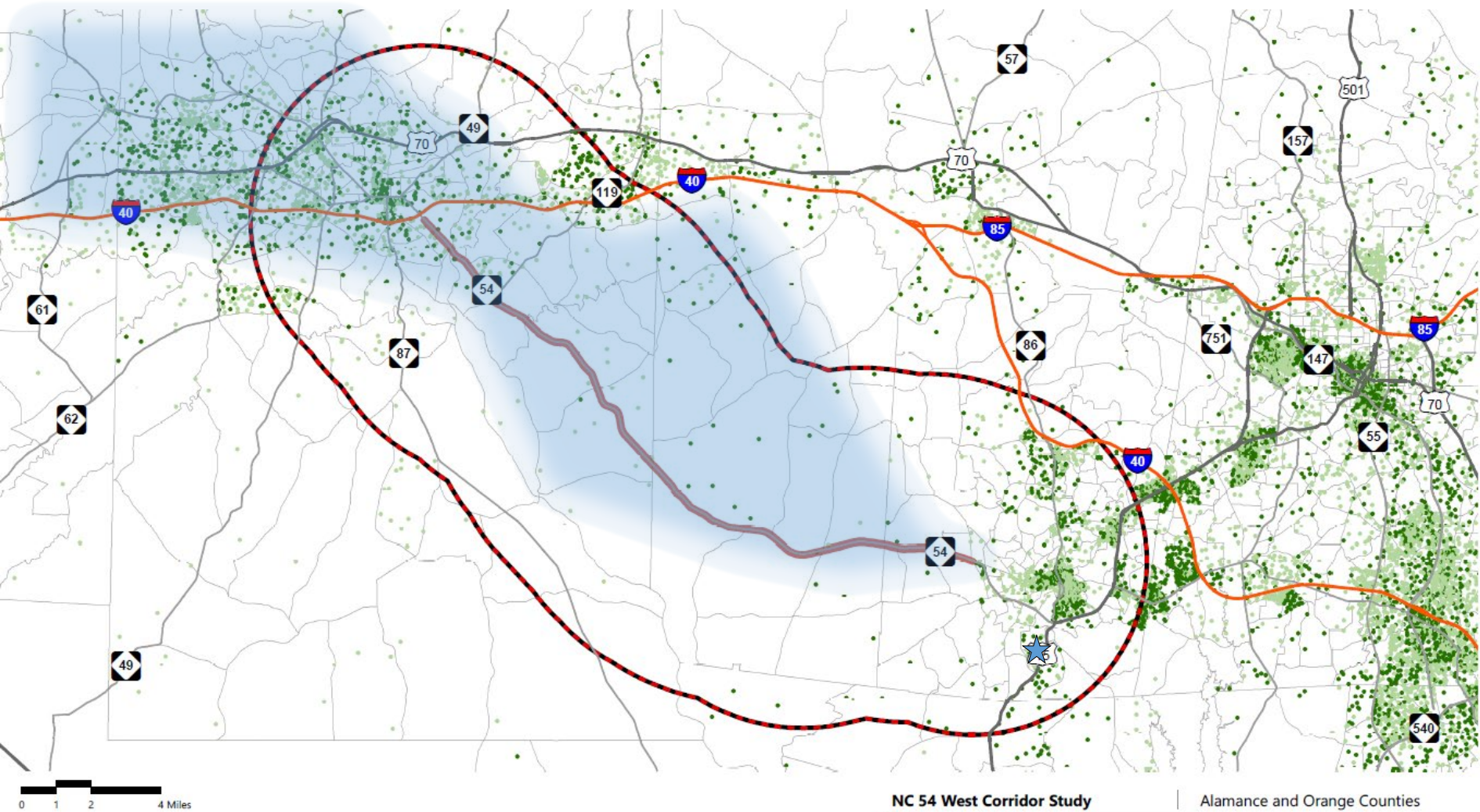


Figure 11a: TRM & PTRM Employment Growth (2013 – 2045)

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NC 54 West Corridor Study

Alamance and Orange Counties

5 Mile Project Buffer

Project Corridor

Employment 2017 v 2045

1 Dot = 50

Employment 2017 to 2045

Employment 2017

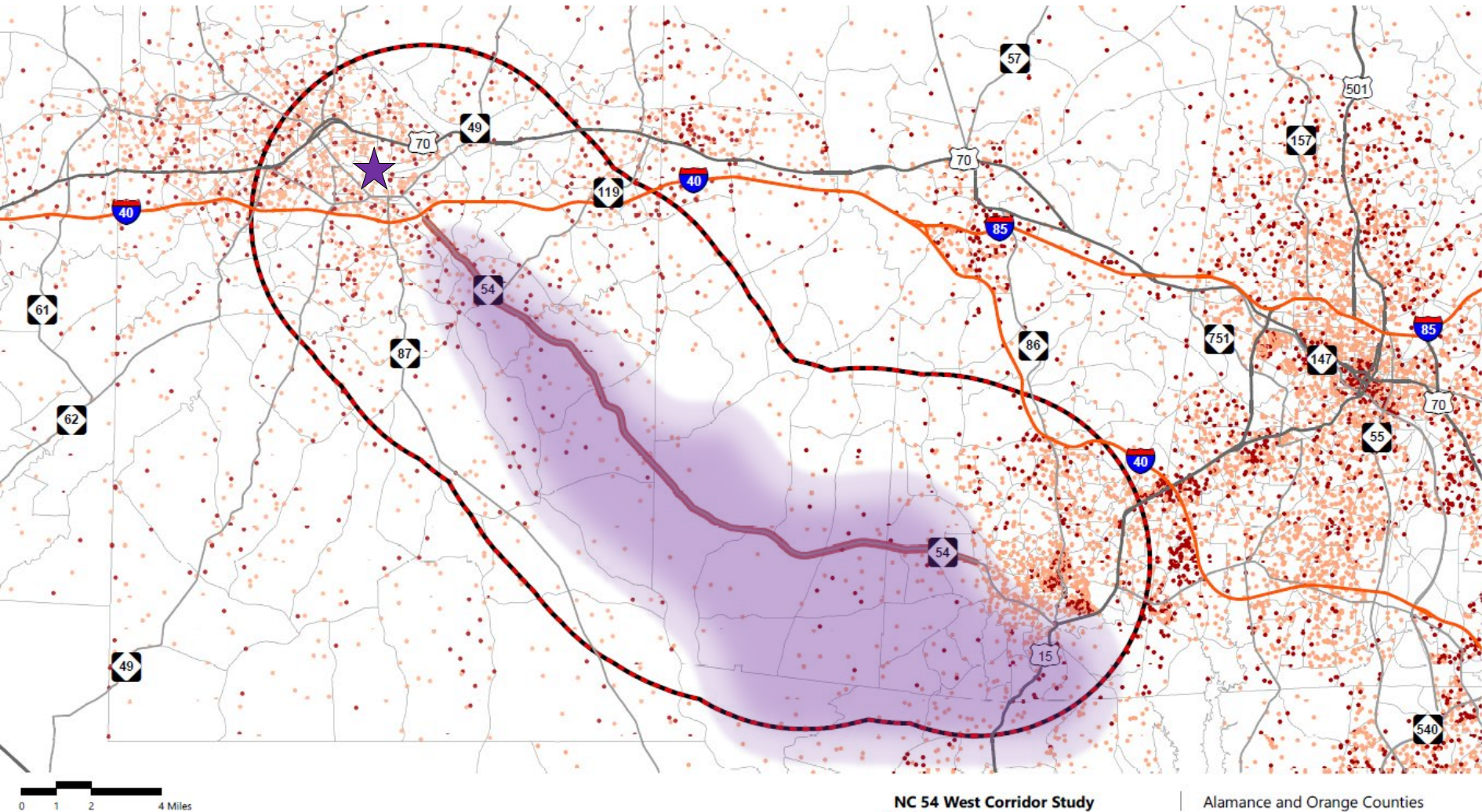
TRM & PTRM Socio-Economic Data (2013-2045)

Source Info: NCDOT, VHB, NOneMap,
Alamance County, Orange County

Page 14 of 26

Figure 10b: TRM & PTRM Population Growth (2013 – 2045)

Technical Committee 8/28/19 Item 5 Additional Handout



NC 54 West Corridor Study

Alamance and Orange Counties

5 Mile Project Buffer

Project Corridor

Population 2017 v 2045

1 Dot = 100

Population 2017 to 2045

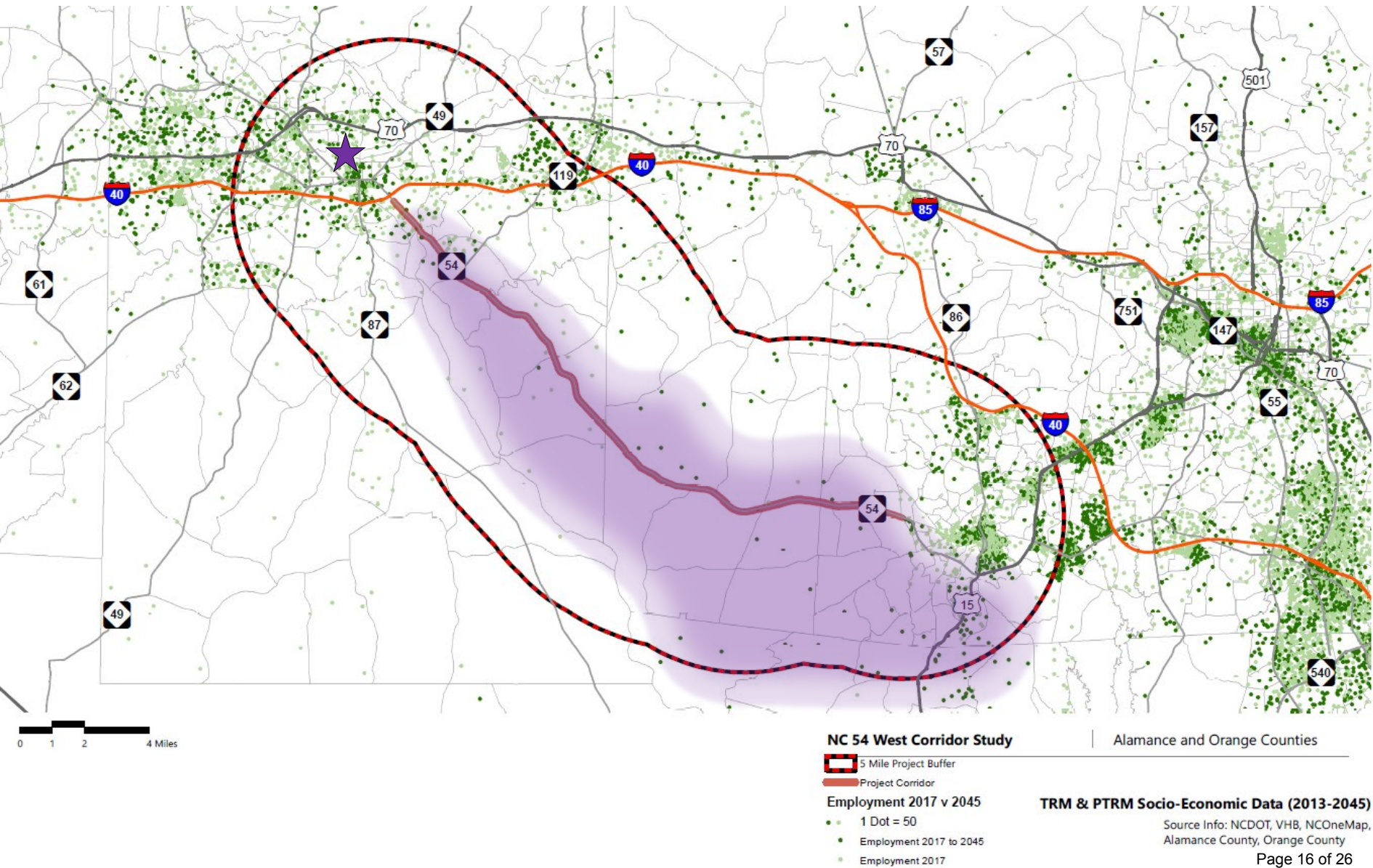
Population 2017

TRM & PTRM Socio-Economic Data (2013-2045)

Source Info: NCDOT, VHB, NCOneMap,
Alamance County, Orange County

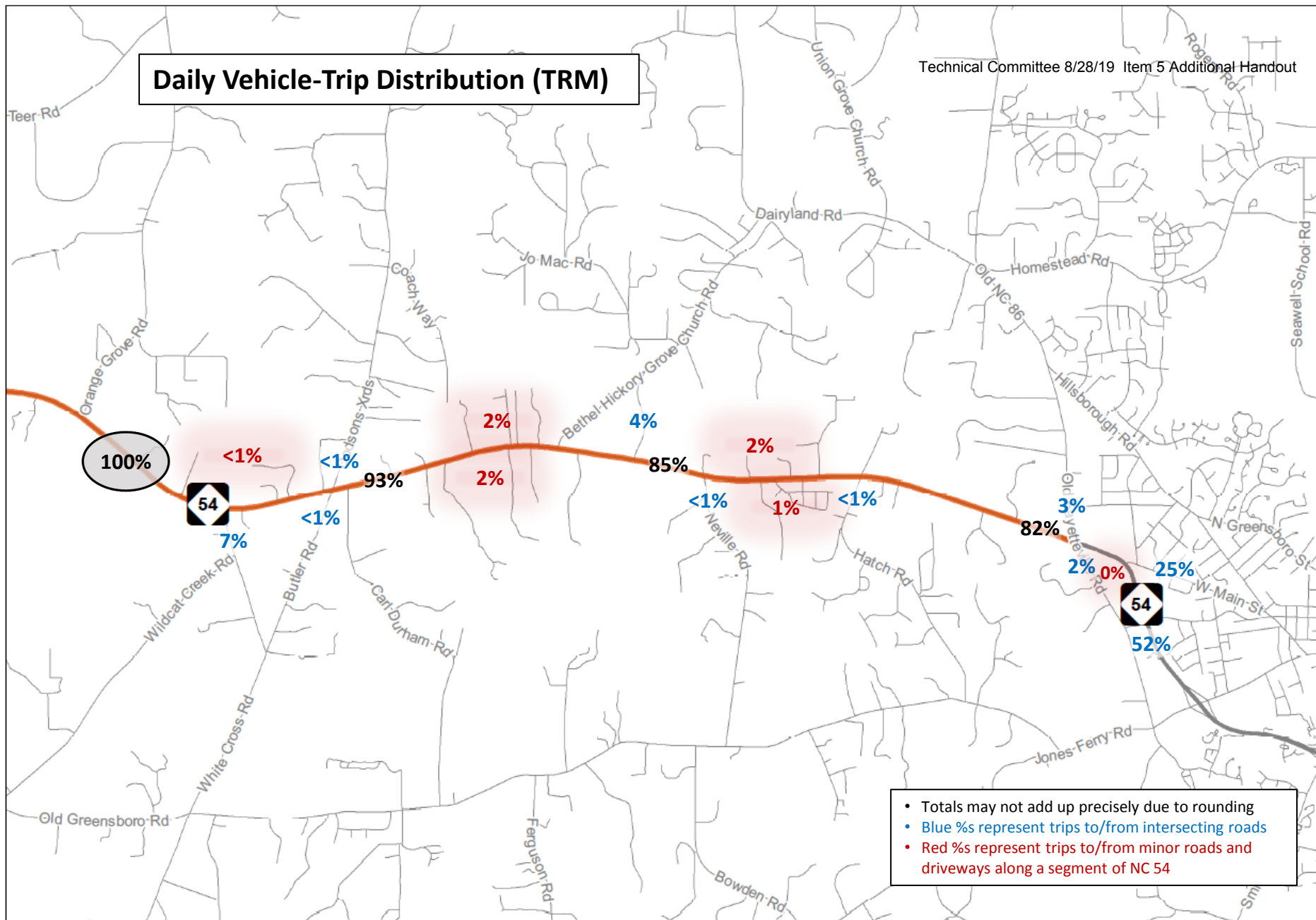
Figure 11b: TRM & PTRM Employment Growth (2013 – 2045)

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Daily Vehicle-Trip Distribution (TRM)

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- Totals may not add up precisely due to rounding
- Blue %s represent trips to/from intersecting roads
- Red %s represent trips to/from minor roads and driveways along a segment of NC 54

Figure 12: TRM Select Link Analysis – NC 54 East of Orange Grove Road

Daily Vehicle-Trip Distribution (StreetLight InSight Data)

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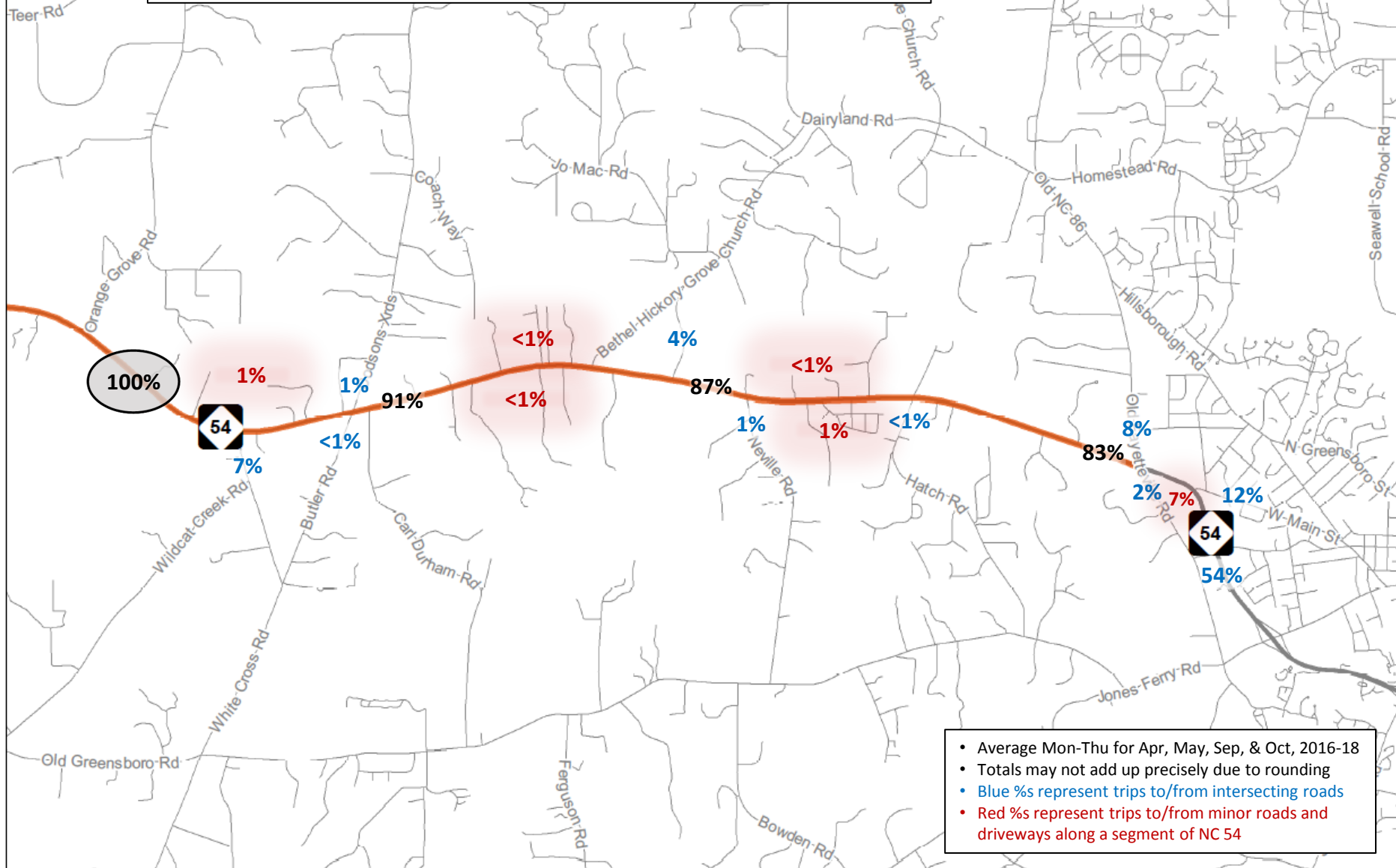


Figure 6: Origin-Destination Analysis – NC 54 East of Orange Grove Road

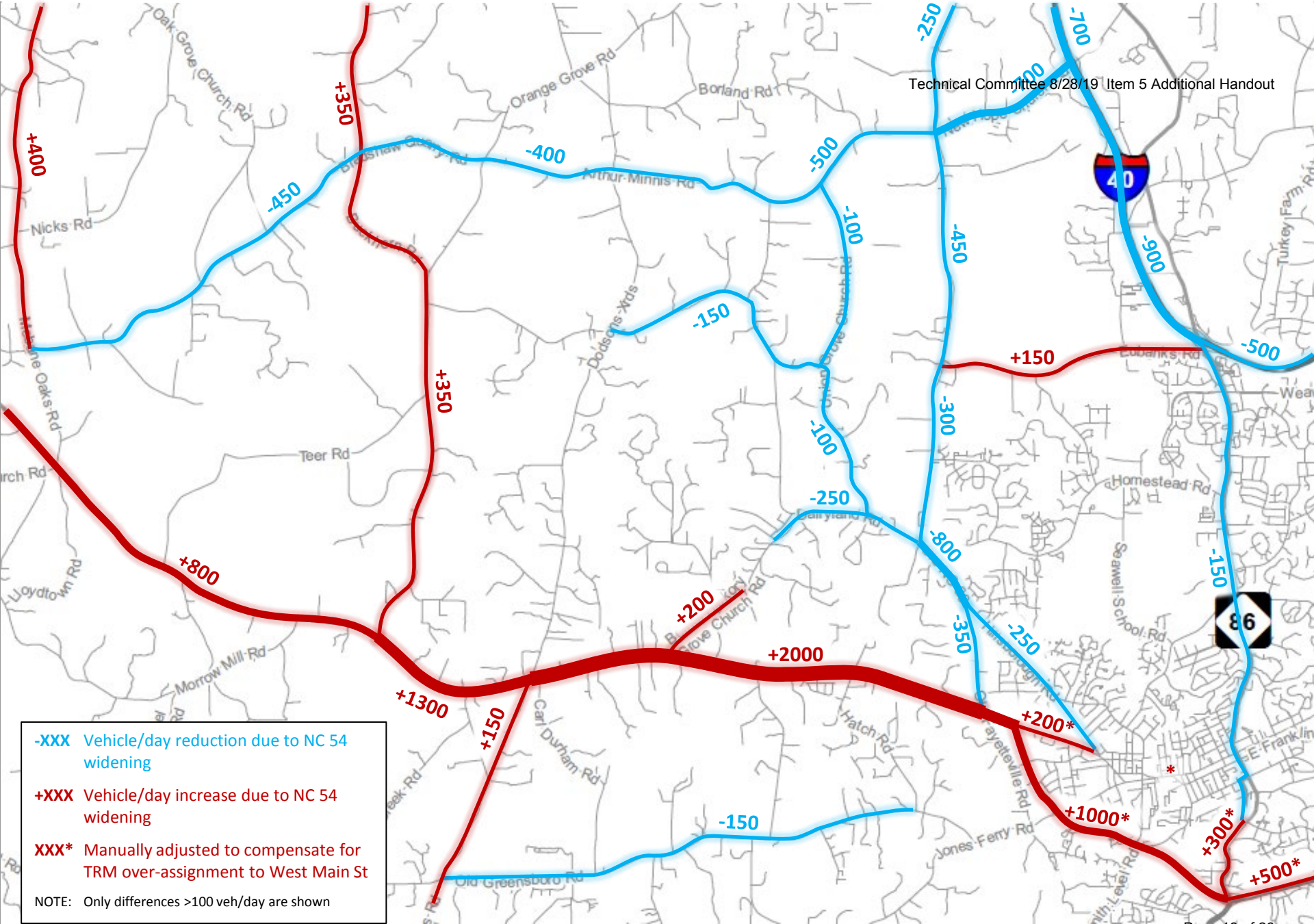
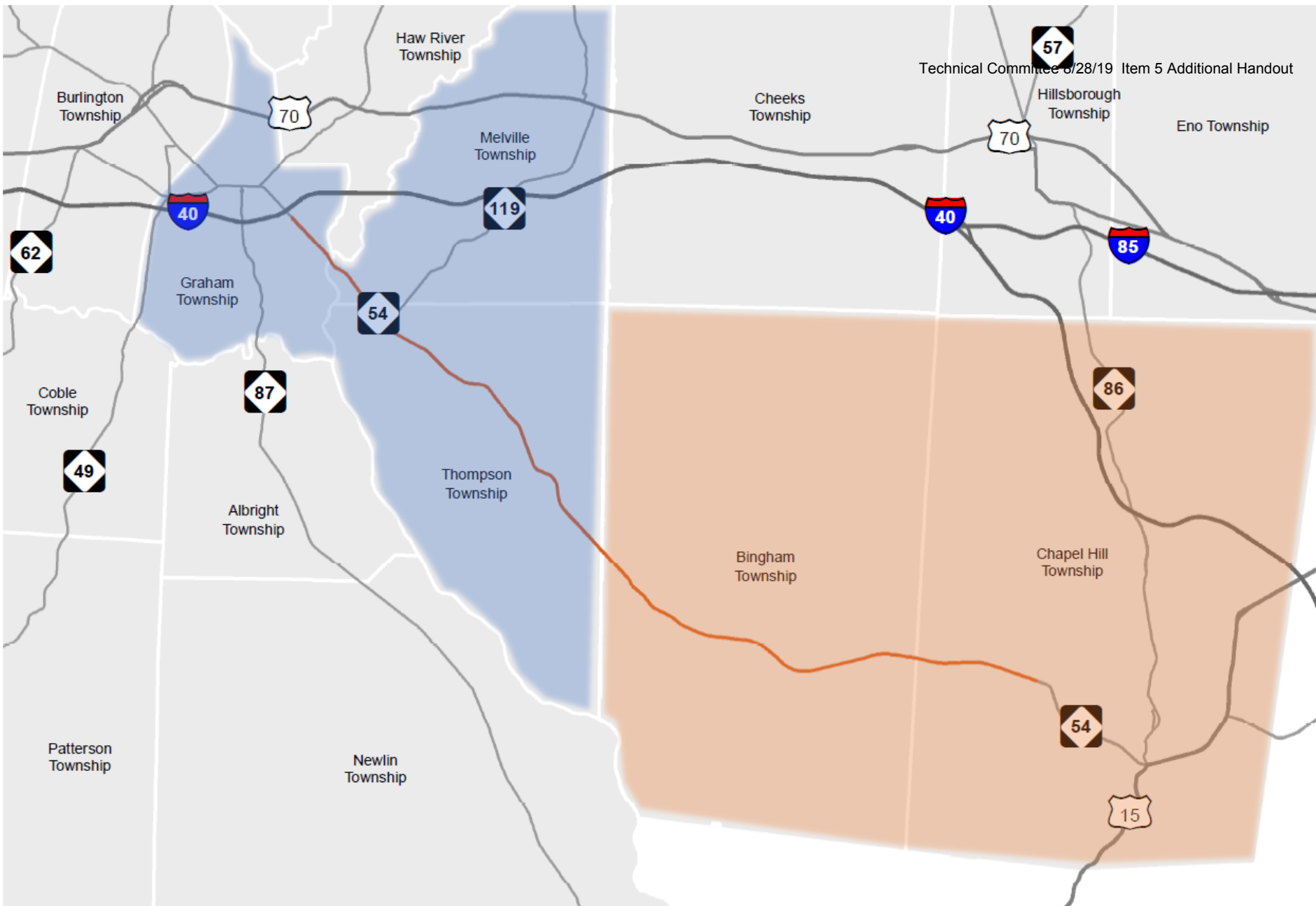


Figure 13: TRM – Daily Traffic Differences between 2045 NC 54 Widened and No-Build Scenarios



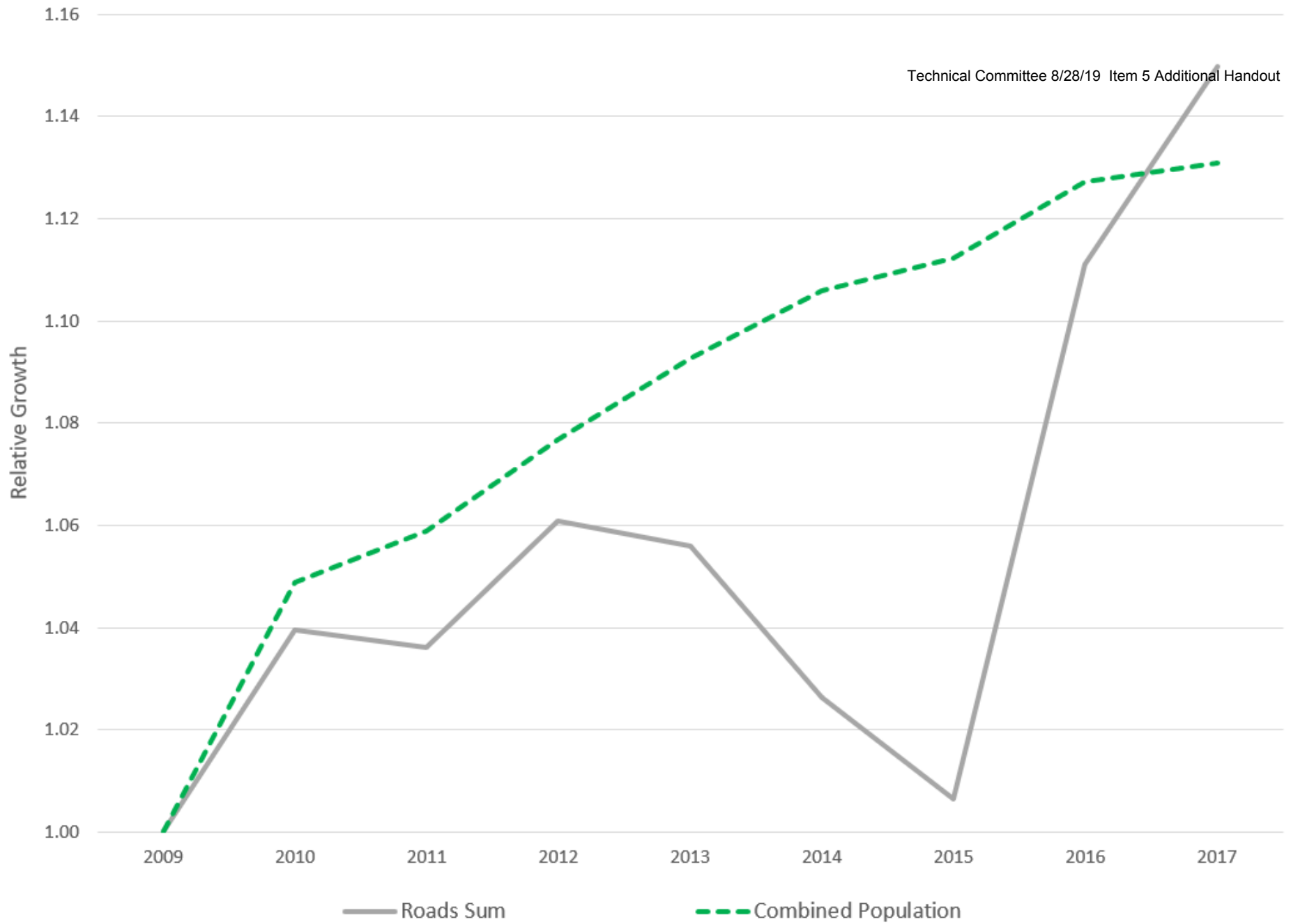


Figure 15: Comparison of Historical Population and AADT Aggregations

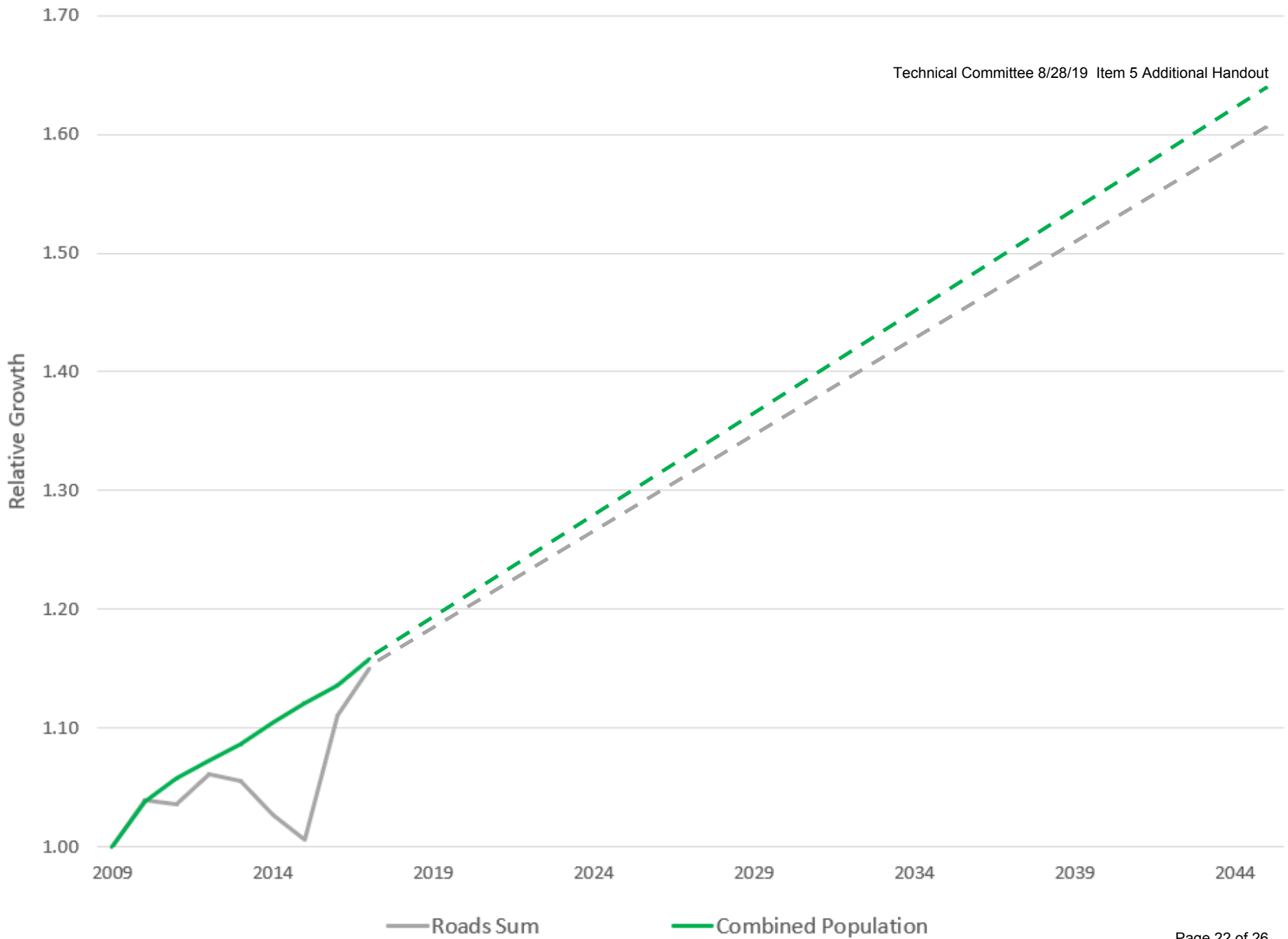


Figure 16: Comparison of Aggregated Population and AADT Forecasts

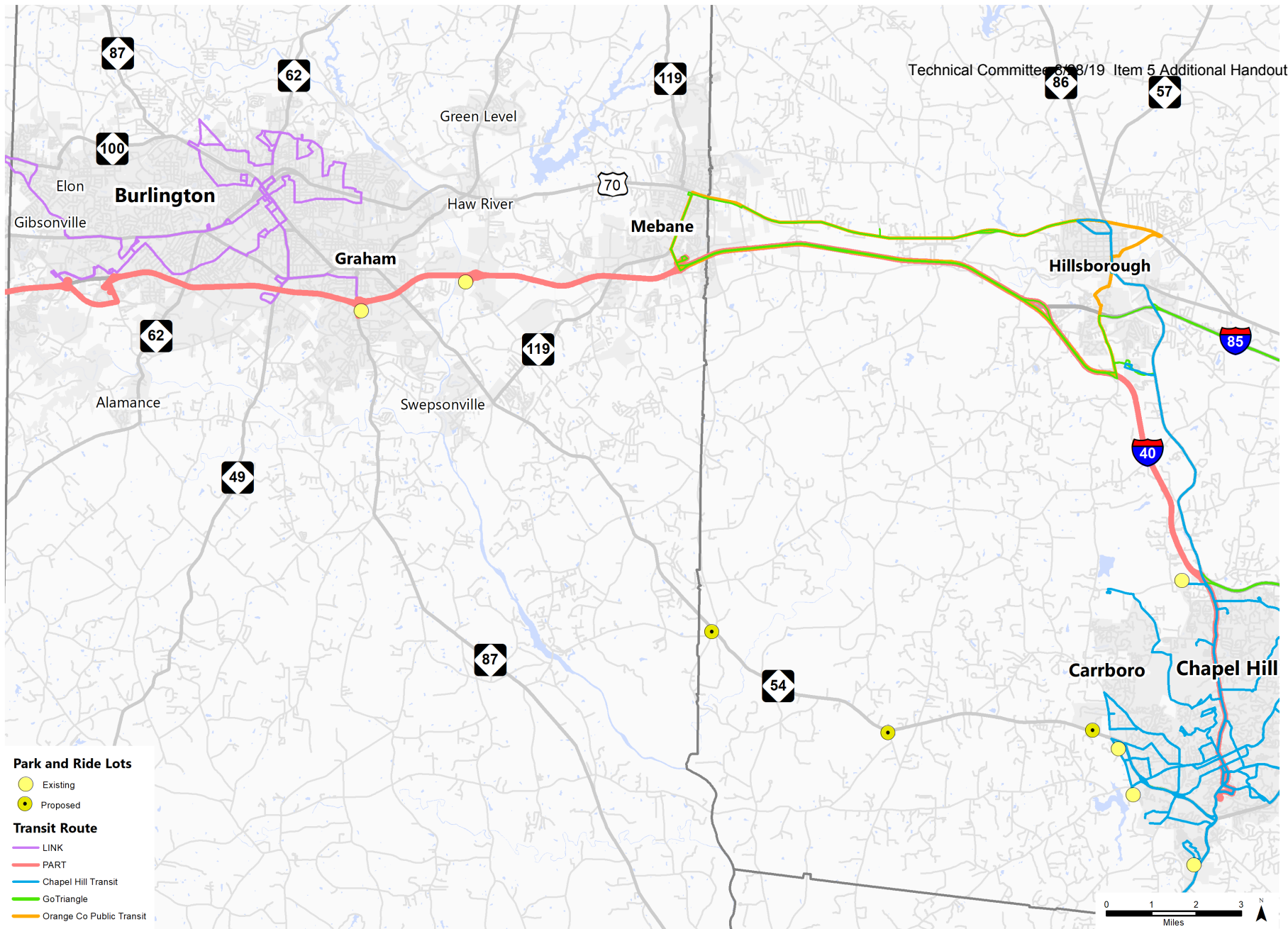
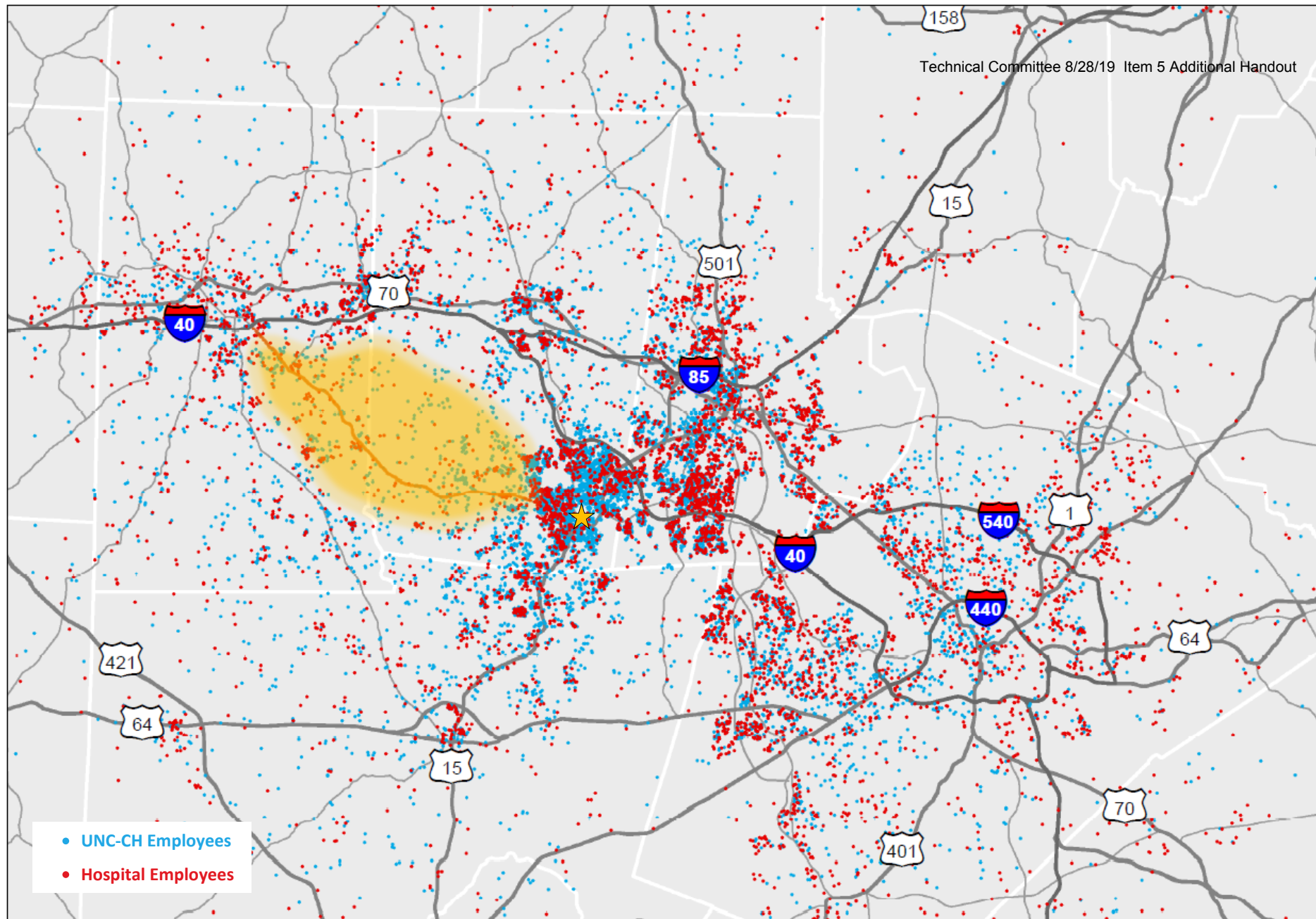


Figure 17: Transit Routes and Park-&-Ride Lots



Source: UNC-CH Development Plan 2017 Update

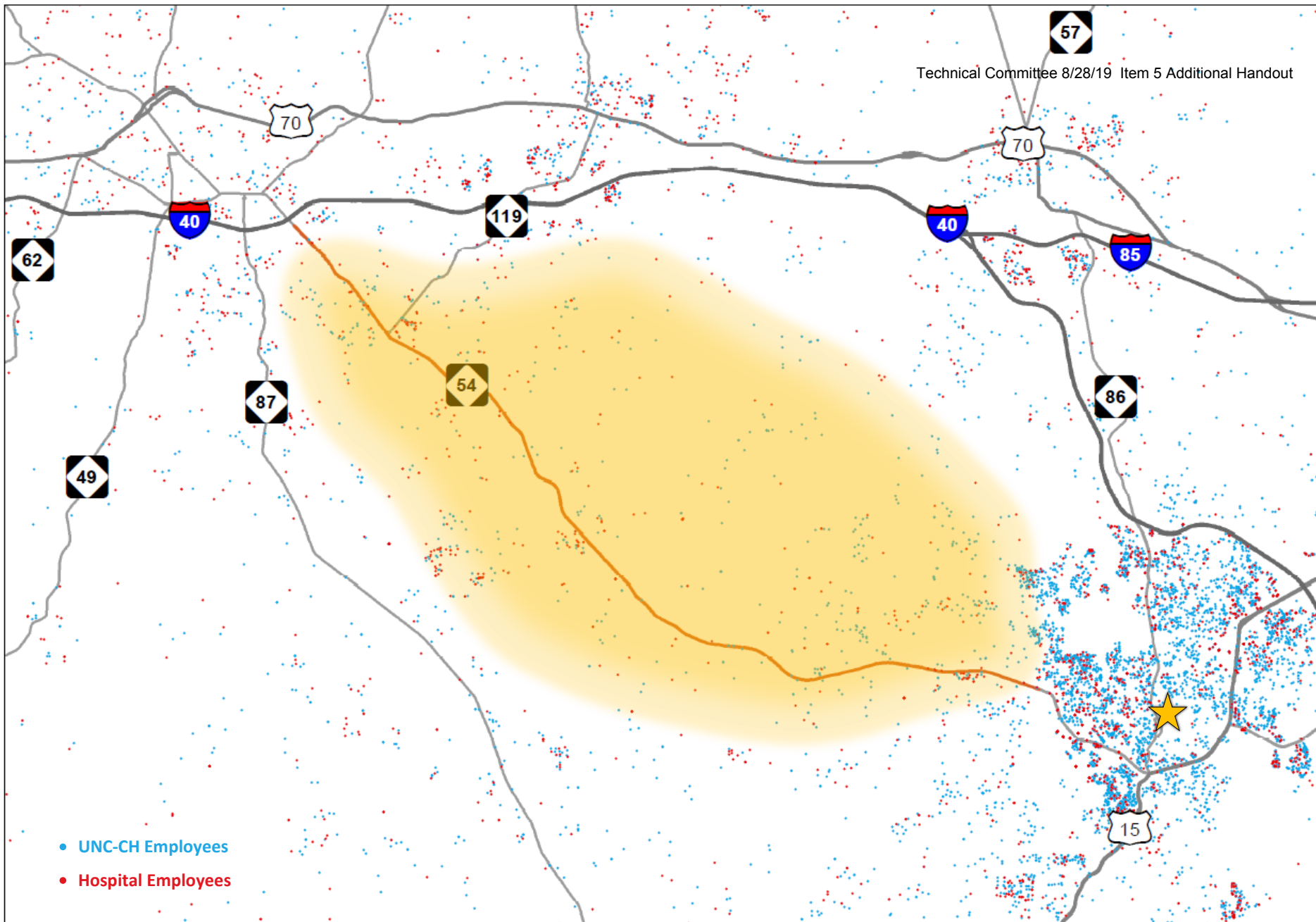


Figure 19: Study Area Distribution of UNC-CH and Hospital Employee Residences (2017)

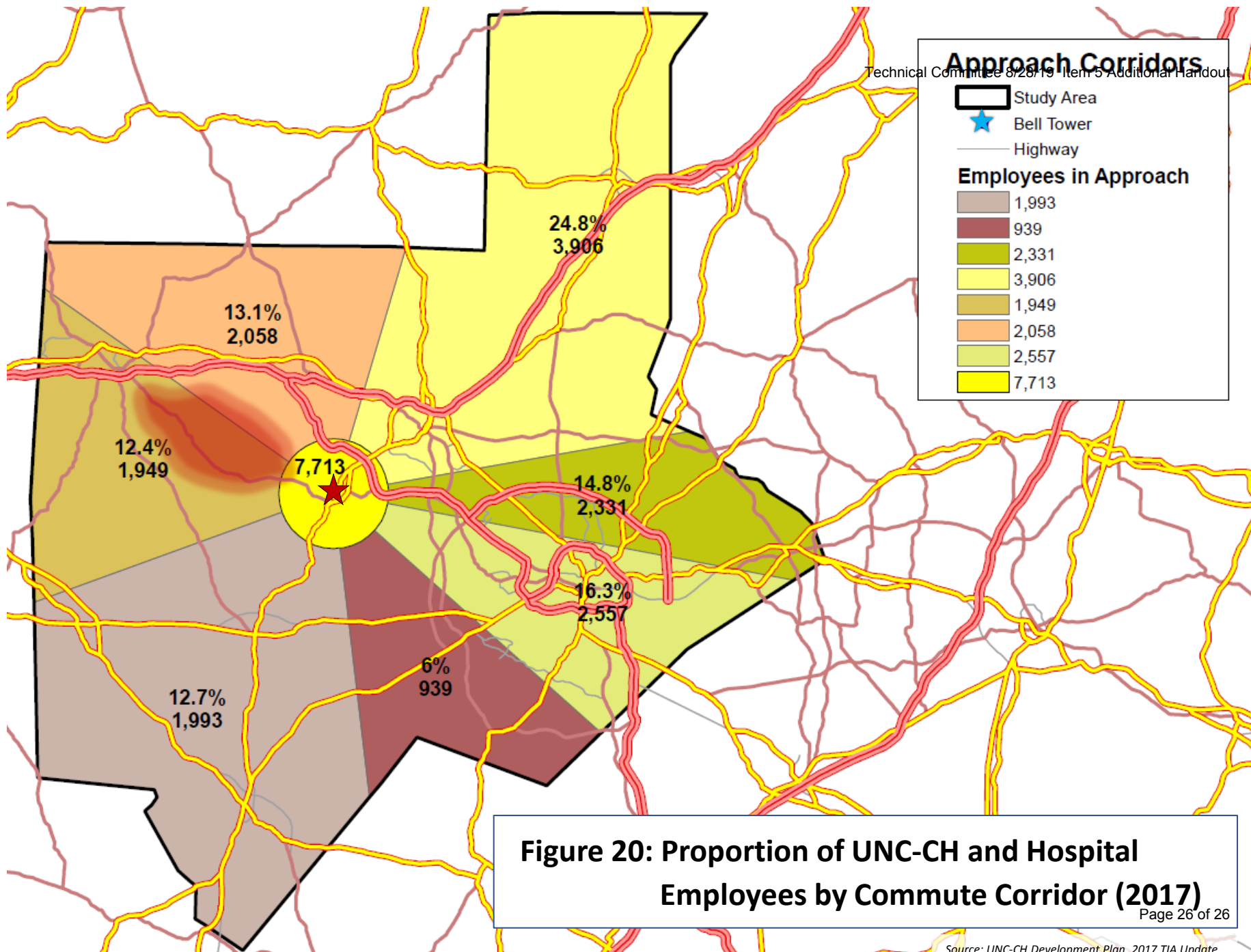


Figure 20: Proportion of UNC-CH and Hospital Employees by Commute Corridor (2017)