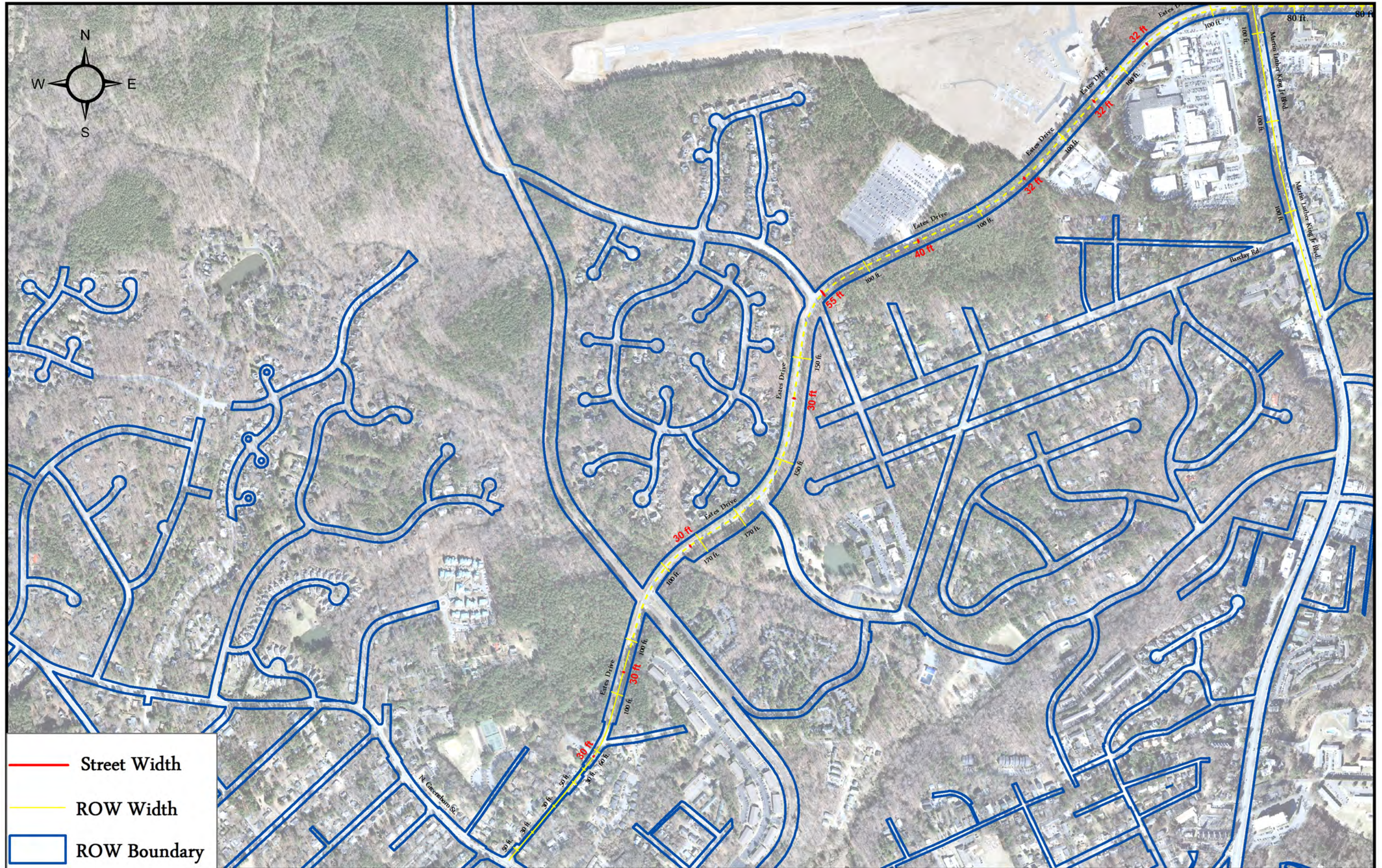


Estes Dr. Right of Way and Pavment Width



Estes Dr. looking east at Somerset Dr.

State Road 1750

22 Feet of Pavement

Estes Dr. looking east at Halifax Rd

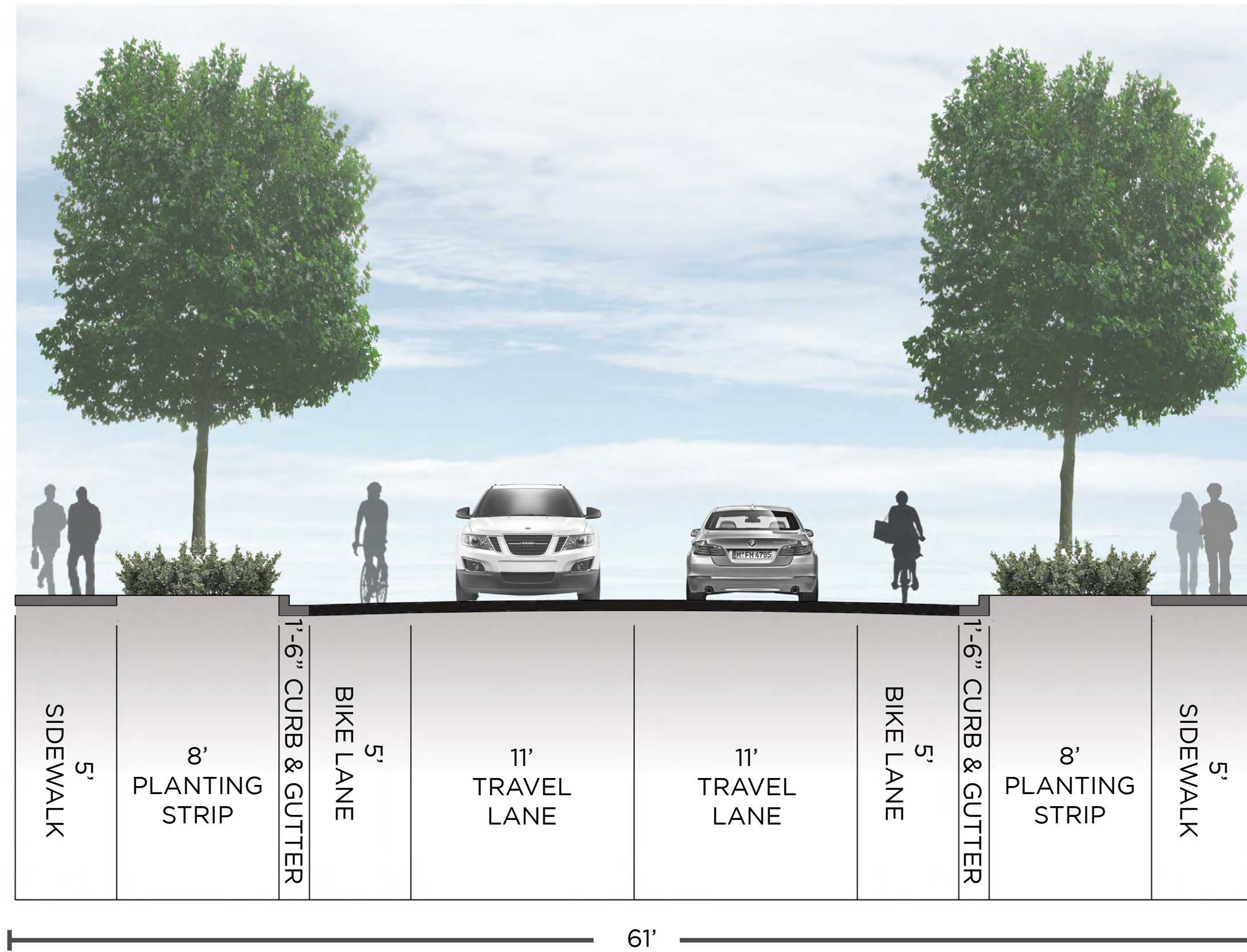
36 Feet of Pavement

Estes Drive

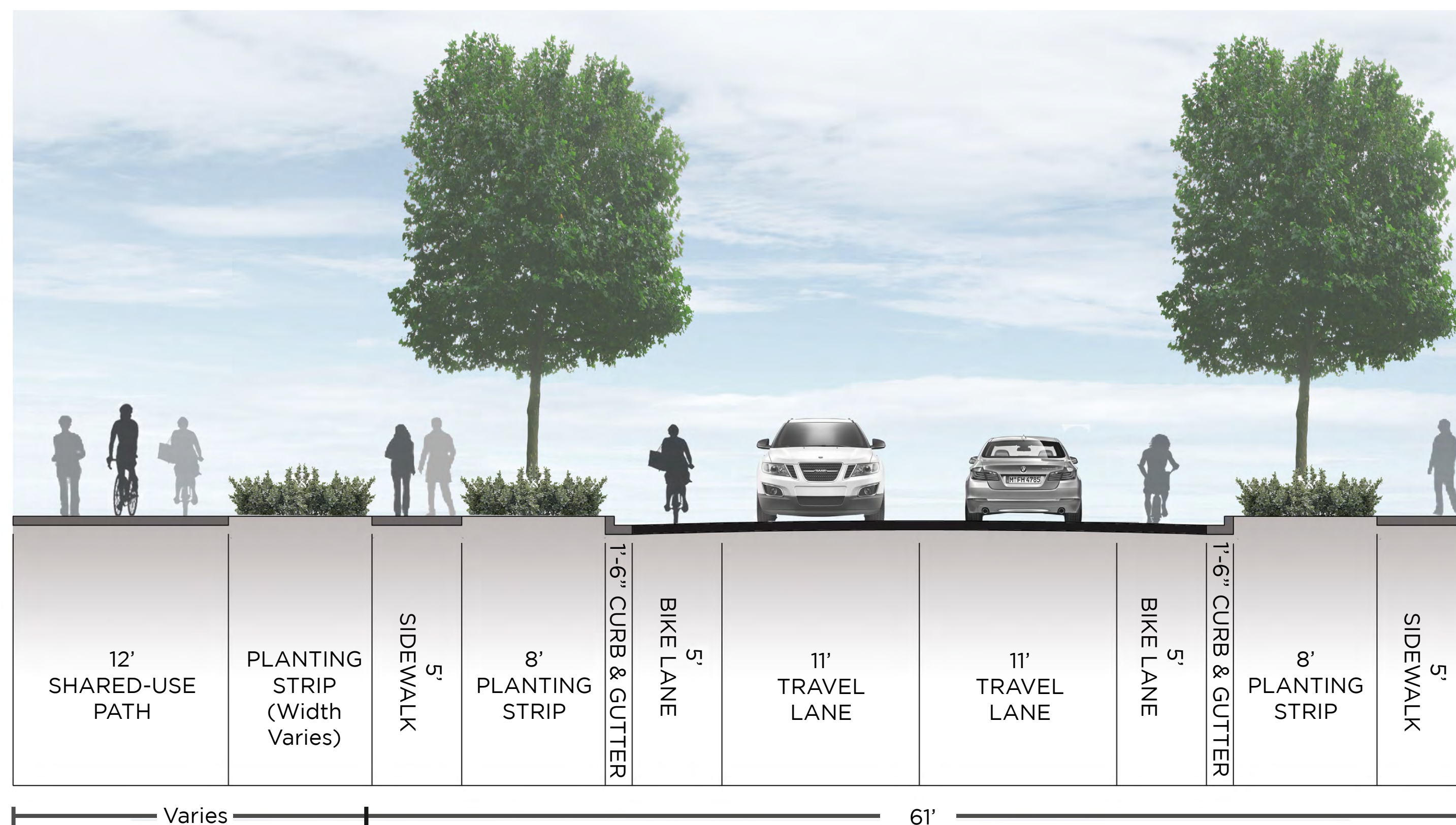
Bicycle & Pedestrian Access

Alternative Roadway Sections

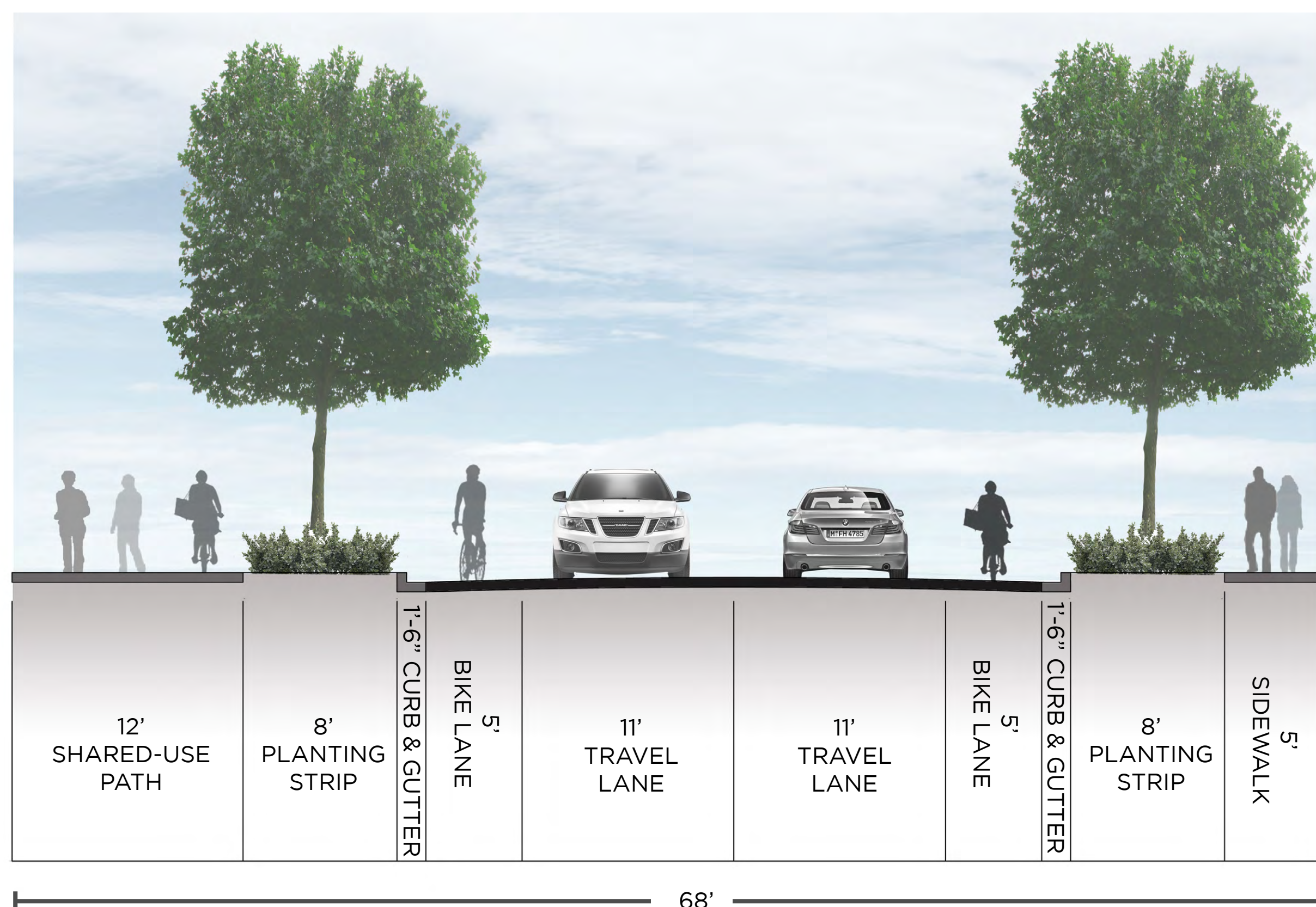
OPTION 1: ON-ROAD BIKE LANES AND SIDEWALKS (BOTH SIDES)



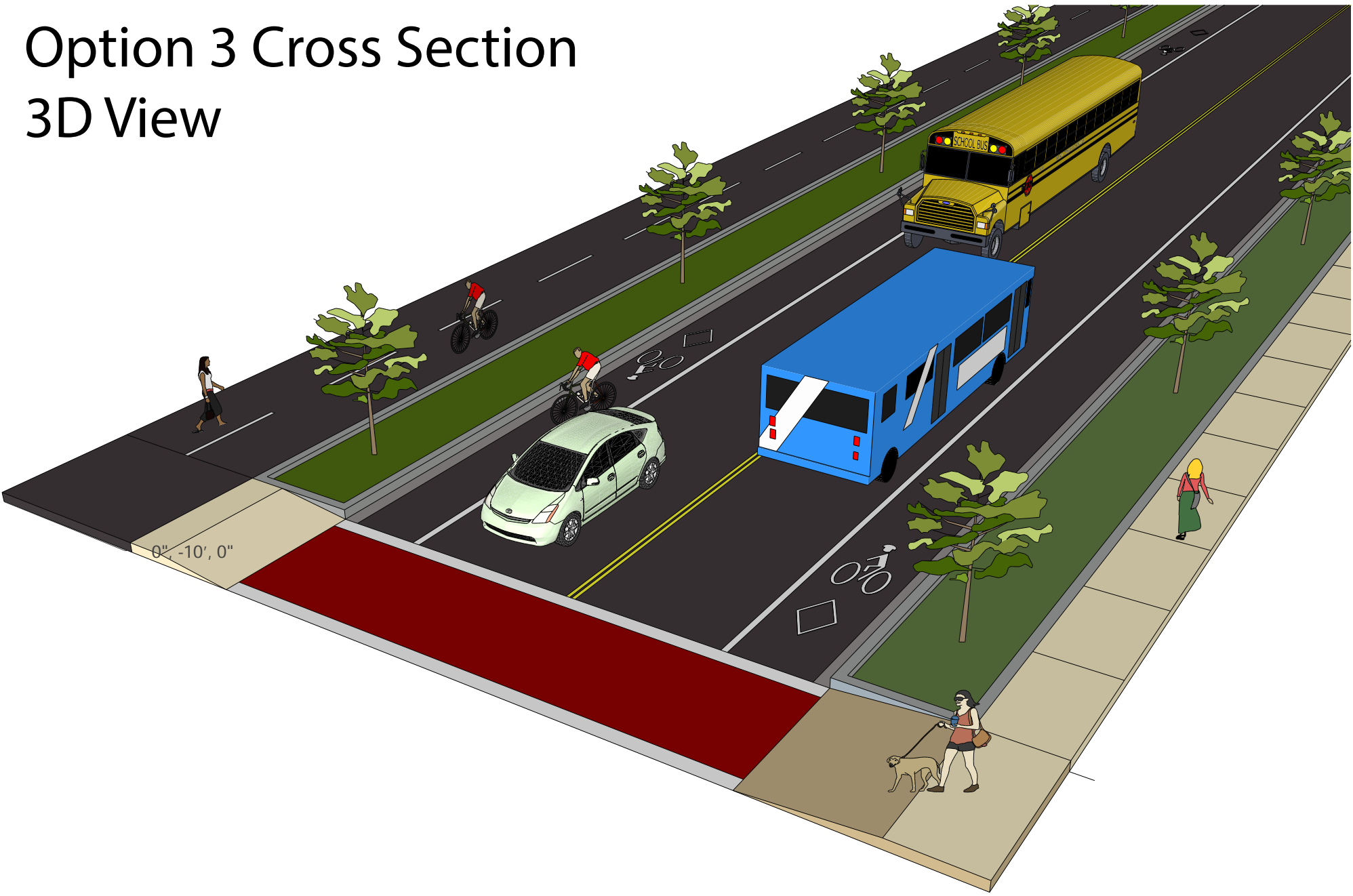
OPTION 2: ON-ROAD BIKE LANES, SIDEWALKS (BOTH SIDES) & SHARED-USE PATH



OPTION 3: ON-ROAD BICYCLE LANES, SIDEWALK (ONE-SIDE) & SHARED-USE PATH



Option 3 Cross Section 3D View



Average Daily Traffic 2005-2012

Volume	Study	Year
11680	MPO	2012
23348	NCDOT	2011
27000	NCDOT	2005

Volume	Study	Year
15180	MPO	2012
29477	NCDOT	2011
25000	NCDOT	2005

Volume	Study	Year
12703	MPO	2012
23746	NCDOT	2011
31000	NCDOT	2005

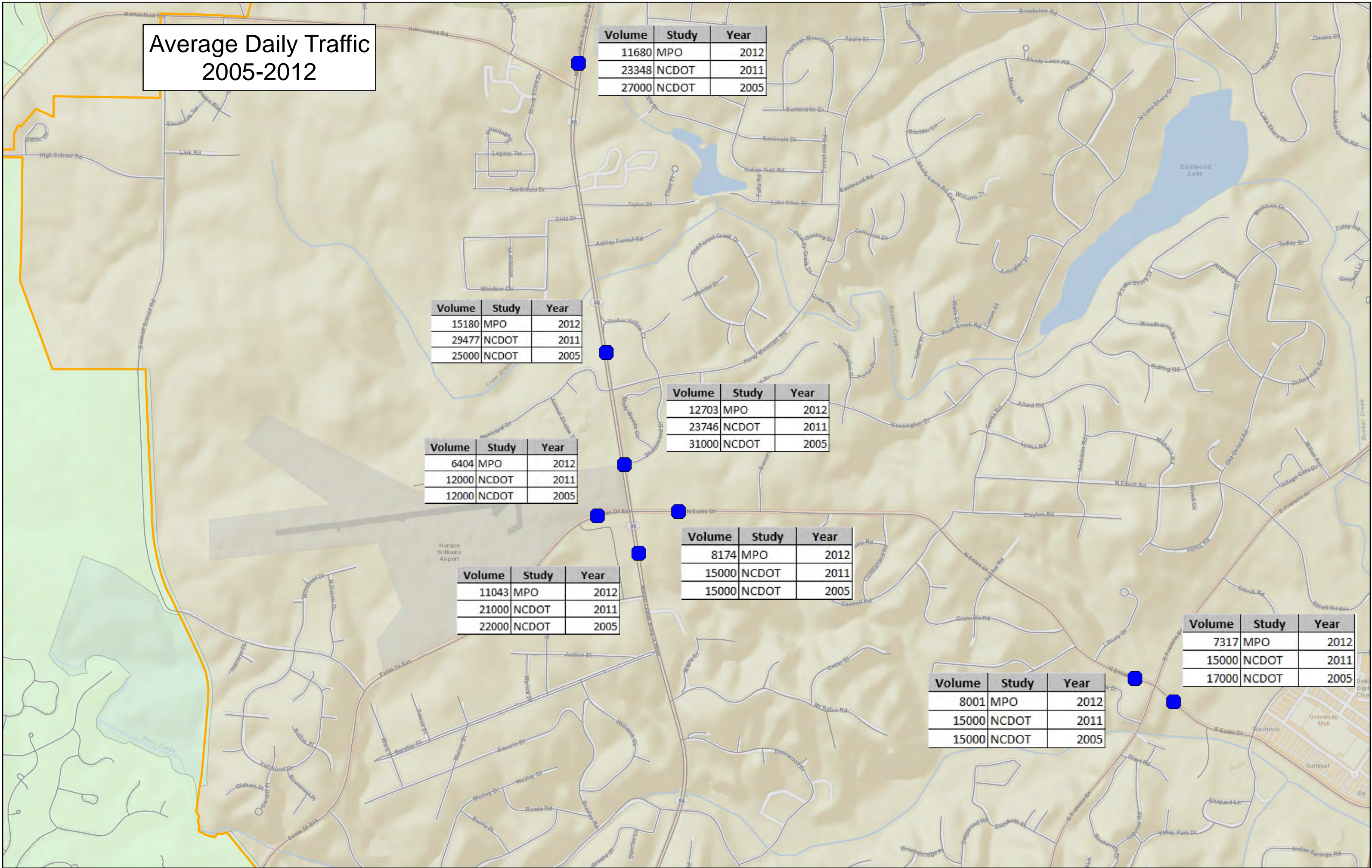
Volume	Study	Year
6404	MPO	2012
12000	NCDOT	2011
12000	NCDOT	2005

Volume	Study	Year
8174	MPO	2012
15000	NCDOT	2011
15000	NCDOT	2005

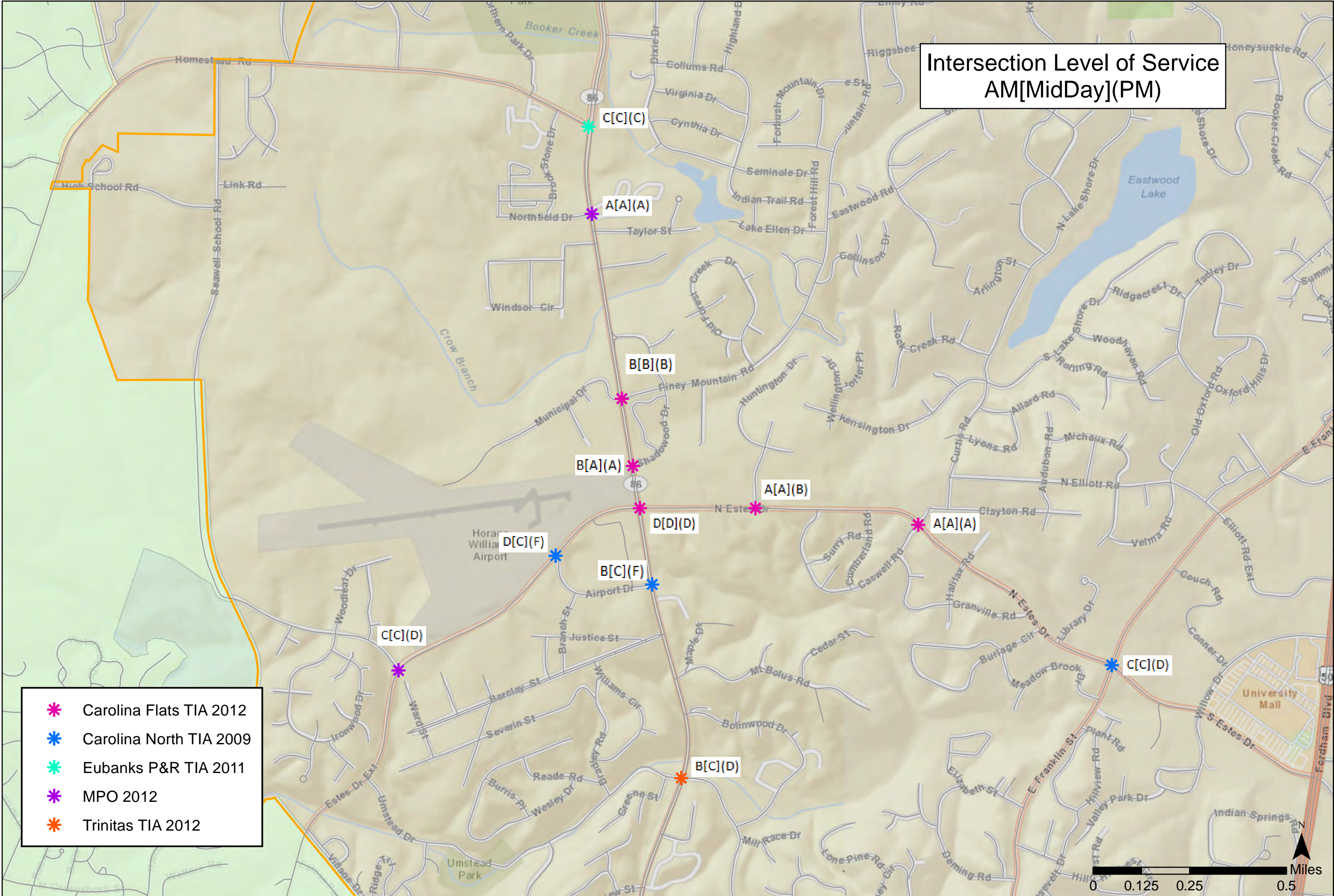
Volume	Study	Year
11043	MPO	2012
21000	NCDOT	2011
22000	NCDOT	2005

Volume	Study	Year
7317	MPO	2012
15000	NCDOT	2011
17000	NCDOT	2005

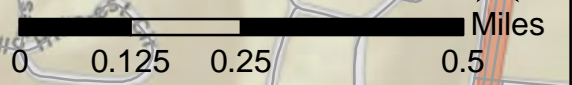
Volume	Study	Year
8001	MPO	2012
15000	NCDOT	2011
15000	NCDOT	2005



Intersection Level of Service AM[MidDay](PM)

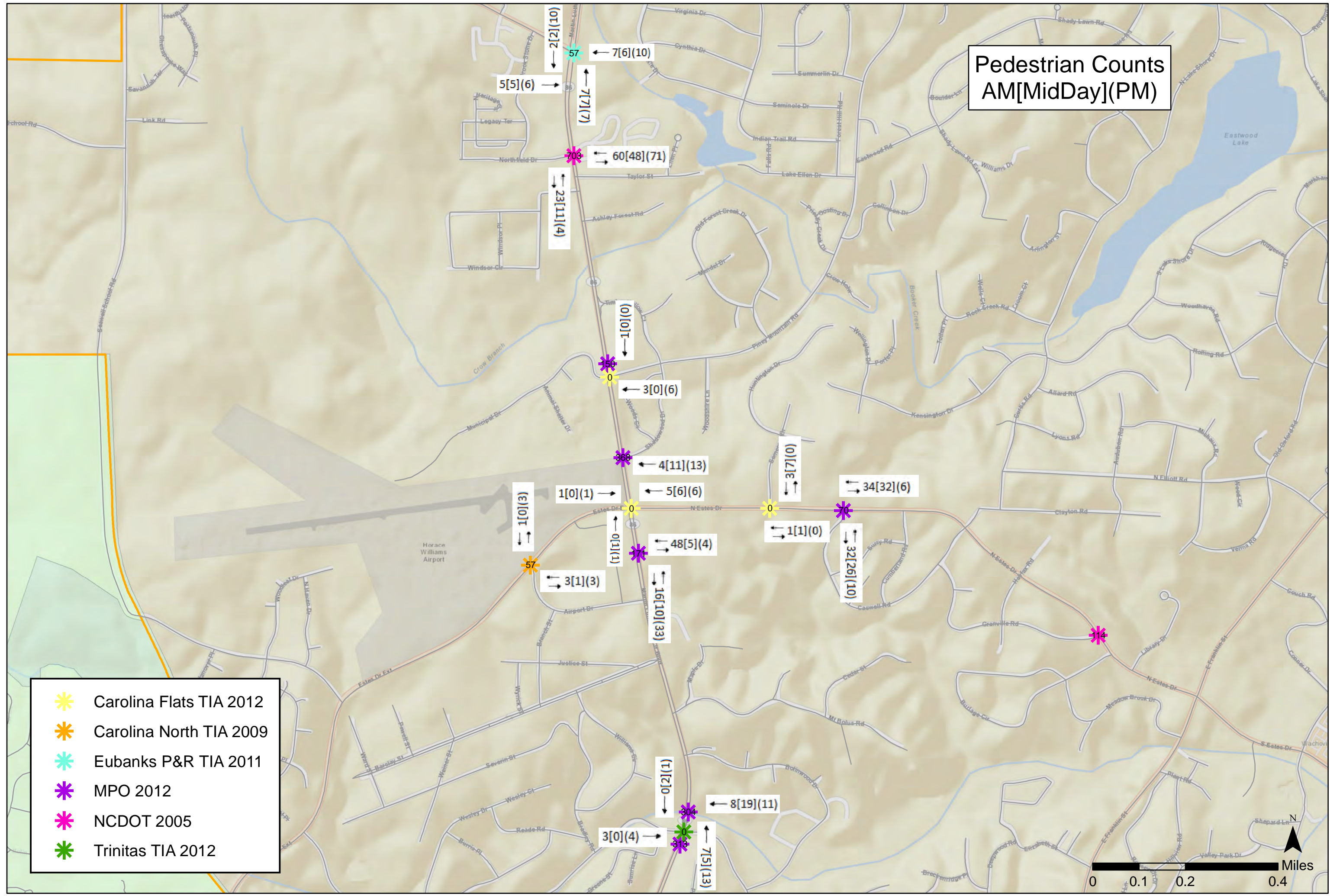


- ★ Carolina Flats TIA 2012
- ★ Carolina North TIA 2009
- ★ Eubanks P&R TIA 2011
- ★ MPO 2012
- ★ Trinitas TIA 2012

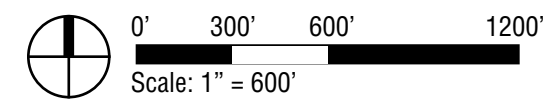


Pedestrian Counts AM[MidDay](PM)

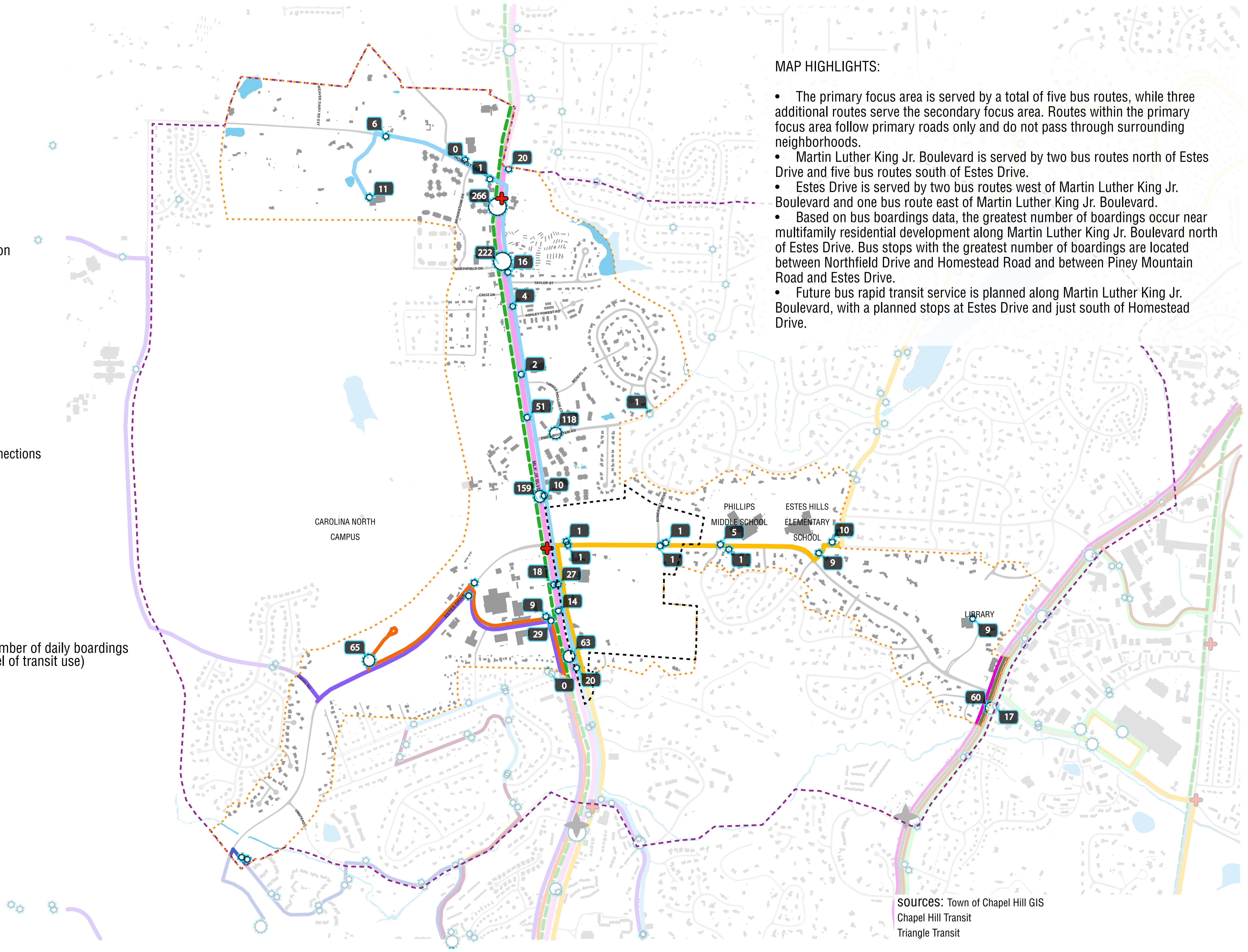
-  Carolina Flats TIA 2012
-  Carolina North TIA 2009
-  Eubanks P&R TIA 2011
-  MPO 2012
-  NCDOT 2005
-  Trinitas TIA 2012



Town of Chapel Hill
 Central West Focus Area
Transit Service
DRAFT



- Impact Area
- Evaluation for Transportation & Connections
- Evaluation for Form & Use
- Evaluation for Form & Use (Existing Weekday Routes)
- G route
- NS & T route
- A route
- HS route
- NU route
- Evaluation for Transportation & Connections (Existing Weekday Routes)
- CL route
- D route
- F route
- Existing Triangle Transit
- Future BRT route
- + Future BRT stop
- Existing bus stops with number of daily boardings (size corresponds with level of transit use)
- + Existing Park and Ride

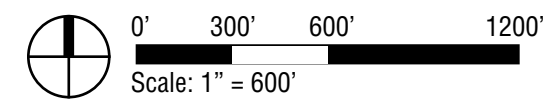


MAP HIGHLIGHTS:

- The primary focus area is served by a total of five bus routes, while three additional routes serve the secondary focus area. Routes within the primary focus area follow primary roads only and do not pass through surrounding neighborhoods.
- Martin Luther King Jr. Boulevard is served by two bus routes north of Estes Drive and five bus routes south of Estes Drive.
- Estes Drive is served by two bus routes west of Martin Luther King Jr. Boulevard and one bus route east of Martin Luther King Jr. Boulevard.
- Based on bus boardings data, the greatest number of boardings occur near multifamily residential development along Martin Luther King Jr. Boulevard north of Estes Drive. Bus stops with the greatest number of boardings are located between Northfield Drive and Homestead Road and between Piney Mountain Road and Estes Drive.
- Future bus rapid transit service is planned along Martin Luther King Jr. Boulevard, with a planned stops at Estes Drive and just south of Homestead Drive.

SOURCES: Town of Chapel Hill GIS
 Chapel Hill Transit
 Triangle Transit

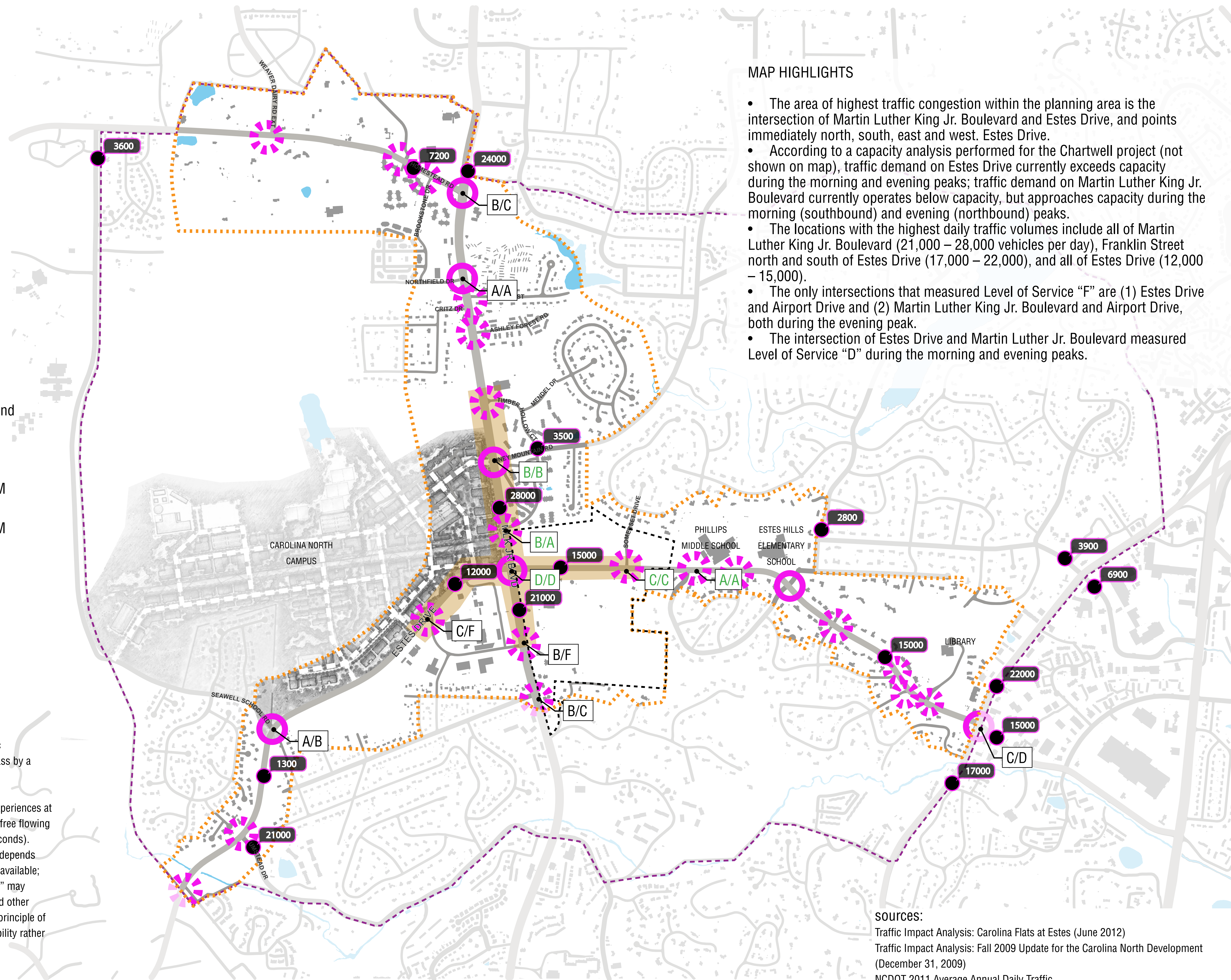
Town of Chapel Hill
 Central West Focus Area
Traffic Analysis
DRAFT



- Impact Area
- Evaluation for Transportation & Connections
- Evaluation for Form & Use
- Signalized Intersection
- ✱ Un-signalized Intersection
- 2011 NCDOT Annual Average Daily Traffic (AADT) measurement points and volume estimates*
- Highest Congestion Area
- A/B Existing Level of Service (AM peak/PM peak) based on 2009 data#
- A/B Existing Level of Service (AM peak/PM peak) based on 2012 data#

* Average Annual Daily Traffic (AADT) is a measure of traffic volume that refers to the average number of vehicles that pass by a measurement point during a 24-hour period in a given year.

Level of Service (LOS) measures the delay each vehicle experiences at a particular intersection, ranging from Level of Service "A" (free flowing traffic) to Level of Service "F" (average delay exceeds 80 seconds). Determining what constitutes an acceptable level of service depends on the local context and the range of transportation options available; for example, in some urban areas, Level of Service "E" or "F" may be considered acceptable. The Project for Public Places, and other highly regarded urban planning organizations, promote the principle of "Streets as Places" urging street design for community livability rather than for free flowing traffic alone.



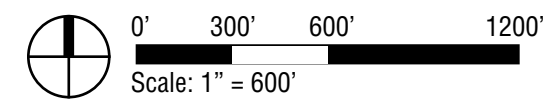
MAP HIGHLIGHTS

- The area of highest traffic congestion within the planning area is the intersection of Martin Luther King Jr. Boulevard and Estes Drive, and points immediately north, south, east and west. Estes Drive.
- According to a capacity analysis performed for the Chartwell project (not shown on map), traffic demand on Estes Drive currently exceeds capacity during the morning and evening peaks; traffic demand on Martin Luther King Jr. Boulevard currently operates below capacity, but approaches capacity during the morning (southbound) and evening (northbound) peaks.
- The locations with the highest daily traffic volumes include all of Martin Luther King Jr. Boulevard (21,000 – 28,000 vehicles per day), Franklin Street north and south of Estes Drive (17,000 – 22,000), and all of Estes Drive (12,000 – 15,000).
- The only intersections that measured Level of Service "F" are (1) Estes Drive and Airport Drive and (2) Martin Luther King Jr. Boulevard and Airport Drive, both during the evening peak.
- The intersection of Estes Drive and Martin Luther Jr. Boulevard measured Level of Service "D" during the morning and evening peaks.

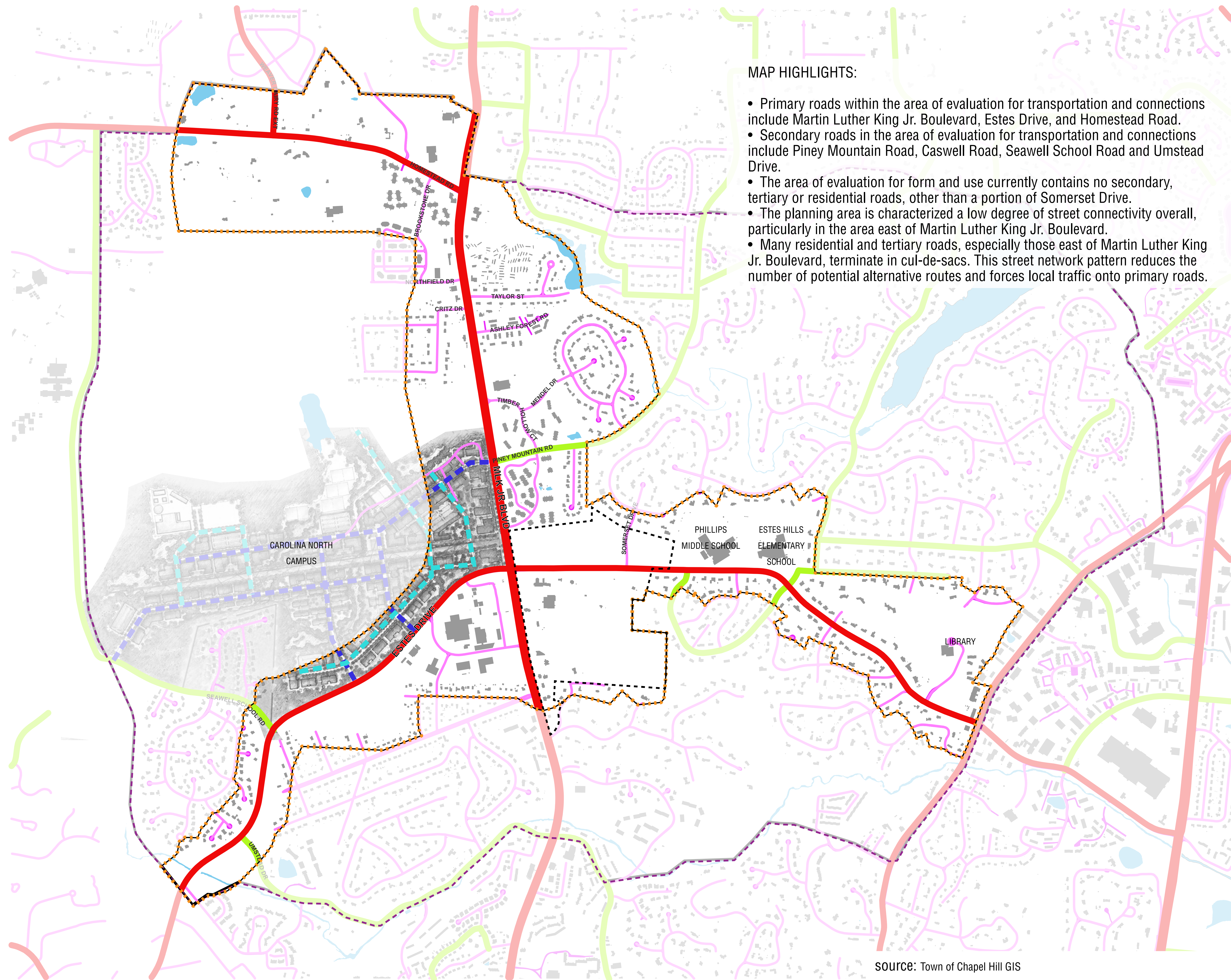
SOURCES:

- Traffic Impact Analysis: Carolina Flats at Estes (June 2012)
- Traffic Impact Analysis: Fall 2009 Update for the Carolina North Development (December 31, 2009)
- NCDOT 2011 Average Annual Daily Traffic
- Rhodeside & Harwell Site Analysis

Town of Chapel Hill
 Central West Focus Area
Street Connectivity
DRAFT



- - - - Impact Area
- - - - Evaluation for Transportation & Connections
- - - - Evaluation for Form & Use
- Primary Roads
- Secondary Roads
- Tertiary/Residential Roads
- - - - Major Proposed Roads
- - - - Minor Proposed Roads

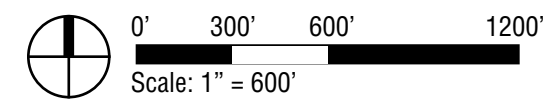


MAP HIGHLIGHTS:

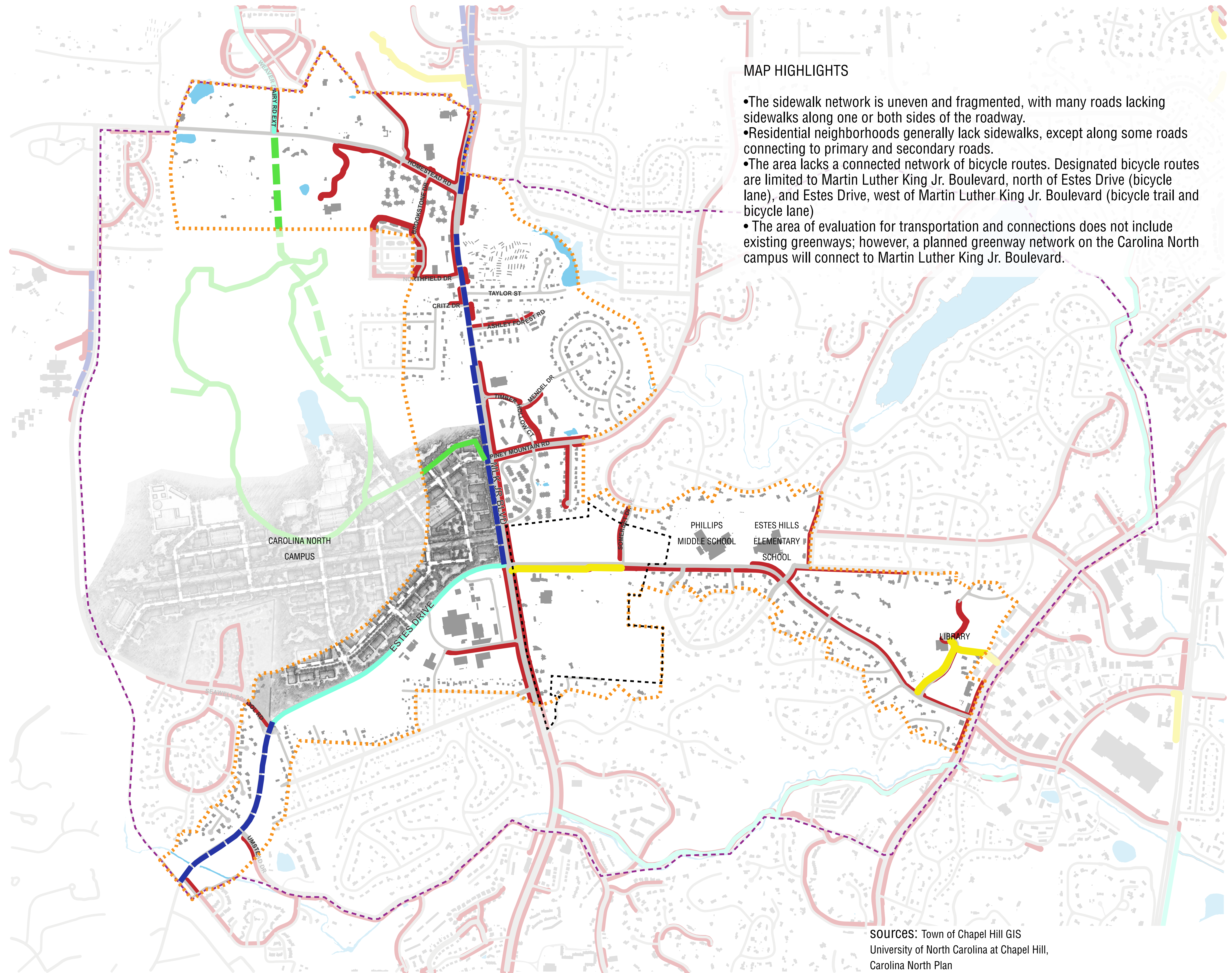
- Primary roads within the area of evaluation for transportation and connections include Martin Luther King Jr. Boulevard, Estes Drive, and Homestead Road.
- Secondary roads in the area of evaluation for transportation and connections include Piney Mountain Road, Caswell Road, Seawell School Road and Umstead Drive.
- The area of evaluation for form and use currently contains no secondary, tertiary or residential roads, other than a portion of Somerset Drive.
- The planning area is characterized a low degree of street connectivity overall, particularly in the area east of Martin Luther King Jr. Boulevard.
- Many residential and tertiary roads, especially those east of Martin Luther King Jr. Boulevard, terminate in cul-de-sacs. This street network pattern reduces the number of potential alternative routes and forces local traffic onto primary roads.

SOURCE: Town of Chapel Hill GIS

Town of Chapel Hill
 Central West Focus Area
**Sidewalks, Bike Routes,
 and Greenways**
DRAFT



- - - - Impact Area
- - - - Evaluation for Transportation & Connections
- - - - Evaluation for Form & Use
- Sidewalks
- Multi-use Path
- Bike Lane
- Bike Trail (Carolina North)
- Proposed Greenway
- Existing Pumpkin Loop Trail



MAP HIGHLIGHTS

- The sidewalk network is uneven and fragmented, with many roads lacking sidewalks along one or both sides of the roadway.
- Residential neighborhoods generally lack sidewalks, except along some roads connecting to primary and secondary roads.
- The area lacks a connected network of bicycle routes. Designated bicycle routes are limited to Martin Luther King Jr. Boulevard, north of Estes Drive (bicycle lane), and Estes Drive, west of Martin Luther King Jr. Boulevard (bicycle trail and bicycle lane)
- The area of evaluation for transportation and connections does not include existing greenways; however, a planned greenway network on the Carolina North campus will connect to Martin Luther King Jr. Boulevard.

SOURCES: Town of Chapel Hill GIS
 University of North Carolina at Chapel Hill,
 Carolina North Plan