

December 16, 2019

Memorandum To: Zahid Baloch, PE  
Division 5 Project Delivery  
North Carolina Department of Transportation

■  
421 Fayetteville St.  
Suite 600  
Raleigh, North Carolina  
27601

From: Tim Padgett, PE  
Kimley-Horn and Associates, Inc.

Subject: Traffic Forecast for Airport Boulevard Extension in Wake County

This forecast has been reviewed and approved by the NCDOT Transportation Planning Division as of December 16, 2019.

Please find attached the 2019 traffic estimates and 2045 traffic forecasts for Airport Boulevard in Wake County. The project studies the extension of Airport Boulevard from Garden Square Lane to Church Street in Morrisville. The following scenarios are provided:

- Base Year 2019 No-Build
- Base Year 2019 Build
- Future Year 2045 No-Build
- Future Year 2045 Build

David Keilson and Phil Geary of NCDOT along with Benjamin Howell from Morrisville were contacted during the development of this forecast.

Certain assumptions were made in the development of the forecast:

***Fiscal Constraint.*** Within the Metropolitan Planning Organization (MPO) area, future forecasts are based on projects included in the Financial Plan for the 2045 North Carolina Capital Area Metropolitan Planning Organization (CAMPO) Metropolitan Transportation Plan (MTP). This information, along with the same for the Durham-Chapel Hill-Carrboro Metropolitan Planning Organization (DCHC) is included in the official version of the Triangle Regional Model (TRMv6 – Build 403).

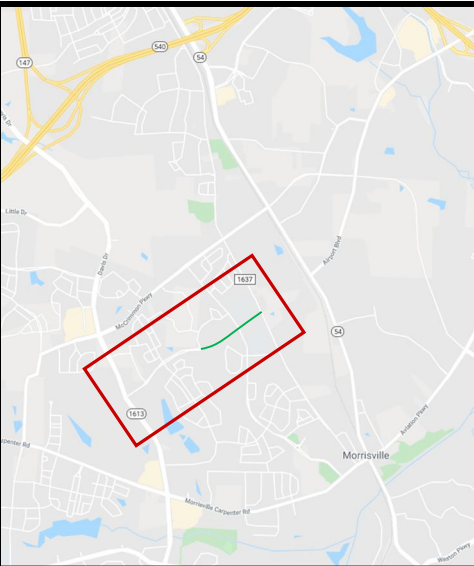
***Future Conditions and Development Activity.*** The forecast was developed using output from the Triangle Regional Model (TRMv6 – Build 403). Assumptions about future development activity and changes in the distribution of population and employment in the forecast study area are implicit in the model.

***Forecast Methodology.*** Base year 2019 estimates and Horizon Year 2045 forecasts provided in the attached forecast were developed using a method under which observed traffic data as well as 2013 and 2045 model output were considered.

To determine any intermediate years, straight-line interpolation may be used. AADT volumes may be extrapolated for up to two years immediately following 2045. If it is determined that any of these assumptions have become inconsistent with the project and surrounding area activity, please request updated projections at this location.

Cc: Keith Dixon, Transportation Planning Division  
Scott Walston, Transportation Planning Division  
Doumit Ishak, Congestion Management Section  
Clark Morrison, PhD, PE, Pavement Management Unit  
Brenda Moore, PE, CPM, Roadway Design Unit  
David Keilson, PE, Division Planning Engineer  
Chris Lukasina, CAMPO MPO  
Benjamin Howell, AICP, Town of Morrisville  
Traffic Forecasting GIS Support





# Airport Boulevard

**2019**  
**No Build (PM)**

## Vehicles Per Day in 100s    1- Less than 50 VPD

DHV  $\frac{PM}{(d,t)} \rightarrow D$

DHV Design Hourly Volume (%) = K30  
 PM PM Peak Period  
 D Peak Hour Directional Split (%)  
 → Indicates Direction of D  
 (d,t) Dual, TT-STs (%)

— Existing Roadway  
 — Road Widening  
 - - - Proposed Roadway

### EXTENTS

*Airport Boulevard from Davis Drive to Church Street*

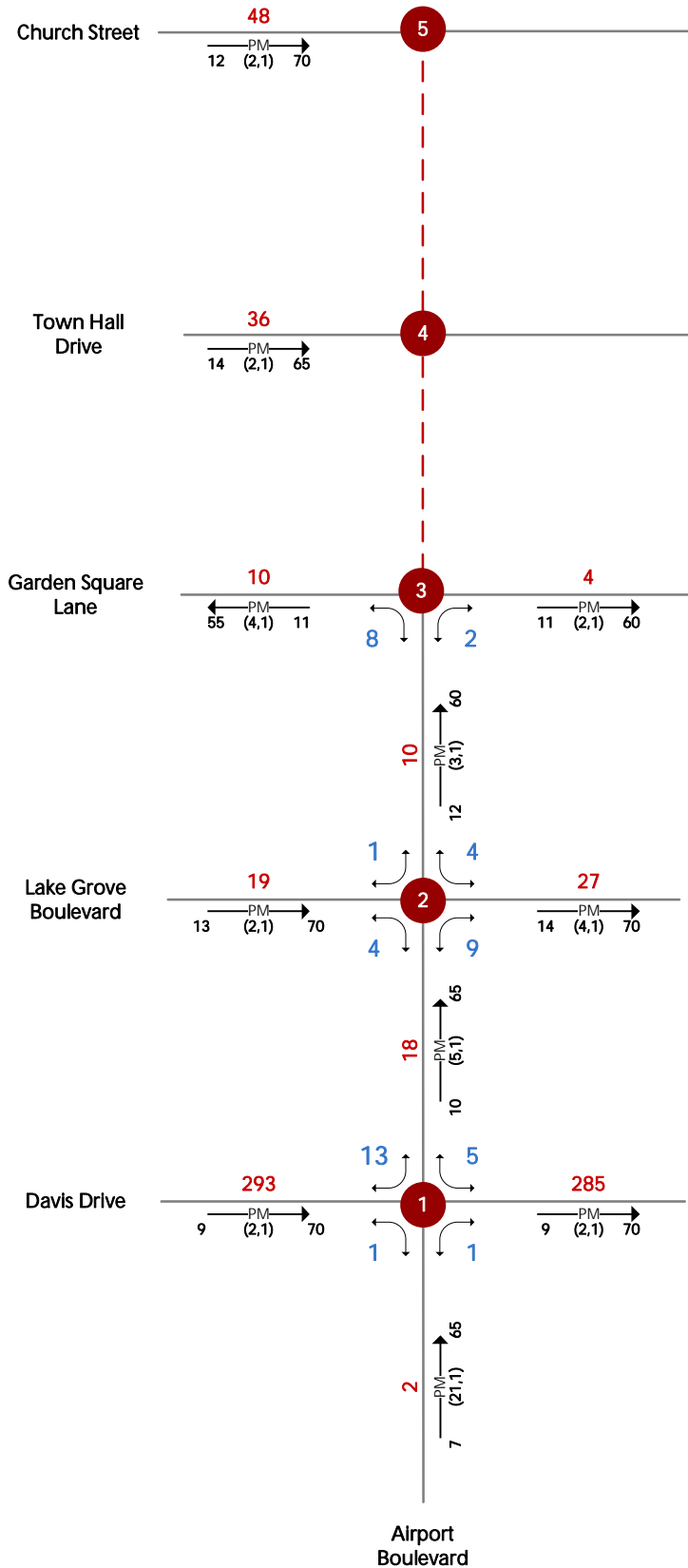
Wake County    Division 5

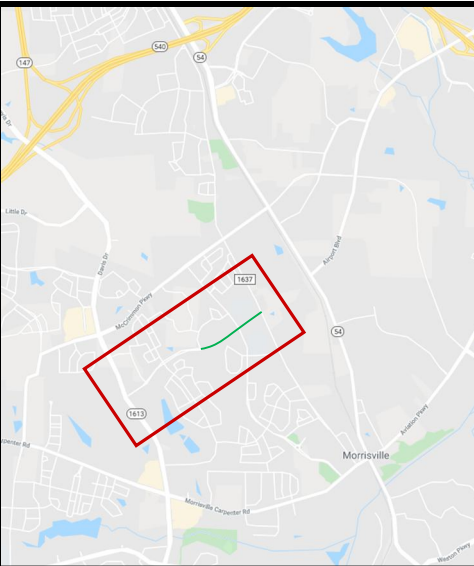
### PROJECT

*Airport Boulevard Extension*

WBS# 36249.4033

December 16, 2019





# Airport Boulevard

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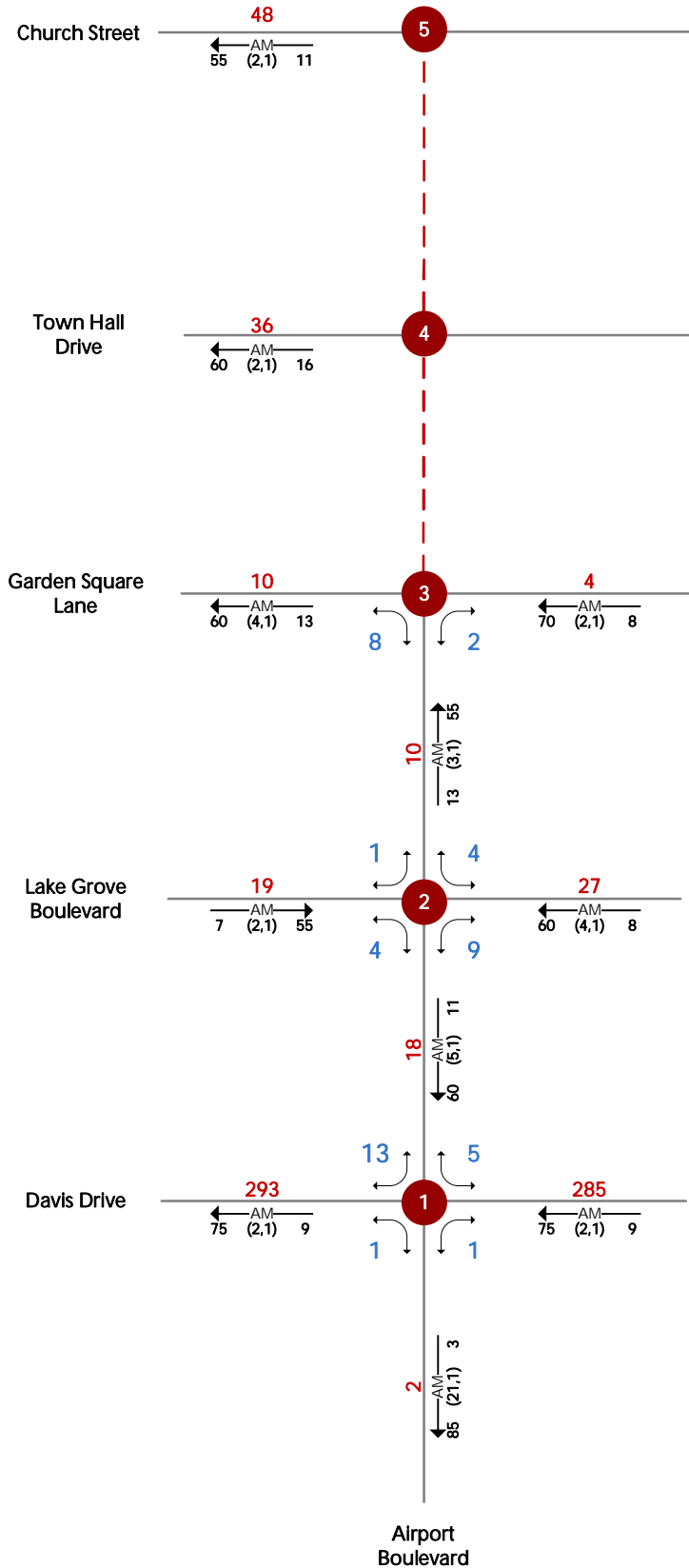
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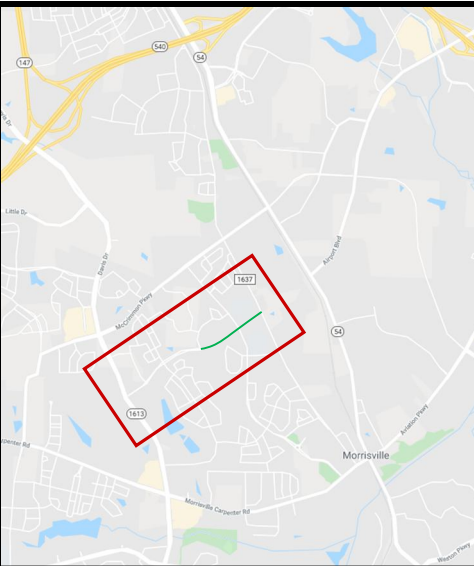
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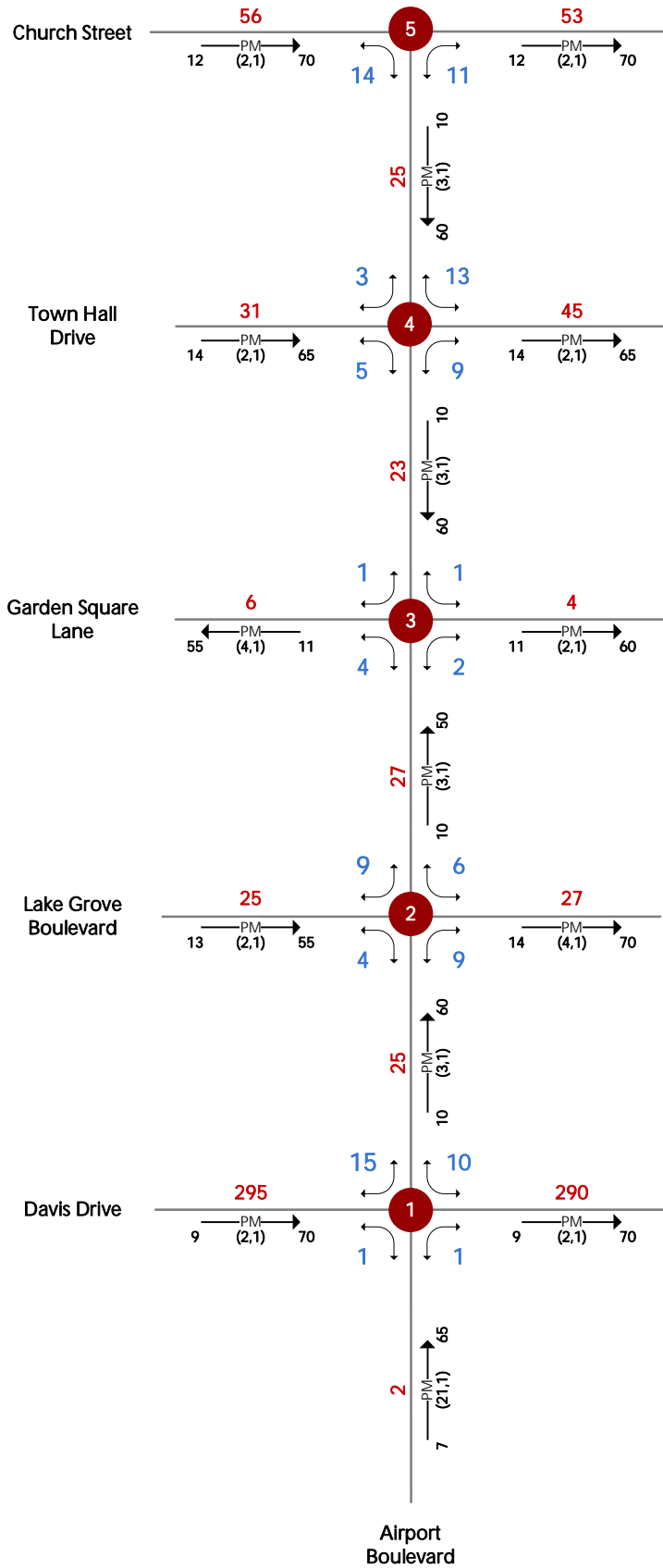
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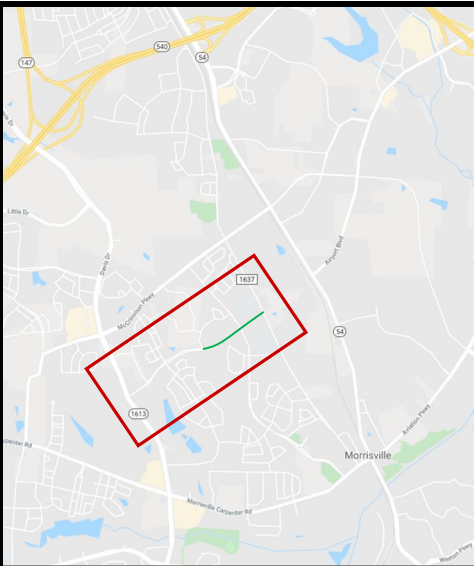
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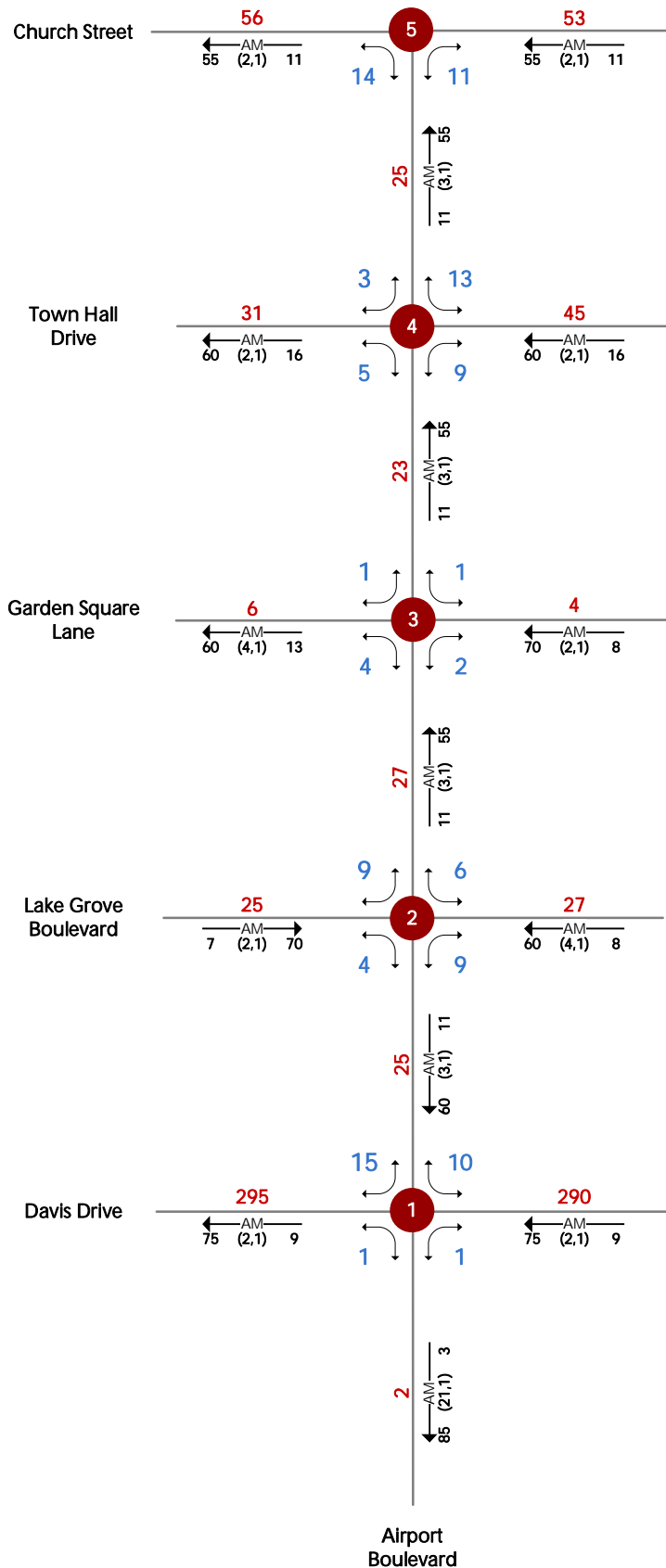
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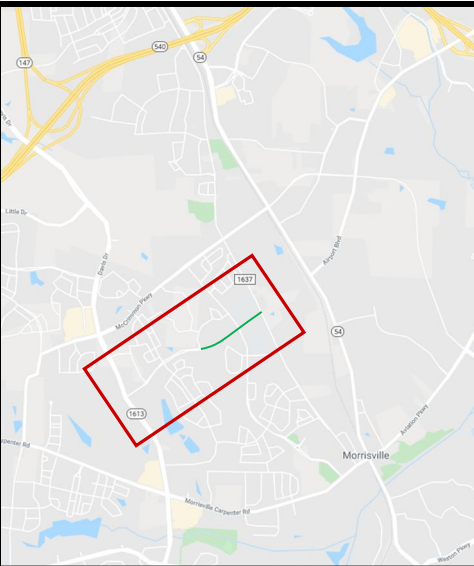
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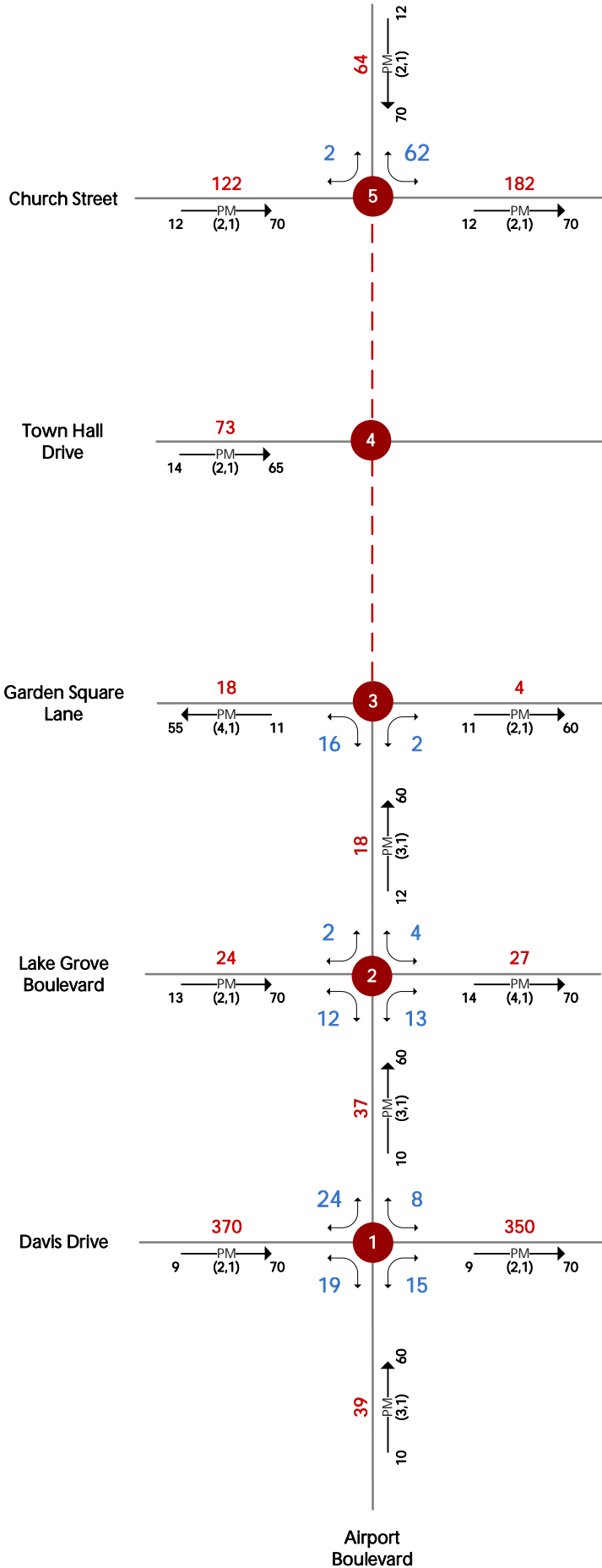
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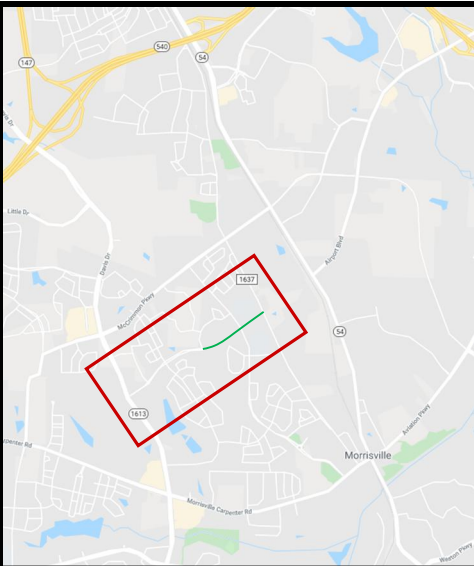
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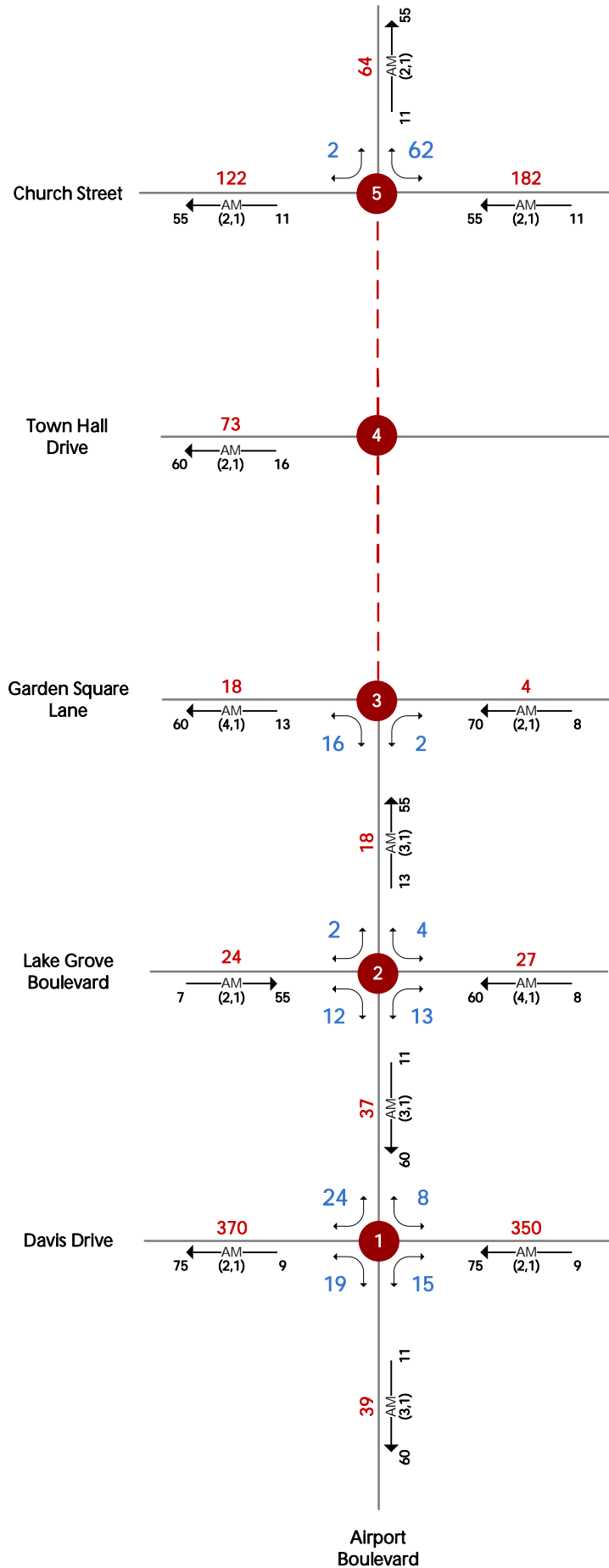
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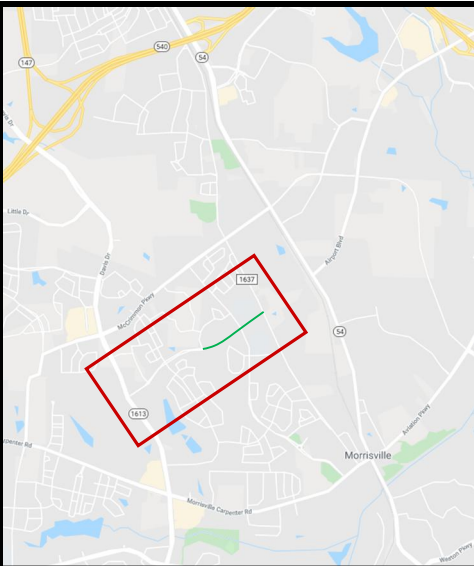
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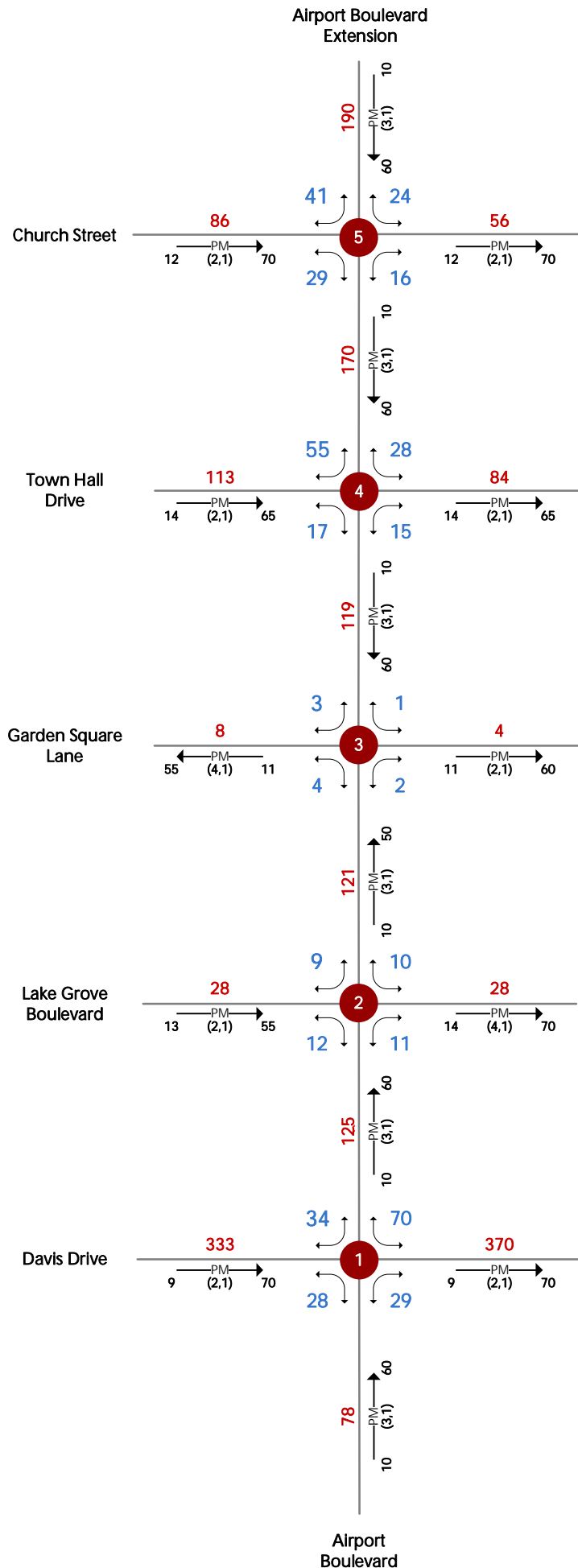
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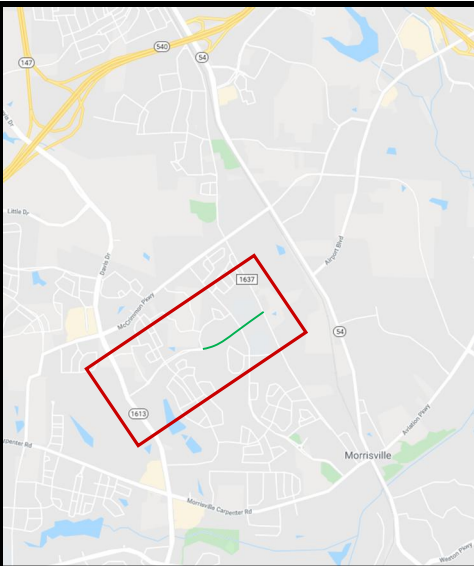
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