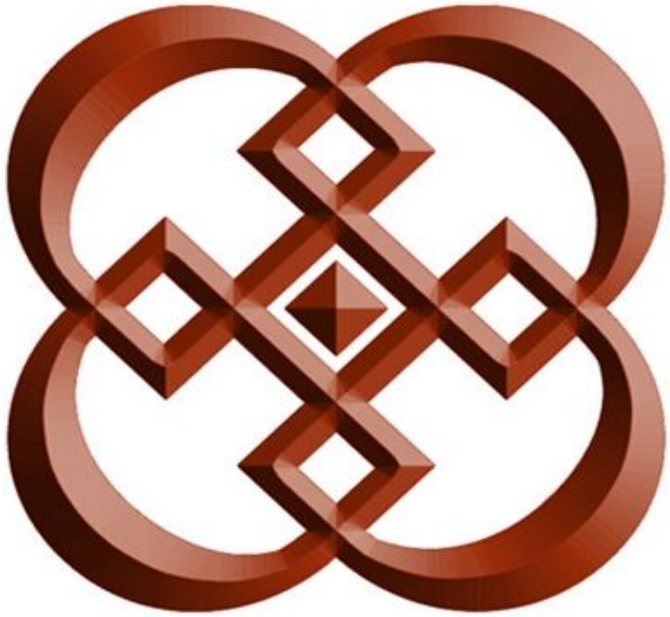

The Town of Davidson

College Town. Lake Town. *Your Town.*

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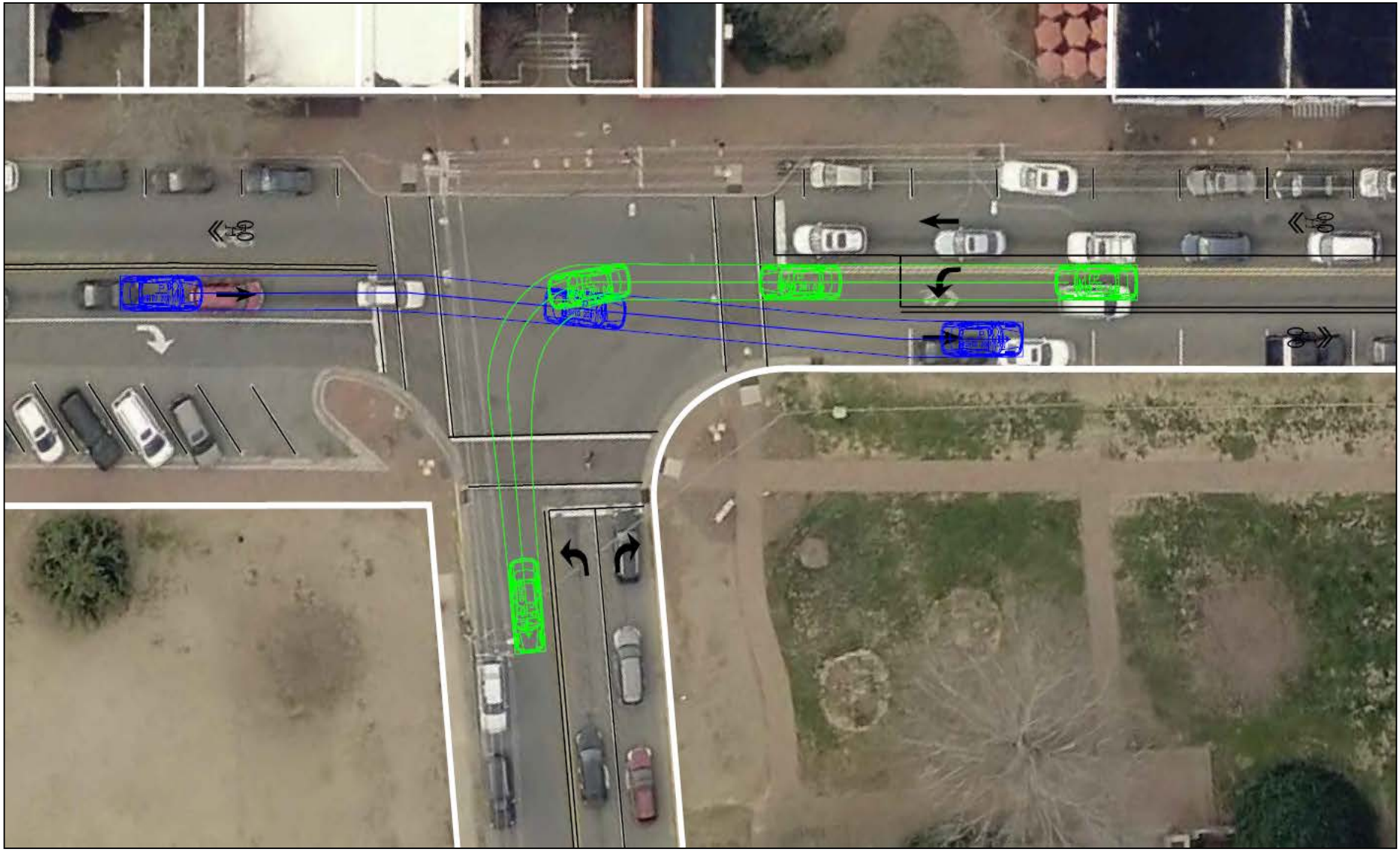
Main-Concord Intersection
June 12, 2018



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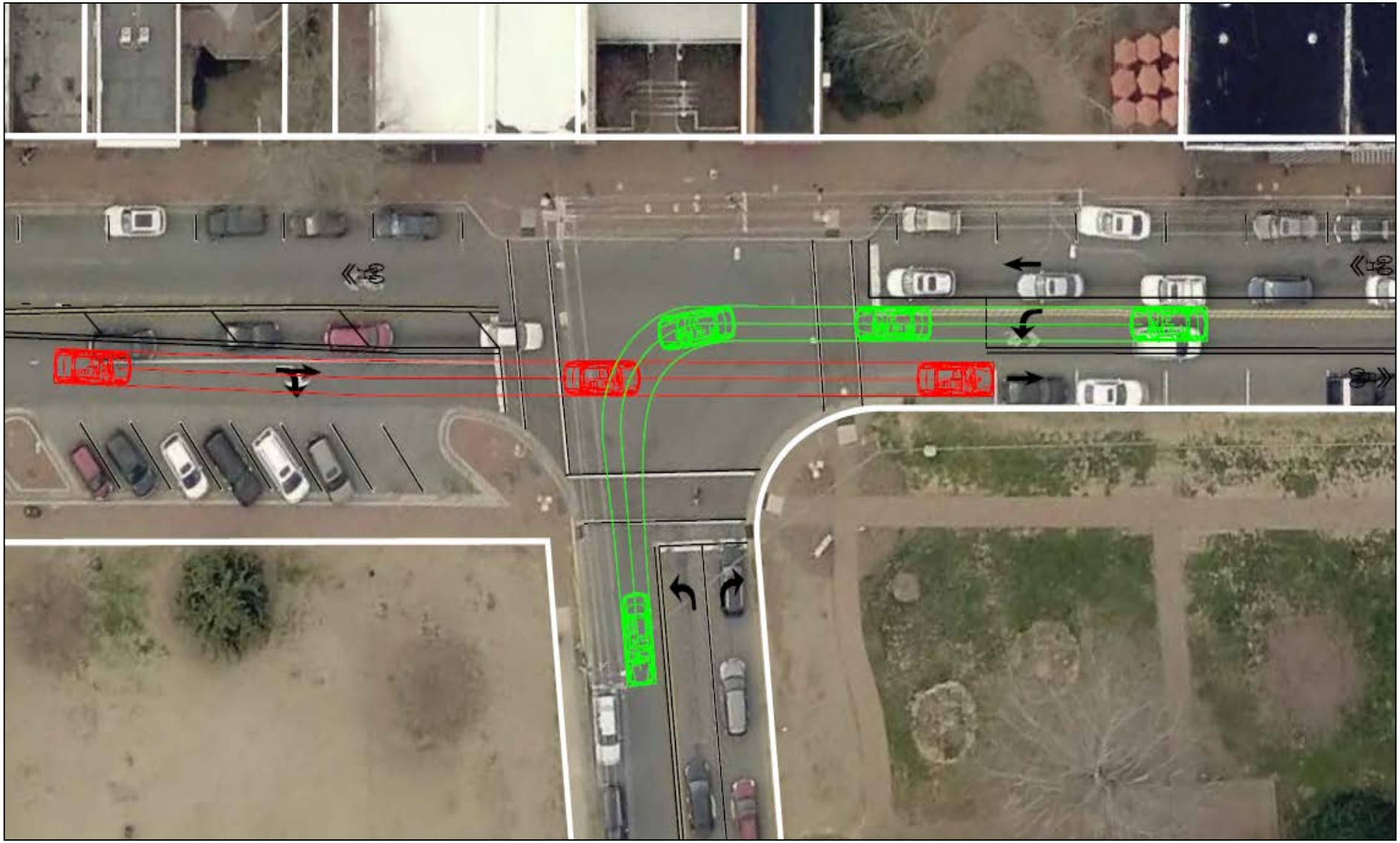
June 12, 2018



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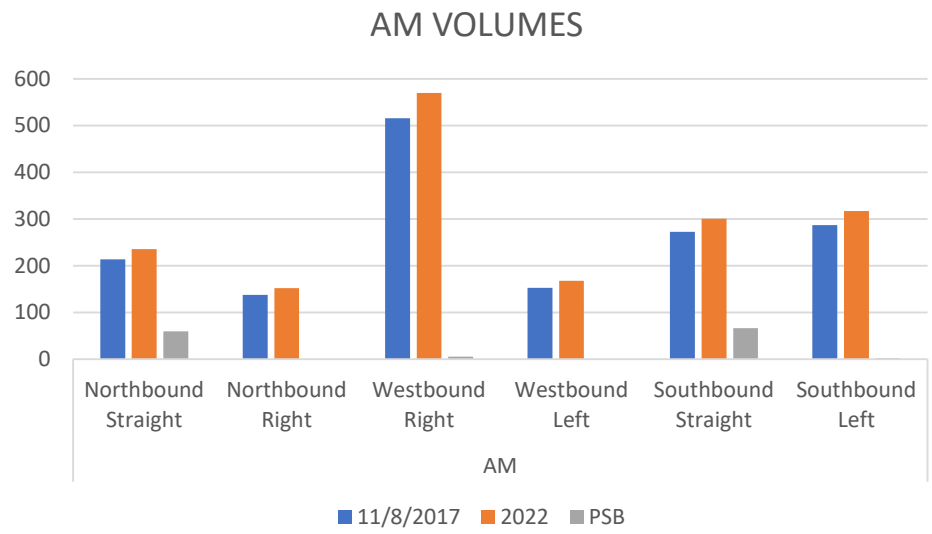
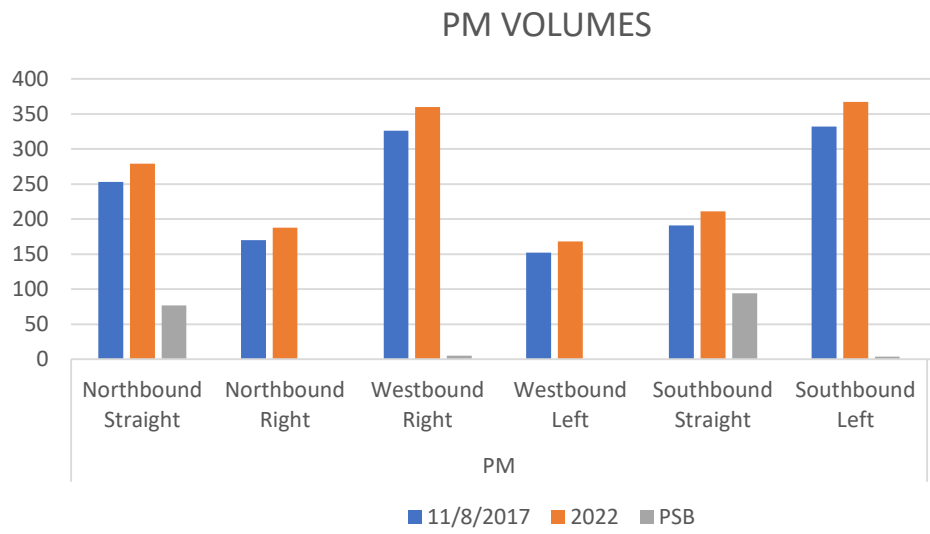
Peak Hour Traffic Volumes





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Main-Concord Intersection
June 12, 2018

Modeling data summary

2022 Alternatives Comparison							
		LOS (Delay) Southbound Approach		LOS (Delay) Overall Intersection		Southbound Queueing Longest Q (Synchro/SIM)	
2022 Alternatives		AM	PM	AM	PM	AM	PM
Saturation Flow Rate = 1,500; PHF = Existing							
1. Existing Laneage	Sat FR - 1,500 PHF - Existing	E (61.1)	D (53.8)	D (48.0)	D (43.8)	#500'/244'	#373'/350'
3. SBL Turn Lane w/ Shared NBT/R	Sat FR - 1,500 PHF - Existing	C (23.6)	D (51.6)	D (35.5)	D (54.9)	#253'/156'	#409'/431'

- Note that the 2022 analysis reflects traffic reductions to account for U-5907 (Potts/Sloan Connector)

- PHF (Peak-hour factor) - measures the relationship between the peak 15-minute interval of traffic compared to the total vehicle volume over the entire peak hour. It represents how constant vehicle volumes are during the peak hour

- Saturation Flow Rate - At a signalized intersection, the saturation flow is defined as the number of vehicles per hour that could cross a stop line if a signal remained green all of the time. The accuracy of saturation flow rates determines the capacity of signalized intersections.

Options

1) Do nothing.
2) Approve the proposed changes.
3) Consider further study of improvements and evaluate any other options.

Next Steps

Option 2 – Continued engineering and planning, final cost estimates. Budget Amendment would be needed for any town funds to expend towards the project.

Option 3 – Engage NC DOT and engineers on a scope of work to provide further study. Budget Amendment would be needed for any town funds to expend towards study work.