



## Appendix A

### Technical Reports (Modelling Outputs)

*Town of Collingwood*

**Type of Document:**

Technical Report

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## Introduction

The following appendix includes all modelling outputs for each scenario modelled in the Master Mobility & Transportation Plan (MMTP). The scenarios are modelled for the years of 2024, 2034, 2044 and 2051 based on weekend and summer conditions. The scenarios that are modelled include those projecting the impacts of road widening, posted speed limits, traffic reductions, bypass construction, road extensions or the implementation of MMTP recommendations. The 10% and 20% traffic reduction scenarios specifically show the impact of more people selecting travel options other than driving, such as public transit, walking, or cycling. With fewer cars on the road, traffic conditions improve on several key streets, including High Street, First Street, Mountain Road, Raglan Street, and Balsam Street.

Overall, the improved local traffic within the Town demonstrates the potential benefits of effective active transportation and transit services. Reduced traffic conditions also provide calmer and safer environments for day-to-day travel, improving the appeal to use active transportation for local trips within the town. However, these measures do not fully solve traffic problems on roads around the edge of the Town. Particularly, some sections of County Road 26 and Poplar Sideroad are still expected to experience heavy traffic. Many of the vehicles on these roads pass through Collingwood rather than traveling to or from the Town.

## Third Street

### Reclassification

As a part of this study, the reclassification of third street from a collector road to a local road has been evaluated. The MMTP analysis of the scenario identified that local traffic will be distributed to surrounding arterials, collectors, and local roads. Most of the traffic diversion will be redirected onto Sixth Street, High Street, and First Street with some infiltration redirected onto adjacent local roads such as Second Street and Fifth Street. See figure 27.

### One-way Streets onto High Street

The one-way exits at High Street will result in traffic diversion across the local roads in the area. A reduction in traffic using the one-way streets (Third Street, Second Street, and Fifth Street) will be distributed between High Street, First Street, and Sixth Street. Traffic diversions will also infiltrate the tree streets to enter and exit First Street. The increase in traffic volumes along First and Sixth Street will result in some segments near High Street reaching capacity. See figure 28.

### Right-In Right-Out (RIRO) onto High Street

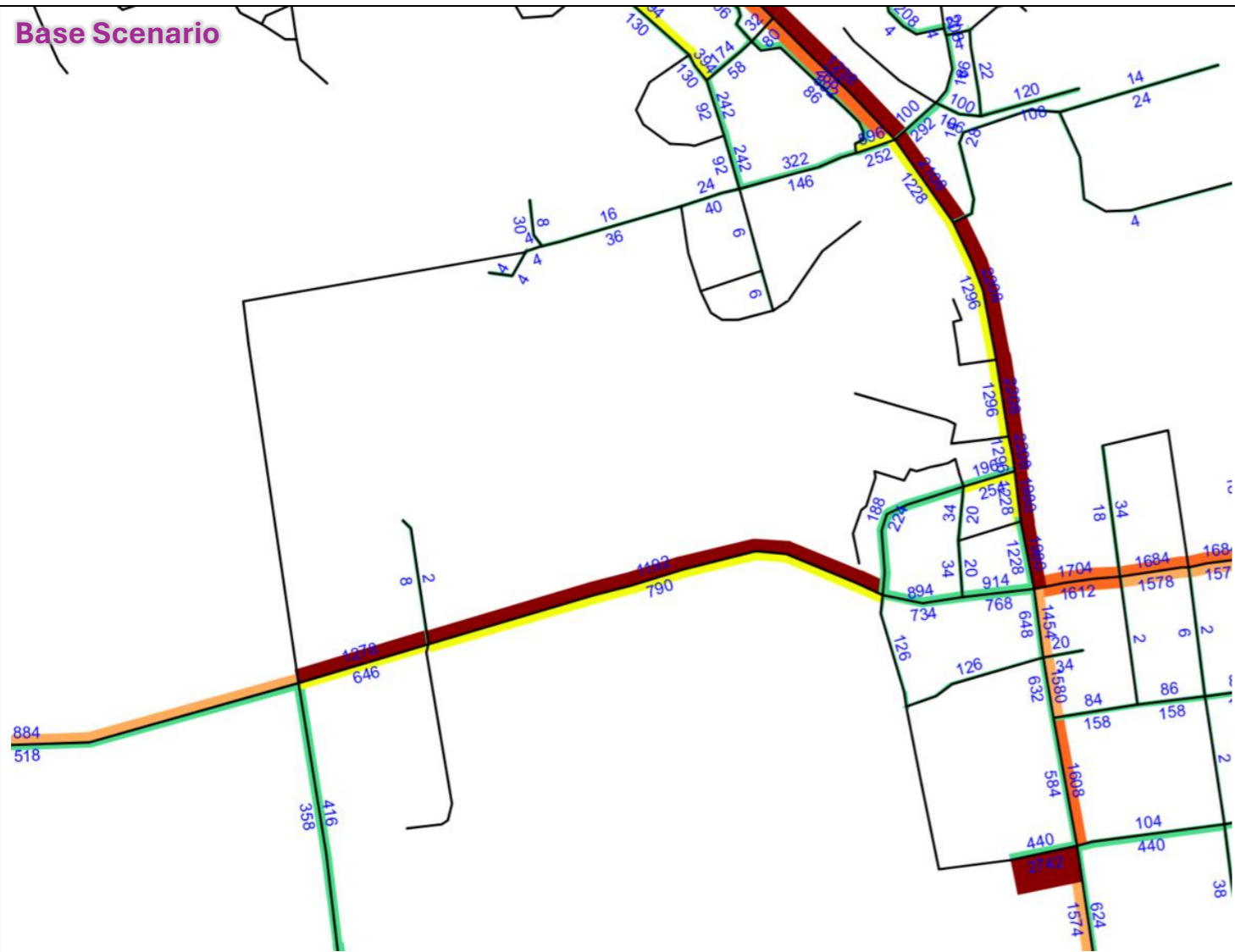
The RIRO intersection adjustments along High Street will result in traffic diversion across the local roads in the area. Traffic at Third Street and Fifth Street will be distributed between High Street, First Street, Second Street, and Sixth Street. Traffic diversions will also infiltrate the tree streets to enter and exit First Street. The overall impact on the wider road network resulting from this change is minor. See figure 29

Extensions



**2034 Cameron Extension**

The Cameron Street extension provided some traffic infiltration improvement into neighborhood streets onto High Street while providing an additional East-West connection from High Street to Hurontario Street. The extension provides some traffic relief in the East-West traffic flow on Campbell Street and 10<sup>th</sup> Street.



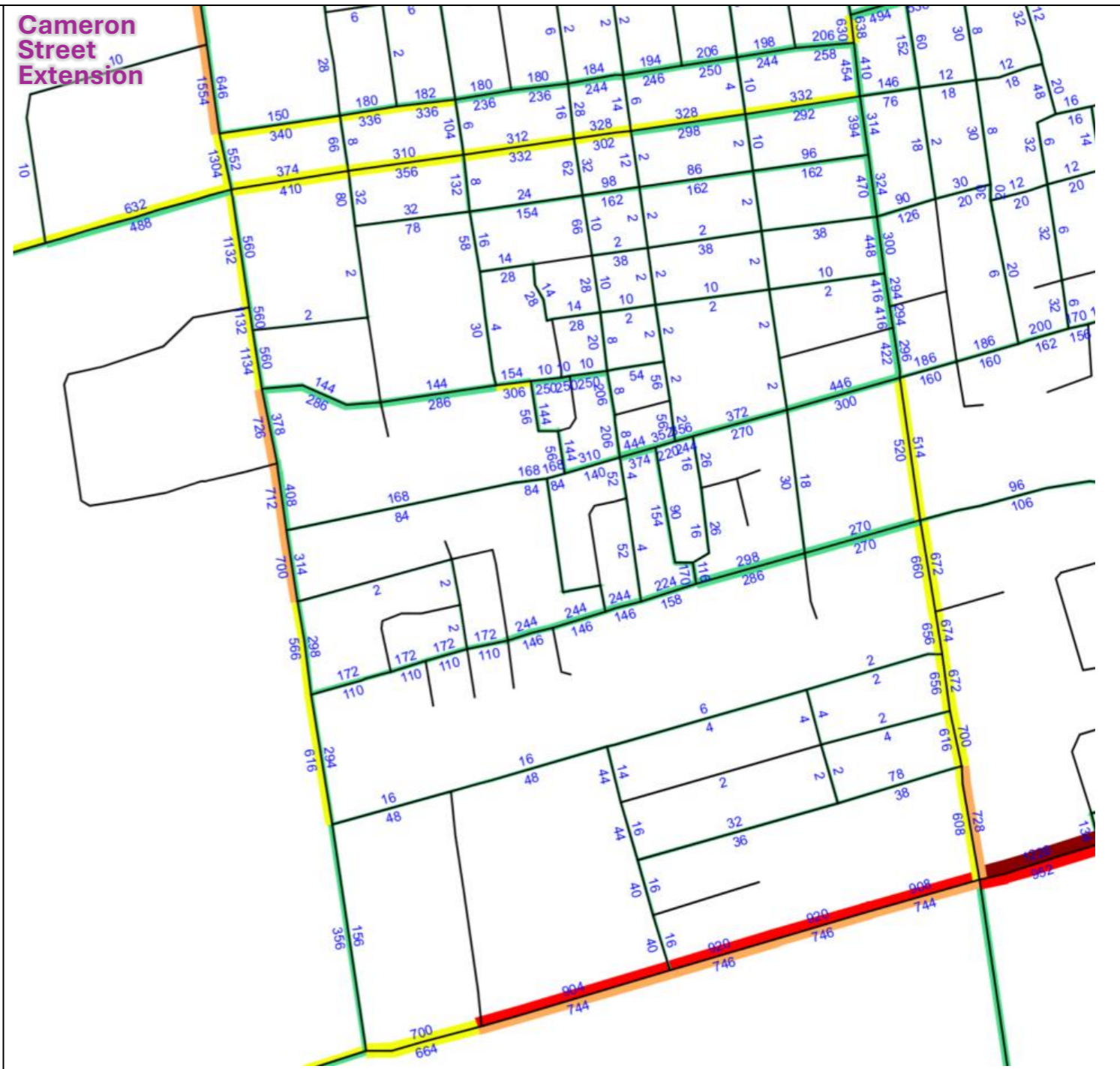
**2034 Harbour Extension**

The Harbour Street extension provides an initial bypass to the First & Balsam intersection. In the short-term analysis, the extension provides traffic demand relief on segments along Mountain Road, High Street, and Balsam Road. The overall LOS of major roads within the close vicinity of the extension displays noticeable improvements.

### Base Scenario



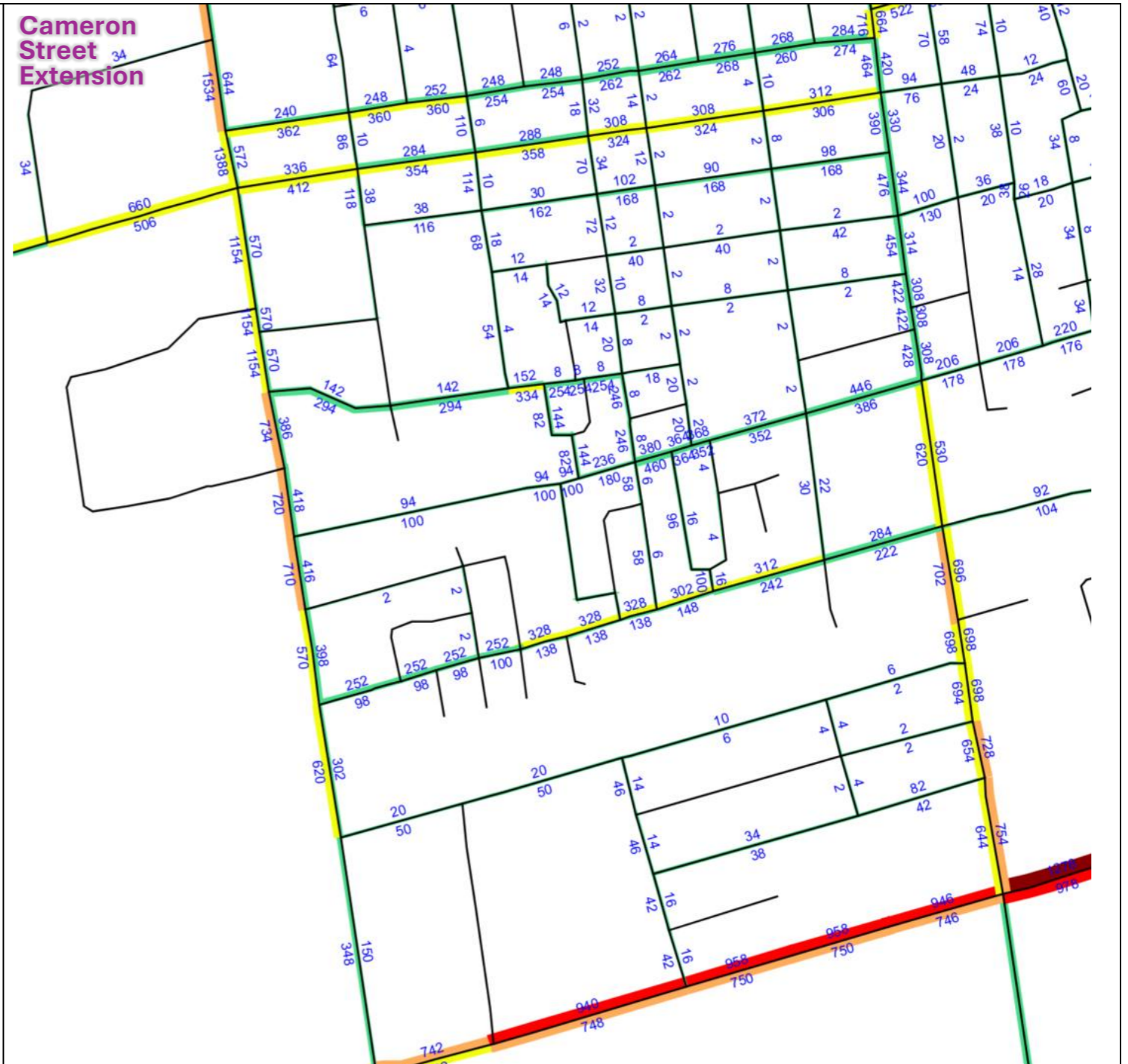
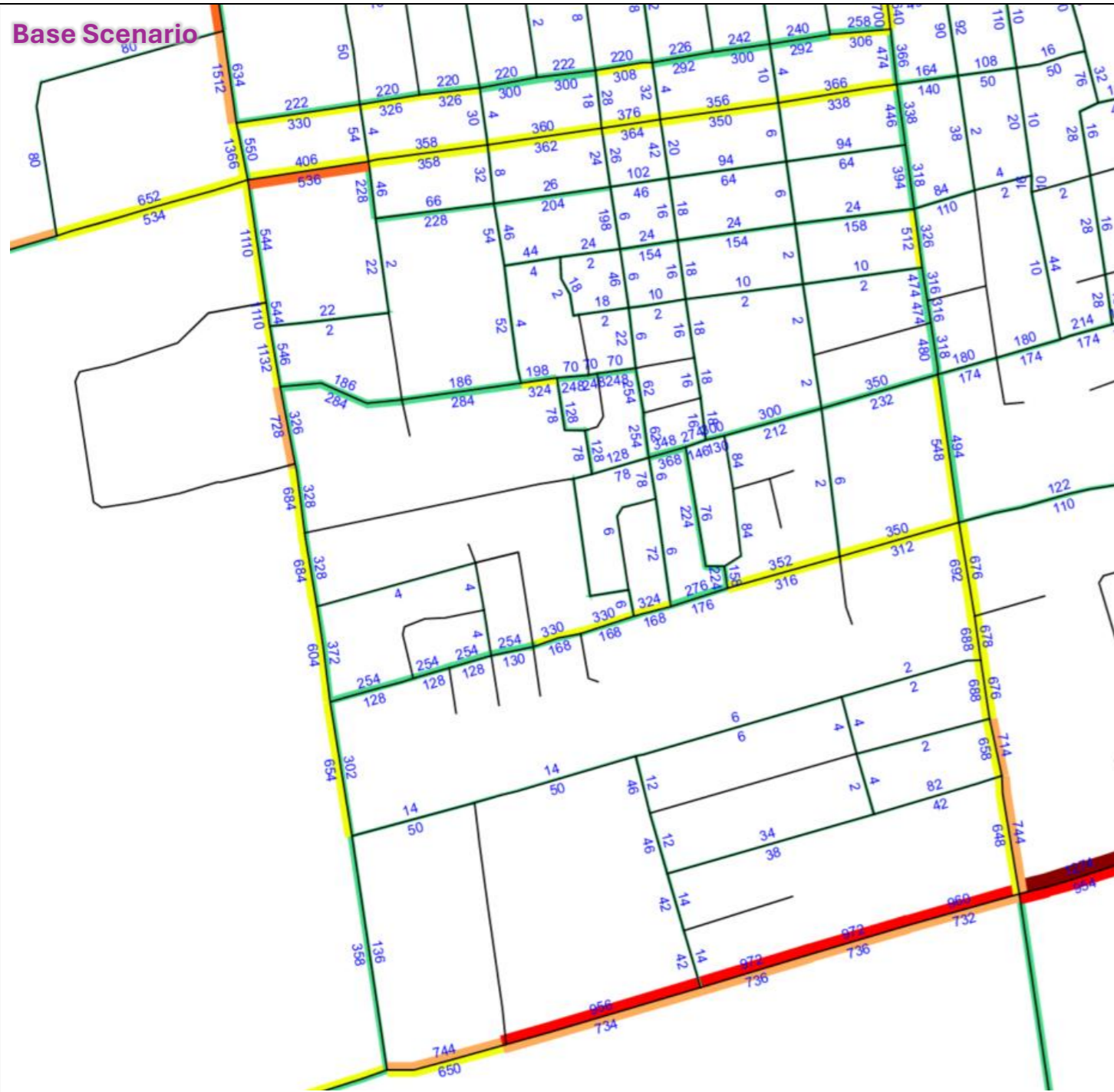
### Cameron Street Extension



### 2044 Cameron Extension

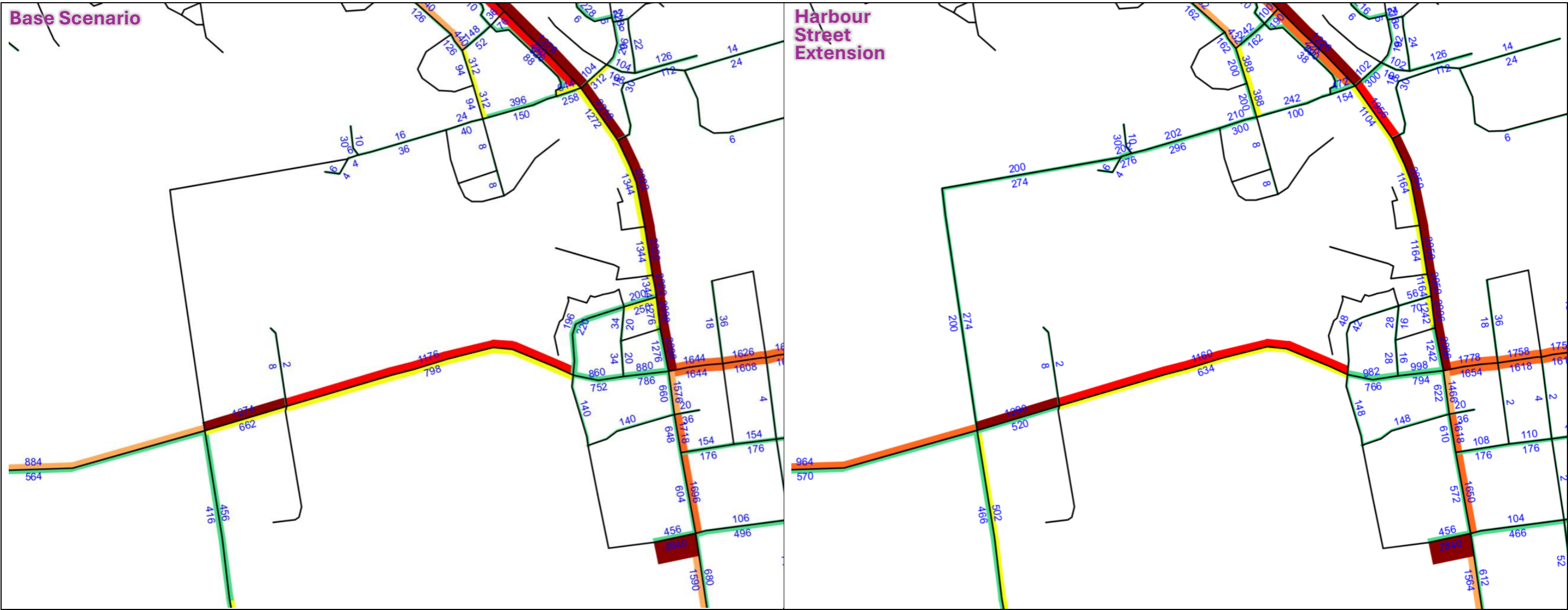
The Cameron Street extension provided some traffic infiltration improvement into neighborhood streets onto High Street while providing an additional East-West connection from High Street to Hurontario Street. The Cameron Street extension provides some traffic relief in the East-West traffic flow on Campbell Street and 10<sup>th</sup> Street.





**2051 Cameron Extension**

The Cameron Street extension provided some traffic infiltration improvement into neighborhood streets onto High Street while providing an additional East-West connection from High Street to Hurontario Street. The extension provides some traffic relief in the East-West traffic flow on Campbell Street and 10<sup>th</sup> Street. The traffic relief of the Cameron extension is slightly diminished when compared to previous 2034 and 2044 horizon years.



**2051 Harbour Extension**

The Harbour Street extension provides a bypass to the First & Balsam intersection. In the 2051 analysis, the traffic demand relief on segments along Mountain Road, High Street, and Balsam Road is less effective in comparison to the 2034, and 2044 horizon years. The overall LOS of major roads within the close vicinity of the extension do not show noticeable improvements.

Figure 1

# Legend

Vehicle Volume







v/c ratio	
	LOS A [0.00-0.50]
	LOS B [0.51-0.70]
	LOS C [0.71-0.80]
	LOS D [0.81-0.90]
	LOS E [0.91-0.99]
	LOS F [1.00+]









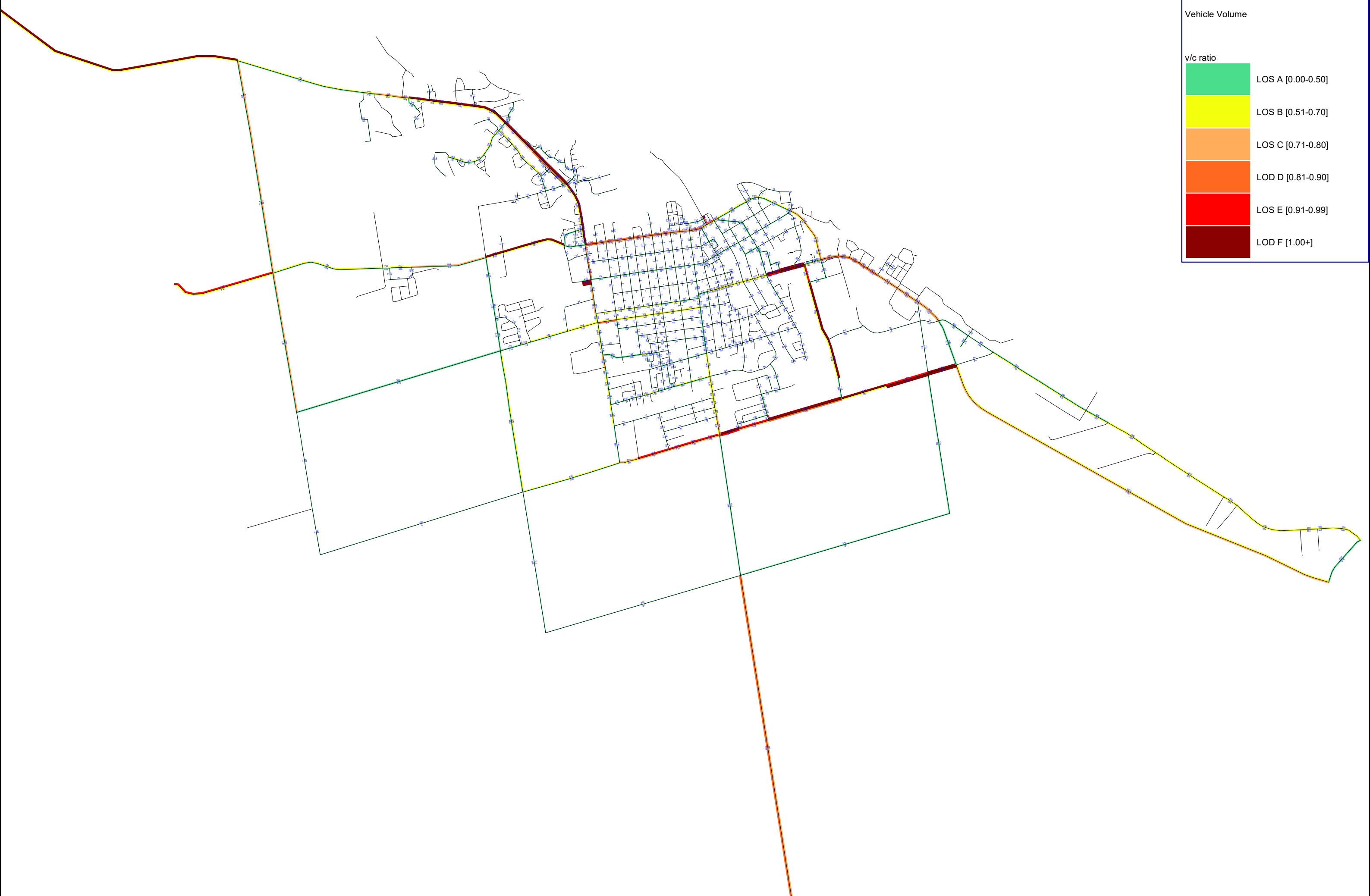
Figure 2

# Legend

Vehicle Volume

v/c ratio







	LOS A [0.00-0.50]
	LOS B [0.51-0.70]
	LOS C [0.71-0.80]
	LOS D [0.81-0.90]
	LOS E [0.91-0.99]
	LOS F [1.00+]



# Legend

Vehicle Volume

v/c ratio







	LOS A [0.00-0.50]
	LOS B [0.51-0.70]
	LOS C [0.71-0.80]
	LOS D [0.81-0.90]
	LOS E [0.91-0.99]
	LOS F [1.00+]



# Legend

Vehicle Volume

v/c ratio







	LOS A [0.00-0.50]
	LOS B [0.51-0.70]
	LOS C [0.71-0.80]
	LOS D [0.81-0.90]
	LOS E [0.91-0.99]
	LOS F [1.00+]



# Legend

Vehicle Volume

v/c ratio

	LOS A [0.00-0.50]
	LOS B [0.51-0.70]
	LOS C [0.71-0.80]
	LOS D [0.81-0.90]
	LOS E [0.91-0.99]
	LOS F [1.00+]

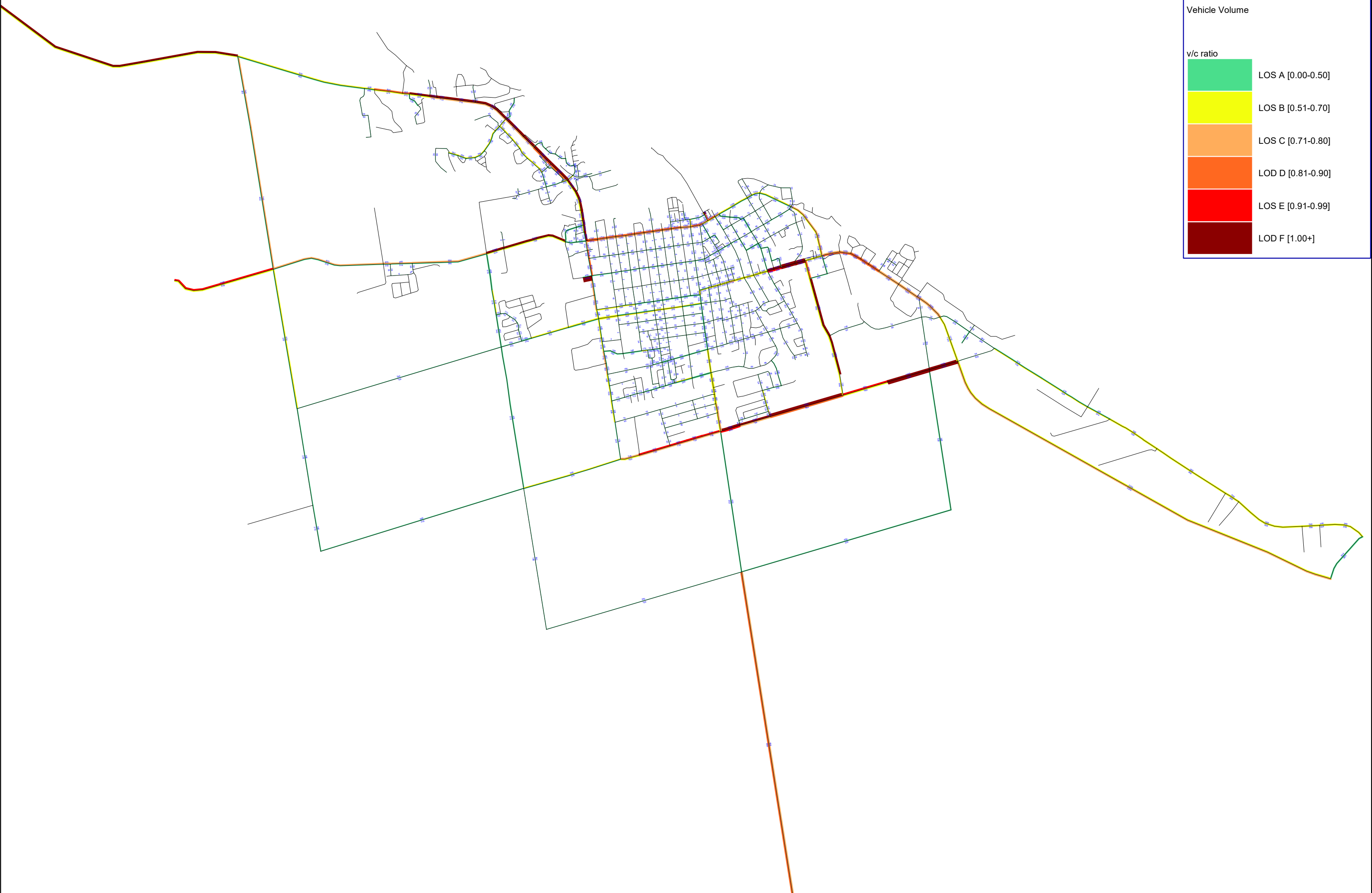


Figure 6

# Legend

Vehicle Volume

v/c ratio

Green	LOS A [0.00-0.50]
Yellow	LOS B [0.51-0.70]
Light Orange	LOS C [0.71-0.80]
Orange	LOS D [0.81-0.90]
Red	LOS E [0.91-0.99]
Dark Red	LOS F [1.00+]



# Legend

Vehicle Volume

v/c ratio







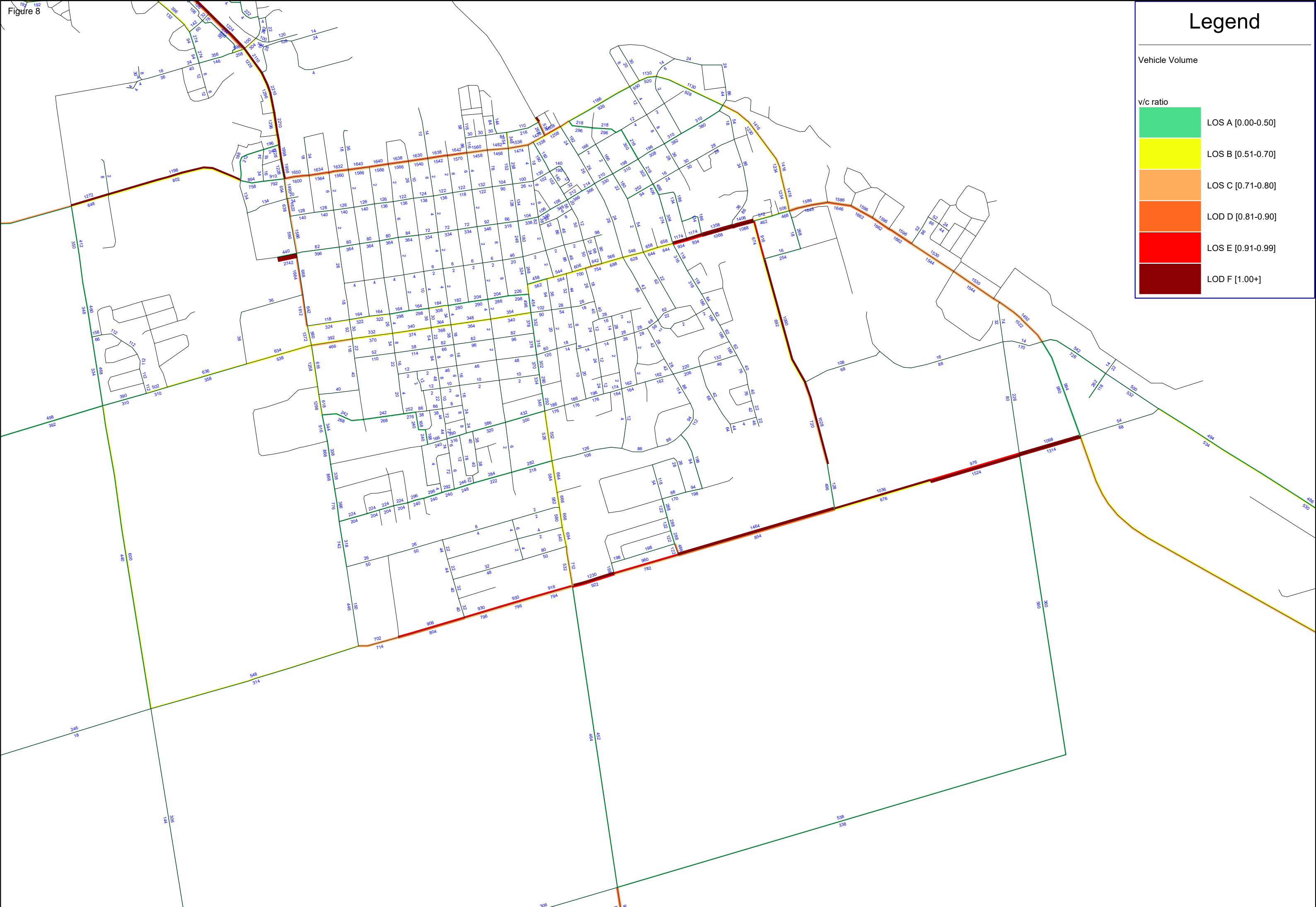
	LOS A [0.00-0.50]
	LOS B [0.51-0.70]
	LOS C [0.71-0.80]
	LOS D [0.81-0.90]
	LOS E [0.91-0.99]
	LOS F [1.00+]



Figure 8



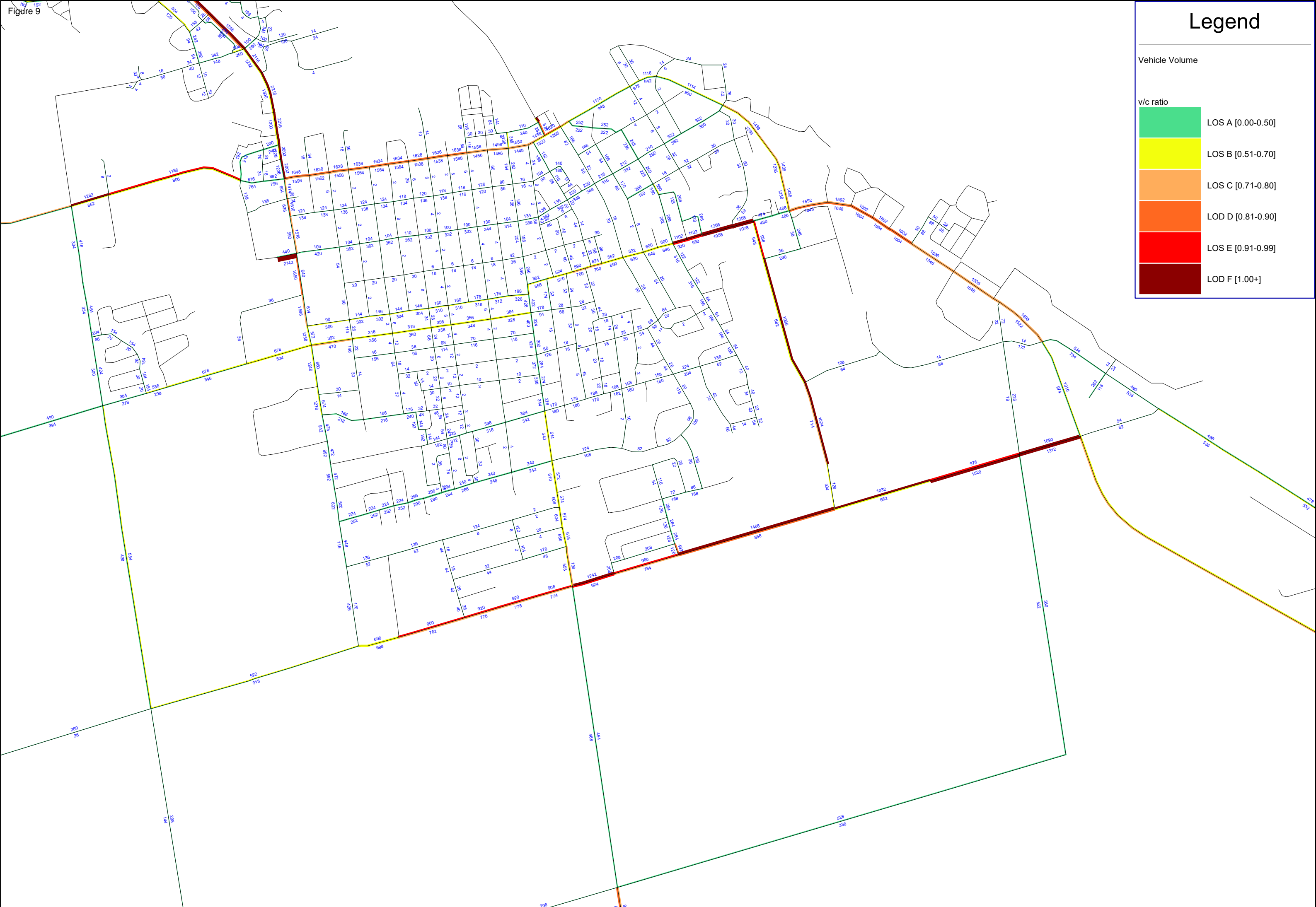
### Legend

Vehicle Volume

v/c ratio

- LOS A [0.00-0.50]
- LOS B [0.51-0.70]
- LOS C [0.71-0.80]
- LOS D [0.81-0.90]
- LOS E [0.91-0.99]
- LOS F [1.00+]

Figure 9



### Legend

Vehicle Volume

v/c ratio

	LOS A [0.00-0.50]
	LOS B [0.51-0.70]
	LOS C [0.71-0.80]
	LOS D [0.81-0.90]
	LOS E [0.91-0.99]
	LOS F [1.00+]

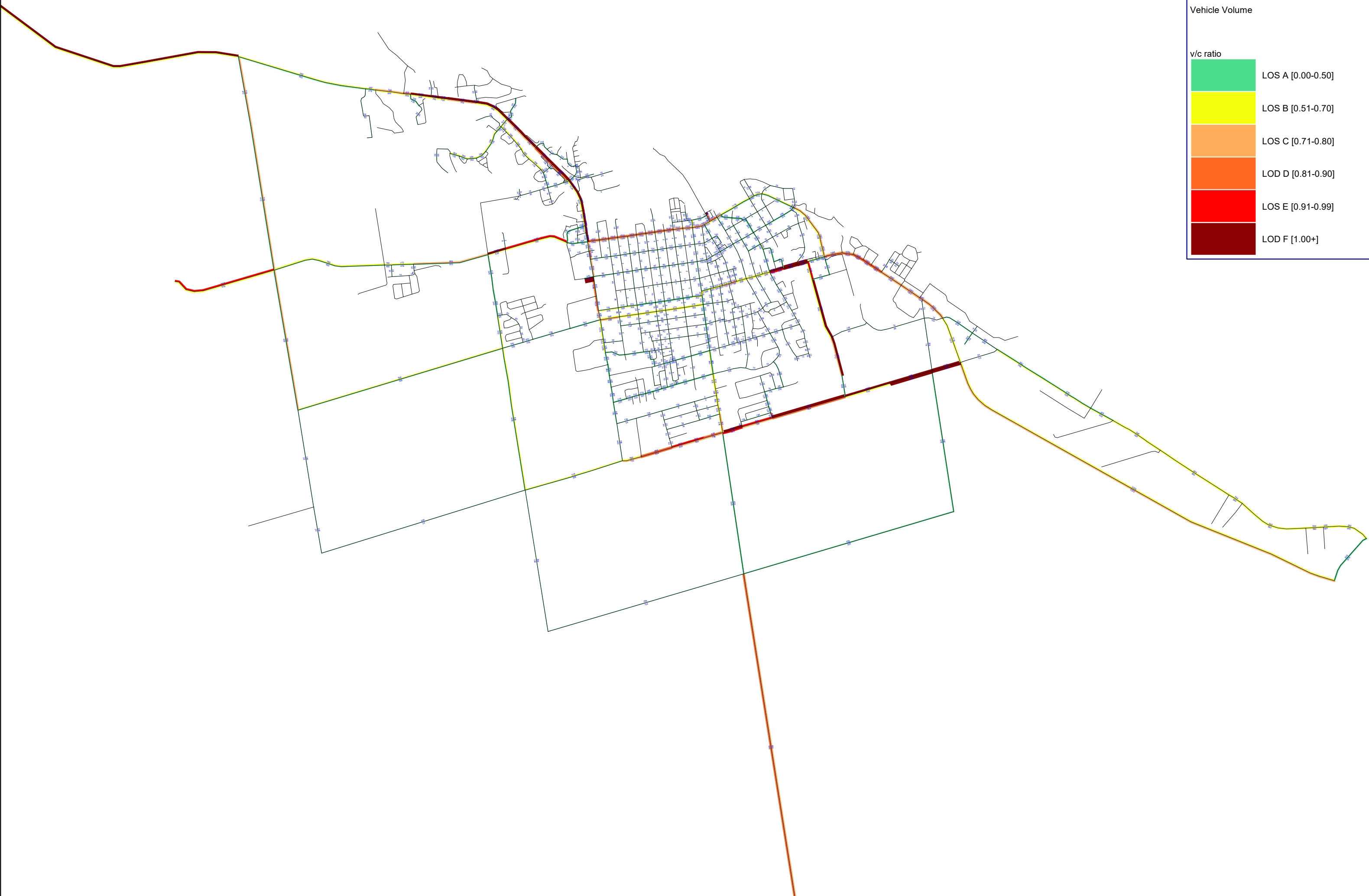
Figure 10

# Legend

Vehicle Volume

v/c ratio

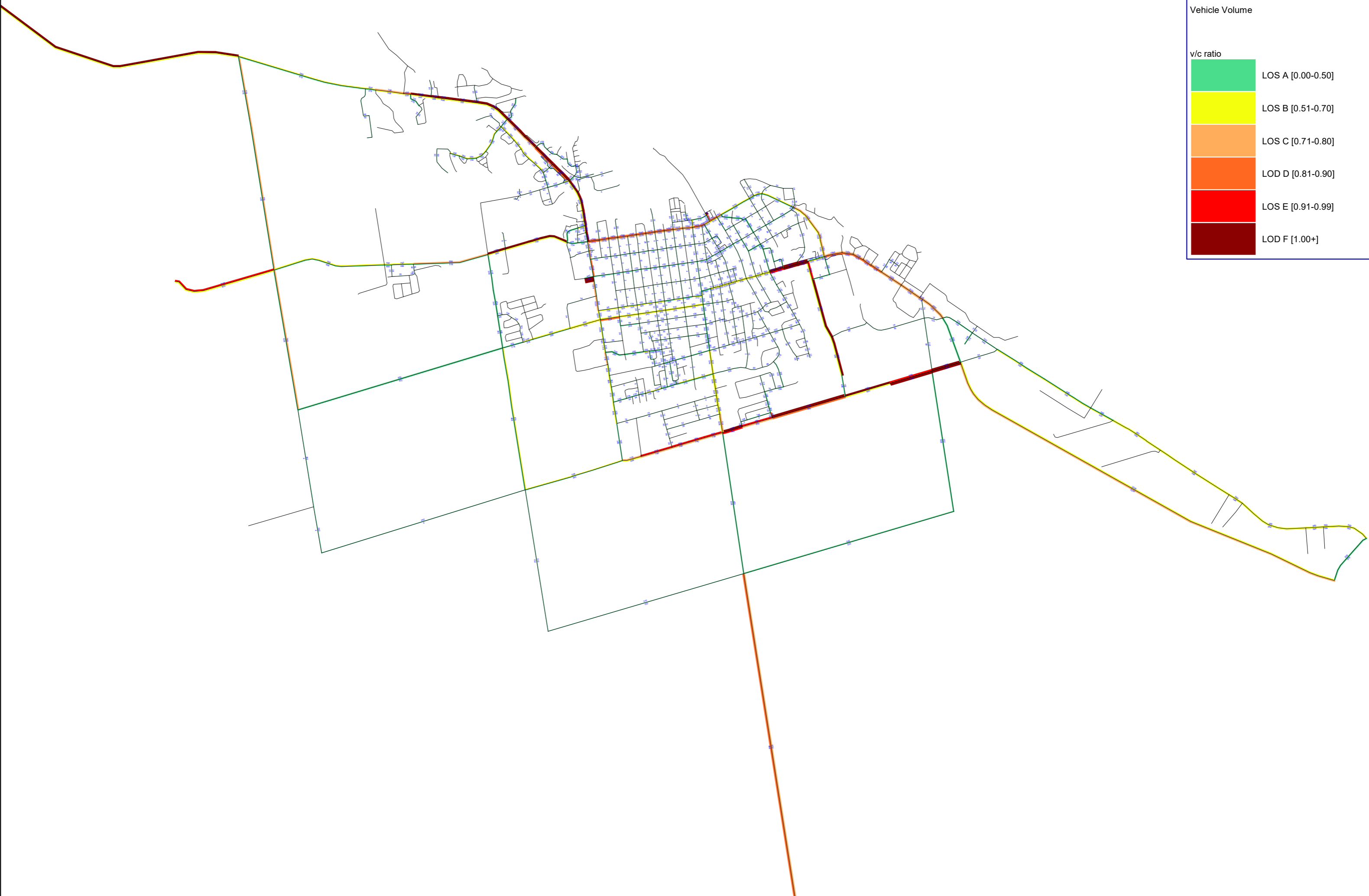
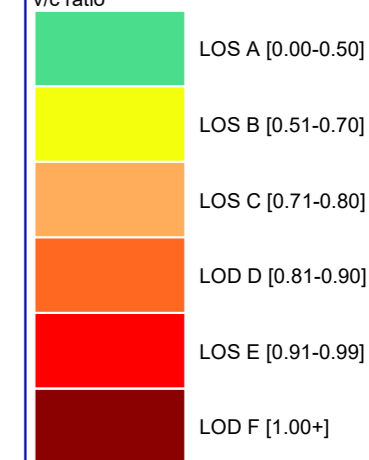
Green	LOS A [0.00-0.50]
Yellow	LOS B [0.51-0.70]
Light Orange	LOS C [0.71-0.80]
Orange	LOS D [0.81-0.90]
Red	LOS E [0.91-0.99]
Dark Red	LOS F [1.00+]



# Legend

Vehicle Volume

v/c ratio



# Legend

Vehicle Volume

v/c ratio







	LOS A [0.00-0.50]
	LOS B [0.51-0.70]
	LOS C [0.71-0.80]
	LOS D [0.81-0.90]
	LOS E [0.91-0.99]
	LOS F [1.00+]









Figure 14

# Legend

Vehicle Volume

v/c ratio







	LOS A [0.00-0.50]
	LOS B [0.51-0.70]
	LOS C [0.71-0.80]
	LOS D [0.81-0.90]
	LOS E [0.91-0.99]
	LOS F [1.00+]



# Legend

Vehicle Volume

v/c ratio







	LOS A [0.00-0.50]
	LOS B [0.51-0.70]
	LOS C [0.71-0.80]
	LOS D [0.81-0.90]
	LOS E [0.91-0.99]
	LOS F [1.00+]

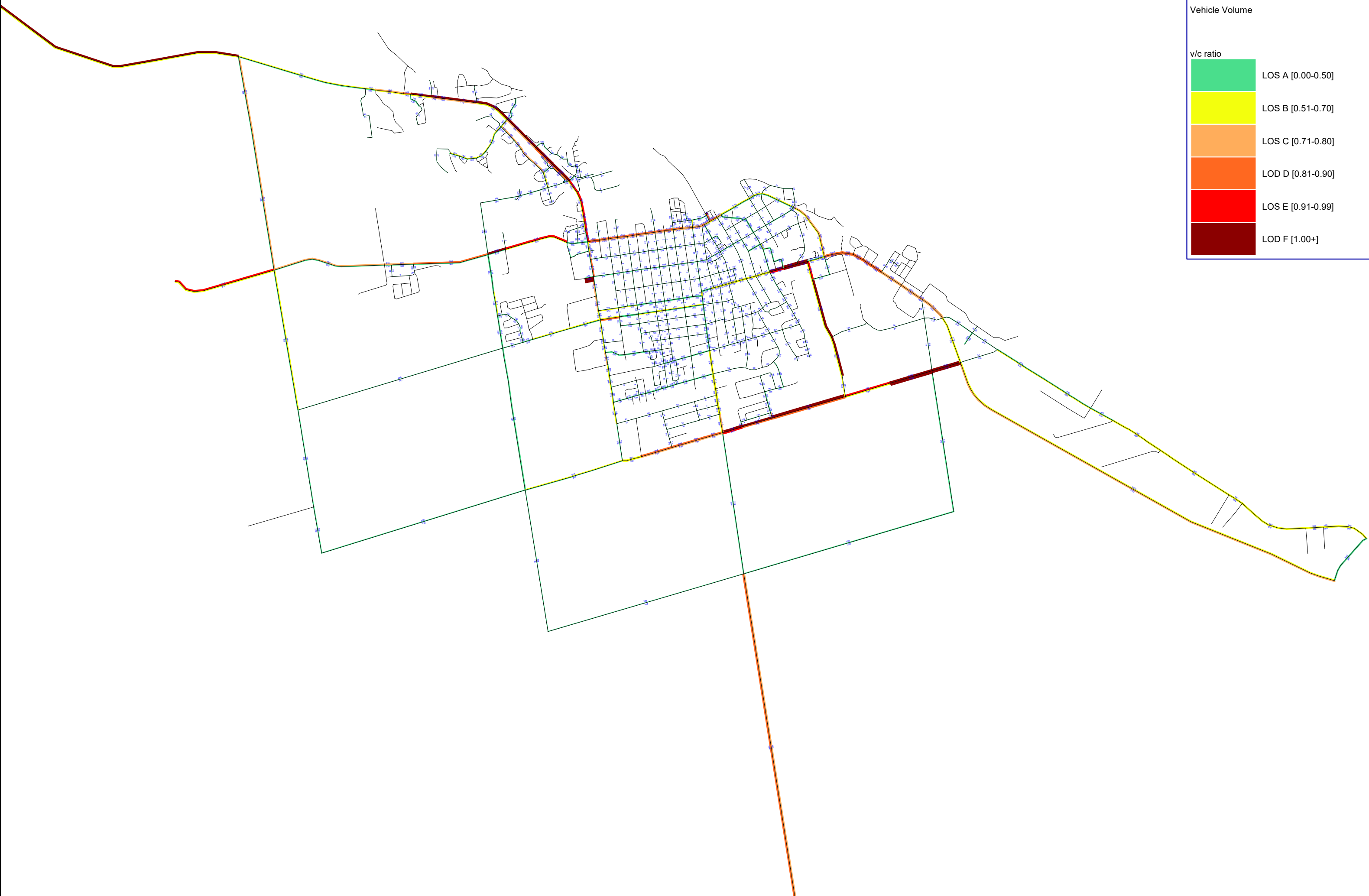


# Legend

Vehicle Volume

v/c ratio

	LOS A [0.00-0.50]
	LOS B [0.51-0.70]
	LOS C [0.71-0.80]
	LOS D [0.81-0.90]
	LOS E [0.91-0.99]
	LOS F [1.00+]



# Legend

Vehicle Volume

v/c ratio

Green	LOS A [0.00-0.50]
Yellow	LOS B [0.51-0.70]
Light Orange	LOS C [0.71-0.80]
Orange	LOS D [0.81-0.90]
Red	LOS E [0.91-0.99]
Dark Red	LOS F [1.00+]

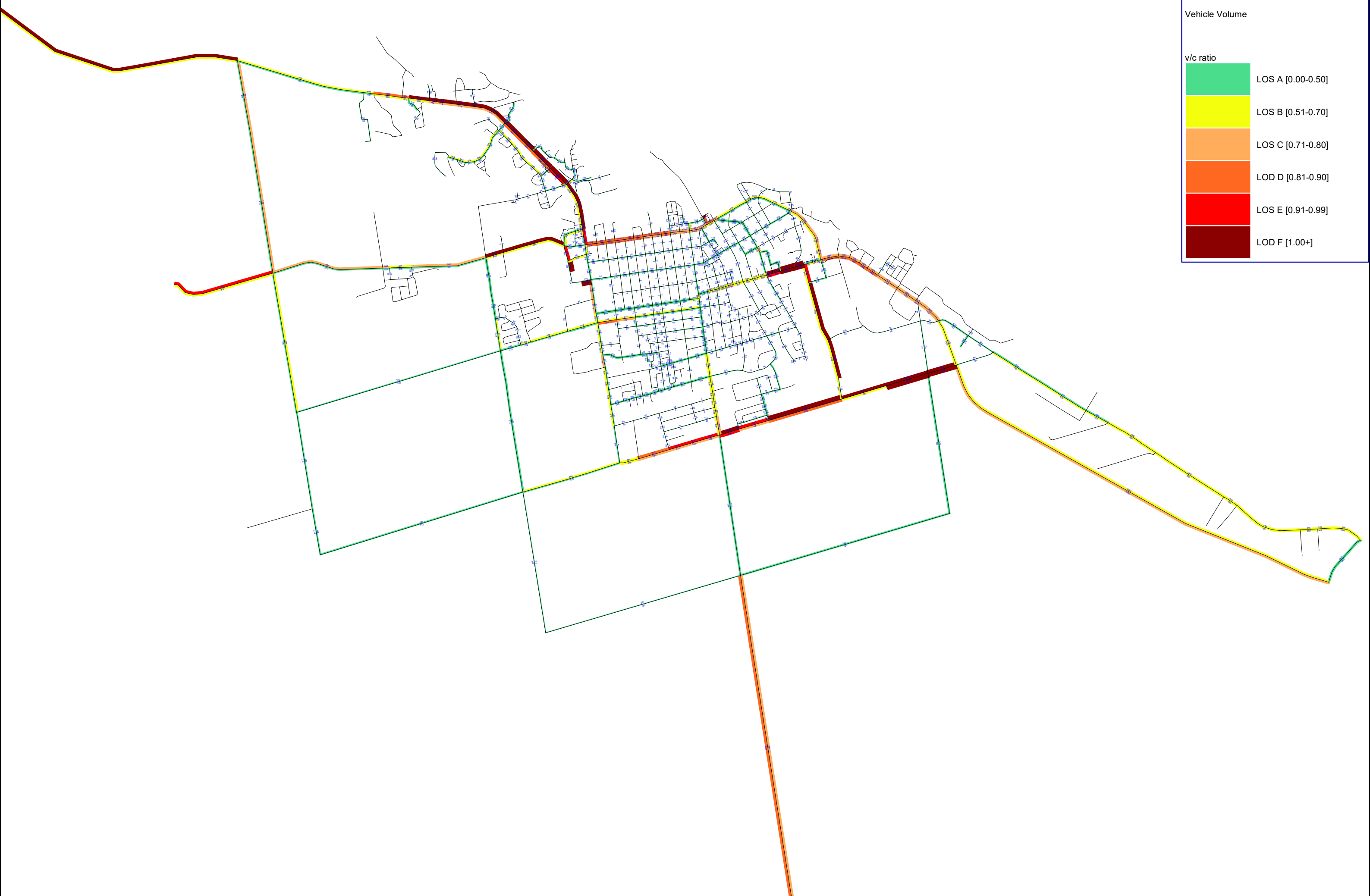
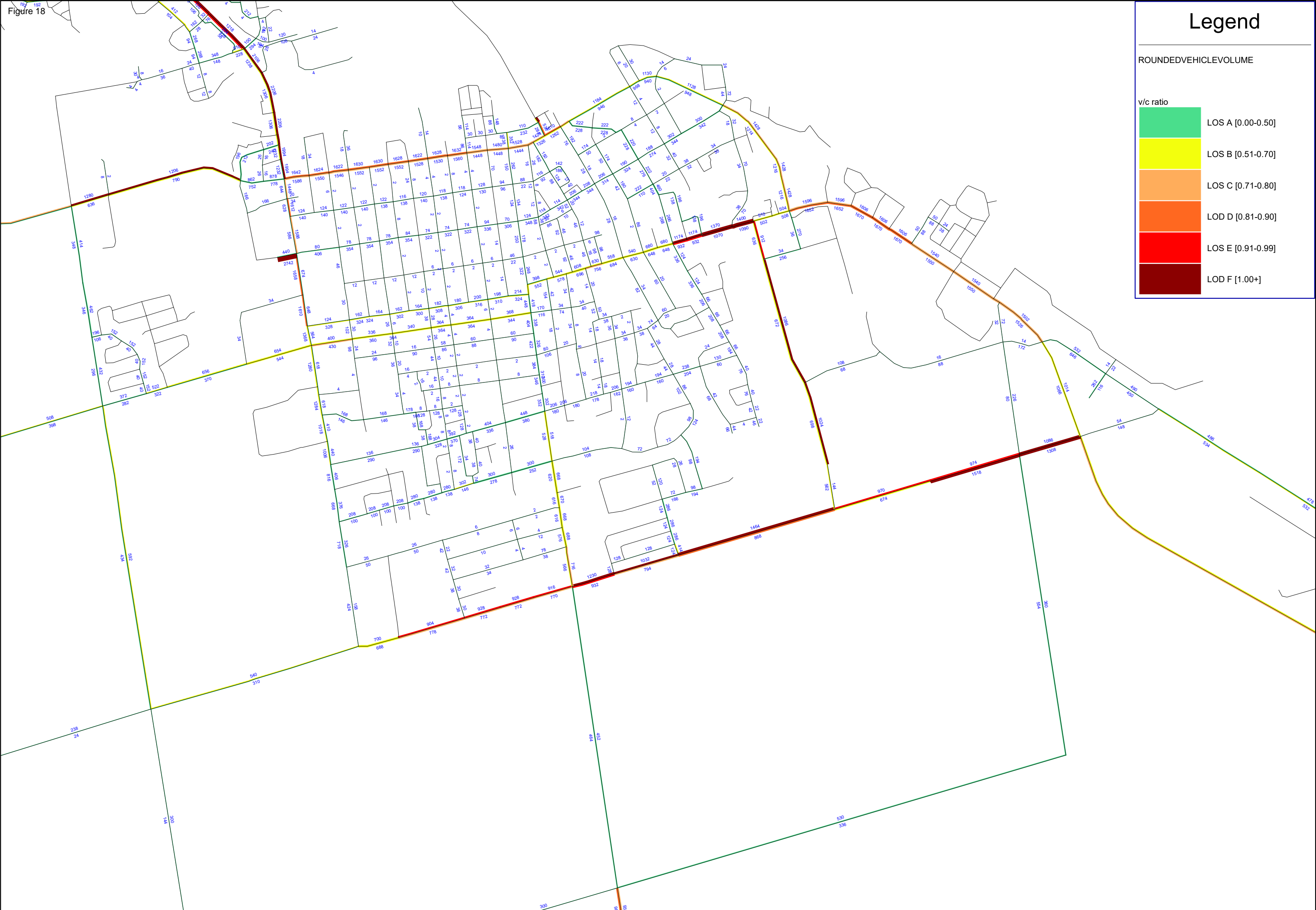


Figure 18

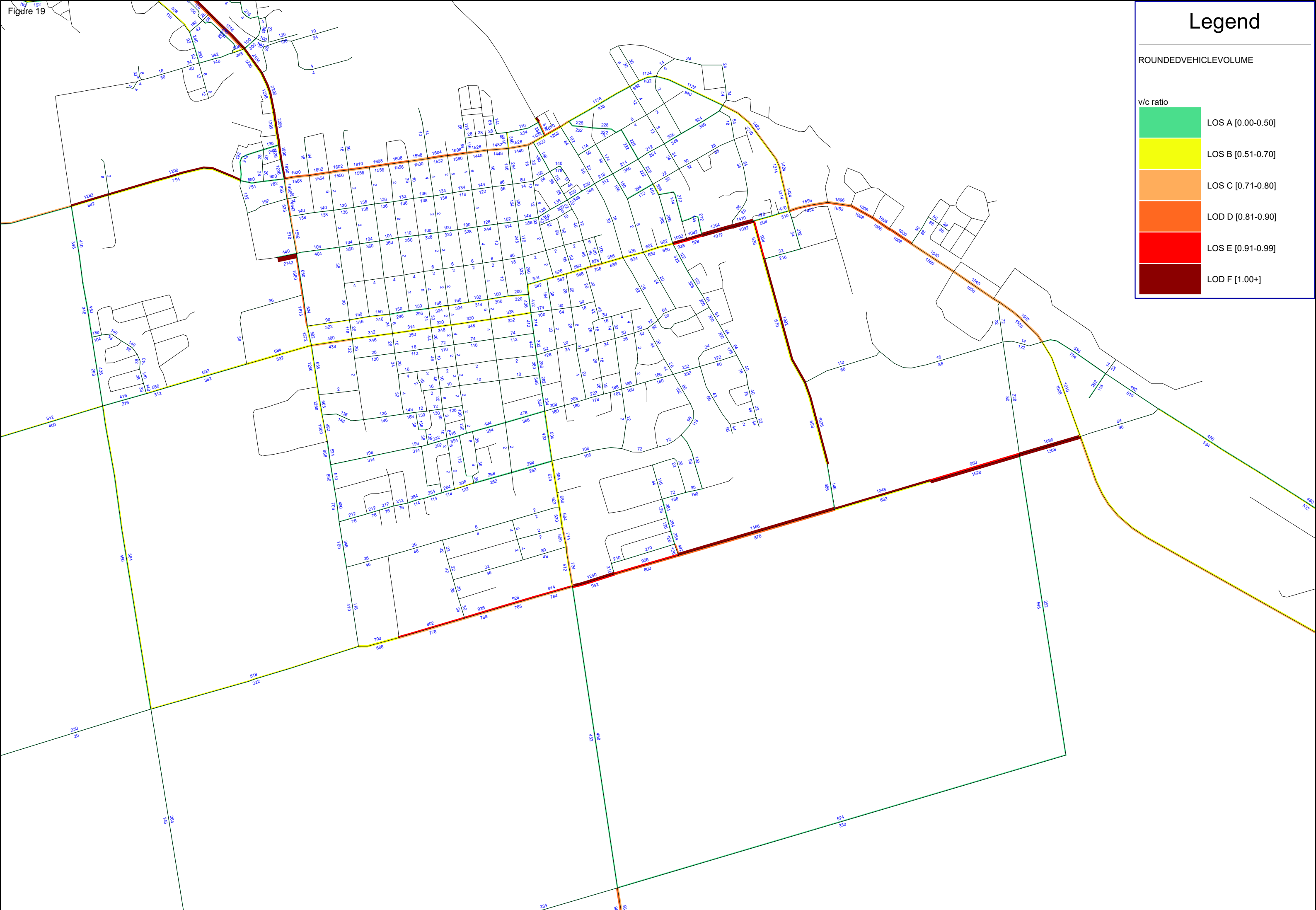


# Legend

ROUNDEDVEHICLEVOLUME

v/c ratio

Green	LOS A [0.00-0.50]
Yellow	LOS B [0.51-0.70]
Light Orange	LOS C [0.71-0.80]
Orange	LOS D [0.81-0.90]
Red	LOS E [0.91-0.99]
Dark Red	LOS F [1.00+]



### Legend

ROUNDEDVEHICLEVOLUME







v/c ratio

- LOS A [0.00-0.50]
- LOS B [0.51-0.70]
- LOS C [0.71-0.80]
- LOS D [0.81-0.90]
- LOS E [0.91-0.99]
- LOS F [1.00+]

# Legend

Vehicle Volume

v/c ratio

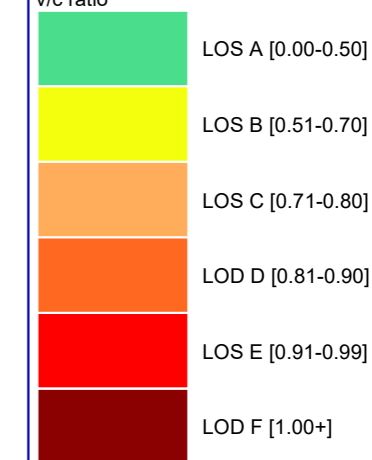
	LOS A [0.00-0.50]
	LOS B [0.51-0.70]
	LOS C [0.71-0.80]
	LOS D [0.81-0.90]
	LOS E [0.91-0.99]
	LOS F [1.00+]



# Legend

Vehicle Volume







v/c ratio



# Legend

Vehicle Volume

v/c ratio







	LOS A [0.00-0.50]
	LOS B [0.51-0.70]
	LOS C [0.71-0.80]
	LOS D [0.81-0.90]
	LOS E [0.91-0.99]
	LOS F [1.00+]



# Legend

Vehicle Volume

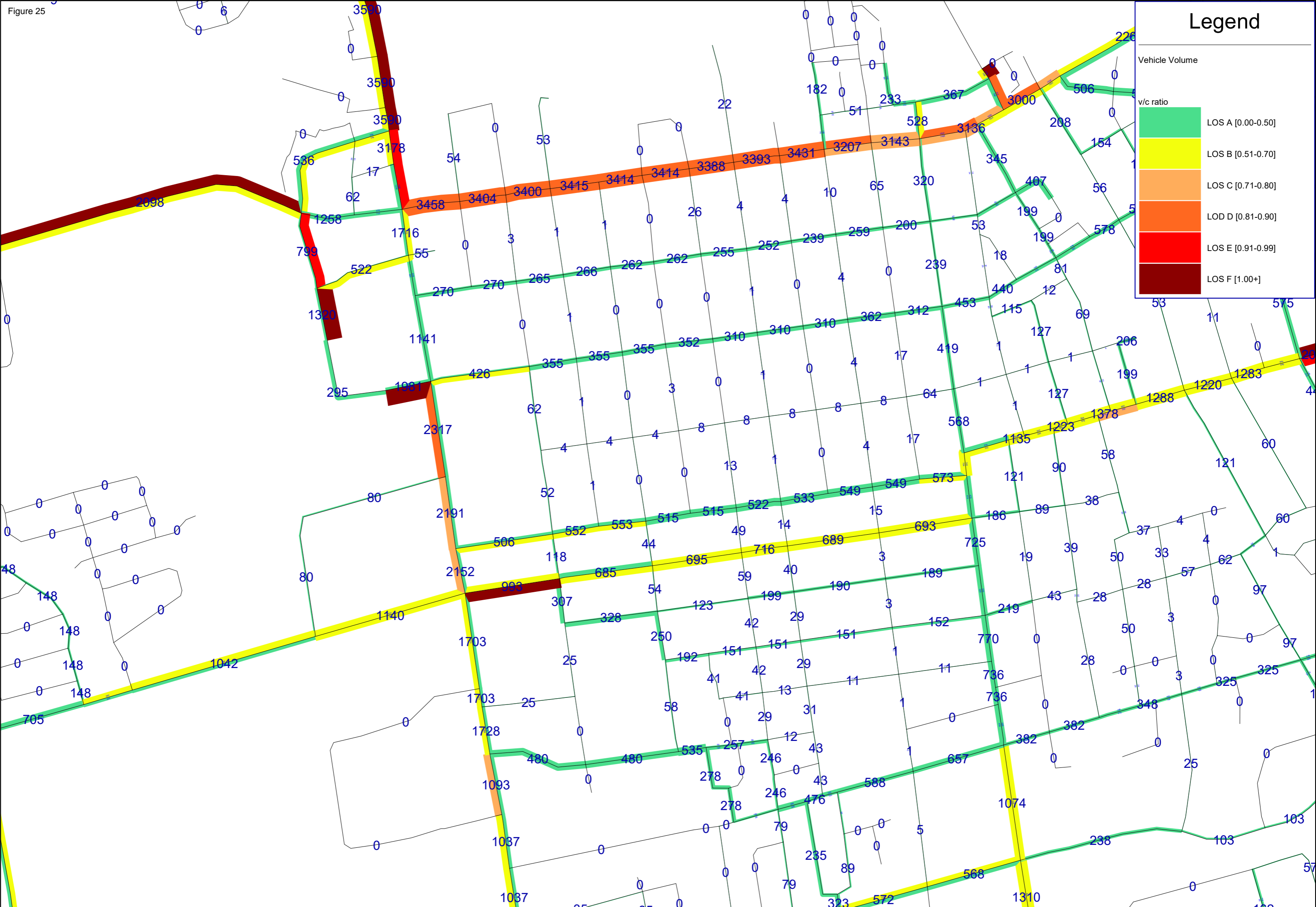
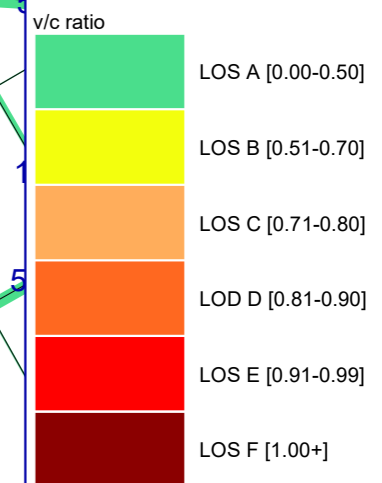
v/c ratio

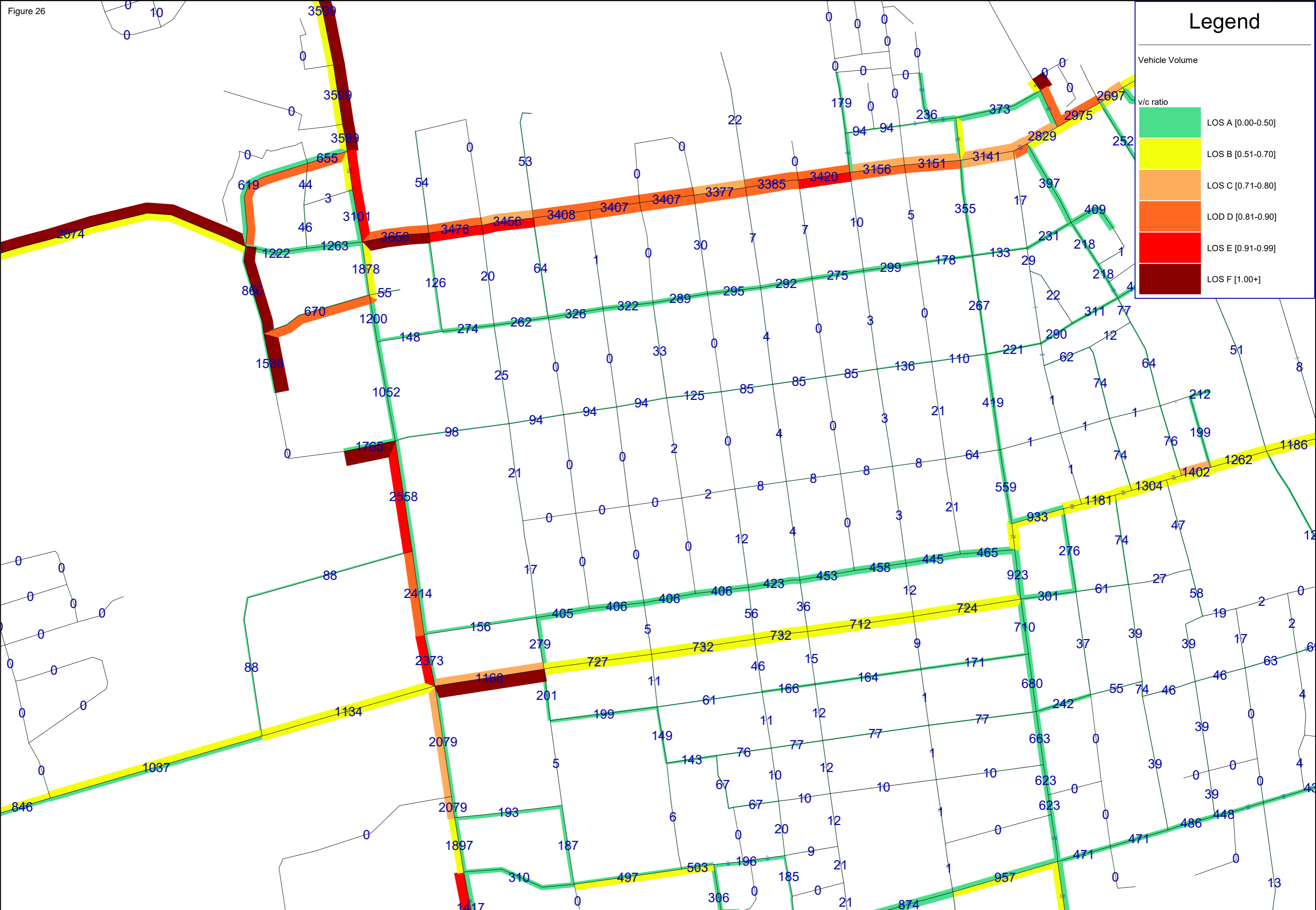
	LOS A [0.00-0.50]
	LOS B [0.51-0.70]
	LOS C [0.71-0.80]
	LOS D [0.81-0.90]
	LOS E [0.91-0.99]
	LOS F [1.00+]



# Legend

Vehicle Volume





### Legend

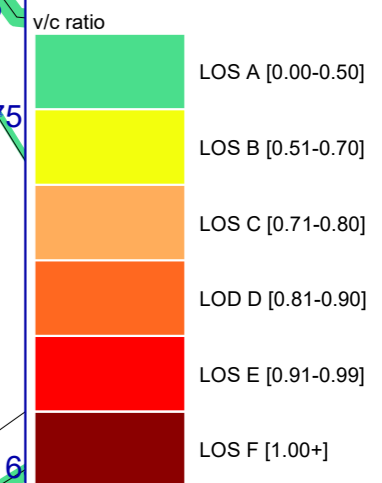
Vehicle Volume

v/c ratio

Green	LOS A [0.00-0.50]
Yellow	LOS B [0.51-0.70]
Orange	LOS C [0.71-0.80]
Red	LOS D [0.81-0.90]
Dark Red	LOS E [0.91-0.99]
Brown	LOS F [1.00+]

# Legend







Vehicle Volume



# Legend

Vehicle Volume

v/c ratio







	LOS A [0.00-0.50]
	LOS B [0.51-0.70]
	LOS C [0.71-0.80]
	LOS D [0.81-0.90]
	LOS E [0.91-0.99]
	LOS F [1.00+]



# Legend

Vehicle Volume

v/c ratio







	LOS A [0.00-0.50]
	LOS B [0.51-0.70]
	LOS C [0.71-0.80]
	LOS D [0.81-0.90]
	LOS E [0.91-0.99]
	LOS F [1.00+]

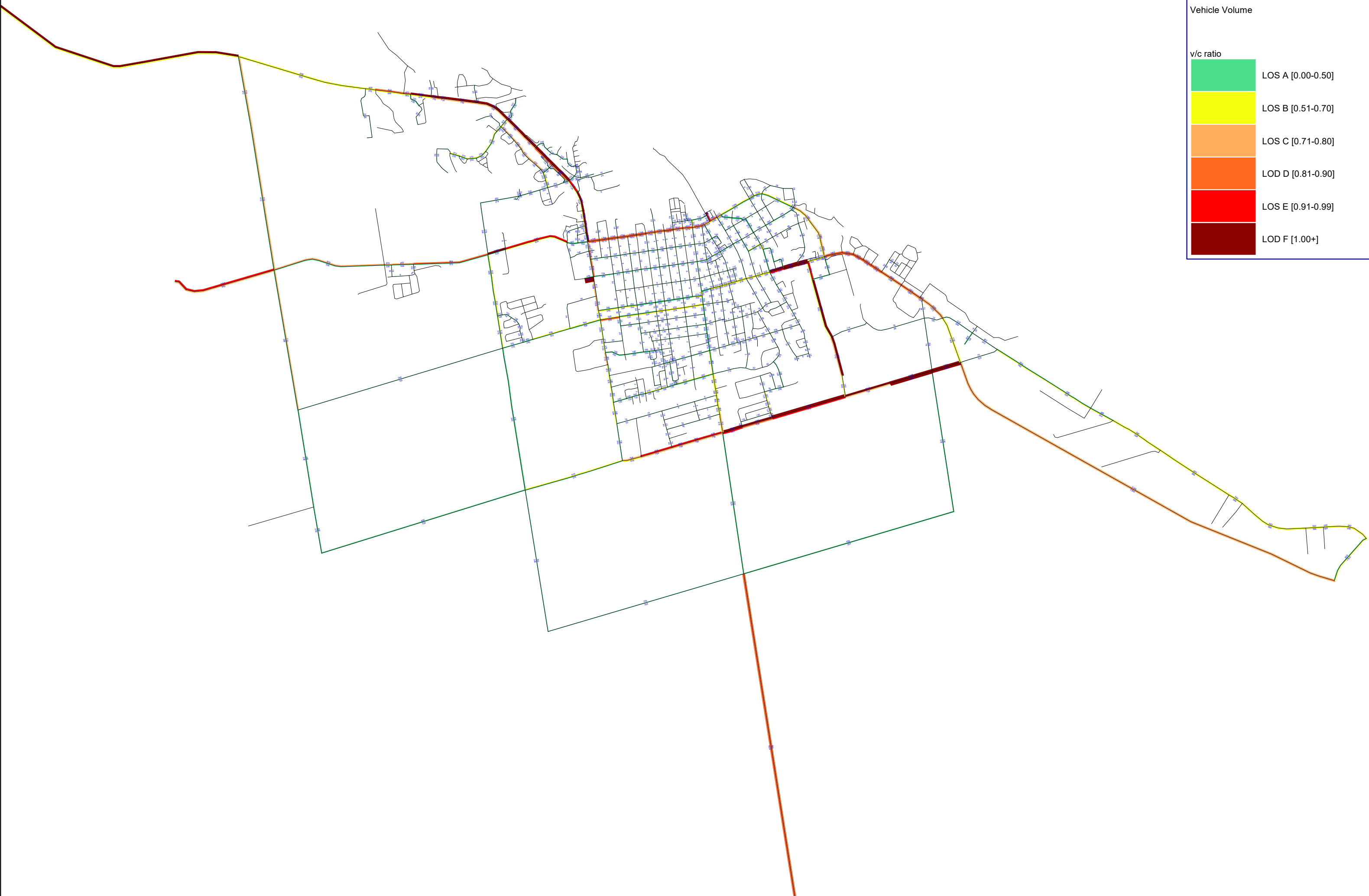


# Legend

Vehicle Volume

v/c ratio







	LOS A [0.00-0.50]
	LOS B [0.51-0.70]
	LOS C [0.71-0.80]
	LOS D [0.81-0.90]
	LOS E [0.91-0.99]
	LOS F [1.00+]



# Legend

Vehicle Volume

v/c ratio

	LOS A [0.00-0.50]
	LOS B [0.51-0.70]
	LOS C [0.71-0.80]
	LOS D [0.81-0.90]
	LOS E [0.91-0.99]
	LOS F [1.00+]

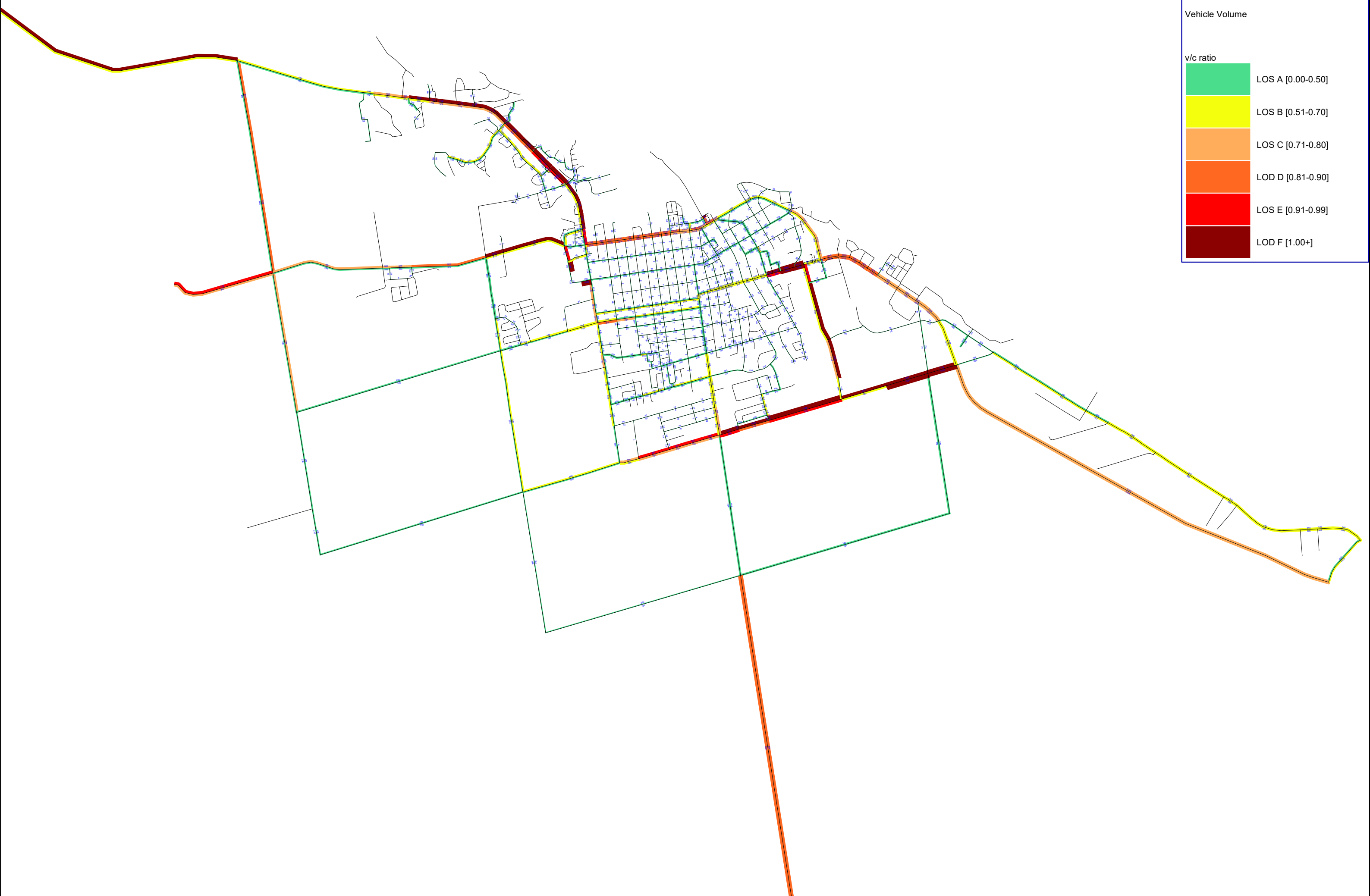


Figure 32

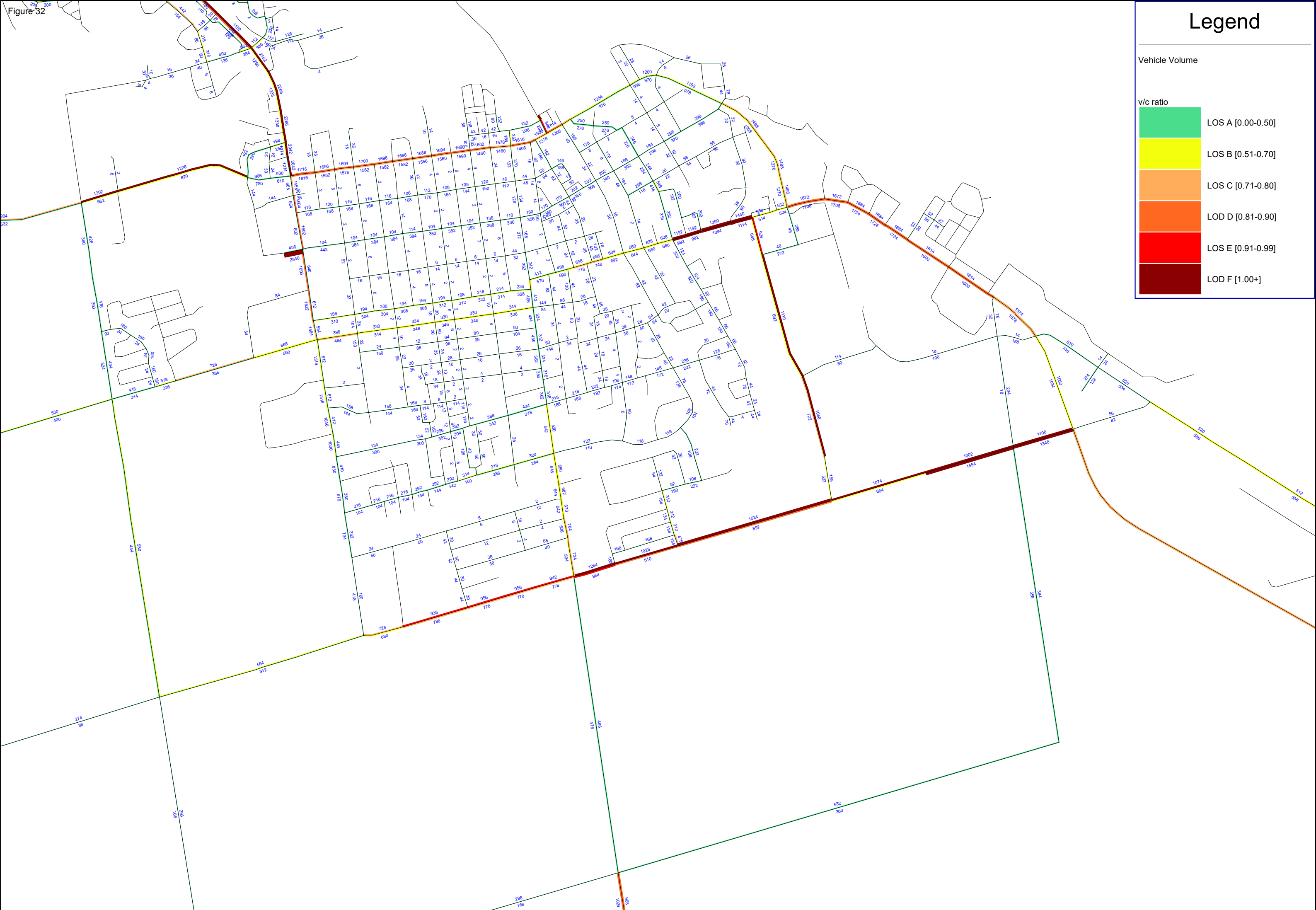
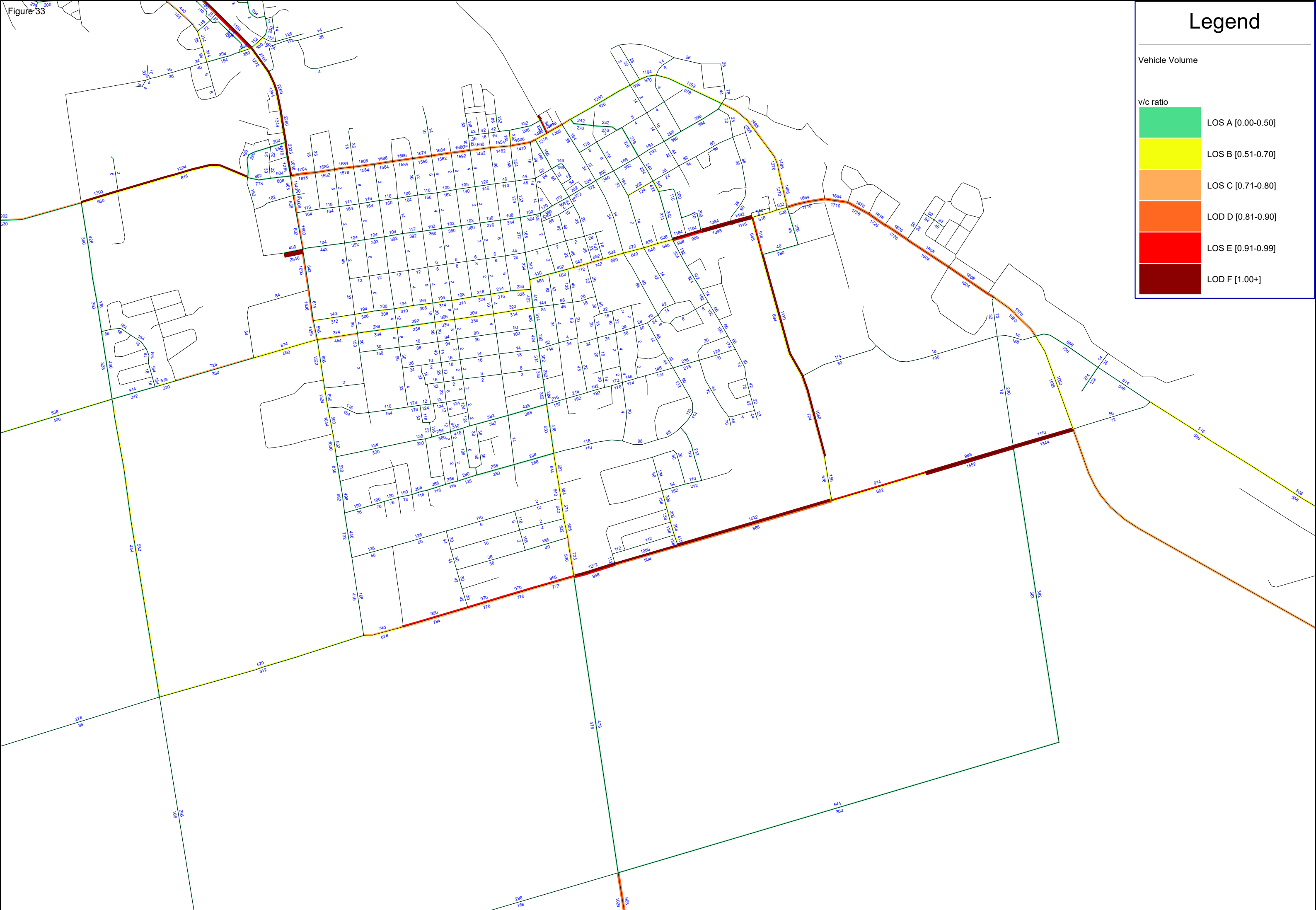


Figure 33



### Legend

Vehicle Volume







v/c ratio

	LOS A [0.00-0.50]
	LOS B [0.51-0.70]
	LOS C [0.71-0.80]
	LOS D [0.81-0.90]
	LOS E [0.91-0.99]
	LOS F [1.00+]

# Legend

Vehicle Volume

v/c ratio

	LOS A [0.00-0.50]
	LOS B [0.51-0.70]
	LOS C [0.71-0.80]
	LOS D [0.81-0.90]
	LOS E [0.91-0.99]
	LOS F [1.00+]

