



# Town-Wide Traffic Study

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# Scope of Work

- Collect traffic volume, vehicle travel speed and vehicle classification data along critical roadways within the Town in order to establish baseline conditions and to allow for targeted advancement of mitigative measures and informed decision making
- Data was collected on two (2) consecutive weekdays in early December using radar data recorders
- Adjustments were applied to the traffic volume data in order to account for seasonal variations
- Field measurements and observations were performed to observe traffic conditions during the data collection period and to verify posted speed limits
- A plan of recommended actions for consideration by the Town was developed

# Study Area

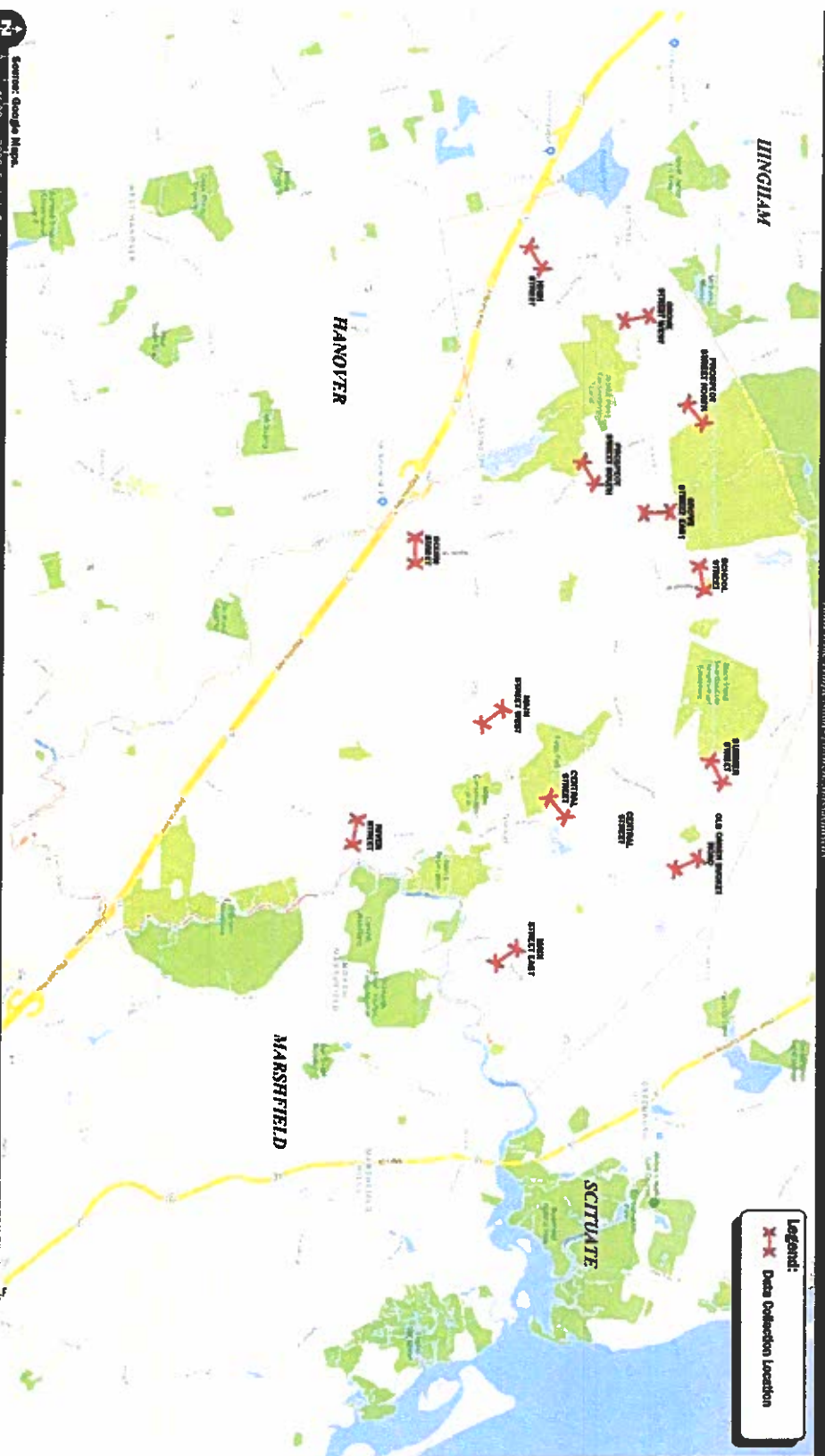
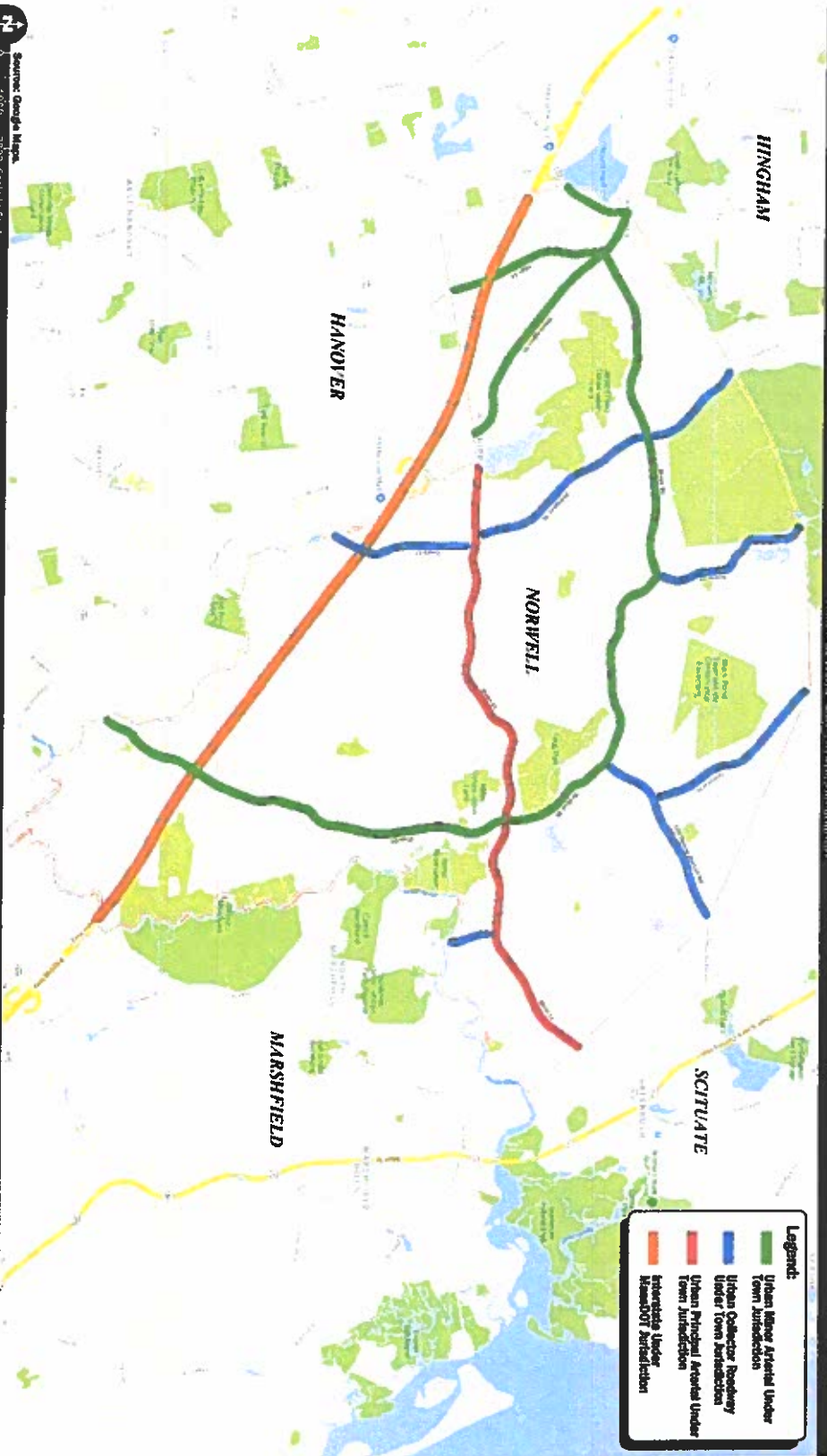


Figure 1  
 Data Collection Locations

Source: Google Maps  
 5:00 3:00 Scale in Feet  
**WA** Vanasse & Associates, Inc.

# Roadway Classification



# Results - Traffic Volumes

- Main Street and Grove Street convey the largest volume of weekday traffic through the Town, ranging from 11,010 vehicles per day (vpd) to 14,435 vpd, with the primary traffic flow being westbound in the morning (toward Route 53) and eastbound in the evening
- Traffic volumes and flow patterns are characteristics of a residential community with peak demands occurring during the weekday commuter peak hours
- Traffic volumes along Grove Street, Main Street and High Street are disproportionate to the density of the land use along these roadways indicating use as a regional commuter route to employment centers
- Overall, observed traffic volumes are consistent roadway functional classifications

# Average Daily Traffic

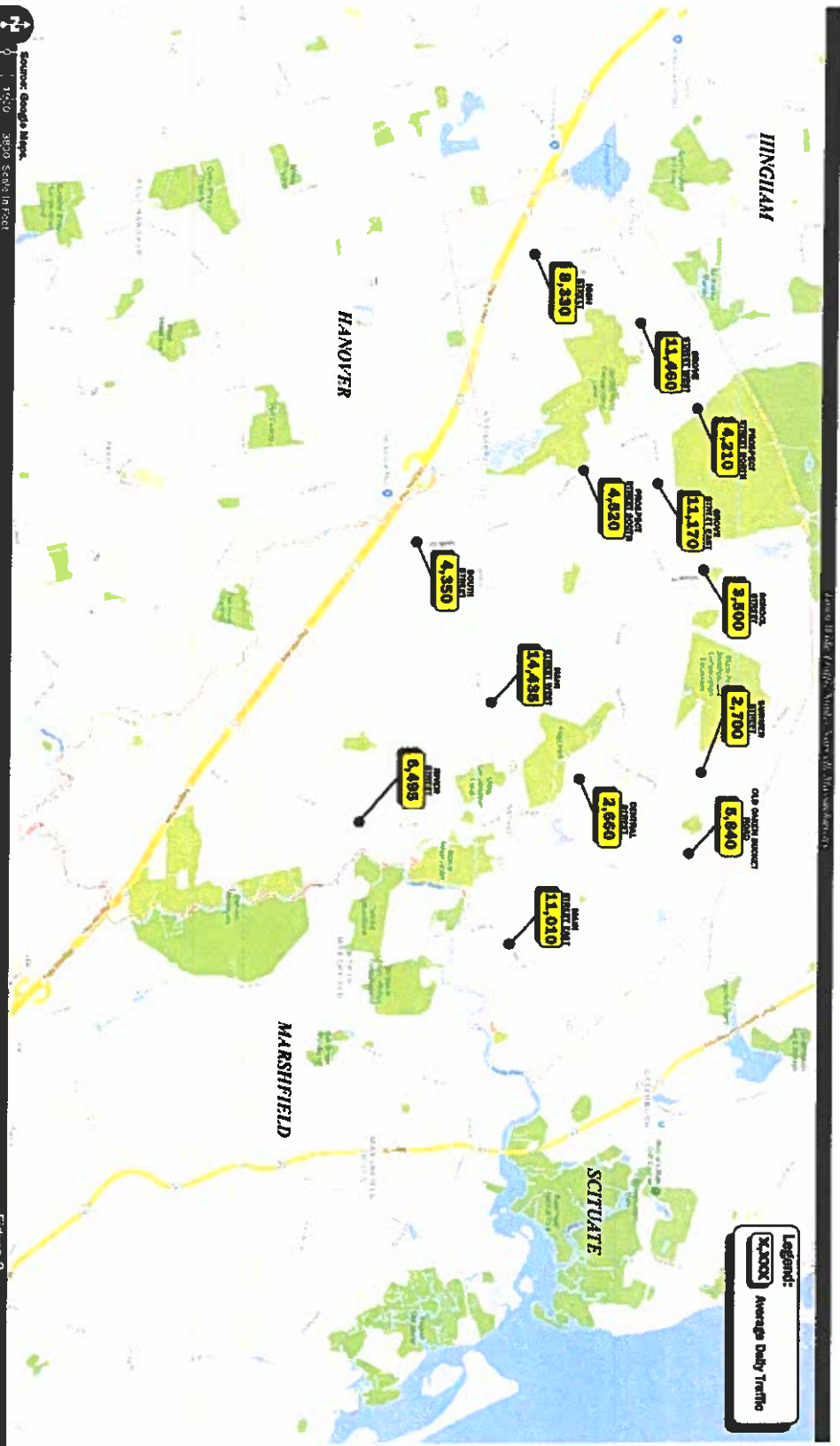


Figure 2  
Average Daily Traffic Volumes

# Results - Travel Speeds

- Highest travel speeds were observed along Grove Street, with 85<sup>th</sup> percentile travel speeds of between 43 mph and 47 mph *35-40*
- Prospect Street and River Street were found to have 85<sup>th</sup> percentile vehicle travel speeds of up to 45 mph, which are generally not conducive to the nature of a residential street or the design features of a residential roadway *35-40*
- In general, prevailing travel speeds were found to be within a 5 to 10 mph pace of the posted speed limit or the regulated travel speed in the absence of a posted speed limit
- Posted speed limits along a number of roadways vary by direction

# Vehicle Travel Speeds

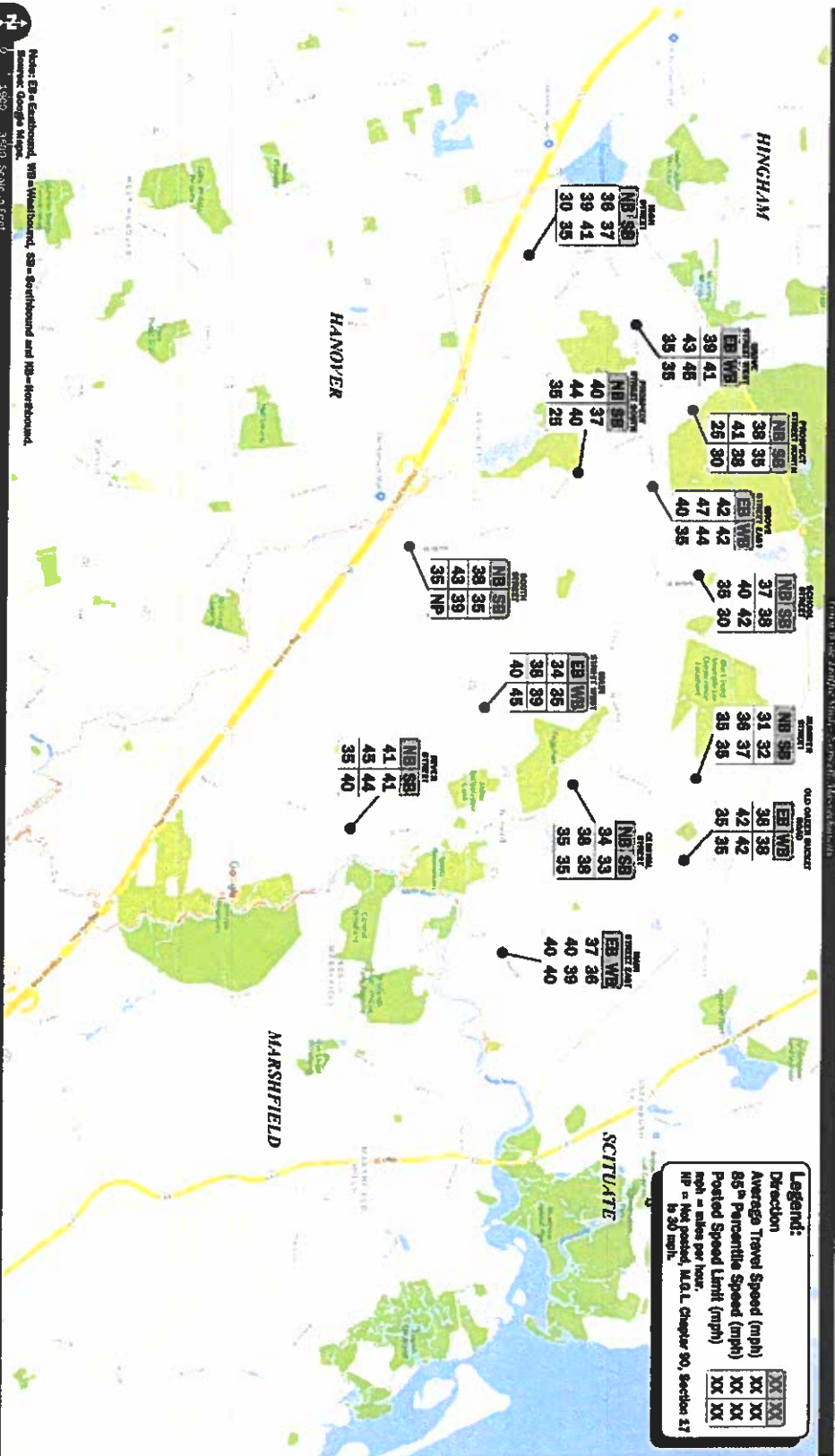


Figure 3  
Vehicle Travel Speed Measurements

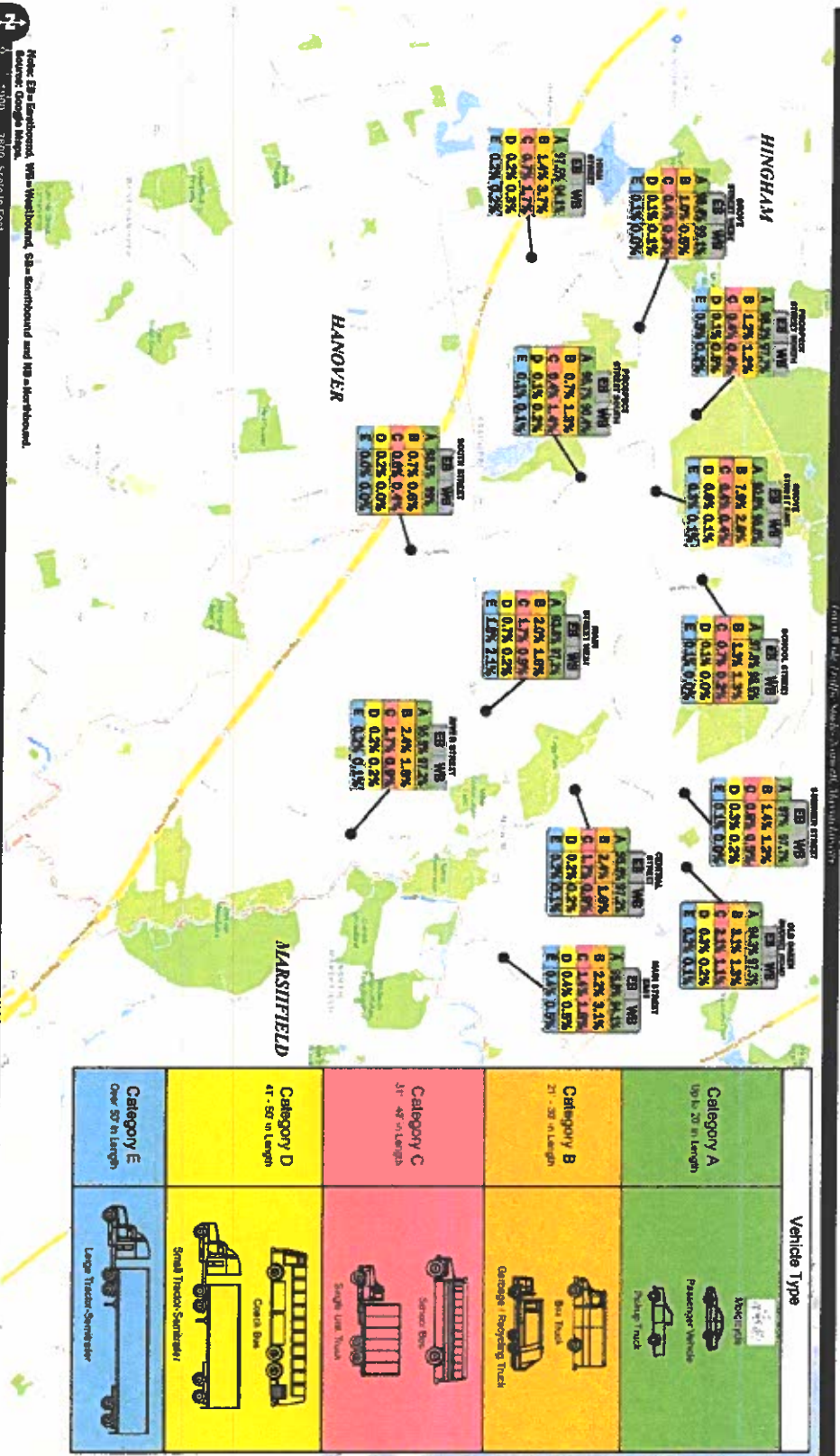
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# Results - Vehicle Type

- Over 95 percent of the traffic on Town roadways consists of passenger vehicles
- Large trucks (defined as Categories D and E on Figure 4) comprise approximately 2 percent of the traffic on both Grove Street and Main Street, excepting the section of Main Street west of Central Street/River Street where large trucks comprise approximately 5 percent of the traffic
- Large trucks were found to comprise between 1.0 and 1.5 percent of the traffic on the remaining study roadways
- Truck traffic typically comprises between 2 and 5 percent of the traffic on similar roadways
- Vehicle classification data is subject to seasonal fluctuations and truck traffic will be higher during the spring, summer and fall when construction activities and landscaping operations are more pronounced

# Traffic Composition



Varasano & Associates, Inc.

# Results - 2016 Crash Data

- Main Street experienced the largest number of reported crashes, with 23 crashes reported between Central Street/River Street and the Hanover Town Line, and 17 crashes reported between the Scituate Town Line and Central Street/River Street
- River Street had the second highest number of reported crashes, with 10 crashes reported
- The calculated motor vehicle crash rates were found to be below the state average crash rates of between 3.49 and 3.80 crashes per million vehicle miles traveled for similar roadways.

# Crash Data

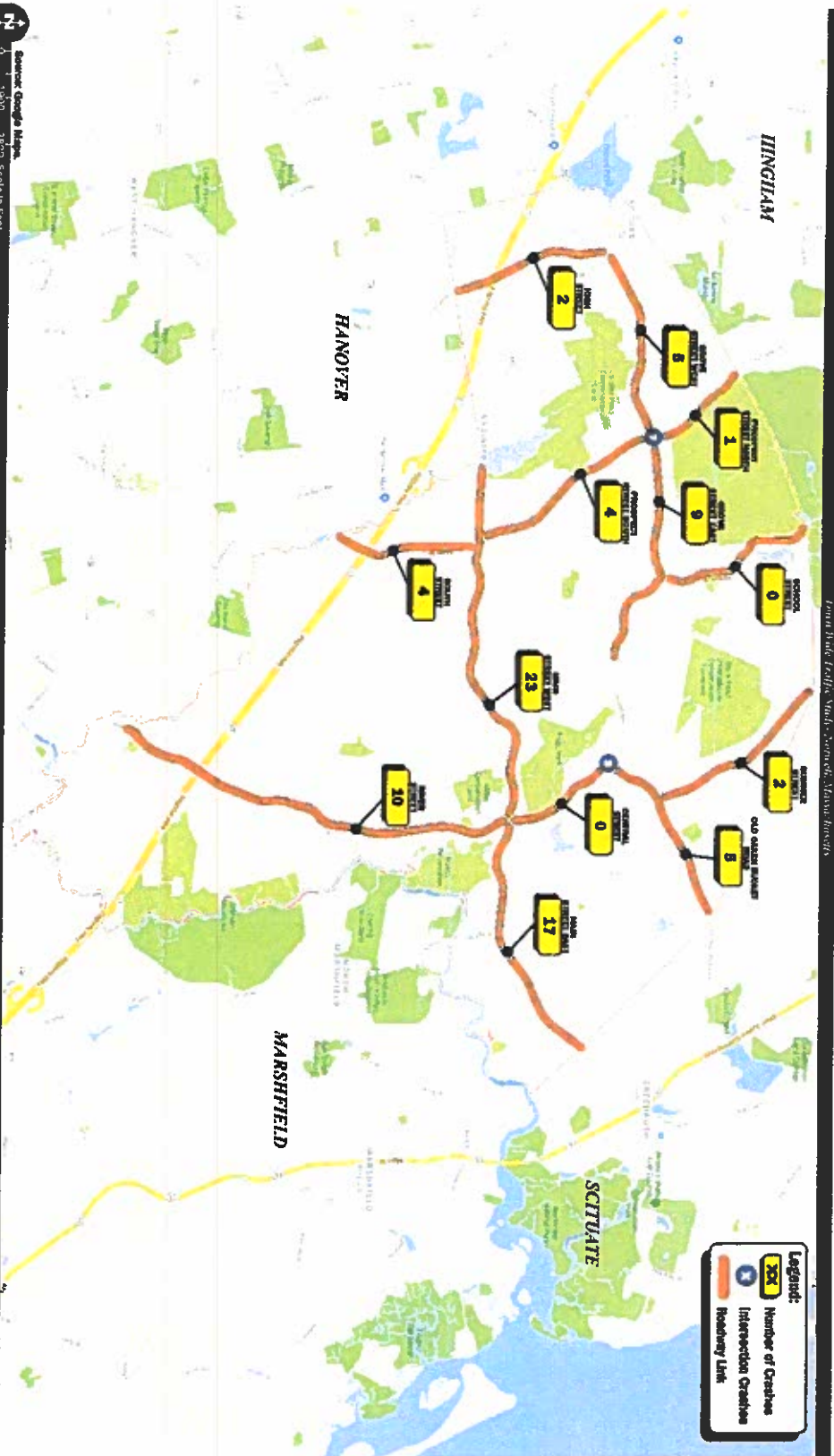
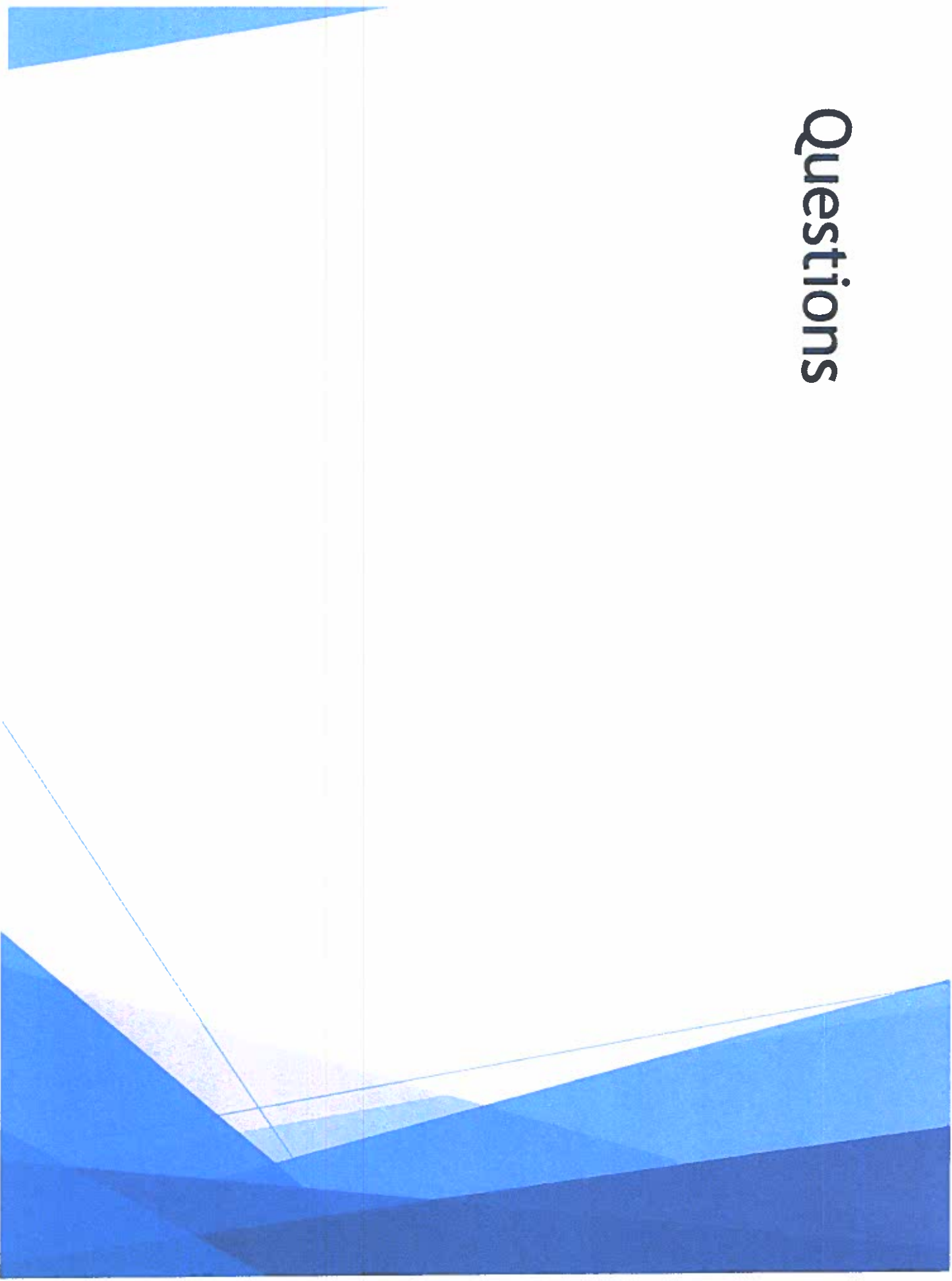


Figure 5  
2016 MassDOT Crash Data  
Summary

# Recommended Actions

- ▶ Adopt a Complete Streets policy and implementation plan
- ▶ Applicants of projects under review by Town Boards should advance projects that are included on the Town's Complete Streets Prioritization Plan
- ▶ Additional monitoring of truck activity should be conducted along sensitive residential roadways during the spring or fall
- ▶ An internal review of speed zone postings for all town roadways should be undertaken
- ▶ A Traffic Calming Guide should be developed
- ▶ During roadway maintenance activities, consider implementing traffic calming measures
- ▶ Complete a sign and pavement marking inventory
- ▶ Continuation of regular enforcement of posted or regulated speed limits

# Questions





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