

Southborough Truck Study Presented by Graggery Bussell, Pr. ENV SP.

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August 9, 2022



Project Background

- The Town of Southborough has long sought to utilize heavy vehicle exclusions (HVE) to minimize the amount of truck traffic in residential areas of Town. However, due to the location of existing exclusions it is difficult to meet the alternate route requirements for many roadways where a heavy vehicle exclusion may be more applicable.
- VHB was retained by the Town of Southborough to perform the following:
 - Review of existing heavy vehicle traffic entering and exiting the Town;
 - Identify existing truck routes preferred by heavy vehicle operators; and
 - Identify potential changes to the existing truck routes and proposed new ones.

Study Methodology

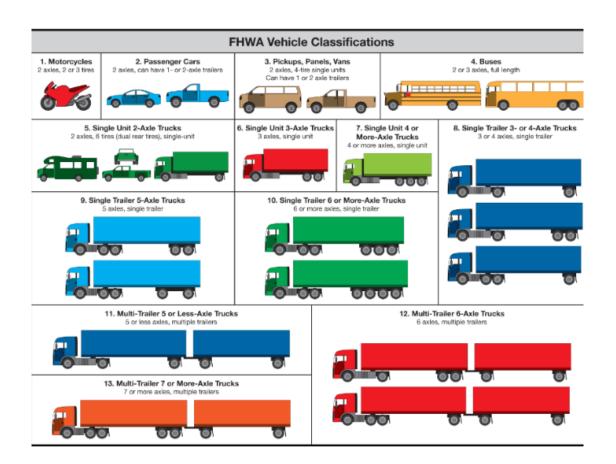
- Review of Existing Traffic and Truck Patterns
 - Automatic Traffic Recorders (ATR) located at 12 locations
 - Peak Hour Turning Movement Counts (TMC) at 9 locations
 - All counts were performed during the weekday (Wed-Thurs) in March 2022
- Identify existing truck routes and roadways that may be eligible for future heavy vehicle exclusions
- Identify preferred truck routes in Town and determine which roadways might be subject to an exclusion

Existing Roadway Network

- The Town's roadway network is made up of arterials, collectors, and local roadways,
 - Federal Highway (FHWA) roadway definitions:
 - Arterials generally connect (and carry vehicles between) communities and often regions
 - Collectors generally serve a community providing access to arterials
 - Local roadways generally connect to each other and/ or to arterials and collectors. This is typically most of the roadway miles within a community
 - Roadway Inventory:
 - 12 arterials (Route 85, Route 30, Central Street, Southville Road, and 8 others)
 - 14 collectors (Flagg Road, Fisher Road, Acre Bridge Road, Woodland Road, and 10 others)
 - Existing truck exclusions
 - 13 roadways (Route 30, Washington Street, Middle Road, Central Street, Winter Street, Latisquama Road, School Street, Ward Road, Northboro Road, Chestnut Hill Road, Fisher Road and two others.)

What is a HVE?

- Commercial Heavy Vehicle Exclusion (HVE)
 - Restricts commercial vehicles with a carrying capacity greater than 2 ½ tons
 - HVE's cover commercial vehicles in Federal Highway's (FHWA) classes 5 thru 12
- Exemptions
 - State, Town or other publicly-owned vehicles
 - Commercial heavy vehicles making deliveries on excluded street or adjacent streets that cannot otherwise be accessed
 - Vehicles used in the construction of public streets or public utilities
- State numbered routes are ineligible since 1995
 - Route 30 would not be eligible under current standards.

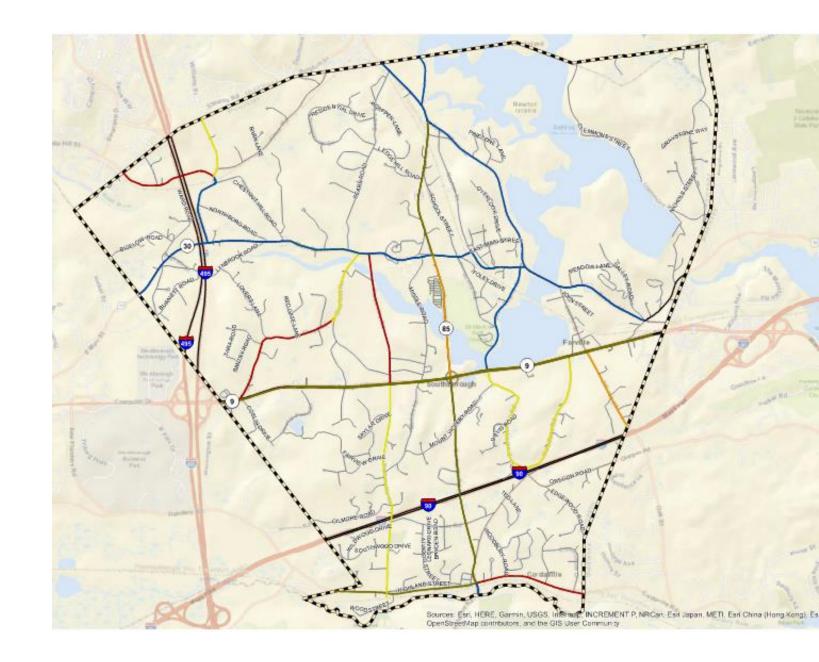


HVE Requirements

- MassDOT responsible for reviewing and approving heavy vehicle exclusions
- MassDOT requirements for an HVE
 - Truck percentage must fall between 5% and 8%
 - Existing pavement structure/ condition not suitable for heavy vehicles
 - Residential neighborhood for nighttime exclusions
- Alternative routes are required to
 - Lie entirely within the Town requesting the exclusion; or
 - Lie partially within another Town but only on State Highway; or
 - Lie partially within another Town and have that Town's written permission.

Existing HV%

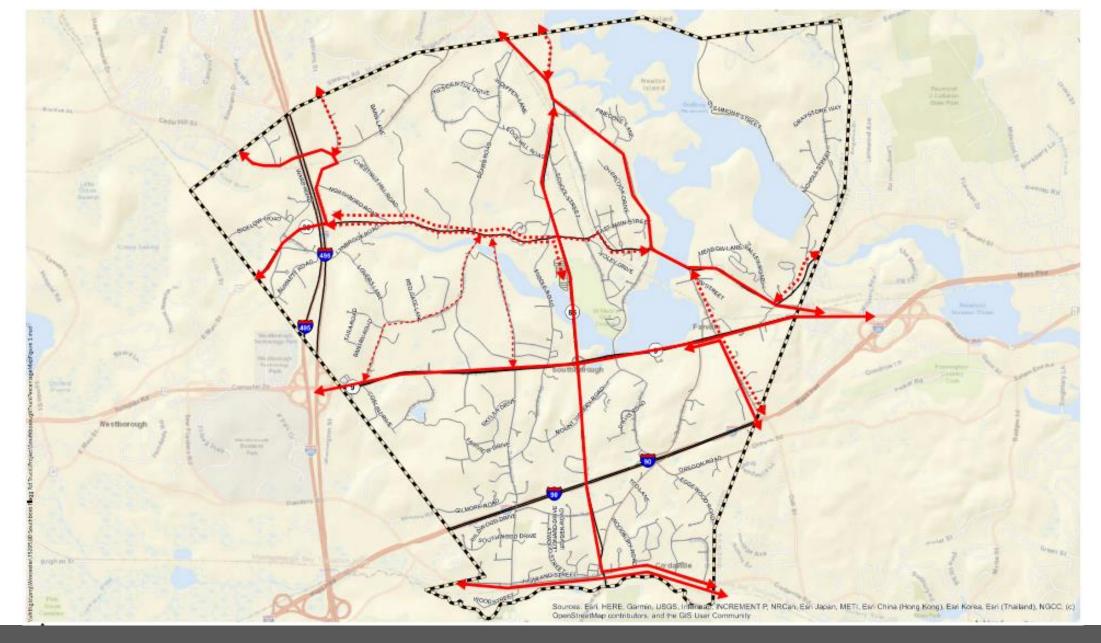
- >5% HV
 - Flagg Road
 - Parkerville Road
 - Southville Road
 - Northboro Road



Existing HV Volumes

- >100 HV/Day
 - Route 9
 - Marlboro Road (Route 85)
 - Main Street & Boston Road (Route 30)*
 - Northboro Road*
 - Oak Hill Road
 - Central Street*
 - Southville Road
 - *Subject to existing HVE





Findings

- Consider removing existing HVE on Route 30 (would meet current HVE requirements)
- Consider applying for HVE's on:
 - Flagg Road
 - Deerfoot Road
 - Johnson Road
 - Oak Hill Road
 - Acre Bridge Road
- Consider applying for overnight HVE's on:
 - Oak Hill Road
 - Pine Hill Road
- Evaluate HVE existing HVE signage
- Monitor traffic to identify changes in truck patterns

