

Dascomb Road Traffic Presentation



January 8, 2019

Traffic Review Process

- *Applicant applies to the Planning Board for a project*
- *Planning Board reviews if a traffic study is needed*
- *Planning Board decides if a traffic Peer Review Agent is needed*
- *Applicant prepares traffic study and submits to the Board*
- *Peer Review Agent reviews all aspects of the traffic study*
- *Peer Review Agent provides comments / recommendations to inform the Board of their findings*
- *Applicant continues to work with the Town Staff, the Board, and the Review Agent until all Peer Review Agent comments are resolved*

What is in a Traffic Study

- *Introduction*
- *Existing Conditions Analysis*
- *Future Conditions Analysis*
- *Traffic Warrants Analysis*
- *Traffic Operations Analysis*
- *Mitigation Measures*
- *Conclusion*

Introduction

- ***General Site Information***
 - *16.2 Ac, Zoned ID2*
- ***Project Overview***
 - ***Existing Development***
 - *188,960 SF of Office/Industrial*
 - *247 Parking Spaces*
 - ***Proposed Development***
 - *524,000 SF (mix of uses)*
 - *1,760 Parking Spaces*
 - ***Transportation Mitigation***
 - *Roadway Traffic & Safety Improvements*
 - *Transportation Demand Management (TDM)*
 - *Traffic Monitoring Plan (TMP)*
- ***Context***
 - *Ownership of Roads*
 - *State & Federal Permitting*
- ***Methodology***
 - *MassDOT Transportation Impact Assessment (TIA) Guidelines*

Existing Conditions

Study Area

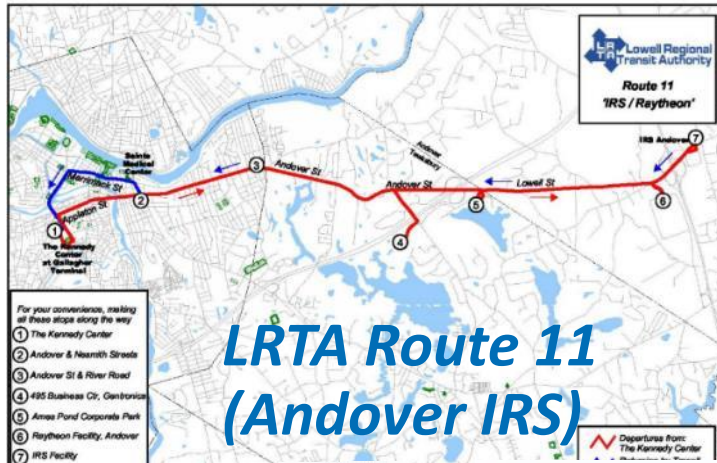


Study Area Intersections:

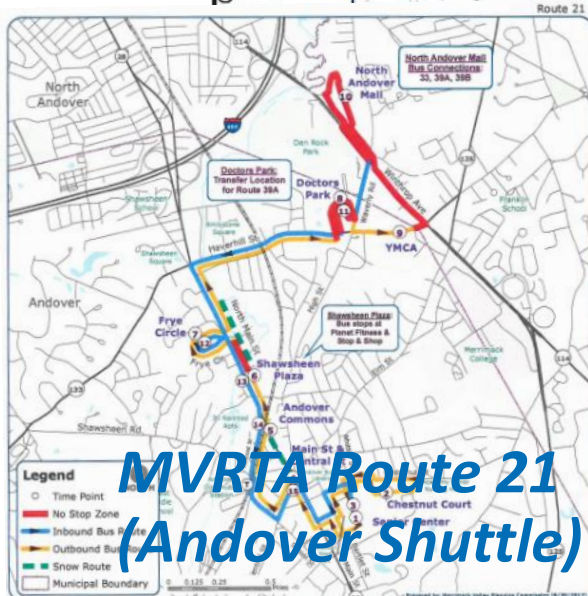
1. Dascomb Road / East Street / Shawsheen Street
2. Dascomb Road / Hewlett Packard Site Driveway
3. Dascomb Road / Smith Drive
4. Dascomb Road / Frontage Road
5. Dascomb Road / Interstate 93 NB Ramps
6. Frontage Road / Interstate 93 SB Ramps
7. Dascomb Road / Lovejoy Road / Acorn Drive
8. Dascomb Road / Clark Road / Bannister Road
9. Dascomb Road / Andover Street

Existing Conditions

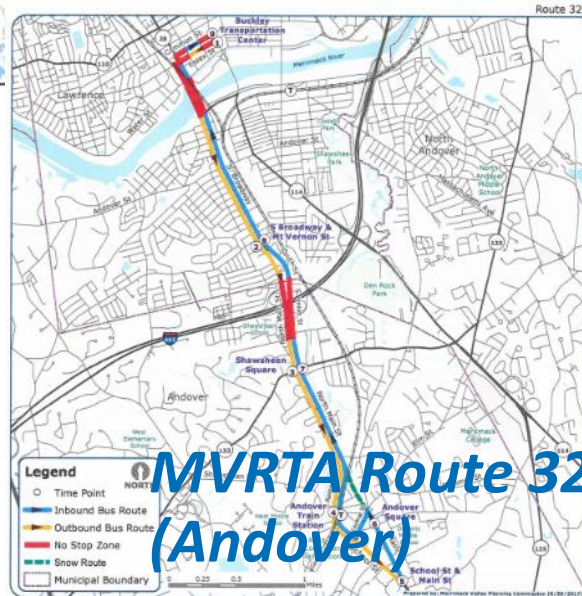
Public Transportation Access



**LRTA Route 11
(Andover IRS)**



**MVRTA Route 21
(Andover Shuttle)**



**MVRTA Route 32
(Andover)**



Ballardvale

Andover

Existing Conditions

Traffic Volumes

- **Turning Movement Counts (TMCs)**
 - Thursday September 13th 7am – 9am (morning peak)
 - Thursday September 20th 4pm - 6pm (evening peak)
 - Saturday September 22nd 11am – 1pm (afternoon peak)
- **Automatic Traffic Recorder Counts (ATRs)**
 - Wednesday September 12th – Thursday September 13th
- **Background Information**
 - Greater Lawrence Gas Disaster
 - Tewksbury Street Bridge Detour
 - Follow-up ATRs – 4 days
Saturday December 1st – Tuesday December 4th
(1% - 5% Reduced Volume from September Counts)



Existing Conditions

Safety Analysis

- *Crash History and Data*
- *Highway Safety Improvement Plan (HSIP) Eligible*
 - *Road Safety Audit*
- *Sight Distance Measurements*

ROAD SAFETY AUDIT

Dascomb Road (Frontage Road to I-93 NB Ramps)

Town of Andover

March 29, 2017

Prepared For:
Massachusetts Department of Transportation



Town of Andover, Massachusetts



Prepared By:
TEC, Inc.
65 Glenn Street
Lawrence, MA 01843



Future Conditions

Traffic Volumes

- ***“No-Build” Traffic Volumes / Background Growth***
 - *1% Increase / Year (MassDOT Permanent Counters)*
 - *Specific Development by Others*
 - *Reoccupancy of Existing Buildings*
- ***Site Generated Traffic***
 - *Calculate New Traffic from Development - ITE Land Use Codes*
 - *Trip Distribution / Study Area Distribution Model*
- ***“Build” Traffic Volumes***
 - *Compile “No-Build” and “Site Generated Traffic” into the model*

Traffic Warrants

Traffic Signal Warrants

- ***Manual on Uniform Traffic Control Devices (MUTCD)***
 - *Warrant 1 – 8-hour Vehicular Volume*
 - *Warrant 2 – 4-hour Vehicular Volume*
- ***Signals Warranted***
 - *Dascomb Road / Smith Way*
 - *Dascomb Road / I-93 Northbound Ramps*
 - *Frontage Road / I-93 Southbound Ramps*
 - *Dascomb Road / Clark Road / Bannister Road*

Traffic Operations

- ***Assess Traffic Flow***
 - *Quality of Flow, Roadway Capacity, & Vehicle Queuing*
 - *Performed for “No Build”, “Build”, & “Build with Mitigation”*
- ***Methodology***
 - *Levels of Service (LOS)*
 - *Queue Length*
 - *Reviewed for Criteria for Signalized & Unsignalized Intersections*
- ***Reveals Mitigation / Need for Improvements***

Mitigation Measures

Dascomb Road / East Street / Shawsheen Street

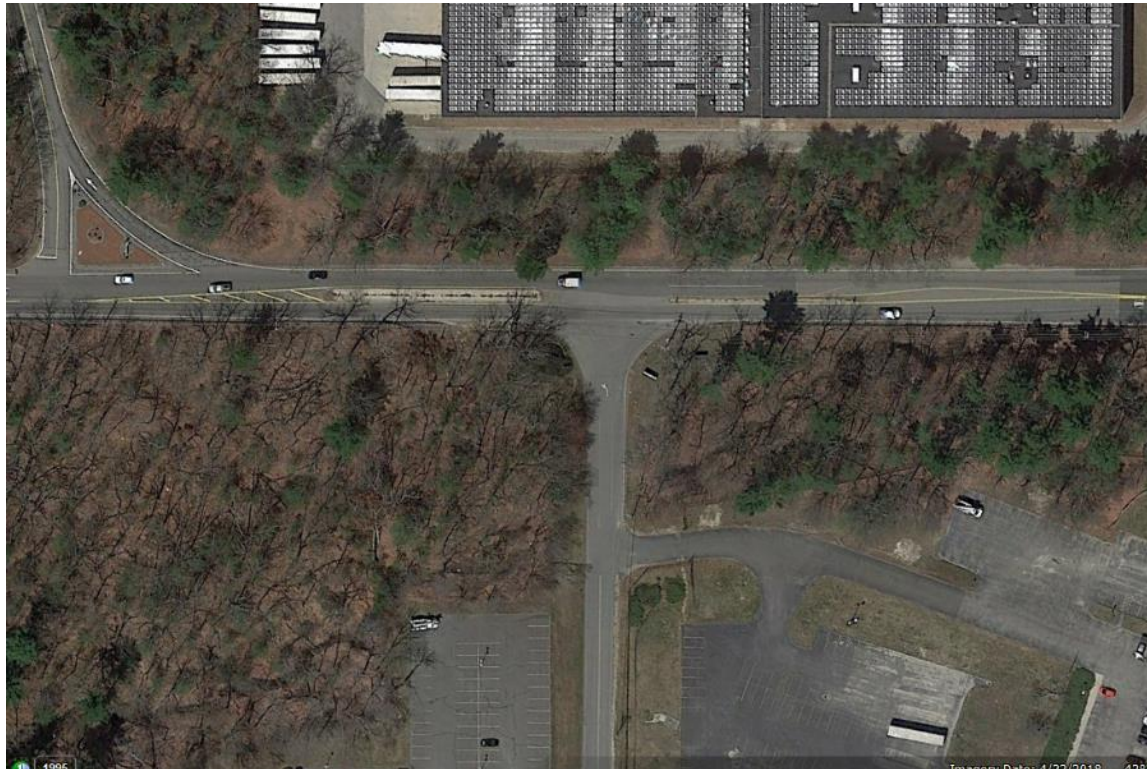
- *Re-timing existing signal*



Mitigation Measures

Dascomb Road / Smith Way

- *New traffic signal*
- *Widening for additional lanes*



Mitigation Measures

Dascomb Road / Frontage Road

- *4th Leg to Dascomb Road / Frontage Road Intersection for Primary Access Point*
- *Improved efficiency and safety of access*
- *Protected left instead of permitted left*
- *Widening for additional lanes*



Mitigation Measures

Frontage Road / I-93 SB Ramps

- *New traffic signal*
- *Double left turn lanes to improve off-ramp efficiency*
- *Reduce cut-through traffic on Osgood Street*
- *Reduce queues by 80%*



Mitigation Measures

Dascomb Road / I-93 NB Ramps

- *New traffic signal*
- *Widening for additional lanes*
- *Double left turn lanes to improve off-ramp efficiency*
- *Improve safety and reduce U-turns, queue reduced by 85%*



Mitigation Measures

Dascomb Road / Lovejoy Road / Acorn Drive

- *Post-occupancy signal re-timing*
- *Exploring widening general purpose lane with Review Agent and Town Staff*



Mitigation Measures

Dascomb Road / Clark Road / Bannister Road

- Exploring geometric improvements with the Review Agent & Town Staff to improve safety & reduce queues*



Mitigation Measures

Dascomb Road / Andover Street

- *Exploring geometric improvements with the Review Agent & Town Staff to improve safety & reduce queues*
- *Reduce conflicting movements*



Mitigation Measures

Corridor-wide Improvements

- *Greatly improve pedestrian accommodations on Dascomb Road including ADA accessible sidewalks, ramps, and crossings*
- *Traffic signal timing and coordination*
- *Bicycle accommodations*
- *Transportation Demand Management (TDM) / MVTMA*
- *Preferential parking for rideshare, carpool, and hybrid vehicles*
- *Traffic calming and installation of pedestrian crossings with Rapid Flashing Beacons*
- *Post-occupancy Transportation Monitoring Program (TMP)*

Conclusion

- *The Dascomb Road Corridor has operational and safety challenges under existing conditions.*
- *The project proposes a robust transportation mitigation package*
- *Improvements will drastically reduce queues at the I-93 NB / SB Ramps*
- *Improvements will improve safety of the corridor by reducing angle collisions*
- *All intersections are projected to operate at acceptable levels of service*
- *Exploring additional geometric improvements at Lovejoy Road, Clark Road, & Andover Street*
- *Coordinating with Traffic Review Agent & Town Staff to resolve all comments*