



Woodland Road
Newton, Massachusetts

Safety Study
Findings and Recommendations
March 1, 2007

McMahon Associates

- 30 Years Transportation Planning
& Traffic Engineering
- Boston Staff: Registered Professional & Traffic
Operation Engineers
- Review of Woodland Road over past four months
- Architectural Engineers
 - 20 Years Experience
 - Electrical and Lighting Design

Study Area



PROJECT STUDY AREA

Roadway Characteristics

- Minor collector owned by Newton
- Approximately 19 to 26 feet wide
- Single travel lane in each direction

Parking



Traffic Control Devices

- Woodland is stop controlled at
 - Central Street
 - Hancock Street
 - Grove Street
 - Washington Street
- Side streets operate as stop controlled
- Speed Limit 30 miles per hour
 - Posted between Hancock Street and Central Street
 - Not posted near Washington Street

Pedestrian Accommodations

- Sidewalks in varying conditions
 - No sidewalk between Grove and Seminary
- Crosswalks at
 - Woodland/Central
 - Woodland/Grove
 - Woodland/Hancock
 - No crosswalks on Lasell Campus

Crosswalk Locations



Traffic Volumes

- Automatic Traffic Recorder count data collected
 - October 2006
 - West of Cheswick Road
 - + Weekday AM peak hour 350 vehicles
 - + Weekday PM peak hour 405 vehicles
 - + Average Daily 3,870 vehicles
 - West of Maple Street
 - + Weekday AM peak hour 415 vehicles
 - + Weekday PM peak hour 410 vehicles
 - + Average Daily 4,620 vehicles

Speed Study

- West of Cheswick Road
 - Average speed 31 mph
 - 85th percentile speed 36 mph

- West of Maple Street
 - Average speed 23 mph
 - 85th percentile speed 29 mph

Accident Data

- 2001-2006 data
- Woodland Road at Grove Street
 - 14 accidents
 - Converted 2-way to 4-way stop-control (Spring, 2002)
 - + Accidents decreased
- All other intersections have 3 or fewer reported accidents
- All intersections have lower than average crash rates
- Pedestrian fatality at 174 Woodland (Sept, 2006)

Pedestrian Volumes

- November 2006
 - Woodland Road at Grove Street
 - + 2:50PM to 3:20PM
 - + 17 Pedestrian crossings at entire intersection
 - Vista Avenue to Grove Street
 - + 11:40AM to 12:40PM, 290 pedestrians crossing Woodland
 - + Two general diagonal patterns observed

Pedestrian Pattern



Street Lighting

- Existing lighting
 - High-pressure sodium lights
 - Minor collector 50 Watt
 - Woodland currently has 100 Watt
 - Long arm extending to center of roadway
 - + Avoiding trees and branches
 - + Avoiding foliage from spring to fall
 - + Lighting the right-of-way
 - Contributing lights from homes and school buildings

Street Lighting

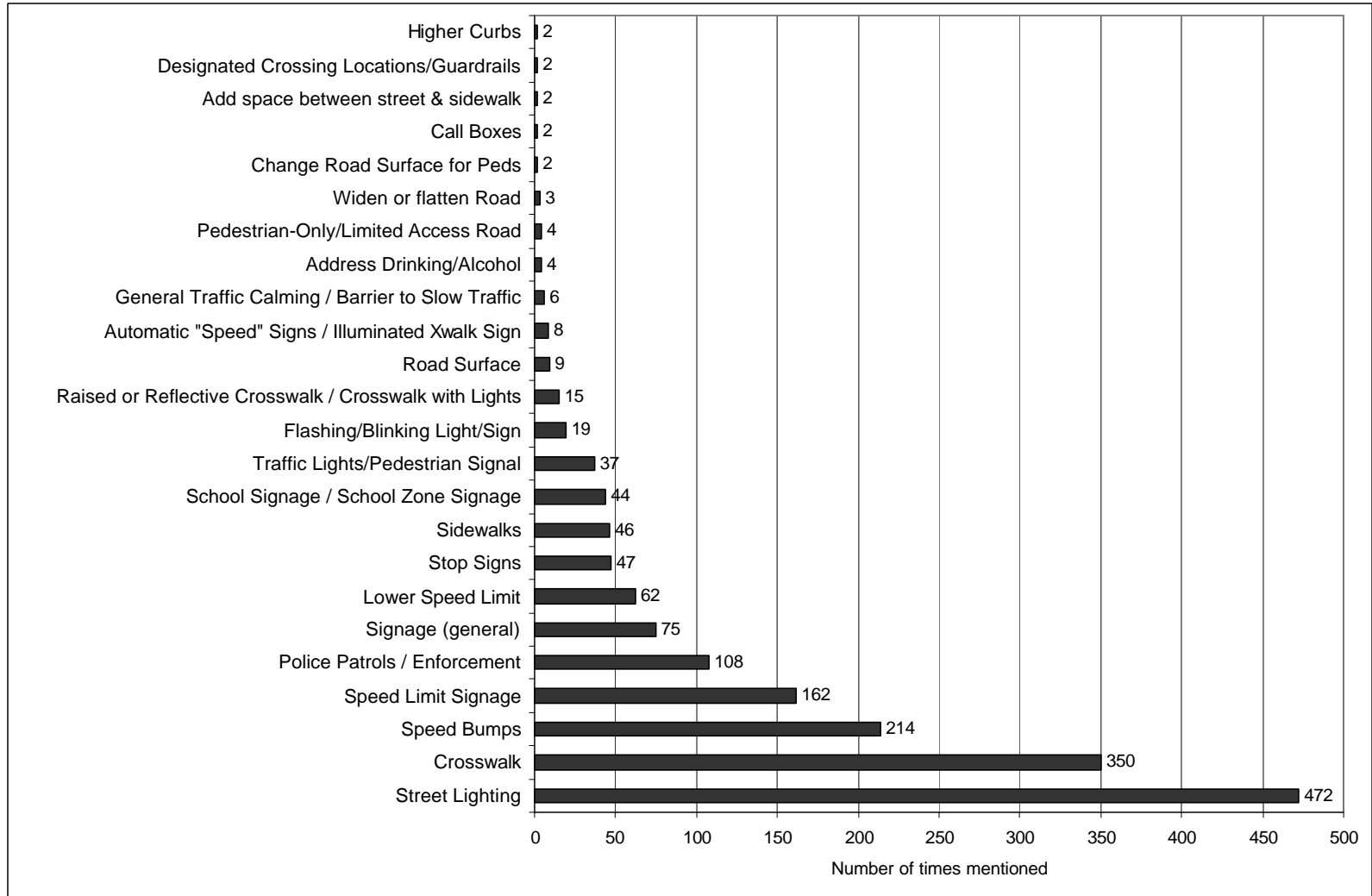
- Observations on 2/23/07
 - Light near Seminary Ave is on and off
 - + Possible ballast problem
 - Average footcandle (unit of luminance) level is 0.75
 - Light pole fixtures on southern side of the road

Street Lighting

- Recommendations

- Diligent replacement when lights are out
- Keep 100 Watt high pressure sodium lights rather than 50 Watt

Web Petition Input



Study Findings

- Roadway
 - Adequate surface and width
- Traffic Lights
 - Traffic signal lights are not warranted
 - Pedestrian signal lights are not warranted
 - Should not be used as a traffic calming device
 - + Vehicle speeds may increase before and after light
- Accidents
 - Potential for pedestrian/vehicle conflicts

Roadway Recommendations

- Sidewalks
 - Construct on the southern side of Woodland between Grove St and Seminary Ave



Roadway Recommendations

- Stop Signs
 - at side street intersections with Woodland
 - Four way-stops on Woodland are not warranted
- Parking
 - No parking between Grove and Hancock 7-9AM and 1-4PM

Traffic Calming Alternatives

- **Raised Intersection/Speed Table**
 - Woodland Road at Cheswick Road
 - Woodland Road at Lake Avenue
- **Speed Humps**
 - Ordinance Change
- **Signage**
 - Pedestrian Crossing
 - Speed display unit
 - Traffic calming device warnings
 - Speed limit signs
- **Pavement lights at crosswalks**

Recommendation



Woodland Rd at Cheswick Rd



Woodland Rd at Lake Ave



Raised Intersection/Speed Table



Dedham, MA



Cambridge, MA



Dedham, MA

Signage



Alternative Recommendation

- **Crosswalks**
 - Woodland Road at Maple Street
 - Woodland Road at Seminary Avenue
 - Woodland Road at Cheswick Road
- **Signage**
 - Pedestrian Crossing
 - Speed limit signs
- **Pavement lights at crosswalks**

Pavement Lights



Denville, NJ



Denville, NJ