

# Elm Street Light Replacement Project

- **Property Owner:** Town of Acton
- **Applicant:** Don Johnson, Town Manager, Town of Acton, 978-264-9612
- **Contact:** Cathy Fochtman, Recreation Director, Town of Acton, 978-264-9608 Ext. 0, Email: [recreation@acton-ma.gov](mailto:recreation@acton-ma.gov)
- **Parcel Location:** 21 Elm Street, Acton, Atlas Map E2, parcel 247
- **Elm Street Field Hours:** Weekdays 7AM-9:30 PM, Saturdays 9AM-5PM, Sundays No permits, Lights may be turned on 30 minutes before sunset, The lights must be off at 9:30 PM time or at the next inning break thereafter and field use is limited to Mon-Fri. Lighting must be turned off no later than one half-hour after the end of use
- **Elm Street ballfield usage has been regulated by a court injunction dating back to 1975, due to neighborhood complaints regarding night time adult league use**
- **1984 injunction cited need to address lighting trespass onto abutting homes**
- **Current consensus of remaining injunction plaintiffs has been to expand use during Saturday daytime hours**

# Current Elm Street Lights



# Current Elm Street Light Condition

- **Current light poles are over 35 years old**
- **Poles have been tested and show visible decay**
- **Danger of the poles falling is a public safety hazard concern**
- **Poles are deteriorated and have exceeded their useful life**
- **Not in compliance with current Lighting Bylaw for light trespass**
- **Night lighting is currently not safe for users dark areas pose danger**



# Current Elm Street Light Condition

- **Users including AB Youth Softball, Acton Adult Softball League, Pop Warner Football have varying lighting needs**
- **Ballfield lighting : Practice field lighting**
- **Expanded use of existing fields is critical to growth of all sports programs**

# Sports Lighting Requirements For Safety

- Softball Infield 50 footcandles
- Softball Outfield 30 footcandles
- Football Practice Area 25 footcandles
- Practice Area #3 14 footcandles

Guaranteed Light Levels for 25 years

# Elm Street New Lights/Poles

- New lights will eliminate spill light migrating onto abutting properties
- Galvanized steel poles eliminate wood rot concerns



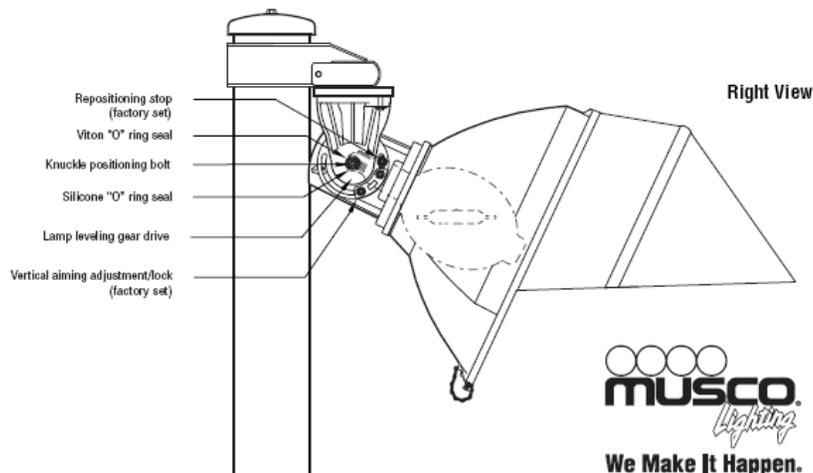
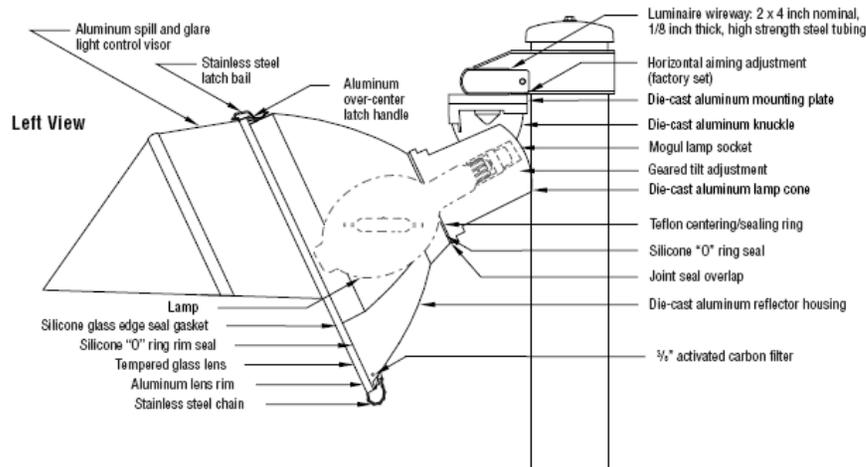
# Similar Musco Installation Weston Middle School Weston, MA



**High End System      25 Year Warranty**  
**Meets Town Lighting Bylaw standards**

# Light-Structure GREEN™

## Luminaire Assembly



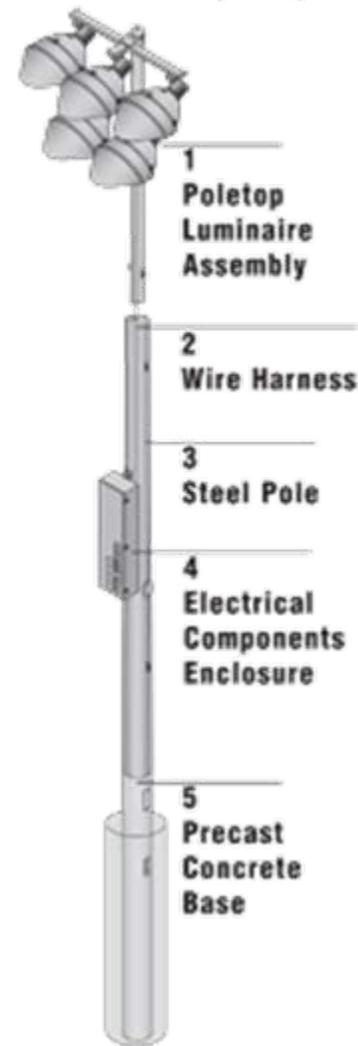
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Musco products referenced or shown are protected by one or more of the following U.S. Patents: 4450507, 4729994, 4729977, 4811191; 4810974; 4947303; 4994718; 5012389; 5075928; 5134557; 5161863; 5211473; 5259681; 5377011; 5386479; 5423281; 5424577; 5000537; 5707142; 5784387; 5800048; 5810591; 5850721; 6026338; 6233710; 6250596; 6340792; 6389932; 6446409; 6592142; 6837166; 6935797; 6952911; 6411026. Australia Patents: 701892; Canada Patents: 70479; 73752; 74829; 85846; 20030749; 3028450; 2027033; 2005014; 2002062; 2110014; 2204826; 2200911; 2000510; 2217972; 2373278. EPIC Patents: 442551; 621778. Germany Patents: 69601967.5. Mexico Patents: 175865; 183225. New Zealand Patents: 307795; 333806. South Korea Patents: 405147. Other patents pending.

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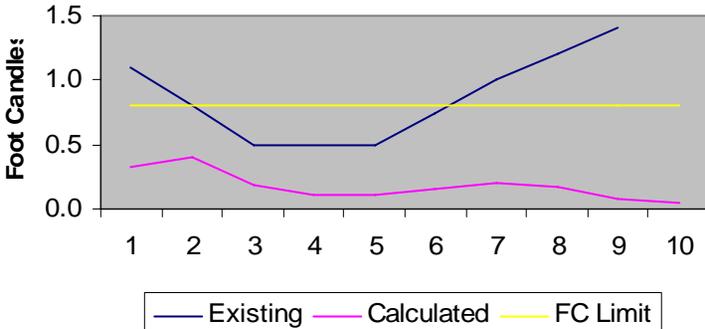


# Lighting Concerns Addressed

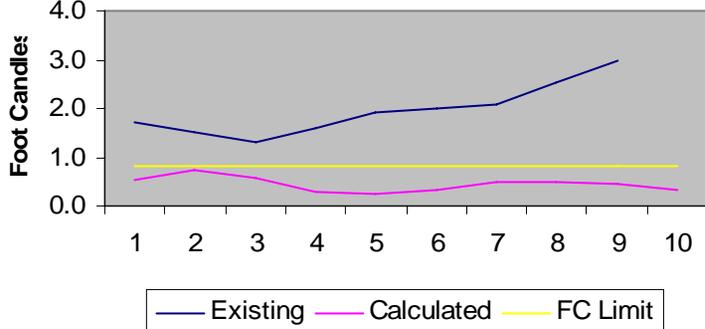
- Town of Acton Lighting Ordinance met
- Pole height designed to focus light where needed
- Shielded luminaires cut light trespass to streets and abutting lots to less than 0.8fc
- Lamps are not visible from the street

# Existing vs. Calculated Illuminance

**Existing vs. Calculated Horizontal Illuminance**



**Existing vs. Calculated Vertical Illuminance**

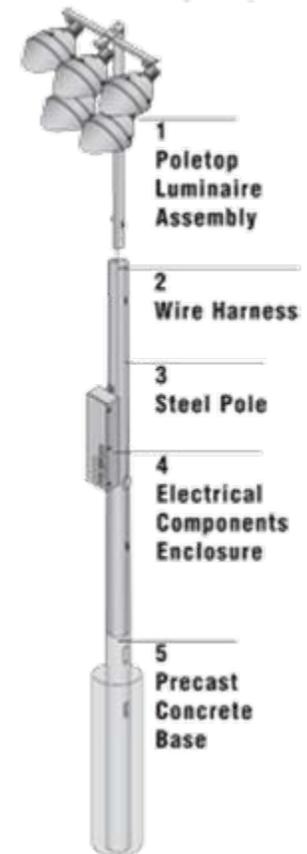


# 25 Year Life Cycle Cost



- Energy Savings, based on prior technology vs. Light Structure Green
- With current technology 25 Year Life Cycle Cost: \$60,519.00
- Light Structure Green 25 Year Life Cycle Cost: \$21,701.00
- **25 Year Life Cycle Cost Savings: \$38,818.00**

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# Summary

- New lighting creates a safe environment for the future – users and neighborhood
- Significantly reduces light trespass to neighbors
- Safely lights fields appropriately for each user
- Maximizes use of existing fields, as field space is at a premium
- Questions?