

Precipice and Ridge Line Advisory Committee

Third Interim Report to
The Board of Trustees
February 18, 2009

Issues Discussed at January 21, 2009 Meeting with the Board of Trustees (A)

Issues discussed:

- Review of draft Precipice and Ridge Area Map by the Village Engineer. → • BOT decided that the review should wait until the final report is submitted at end of February.
- Review of draft List of Precipice and Ridge Properties by the Village Building Inspector/Tax Assessor. → • List reviewed, corrected, and attached as *Appendix A: Draft List of Precipice and Ridge Properties (Revised February 18, 2009.)*
- The propriety of excluding “marginal” properties that may not enhance overall protection of precipices and ridges. → • To maintain the objectivity of our mathematical and topography-based analysis and mapping, the Committee decided against excluding “marginal” properties.
 - The percentage of a slope at Tower Hill Loop and whether the property above belonged in the draft Precipice Area. →
 - Mapping checked. Said slope does not exceed 45%. Therefore, in accordance with the criteria the property is not included.

Actions undertaken :

Issues Discussed at January 21, 2009 Meeting with the Board of Trustees (B)

Issues discussed:

- The propriety of requiring tree removal permit and replanting of trees in the Precipice and Ridge Areas.



• Many communities require tree removal permits within protected areas (*Appendix B: Examples of Neighboring Communities Requiring Tree Removal Permits.*) The environmental reasons for this best practice are summarized in *Appendix C: The Town of Bedford, NJ Tree Preservation Ordinance*. See also *Appendix D: Some Tree Facts*.

- Hiring a lighting consultant to analyze existing conditions and recommend standards. Cost not to exceed \$2,000.



• Susan Harder was commissioned. Her report is attached as *Appendix E: Exterior Lighting Report and Background Readings*. Cost is within budget.

Actions undertaken :

Proposed Exterior Lighting Standards: The Philosophy

- Sensible and responsible lighting:
 - ensures safety, environmental protection, sound ecology, health, and neighborly conduct;
 - prevents glare, over-lighting, energy waste, light trespass, and unnecessary sky glow.
- Tuxedo Park is in LZ1 Lighting Zone, defined by the International Commission on Illumination as “low density residential” and “rural” in character. For safety, light level in this Zone needs to address 1) glare from unshielded and/or bright light bulbs; and 2) light positioned so high off the ground that it interferes with vision adaptation.
- VTP Code has a provision against “bright light” under *Section 100-7 Offensive Uses*, but there is no definition of “brightness” and no solutions provided to mitigate brightness.

Proposed Exterior Lighting Standards: The Solutions

1. Establish standards for new and replacement residential lighting:
 - Require shielded light fixtures
 - Maintain a relationship between mounted height of fixture and lumens level
 - Limit height of mounted fixtures
 - Prescribe maximum watts per fixture
 - Specify light bulb types
2. Define “non-essential lighting” (architectural, foliage/landscape, decorative, and holiday lighting) and impose reasonable restrictions on its installation and use
3. Specify prohibitions, exemptions, and requirements for non-residential parking lots
 - See Appendix E: Exterior Lighting Report for details. While Harder’s analysis and recommendations are targeted at the Precipice and Ridge Areas, they are also suitable for the entire Village. For this reason, she has included pro-bono recommendations on dock and municipal lighting.

Exterior Lighting Standards: The Rationale

- **Conserve Natural Resources:** Excessive or inappropriate lighting wastes our limited natural resources and pollutes air, land, and water by burning excess fossil fuel for electricity.
- **Ensure Safety:** Unsafe glare can contribute to accidents by interfering with vision adaptation. Studies show that bright exterior lighting at night does not decrease or prevent crime; it only enhances our perceived – but unfounded – notion of security.
- **Protect Ecology of Flora and Fauna:** Bright night light increases the growth of algae in reservoirs and ponds. Research indicates that artificial night lighting disrupts the migration, feeding, and breeding habits of many wildlife species, as well as the growth patterns of trees.
- **Reduce Health Risks:** Light at night not only disrupts sleep but also interferes with the immune system. Intrusive lighting may reduce the production of melatonin, a beneficial hormone. Recent studies also show a possible correlation between exposure to artificial light at night and increased risks of prostate cancer and breast cancer.
- **Save Money:** Energy-efficient lights are more cost-effective.
- **Be Better Neighbors:** Excessive or misdirected lighting intrudes on the privacy of others when light or glare trespasses property lines.

Proposed Next Steps

1. The Village Engineer to review the draft Precipice and Ridge Area Map for accuracy.
2. The Committee to submit a final written report (in WORD) for March 4 BOT meeting.
3. The Village Attorney to prepare a draft law for consideration by the BOT at March 25 meeting.
4. The Committee to prepare a Power Point Presentation detailing the objectives, methodology, findings, and recommendations to the community at a date to be decided with the BOT.

Appendices

1. Appendix A: Draft List of Precipice and Ridge Properties (Revised February 18, 2009)
2. Appendix B: Examples of Communities Requiring Tree Removal Permit and Replanting
3. Appendix C: Town of Bedford, NJ Tree Preservation Ordinance
4. Appendix D: Some Tree Facts
 - United Nations Environmental Program
 - Tree Benefits
 - www.invasive.org/eastern/: Invasive plants are non-native species usually introduced by ornamental planting
5. Appendix E: Exterior Lighting Report and Background Readings