



VISUAL QUALITY

of Urban Forest Landscapes

THE NORTHEAST CENTER FOR URBAN &
COMMUNITY FORESTRY AT UMASS/AMHERST

Background

The devastating ice storms of January, 1998 that dramatically impacted the northern New England/New York region caused millions of dollars in damage to the forested, rural, suburban and urban landscapes of the affected states. Storm damage assessment procedures were used to estimate the cost of response, recovery and reforestation in the impacted region. These assessments placed monetary values on the affects of the ice storm on the forests, parks and street trees across the region. Estimates include clean-up, hazard tree removal, pruning and replanting efforts. It is estimated that the cost of damage and recovery from the ice storms will be in excess of \$200 million. Additionally, severe disturbance to the ecological matrix of the region has occurred, resulting in changes which provide, benefits as well as costs to the region. This cost-benefit ratio will require additional examination over the next several years to ultimately determine the impact of the ice storms.

Urban areas, including small towns, villages and larger cities were seriously affected by the storms and much of the damage occurred in public parks and along municipal streetscapes. Cities like Burlington, Vermont, Portland Maine and Watertown, NY represent large municipal areas affected by the damaging storms. The urban forest areas of the these towns was dramatically affected by the storm, and trees growing along public roadways were impacted by storm damage and recovery operations. In many cases, trees were removed or severely cutback in order to restore electric and other utility services to the residents in these cities. Severe breakage of crown structure also necessitated the removal of many larger limbs from significant numbers of trees. This has resulted in a sever degradation in the visual and aesthetic quality of the streetscape found in these communities. The "green infrastruure" of these communities has been severely impacted by the storms, resulting in less visually appealing urban landscapes. Recovery and reforestation efforts, including new plantings and additional pruning, may begin to restore the streetscapes to pre-ice storm quality, but will require many years to achieve the desired design intent.

Study Scope

Burlington, Vermont was one of the areas severely impacted by the storms, and the urban core of this northern New England city was particularly hard hit. Many urban trees were damaged or lost during the storm or subsequent recovery operations. Over the next decade, many more will succumb to insect and disease problems, resulting from damage which occurred as a result of the ice storms.

It is intended that an examination of the impact of the ice storms on the visual quality of the urban landscape be completed in Burlington, in order to document damage which may not be included in traditional assessment procedures. It is not intended to complete a replacement value assessment of the damage, but to examine the more subjective impact to the visual, aesthetic and intrinsic quality of the landscapes

Study Scope (Cont'd)

caused by the severe ice storms. An analysis of the impacts to the urban landscape will be completed through field inspection, interviews and documentation. The focus of the study will be on damage of street trees and other vegetation growing along urban roadways.

Three landscape types will be examined for impacts to the visual character of the City of Burlington. These include:

- Urban core area, including commercial and business districts;
- Residential, or neighborhood, streetscapes;
- Rural roadways will also be examined.

It is intended that each landscape type be identified in parts of Burlington, and then visited, and photographically documented to record existing conditions and to detail damage and impacts to the trees caused by the storms. Areas that are in need of additional tree maintenance will also be documented, and followed up after restoration pruning has occurred. Comparison of these areas will be completed at this time, noting the impact of the restoration activities. Additionally, it is anticipated that photographs and other visual documentation of the streetscapes prior to the storms will be collected and used in a comparative study to determine visual changes to the streetscapes.

Other Details

This project is intended to develop assessment protocol for establishing impacts to the visual and aesthetic quality of streetscapes impacted by severe events. Through the documentation of impacted streetscapes, comparison of historical documentation and records, and the establishment of assessment criteria it is expected that this pilot project will serve as a model for the development of more extensive visual assessment protocols that can be used on a regional basis.

Timeline

The intended work will be completed during the summer of 1998, using a graduate student intern from the University of Massachusetts/Amherst, Department of Landscape Architecture and Regional Planning. It is anticipated that the pilot project will be completed in 120 hours. Additional time will be necessary for development of presentation materials and publication of summary findings and protocol recommendations.

It is expected that the field work will be completed during the first two weeks of June, 1998. Delivery of final documentation will be made in the Fall 1998.

Project Location

