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Inspection Report

TRU™ (Tree Radar Unit) Non-Invasive Tree Scans



inspection site: Rock Creek Park Washington, DC

prepared for:

ANM Associates 512 Ashford Road Silver Spring, MD

> scan date: July 5, 2005

inspection performed: Multiple-Elevation Trunk Scans



TRU™ Scan Analysis Results

Overview

The **Sycamore** located at the **Rock Creek Park #2 playground, Washington, DC** was scanned at six elevations – 7-ft, 6-ft, 5-ft, 4-ft, 3-ft, 2-ft. A complete 360-degree circumferential TRU radar scan was performed for each elevation. The radar waveform data were automatically digitized at 0.2-in (5-mm) increments throughout the entire circumference, which produced a very high-resolution internal cross-sectional image.

The Start/Stop point for each scan was the same and was located on the trunk facing the asphalt walking path; all scans were conducted in a clockwise manner.

The TreeWin[™] software program was used to analyze the data subsequent to the field data collection runs. A separate analysis, and graphical report, was prepared for each elevation scanned.

This tree has two large cavities on opposite sides of the trunk as shown in the pictures on the cover page. It was anticipated that the decay column would be advancing down through trunk from elevation of these two wounds and it was of interest to track the decay column to see how low it has progressed.

Results

The Analyst Notes for each elevation's data are given in the text box at the bottom of the attached graphical reports. Each graphical report has four components: (1) Title Block (top center) giving tree, species, elevation scanned, diameter at that elevation, and date, (2) Predicted Internal Trunk Cross-Section (top right) at the scanned elevation, where **brown** represents solid wood, **red** represents near-surface decay with remaining solid wood between 0 to 3", **orange** represents decay with remaining solid wood greater than 3", (3) Predicted Remaining Solid Wood (RSW) thickness plot (middle bottom), where the colors are and location are identical to the Cross-Sectional plot, and (4) Analyst Notes (bottom left).

The results, depicted graphically in the six graphical report pages below, are summarized as follows:

7-ft Elevation – Decay detected throughout the entire circumference. Near-surface decay (between 0" to 3" of remaining solid wood, RSW) between 4:00 and 7:00 o'clock (opposite the start stop point). RSW in the other regions averages about 8".

6-ft Elevation – Decay detected throughout the entire circumference. Near-surface decay (between 0" to 3" of remaining solid wood, RSW) between 4:00 and 7:00 o'clock (opposite the start stop point). RSW in the other regions ranges between 8" to 10".

5-ft Elevation – Decay detected throughout the entire circumference. Near-surface decay (between 0" to 3" of remaining solid wood, RSW) between 4:00 and 7:00 o'clock (opposite the start stop point). RSW in the other regions averages about 10".

4-ft Elevation – Decay detected throughout the entire circumference. Near-surface decay (between 0" to 3" of remaining solid wood, RSW) between 4:00 and 7:00 o'clock (opposite the start stop point). RSW in the other regions averages about 8".

3-ft Elevation – Same as for 4-ft elevation.

2-ft Elevation – Same as for 4-ft elevation with RSW averaging between 10" to 12" outside the nearsurface decay zone.

In general, the decay extent – the percentage of cross-sectional area occupied by decay – becomes larger as the elevation increases suggesting that the decay may be progressing down from the two diametrically opposed hollows located approximately 25-ft above grade for the large hollow located at the 1:00 o'clock position, and at 15-ft to 20-ft above grade for the smaller hollow located at the 9:00 o'clock position.

This tree is a potential hazard due to the indicated internal decay and its close proximity to a playground. It is strongly recommended that the tree be examined by a certified arborist using these radar results plus traditional arboriculture tools (hammer, drill, etc.) and practice, to produce a risk assessment.

Note: TreeRadar personnel are not certified arborists. These results describe what was found by the radar scans. They are not a diagnosis. They should be used by a certified arborist, in conjunction with traditional arborist assessment criteria and instruments, to assess the tree risk potential.

=== Graphical Radar Reports ===



Rock Creek Park - Sycamore - 7-ft Elevation - Dia = 65" (124) - July 7, 2005

Analyst Notes: Decay detected through the entire circumference. Nearsurface decay between 4:00 and 7:00 o'clock, opposite the start/stop point and facing the woods. RSW in the N-S decay region is between 0" to 3". RSW in other regions averages about 8".





Rock Creek Park - Sycamore - 6-ft Elevation - Dia = 66.2" (125) - July 7, 2005

Analyst Notes: Decay detected through the entire circumference. Nearsurface decay between 4:00 and 7:00 o'clock, opposite the start/stop point and facing the woods. RSW in the N-S decay regions is between 0" to 3". RSW in other regions ranges between 8" to 10".





Analyst Notes: Decay detected through the entire circumference. Nearsurface decay between 4:00 and 7:00 o'clock, opposite the start/stop point and facing the woods. RSW in the N-S decay region is between 0" to 3". RSW in other regions averages about 10".





Analyst Notes: Decay detected through the entire circumference. Nearsurface decay between 4:00 and 7:00 o'clock, opposite the start/stop point and facing the woods. RSW in the N-S decay region is between 0" to 3". RSW in other regions averages about 8".





Analyst Notes: Decay detected through the entire circumference. Nearsurface decay between 4:00 and 7:00 o'clock, opposite the start/stop point and facing the woods. RSW in the N-S decay region is between 0" to 3". RSW in other regions averages about 8".





Rock Creek Park - Sycamore - 2-ft Elevation - Dia = 77.9" (129) - July 7, 2005

Analyst Notes: Decay detected through the entire circumference. Nearsurface decay between 4:00 and 8:00 o'clock, opposite the start/stop point and facing the woods. RSW in the N-S decay region is between 0" to 3". RSW in other regions ranges between 10" to 12".

