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LANDSCAPE • ARBORICULTURE

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RE: Eucalyptus Limb Failure Inspection

One eucalyptus tree limb failure was inspected at the City of Lemoore park on Fox street. I inspected the limb failure using the city aerial lift truck. I also inspected the end piece of the limb that fell to the ground. The limb was dissected vertically through an old limb that had been pruned several years ago.

Understand that eucalyptus trees have certain characteristics that increases the chance of limb failure compared to other trees. Some of these characteristics include, size (mass), fast growth, double leaders and included bark.

There are two related reasons this limb failed. The limb failed at a weak point in the wood. This weak point was caused by an old limb that had been pruned several years before. At that point the two limbs were near equal in size. The limb that was not pruned slowly grew around the pruned limb stub. The pruned limb stub died back into the core of the tree. When living wood tissue grows around dead wood tissue the two wood tissues do not laminate together. They are separate pieces of wood. As a tree limb gets larger, it can completely engulf a dead limb and conceal it inside.

This separated wood is not structurally as strong as other wood in the limb so it often is the weakest link(s). In many cases, the limb wood decays or partially decays. Partially decayed wood loses a large portion of its structural integrity, further adding to the weakness of the area.

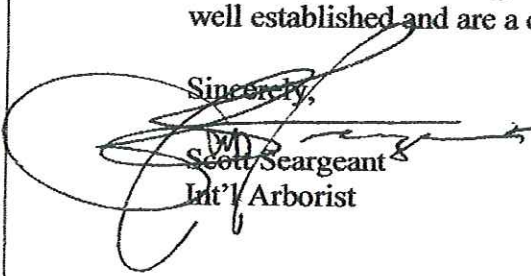
The second part of this limb failure has to do with the torque or load from the growing limb. As the limb increased in size and height, the pressure to hold up the limb increased. The increased pressure was too much for the weak spot in the limb and the limb failed at and below this point.

This scenario is a large percentage of limb failure in trees. All of the eucalyptus trees in this park setting exhibit examples of this potential type of limb failure. All of these trees have had improper pruning and training over their life span. Their massive size and height put a large load on the trunks and branches. Any limb is only as strong as its weakest point. Many of these limbs are dangerously close to their structural limits. Structural limits include times of added torque or weight. These include wind (moderate to strong), rain, flower and seed set, and periods of rapid growth.

The potential for future limb failure is high. Several trees have visible limb fractures on the trunks and main branches. No amount of aesthetic pruning will totally remove the risk. Severe pruning will ruin the look of the trees and lead to future tree problems. The risk of life and limb may be too great. It is time to remove these eucalyptus trees.

There comes a time in every setting to remove and replant. The City of Hanford experienced limb failures and other problems with near century old elms at the Courthouse Square back in the early 1990's. We determined that the trees were in decline and had gone from being an asset to a public liability. Today the new trees are beautiful, well established and are a contributing asset to the area.

Sincerely,



Scott Seargeant
Int'l Arborist