

California Department of Transportation

July 21, 2026



ARBORIST REPORT

TREE CONDITION, RISK ASSESSMENT, AND REMOVAL RECOMMENDATION

**City of Colusa – State Highway Right of Way
Market Street and 10th Street**

Prepared by:

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1. PURPOSE AND SCOPE

The purpose of this report is to document the observed condition of forty-three (43) mature elm trees located within the State Highway Right of Way along Market Street and 10th Street in the City of Colusa and to provide a professional arboricultural recommendation regarding their continued retention or removal.

As the Caltrans District 3 Certified Arborist, I conducted an assessment of the trees and site conditions, including tree structure, crown condition, visible defects, evidence of decay, pest-related stress, root-related infrastructure impacts, and the presence of targets including the traveling public, pedestrians, adjacent property, and Caltrans personnel and infrastructure.

The assessment and recommendations in this report are based on conditions observed at the time of inspection, available maintenance and emergency-response records, and accepted arboricultural tree-risk assessment principles.

ISA's current Tree Risk Assessment Best Management Practices (BMP), Third Edition (2025), describes tree risk as involving the likelihood of tree or tree-part failure, the likelihood of impacting a target, and the consequences if the target is impacted.

2. TREE INVENTORY AND LOCATION

The subject population consists of approximately forty-three (43) mature elm trees located within the State Highway Right of Way.

Location	Approximate Post Mile	Number of Trees	Species
Market Street	PM 31.722	3	American elm (<i>Ulmus americana</i>)
10th Street	PM 31.074–30.5	40	American elm (<i>Ulmus americana</i>)
Total		43	American elm

The trees are estimated to be approximately 120 years old and are believed to have been planted around the early 1900s.

The trees are exceptionally large for an urban roadside environment, with observed dimensions generally ranging from approximately:

- **36 to 60 inches diameter at breast height (DBH)**
- **60 to 110 feet in height**

Given their size, age, location, and proximity to active transportation facilities and developed properties, failures involving major branches, stems, or entire trees have the potential to affect significant targets.

3. GENERAL TREE CONDITION

The subject elm population exhibits widespread and advanced symptoms of physiological decline and structural deterioration.

Observed conditions include:

- Extensive elm leaf beetle (*Xanthogaleruca luteola*) activity resulting in severe leaf skeletonization and repeated defoliation.
- Significant crown dieback throughout much of the tree population.
- Reduced crown density and diminished overall vigor.
- Extensive evidence of internal decay, including heartwood deterioration, cavities, and areas of soft or degraded wood.
- Structural defects associated with large limbs and scaffold branches.
- Numerous dead, declining, and structurally compromised branches throughout the crowns.

- Mistletoe infestations in portions of the population, contributing to localized physiological stress and branch decline.
- Large branch unions and scaffold limbs exhibiting defects and deterioration.
- Root-related infrastructure damage and repeated sidewalk displacement.
- Evidence of repeated branch and limb failures requiring emergency response and maintenance intervention.

The combination of advanced age, significant size, crown decline, structural defects, decay, and repeated failure history substantially increases concern regarding the future reliability of these trees.

4. STRUCTURAL DEFECTS AND DECAY

A significant concern throughout the subject population is the presence of internal decay and structural deterioration.

Visible evidence includes cavities, soft and degraded wood, areas of suspected heartwood decay, dead and declining limbs, and structural defects associated with large scaffold branches.

Internal decay is particularly significant in trees of this size because the absence of an obvious external defect does not necessarily indicate sound internal structure. Where decay has reduced the amount of sound load-bearing wood, the tree's ability to withstand normal and increased mechanical loading may be compromised.

Tree failure occurs when the forces or loads imposed on a tree exceed the strength of the wood or supporting structure. ISA's current risk-assessment methodology recognizes failure of branches, trunks, root systems, and entire trees as separate potential failure modes that should be evaluated in relation to targets and consequences.

The presence of extensive decay and structural defects in trees of this size is therefore a material factor in evaluating the likelihood and consequences of future failure.

5. RECENT STRUCTURAL FAILURE AND IMMEDIATE HAZARD

During the inspection period, a significant structural failure was identified involving a large scaffold limb with a major crack.

The failed or compromised limb became suspended in an adjacent tree while extending over the roadway.

This condition created an immediate hazard to roadway users and other persons within the potential fall zone.

A tree crew was dispatched the same day to remove the failed limb and eliminate the immediate hazard.

This incident is significant because it demonstrates that structural failures are not merely theoretical concerns within this population. Actual failures of substantial tree parts have occurred and have required emergency response.

6. HISTORY OF FAILURES AND MAINTENANCE

The subject trees have a documented history of maintenance requirements and emergency responses.

A review of available Caltrans work-order records dating back to 2019 identified approximately:

- **99 emergency callouts** within the stated post-mile range associated with the elm trees; and
- **59 routine maintenance work orders** within the stated post-mile range associated with the elm trees.

These records demonstrate a continuing pattern of maintenance demand and emergency response associated with the subject tree population.

Repeated failures requiring emergency response are an important consideration in evaluating future tree risk. History indicates that the trees have experienced recurring structural problems rather than an isolated failure event.

Given the size of these trees and the nature of the surrounding targets, future failures could result in roadway obstructions, property damage, injury, or, in a worst-case scenario, loss of life.

7. TARGETS AND POTENTIAL CONSEQUENCES OF FAILURE

The subject trees are located immediately adjacent to transportation and pedestrian infrastructure and developed properties.

Potential targets include:

- Motor vehicles and occupants using the roadway.
- Pedestrians and bicyclists.
- Adjacent residential and private property.
- Sidewalks and pedestrian facilities.
- Caltrans employees and maintenance crews.
- Caltrans equipment and vehicles.
- Transportation infrastructure.

The consequences of failure are potentially significant because of the exceptional size and mass of the trees and their major limbs.

A failure involving a large scaffold limb, major stem, or whole tree could extend into travel lanes, sidewalks, adjacent properties, or other occupied areas.

ISA's tree-risk methodology specifically evaluates the relationship between **likelihood of failure, likelihood of impact, and consequences of failure** when determining overall risk.

In this case, the proximity of the trees to frequently occupied targets, combined with their size, structural defects, decay, and documented failure history, warrants serious consideration of the potential consequences associated with continued retention.

8. CROWN DECLINE AND PEST PRESSURE

The trees exhibit significant crown decline and repeated defoliation associated with elm leaf beetle activity.

Elm leaf beetle feeding has resulted in extensive leaf skeletonization and loss of functional foliage.

Repeated or severe defoliation can place additional physiological stress on mature trees, particularly trees already exhibiting structural defects, decay, reduced vigor, and crown dieback.

Mistletoe is also present in portions of the population. While mistletoe alone does not establish that a tree requires removal, infestations can contribute to localized branch stress and decline and are an additional condition that should be considered when evaluating an already declining tree population.

The pest and disease-related conditions should therefore be considered in conjunction with—not independently from—the structural condition of the trees.

9. ROOT SYSTEMS AND SIDEWALK DAMAGE

The root systems of the subject trees have caused extensive and continuing damage to adjacent sidewalks.

Root-related pavement uplifts have created uneven walking surfaces and trip hazards for pedestrians and has resulted in repeated complaints from residents.

Caltrans maintenance personnel have performed temporary sidewalk repairs at various locations. However, these repairs have not provided a permanent solution because the underlying tree roots remain and continue to exert pressure on the pavement.

The continued conflict between the mature tree root systems and pedestrian infrastructure is therefore not reasonably expected to be resolved through repeated surface repairs alone.

Long-term correction would require addressing the underlying root/pavement conflict.

10. MANAGEMENT AND RISK MITIGATION CONSIDERATIONS

Potential tree-risk mitigation measures generally include pruning, removal of defective tree parts, target modification, monitoring, or complete tree removal.

In the case of the subject elm population, routine pruning or removal of individual defective branches would not address the underlying conditions affecting the trees as a whole.

Pruning cannot eliminate:

- Extensive internal decay.
- Advanced structural deterioration.
- Existing trunk or scaffold defects.
- Root-related sidewalk conflicts.
- The continued physiological decline of severely compromised trees.
- The potential for future failures from other portions of the crown or structure.

Likewise, continued emergency response would represent an ongoing reactive management approach rather than a long-term correction of the underlying condition.

Because of the number, size, age, and condition of the trees, continued retention would require ongoing inspection, pruning, monitoring, emergency response, and infrastructure repair.

In my professional opinion, that management approach is not a practical long-term strategy for this particular tree population.

11. PROFESSIONAL OPINION AND RECOMMENDATION

Based on the conditions observed, available maintenance records, documented history of structural failures, tree size and age, presence of significant decay and structural defects, crown decline, pest-related stress, root-related infrastructure damage, and the presence of substantial public and private targets, I recommend removal of all forty-three (43) subject elm trees.

The recommendation is based on the cumulative condition of the population rather than any single defect.

The principal factors supporting removal are:

1. **Advanced age and exceptional tree size.**
2. **Widespread crown decline and reduced vigor.**
3. **Extensive dead and declining branches.**
4. **Significant internal decay, cavities, and degraded wood.**
5. **Structural defects involving major limbs and scaffold branches.**
6. **Documented history of repeated limb failures.**
7. **A recent major scaffold-limb failure requiring immediate emergency response.**
8. **High-value and frequently occupied targets immediately adjacent to the trees.**
9. **Ongoing root-related damage to pedestrian infrastructure.**
10. **Continued maintenance and emergency-response requirements.**
11. **The inability of pruning or routine maintenance to correct the underlying structural and root-related defects.**

The combination of these conditions indicates that continued retention would require ongoing risk mitigation and monitoring while leaving significant underlying structural and infrastructure conflicts unresolved.

Accordingly, complete removal of the forty-three (43) mature elm trees is recommended as the most appropriate long-term risk mitigation measure.

12. RECOMMENDED FOLLOW-UP ACTIONS

Following removal, I recommend:

A. Sidewalk Reconstruction

Reconstruct damaged sidewalk sections following removal of the trees and appropriate treatment of remaining root-related conflicts.

The objective should be to eliminate existing trip hazards and restore a safe, accessible pedestrian route.

B. Replacement Tree Planting

A replacement planting program should be considered to preserve the aesthetic, environmental, and community benefits associated with the existing tree-lined corridor.

Replacement species should be selected based on:

- Mature size.
- Rooting characteristics.
- Available soil volume.
- Width of planting area.
- Proximity to roadway and sidewalk.
- Utility conflicts.
- Pavement and infrastructure considerations.
- Drought tolerance and long-term site suitability.
- Pest and disease resistance.
- Expected maintenance requirements.

The goal should be to establish a sustainable urban tree population that is compatible with the available growing space and surrounding transportation infrastructure.

C. Phased Implementation

If complete removal cannot be accomplished in a single operation, trees should be prioritized based on observed structural condition, failure history, target exposure, and immediacy of identified hazards.

Any tree or tree part exhibiting an imminent failure condition should receive immediate attention.

13. LIMITATIONS OF ASSESSMENT

This report represents an assessment of observable tree and site conditions at the time of inspection.

Tree risk is dynamic. Tree and site conditions can change over time, and additional defects may become apparent as trees decline, weather conditions change, or previously concealed defects become exposed.

ISA's current tree-risk reporting guidance recognizes that observations can be limited by conditions such as foliage, access, structures, vegetation, soil, or other obstructions, and that tree-risk assessments are based on conditions observed during the assessment period.

This report should therefore be considered a professional arboricultural assessment based upon the conditions observed and information available at the time of inspection.

14. CONCLUSION

The forty-three (43) mature elm trees located along Market Street and 10th Street represent a significant and longstanding maintenance and public-safety concern.

The trees are exceptionally large and mature, exhibit widespread decline and structural deterioration, contain areas of significant decay and degraded wood, have experienced repeated branch failures, and are located immediately adjacent to heavily used transportation and pedestrian facilities and developed properties.

The documented history of emergency responses further demonstrates that structural failures within this population have occurred repeatedly over time.

In my professional opinion, continued routine maintenance and pruning would not adequately address the underlying structural defects, decay, declining condition, root-related infrastructure conflicts, and ongoing failure potential.

I therefore recommend removal of all forty-three (43) mature elm trees and subsequent reconstruction of damaged sidewalk areas.

A replacement tree program should then be developed using species and planting locations appropriate for the available urban growing environment so that the corridor can retain the benefits of an established urban tree canopy while reducing the likelihood of future conflicts with transportation and pedestrian infrastructure.

Respectfully submitted,

Kris Mitchell

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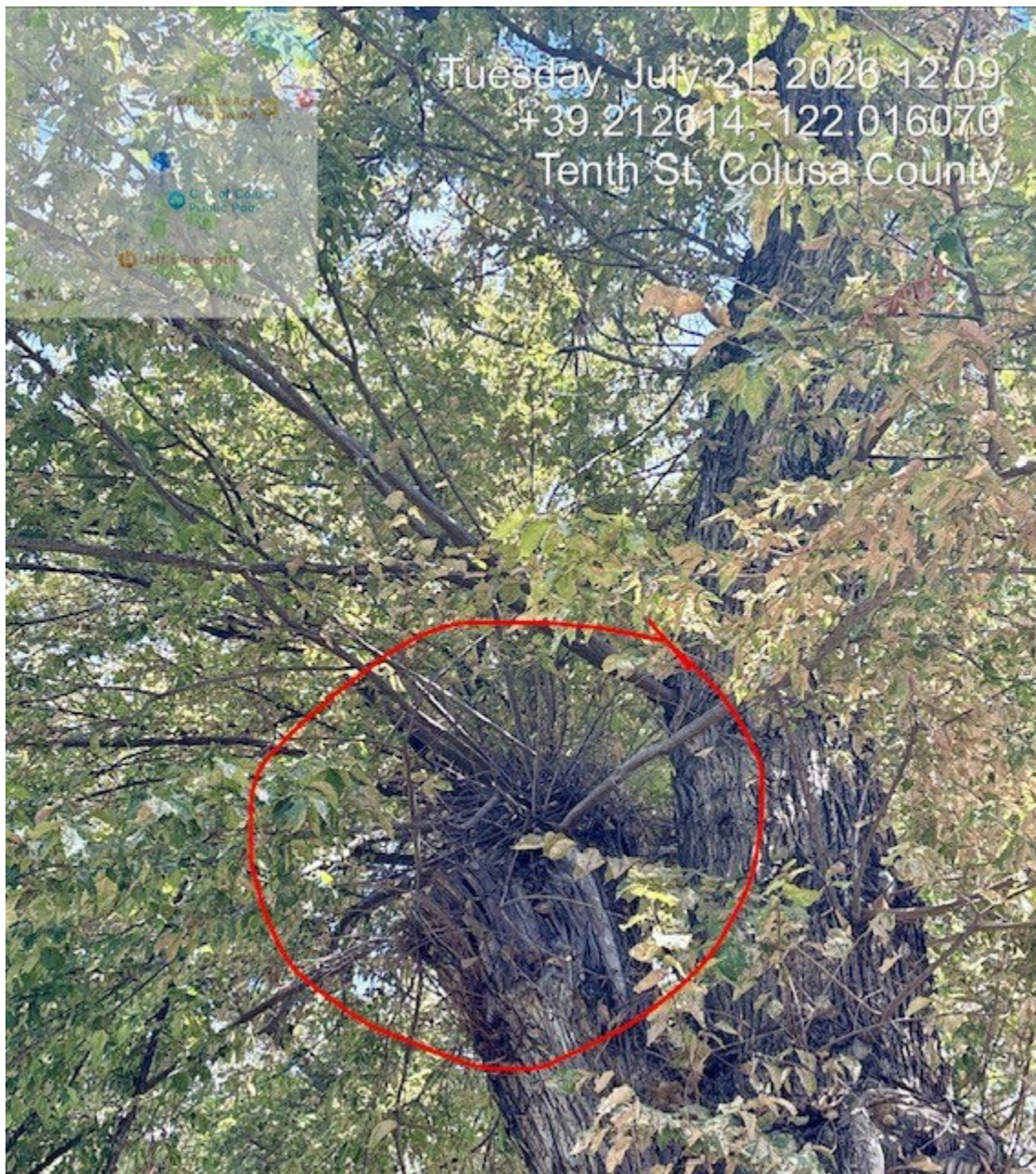
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Caltrans District 3



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