City of St. Helena
Regular City Council Meeting
Tuesday, January 26, 2021 @ 6:00 PM

In accordance with Executive Order N-29-20, and guidance from the California Department of Public Health on gatherings, remote public participation is allowed. We will address the Order in the following ways: Members of the public may not physically attend meetings. The City Council meeting will be live-streamed on Comcast Channel 28 and on the City's website, barring technical difficulties. Those members of the public wishing to participate must do so remotely via Zoom electronic meetings in the following ways; by either logging onto the Zoom link located on the meeting agenda (please download the app to your computer or mobile device) and enter the meeting ID or by calling a listed number and enter the meeting ID. Public comment for City Council meetings will be accepted via email to publiccomment@cityofsthelena.org. All public comments must be emailed by 4:00 PM prior to the meeting. Emailed public comments will not be read out loud but will be publicly available and attached to the on-line City Council agenda.

Please see the end of the agenda for detailed PUBLIC PARTICIPATION instructions. Spanish translation for this meeting will be offered. To access Spanish translation, you will need to join the meeting using the Zoom app from a computer, iPad or Iphone. You will see an icon on the screen that will allow you to choose Spanish translation. To learn how to use Zoom, please see the instructions below.

Please click the link below to join the meeting:
https://us02web.zoom.us/j/87020088572
Or iPhone one-tap :
US: +16699006833,,87020088572# or +12532158782,,87020088572#
Or Telephone:
Dial(for higher quality, dial a number based on your current location):
US: +1 669 900 6833 or +1 253 215 8782 or +1 346 248 7799 or +1 312 626 6799 or +1 929 205 6099 or +1 301 715 8592
Meeting ID: 870 2008 8572
International numbers available: https://us02web.zoom.us/u/kBZy0FqbU

PLEASE NOTE: Any person who wishes to speak regarding an item on the agenda or make a comment under the "Oral Communication" portion of the agenda may do so, but please observe the time limit of four minutes.

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Ciudad de Santa Helena Reunión Especial del Ayuntamiento Jueves, 26 de enero 2021 @ 6:00 PM

De acuerdo con las órdenes ejecutiva, N-29-20, y la orientación del Departamento de Salud Pública de California sobre reuniones, se permite la participación pública virtual. Seguiremos la Orden de la siguiente manera: Los miembros del público no pueden asistir físicamente a las reuniones. La reunión del Ayuntamiento de la Ciudad se transmitirá en vivo por el Canal 28 de Comcast y en el sitio web de la Ciudad, salvo dificultades técnicas. Aquellos miembros del público que deseen participar deben hacerlo de forma virtual a través de las reuniones electrónicas de Zoom de las siguientes maneras; iniciando sesión en el enlace Zoom ubicado
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en la agenda de la reunión (descargue la aplicación en su computadora o dispositivo móvil) e ingrese la ID de la reunión o llamando al número ubicado en la agenda e ingrese la ID de la reunión. Se aceptarán comentarios públicos para la reunión del Ayuntamiento por correo electrónico a publiccomment@cityofsthelena.org. Todos los comentarios públicos se harán públicos y se adjuntarán a la agenda y no se leerán en voz alta. Todos los comentarios públicos que se reciban después de las 4:00 PM se adjuntarán a la agenda al díasiguiente.

Consulte el final de la agenda para obtener instrucciones detalladas de PARTICIPACIÓNPÚBLICA. Se ofrecerá traducción al español para esta reunión. Para acceder a la traducción al español, deberá unirse a la reunión utilizando la aplicación Zoom desde una computadora, iPad o Iphone. Verá un icono en la pantalla que le permitirá elegir la traducción al español. Para aprender a utilizar Zoom, consulte las instrucciones a continuación.

Habrá traducción en español durante la junta
Haga clic en el enlace a continuación para participar en la reunión:
https://us02web.zoom.us/j/87020088572
O por iPhone one-tap: US: +16699006833,,87020088572# or +12532158782,,87020088572#
O por Teléfono: Marque(para mejor calidad, marque número basado en su ubicaciónactual):
US: +1 669 900 6833 or +1 253 215 8782 or +1 346 248 7799 or +1 312 626 6799 or +1 929 205 6099 or +1 301 715 8592
ID de la Reunión: ID: 870 2008 8572
Números Internacionales Disponibles: https://us02web.zoom.us/u/kBZy0FqbU
TENGA EN CUENTA: Cualquier persona que desee hablar sobre un tema en la agenda o hacer un comentario en la sección de "comentario público" de la agenda puede hacerlo, pero por favor observe el límite de tiempo de cuarto minutos.

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1. CALL TO ORDER
2. PLEDGE OF ALLEGIANCE
3. ROLL CALL
   Mayor: Geoff Ellsworth, Vice Mayor: Paul Dohring, City Council Members: Anna Chouteau, Eric Hall and Lester Hardy
4. PUBLIC FORUM:
   Members of the public are entitled to speak on matters of municipal concern not on the agenda during Public Forum. Each person's comments shall be limited to 4 minutes. Each person is entitled to speak on any non-agendized item only once at any meeting. Brief questions by Council Members for clarifications may be posed and answered, and Council Members may make requests that items be placed on future agendas, but in accordance with state law, no substantive discussion or action may take place unless and until the matter properly appears on the agenda.
5. REPORTS BY STAFF AND CITY COUNCIL, FUTURE AGENDA ITEMS, AND AB 1234 REPORTS:
   Reports by staff and/or Council Members on items of general interest. Brief questions for clarification may be posed and answered, and Council Members may request that items be placed on a future agenda. Except under certain

circumstances, the Brown Act prohibits any other discussion or action by the City Council.

6. PRESENTATIONS AND PUBLIC RECOGNITIONS

6.1. Dr. Karen Relucio, Deputy Director of Health and Human Services Agency - Public Health Officer to provide COVID 19 Update 15 - 42

Presentation

7. STAFF BRIEFING

7.1. Monthly water update by Erica Ahmann Smithies, Public Works Director and City Engineer

7.2. Update on Waste Water Treatment Plant Upgrade Project by Erica Ahmann Smithies, Public Works Director and City Engineer

8. CONSENT ITEMS

Members of the Council or the public may ask that any items be considered individually for purposes of considering alternative action, for extended discussion, or for public comment. Unless that is done, one motion may be used to adopt all recommended actions. (Roll Call Vote)

8.1. Consideration and proposed approval of Regular Meeting Minutes of December 8, 2020. (~~Minutes are forthcoming~~ Provided 1-22-20) 43 - 53

12-8-20 Regular City Council - Minutes

8.2. Consideration and proposed adoption of a resolution (1) authorizing the City Manager to execute Amendment No. 1 to STH Contract: FY 2019-028 in the amount of $52,500, to the Professional Services Agreement with Oscar Larson and Associates for designing CIP Projects: Tank 2 Rehabilitation W-101, Pump Station Upgrades W-106, and Rutherford Pump Station Upgrades W-110 for a total not-to-exceed amount of $197,690, and (2) authorize the transfer of $15,000 from Project W-101 Contingency to Project W-101 Design. 55 - 92

CEQA Determination: Exempt from the requirements of CEQA pursuant to Section 15301, Class 1, which exempts the operation, leasing, or minor alteration of existing facilities

Prepared By: Erica Ahmann Smithies, Public Works Director and City Engineer

Recommendation:

Staff recommends City Council adopt a Resolution (1) authorizing the City Manager to execute Amendment No. 1 to STH Contract: FY 2019-028 in the amount of $52,500, to the Professional Services Agreement with Oscar Larson and Associates for designing CIP Projects: Tank 2 Rehabilitation W-101, Pump Station Upgrades W-106, and Rutherford Pump Station Upgrades W-110 for a total not-to-exceed amount of $197,690 and (2) authorize the transfer of $15,000 from Project W-101 Contingency to Project W-101 Design.

Staff Report - Pdf

8.3. Consideration and proposed approval of a Resolution authorizing the waiver of certain development impact fees in an amount not to exceed $76,987.68 in order to accommodate a five-unit affordable housing project at 963 Pope Street in the Medium Density 93 - 97

Residential district.

CEQA Determination: Exempt
Prepared By: Aaron Hecock, Senior Planner
Recommendation:
Approval of a Resolution authorizing the waiver of certain development impact fees in an amount not to exceed $76,987.68 in order to accommodate a five unit affordable housing project at 963 Pope Street in the Medium Density Residential district.

Staff Report - Pdf

8.4. Consideration and Adoption of a Resolution: (1) awarding a Professional Services Agreement with Mintier Harnish Planning Consultants for preparation of the City's 2023-2031 6th Cycle Housing Element Update in an Amount Not-to-Exceed $228,024 and authorizing the City Manager to execute the agreement; (2) authorizing a budget increase of $49,012 to 101-4500-2145; (3) authorizing use of General Fund Reserves in an amount not-to-exceed $49,012; (4) authorizing a budget increase of $114,012 to 751-4500-2145; and (5) authorizing use of the Affordable Housing Trust Fund balance for an amount not-to-exceed $114,012. 99 - 176

CEQA Determination: Not a CEQA project
Prepared By: Aaron Hecock, Senior Planner
Recommendation:
Staff is recommending City Council approve Resolution (1) awarding a Professional Services Agreement with Mintier Harnish Planning Consultants for preparation of the City's 2023-2031 6th Cycle Housing Element Update in an Amount Not-to-Exceed $228,024 and authorizing the City Manager to execute the agreement; (2) authorizing a budget increase of $49,012 to 101-4500-2145; (3) authorizing use of General Fund Reserves in an amount not-to-exceed $49,012; (4) authorizing a budget increase of $114,012 to 751-4500-2145; and (5) authorizing use of the Affordable Housing Trust Fund balance for an amount not-to-exceed $114,012.

Staff Report - Pdf

8.5. Consideration and Proposed Approval of a Resolution: (1) authorizing an increase in the Downtown Sewer Lateral Improvement Program from an amount not-to-exceed $7,500 per sewer lateral connection to an amount not-to-exceed $15,000 per sewer lateral connection; (2) authorizing an increase in FY 2020-21 General Fund Expenses for an additional $202,500 for a total not-to-exceed amount of $405,000, (3) authorizing use of General Fund reserves for an additional amount of $202,500 for a total not-to-exceed amount of $405,000 to provide loans to downtown businesses as part of the Downtown Sewer Lateral Improvement Program; and (4) authorizing an update to the Improvement Financing Agreement increasing the amount to not-to-exceed $15,000 and requiring work be completed on or before July 31, 2021. 177 - 196

CEQA Determination: Not a CEQA project

Prepared By: April Mitts, Finance Director
Recommendation:
Staff recommends City Council adopt a resolution: (1) authorizing an increase in the Downtown Sewer Lateral Improvement Program from an amount not-to-exceed $7,500 per sewer lateral connection to an amount not-to-exceed $15,000 per sewer lateral connection; (2) authorizing an increase in FY 2020-21 General Fund Expenses for an additional $202,500 for a total not-to-exceed amount of $405,000, (3) authorizing use of General Fund reserves for an additional amount of $202,500 for a total not-to-exceed amount of $405,000 to provide loans to downtown businesses as part of the Downtown Sewer Lateral Improvement Program; and (4) authorizing an update to the Improvement Financing Agreement increasing the amount to not-to-exceed $15,000 and requiring work be completed on or before July 31, 2021.

Staff Report - Pdf

9. PUBLIC HEARINGS

9.1. None

10. OLD BUSINESS

10.1. Annual Elm Tree Tunnel Update and Presentation by HortScience, a division of Bartlett Consulting on (1) the updated Tree Risk Assessment which includes an Advanced Assessment of 30 Mature Elms and (2) a review of updated Elm Tree Management Plan — 197 - 385

CEQA Determination: Exempt
Prepared By: Martin Beltran, Management Analyst
Recommendation:
Review and provide direction to staff

Staff Report - Pdf

11. NEW BUSINESS

11.1. Consideration of Proposed Expansion of the Existing Redwood Forest at the Waste Water Treatment Plant and Direction to Staff — 387 - 431

CEQA Determination: This project is deemed exempt under 15304: Minor Alterations to Land and Common Sense Exemption: 15061(b)(3)
Prepared By: Preya Nixon, Asst. to the City Manager
Recommendation:
Provide feedback on the proposed expansion of the existing Redwood Forest at the Waste Water Treatment Plant, including, if there is City Council support, direction to the City Manager to develop and advance any necessary implementation steps.

Staff Report - Pdf
Public Comment.Madelyn Chandler
Public Comment.Mary Wilson
Public Comment.Dave Whitmer
Public Comment.LYNN MIRASSOU

11.2. Request for City Council participation in Zoning Code Update — 433 - 508

Subcommittee

CEQA Determination: Not a CEQA project
Prepared By: Maya DeRosa, Planning & Building Director
Recommendation:
Pass a Motion appointing two City Council members to serve on the Zoning Code Update AdHoc Subcommittee.
Staff Report - Pdf

12. ITEMS LIKELY TO BE PLACED ON THE NEXT OR FUTURE MEETING AGENDA:

12.1.

February City Council Meetings: **2/9 (Staff reports due 1/22)** **2/23 (Staff reports due 2/5)**
Presentation
2/23 - 4pm Impact fee study discussion
STAFF BRIEFING:
2/9 & 2/23 Update on Waste Water Treatment Plant Upgrade Project by Erica Ahmann Smithies, Public Works Director and City Engineer
2/23 Monthly Water Update
2/9 City Manager COVID Update
CONSENT:
2/9 - Fire Department - Approving Sale of Surplus Apparatus (Rescue-17)
TBD - Glass fire termination of emergency
2/23 Interpretation Services contract
2/9 Generator – Water Treatment Plant (Check with Erica)
2/9 PLC Software Update at Water Treatment Plant
2/9 Hydroscience PSA for purple pipeline
2/23 Lisa Wise contract amendment - inclusionary housing ordinance
2/9 NVTA Bus charging station
2/23 Vintage Hall agreement amendment
PH or OLD / NEW BUSINESS:
OB 2/9 Scout Hall Agreement
2/9 2nd Qrtly Grant Report
PH 2/23 2018-5 Ordinance amendment
2/9 Mid Year Budget Review
PH 2/23 - CDBG 2021 NOFA Grant discussion-planning technical assistance

13. ADJOURNMENT
The next Regular City Council meeting is scheduled for February 9, 2021.

I do hereby certify that a copy of the foregoing agenda was posted on the City website on January 20, 2021

Cindy Tzafopoulos, City Clerk

In Compliance with the Americans with Disabilities Act, if you need special assistance to participate in this meeting, please call the City Clerk's Office (707) 967-2792. Notification 72 hours prior to the meeting as required by Section 202 of the Americans with Disabilities Act will enable the City to make reasonable arrangements to ensure accessibility to this meeting

CHALLENGING DECISIONS OF CITY ENTITIES

The time limit within which to commence any lawsuit or legal challenge to any quasi-adjudicative decision made by the City of St. Helena is governed by Section 1094.6 of the Code of Civil Procedure, unless a shorter limitation period is specified by any other provision, including without limitation Government Code section 65009 applicable to many land use and zoning decisions, Government Code section 66499.37 applicable to the Subdivision Map Act, and Public Resources Code section 21167 applicable to the California Environmental Quality Act (CEQA). Under Section 1094.6, any lawsuit or legal challenge to any quasi-adjudicative decision made by the City must be filed no later than the 90th day following the date on which such decision becomes final. Any lawsuit or legal challenge, which is not filed within that 90-day period, will be barred. Government Code section 65009 and 66499.37, and Public Resources Code section 21167, impose shorter limitations periods and requirements, including timely service in addition to filing.

If a person wishes to challenge the above actions in court, they may be limited to raising only those issues they or someone else raised at the meeting described in this notice, or in written correspondence delivered to the City of St. Helena, at or prior to the meeting. In addition, judicial challenge may be limited or barred where the interested party has not sought and exhausted all available administrative remedies.

SUPPLEMENTAL MATERIAL RECEIVED AFTER THE POSTING OF THE AGENDA

Any supplemental writings or documents distributed to a majority of the City Council regarding any item on this Agenda, after the posting of the Agenda, will be available for public review in the City Clerk's Office located at 1480 Main Street, St. Helena, California, during normal business hours. In addition, such writings or documents will be made available on the City's web site at https://sthelena.civicweb.net and will be available for public review at the respective meeting.

THE CITY OF ST. HELENA ENCOURAGES ONLINE PUBLIC PARTICIPATION IN VIRTUAL CITY COUNCIL MEETINGS

St. Helena, CA– The City of St. Helena is committed to public participation in City government in a manner that is consistent with guidance provided by the Napa County Public Health Official and Governor Newsom's Executive Order N-25-20. These guidelines relate to social distancing, and are intended to protect everyone by limiting the spread of COVID-19 in our community. In adherence to these guidelines, the St. Helena City Council will host a Virtual Council Meeting on Zoom; a free teleconferencing tool that enables users to watch and/or call into the meeting from their computers or phones. This meeting will be open to public and allows for live public comment. The meeting will also be recorded, livestreamed, and posted on the City's website after the

adjournment of the meeting if technical difficulties occur: https://sthelena.civicweb.net/Portal/

The ZOOM web link, meeting ID, and phone number will be listed at the top of the City Council Meeting Agenda. You will be required to enter the meeting ID, but there will be no password or participant ID.

How to Watch or Listen to Council Meetings:

1. Watch on Comcast Channel 28
2. Watch the livestreaming video on the City's website
3. Watch and Listen on Zoom.us by clicking on the link in the Council Agenda
4. Listen only by calling the Zoom number listed on the Council Agenda

Watch Council Meeting by Joining the Zoom Meeting:

1. **By Computer, Tablet, or Smart Phone:**
1. Before joining the virtual City Council Meeting, it is highly encouraged that you download the Zoom App. To sign up for your own free account, visit zoom.us/signup and enter your email address. You will receive an email from Zoom (no-reply@zoom.us). In this email, click Activate Account.
2. If you are logged into your account, Enter the **Meeting ID** listed on the City Council Agenda. If you have not created an account go to: https://zoom.us/join and enter the **Meeting ID**
3. Select if you would like to connect audio and/or video and tap **Join Meeting**.
4. For specific instructions for your device, go to: https://support.zoom.us/hc/en-us/articles/201362193-Joining-a-Meeting

1. **Listen Only by Telephone:**
1. **Dial** the number listed on the Council Agenda.
2. At the prompt, enter the **Meeting ID** provided on the top of the City Council Meeting Agenda and **Press #. A participate ID is not required.**
3. To disconnect from the meeting, hang up the phone.

Ways to Provide Public Comment:

While attending the virtual City Council Meeting, the public will have the opportunity to provide live public comment during Public Forum and after each agenda item. When it is the appropriate time for public comment the Mayor will verbally open public comment. At this time each individual is permitted 4 minutes to speak.

1. **Send a Public Comment in by 4:00 PM Prior to the Meeting to:** publiccomment@cityofsthelena.org

The easiest way to provide public comment is to email your public comment. Public comments may be emailed to publiccomment@cityofsthelena.org. Please include in the subject line "COMMENT TO COUNCIL and the AGENDA ITEM". Any public comment is required to be submitted no later than 2 hours before the scheduled meeting and will be included as an attachment to the agenda. All public comments will be made publicly available and attached to the agenda item and will not be read out loud. All public comments that are received after 4:00 PM will be attached to the agenda the following day.

2. **Provide Comment through Zoom meeting from a computer, tablet, or smart phone**

This option allows the public to virtually attend the meeting as a muted 'attendee' with no video or screen sharing capabilities. You will be able to see and hear those participating in the meeting, but they will not be able to hear you until the host unmutes you.

If you wish to provide public comment during a specific agenda item or during public forum, you can use the **"raise hand"** feature located in the control panel at the bottom of your screen. The icon is a small blue hand. In Windows you can also use the Alt+Y keyboard shortcut to raise or lower your hand. In Mac you can also use the Option+Y keyboard shortcut to raise or lower your hand.

The host will be notified that you've raised your hand and you will be placed in a queue with all incoming requests.
When it is your turn to speak, you will be notified that the host has unmuted you. To be removed from the queue, just click the '**raise hand'** button again.

3. **Call in to the ZOOM meeting from a cell phone or landline phone only**
This option allows the member of the public with the opportunity to verbally participate in public comment.

If you wish to speak during public comment time dial ***9** on your telephone.

The host will be notified that you would like to speak and you will be placed in a queue with all incoming requests.

When it is your turn to speak, you will be notified that the host has unmuted you. You may press ***9** again if you wish to be removed from the queue.

You will be notified at the end of your statement that you have been muted.

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En cumplimiento de la Ley de Estadounidenses con Discapacidades, si necesita asistencia especial para participar en esta reunión, llame a la Oficina del Secretaría de la Ciudad (707) 967-2792. La notificación 72 horas antes de la reunión, como lo requiere la Sección 202 de la Ley de Estadounidenses con Discapacidades, permitirá a la Ciudad hacer arreglos razonables para garantizar la accesibilidad a esta reunión.

LA CIUDAD DE ST. HELENA ALIENTA LA PARTICIPACIÓN PÚBLICA EN LÍNEA EN REUNIONES VIRTUALES DEL CONSEJO DE LA CIUDAD

St. Helena, CA– La Ciudad de St. Helena está comprometida con la participación pública en el gobierno de la Ciudad de manera que sea consistente con la guía proporcionada por el Oficial de Salud Pública del Condado de Napa y la Orden Ejecutiva N-25-20 del Gobernador Newsom. Estas pautas se relacionan con el distanciamiento social y están destinadas a proteger a todos al limitar la propagación de COVID-19 en nuestra comunidad. En cumplimiento de estas pautas, el Ayuntamiento de St. Helena organizará una Reunión del Consejo Virtual sobre Zoom; Una herramienta de teleconferencia gratuita que permite a los usuarios mirar y / o llamar a la reunión desde sus computadoras o teléfonos. Esta reunión estará abierta al público y permite comentarios públicos en vivo. La reunión también se grabará, se transmitirá en vivo y se publicará en el sitio web de la Ciudad después de la clausura de la reunión si se presentan dificultades técnicas: https://sthelena.civicweb.net/Portal/

El enlace web de ZOOM, la identificación de la reunión y el número de teléfono se enumerarán en la parte superior de la Agenda de la reunión del Ayuntamiento. Se le pedirá
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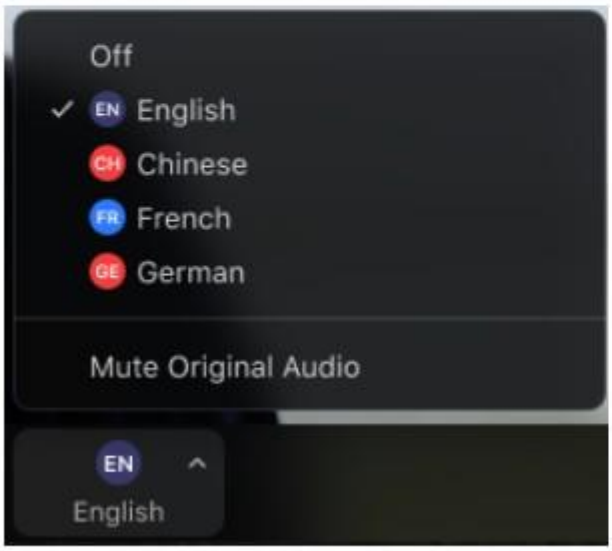
que ingrese la ID de la reunión, pero no habrá contraseña ni ID de participante.

Cómo escuchar la interpretación de un idioma

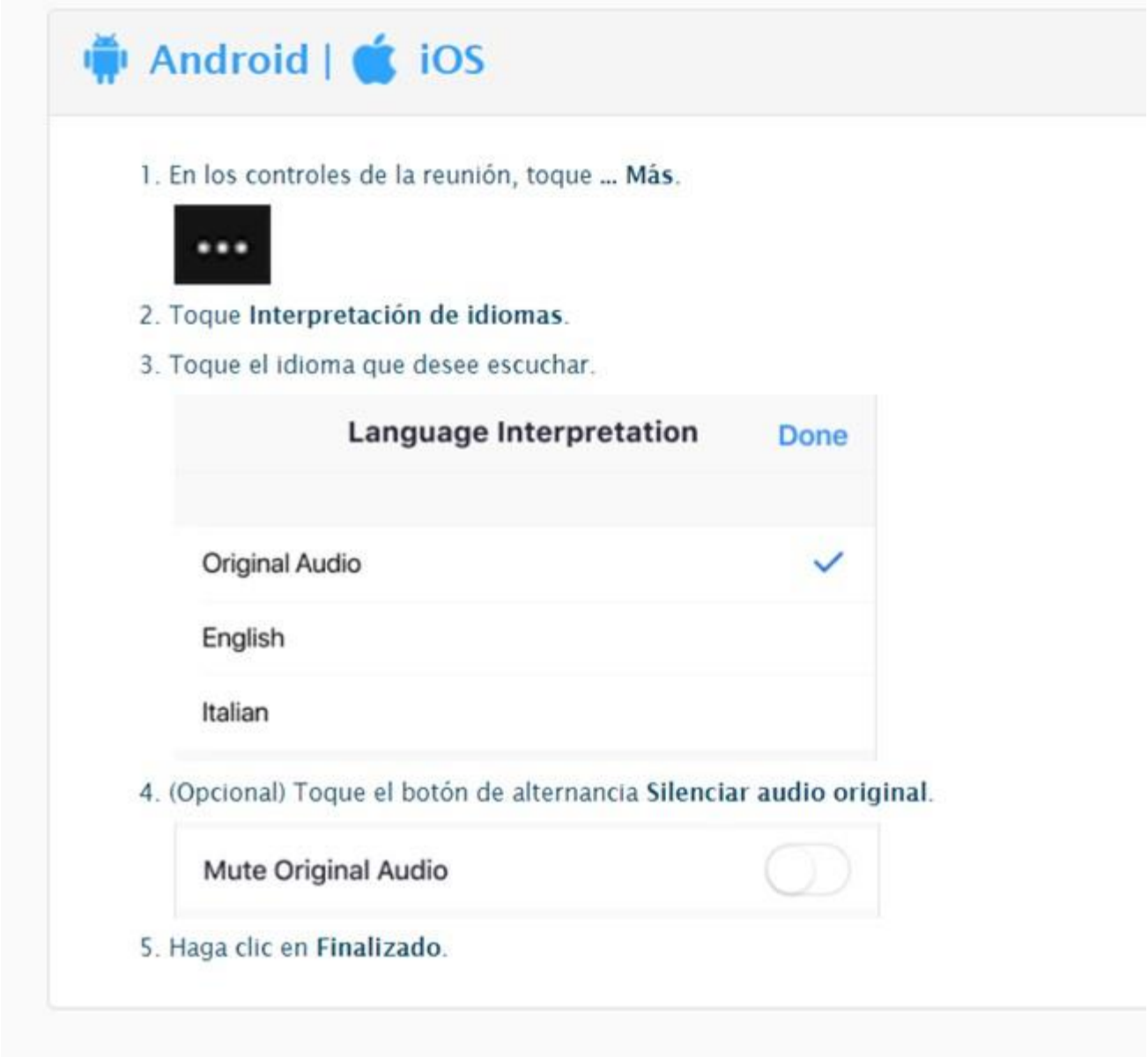
Windows | macOS

1. En los controles de la reunión o el seminario web, haga clic en **Interpret**

2. Haga clic en el idioma que desee escuchar.



3. (Opcional) Para escuchar solo el idioma interpretado, haga clic en **Silenc**



Cómo ver o escuchar las reuniones del Consejo:

1. Veala a través del canal 28 de Comcast
2. Vea el video de transmisión en vivo en el sitio web de la ciudad
3. Mire y escuche en Zoom.us haciendo clic en el enlace en la Agenda del Consejo
4. Escuche llamando al número de Zoom listado en la Agenda del Consejo

Vea la reunión del Consejo uniéndose a la reunión Zoom:

1. **Por computadora, tableta o teléfono:**

a. Antes de unirse a la reunión virtual del Ayuntamiento, le recomendamos que descargue la aplicación Zoom. Para registrarse en su propia cuenta gratuita, visite zoom.us/signup e ingrese su dirección de correo electrónico. Recibirá un correo electrónico de Zoom (no-reply@zoom.us) . En este correo electrónico, haga clic en Activar cuenta.
b. Si ha iniciado sesión en su cuenta, ingrese la ID de la reunión que figura en la Agenda del Ayuntamiento. Si no ha creado una cuenta, vaya a: https://zoom.us/join e ingrese la ID de la reunión
c. Seleccione si desea conectar audio y / o video y toque Unirse a la reunión. re. Para

obtener instrucciones específicas para su dispositivo, vaya a: https://support.zoom.us/hc/en-us/articles/201362193-Joining-a-Meeting

2. **Escuche solo por teléfono:**

a. **Marque** el número que figura en la Agenda del Consejo.
b. Cuando se le solicite, ingrese la **ID de la reunión** provista en la parte superior de la Agenda de la reunión del Concejo Municipal **y presione #. No se requiere una identificación de participación.**
c. Para desconectarse de la reunión, cuelgue el teléfono

Formas de proporcionar comentarios públicos:
Mientras asiste a la reunión virtual del Ayuntamiento, el público tendrá la oportunidad de proporcionar comentarios públicos en vivo durante el Foro Público y después de cada tema de la agenda. Cuando sea el momento apropiado para comentarios públicos, el Alcalde abrirá verbalmente los comentarios públicos. En este momento, cada individuo tiene permitido 4 minutos parahablar.

1. Envíe un comentario público por adelantado a publiccomment@cityofsthelena.org
La forma más fácil de proporcionar comentarios públicos es enviar su comentario público por correo electrónico. Los comentarios públicos pueden enviarse por correo electrónico a publiccomment@cityofsthelena.org.Incluya en la línea de asunto "COMENTARIO AL CONSEJO y el PUNTO DEL PROGRAMA". Cualquier comentario público debe presentarse a más tardar 2 horas antes de la reunión programada y se incluirá como un archivo adjunto a la agenda. Todos los comentarios públicos se harán públicos y se adjuntarán al articulo de la agenda y no se leerán en voz alta. Todos los comentarios públicos que se reciban después de las 4:00 PM se adjuntarán a la agenda al día siguiente.

- 2. Proporcione comentarios a través de la reunión Zoom desde una computadora, tableta o teléfono inteligente

Esta opción permite que el público asista virtualmente a la reunión como un "asistente" silenciado sin capacidades de video o pantalla compartida. Podrá ver y escuchar a los participantes en la reunión, pero no podrán escucharlo hasta que el anfitrión de permisio.

Si desea proporcionar comentarios públicos durante un elemento específico de la agenda o durante un foro público, puede usar la función "levantar la mano" ubicada en el panel de control en la parte inferior de la pantalla. El icono es una pequeña mano azul. En Windows también puede usar el atajo de teclado Alt + Y para subir o bajar la mano. En Mac también puedes usar el atajo de teclado Alt + Y para subir o bajar lamano**.**

Se le notificará al anfitrión que ha levantado la mano y se lo colocará en fila con todas las solicitudes entrantes

Cuando sea su turno de hablar, se le notificará que el anfitrión le ha dado permiso de hablar. Para ser retirado de la fila, simplemente haga clic de nuevo el botón “levantar la mano”.

3. **Llame a la reunión de ZOOM desde un teléfono fijo o móvil solamente**

Esta opción le permite al miembro del público la oportunidad de participar verbalmente en comentarios públicos.

Si desea hablar durante el tiempo de comentarios públicos, marque * 9 en su teléfono.

Se le notificará al anfitrión que le gustaría hablar y se colocará en fila con todas las solicitudes entrantes.

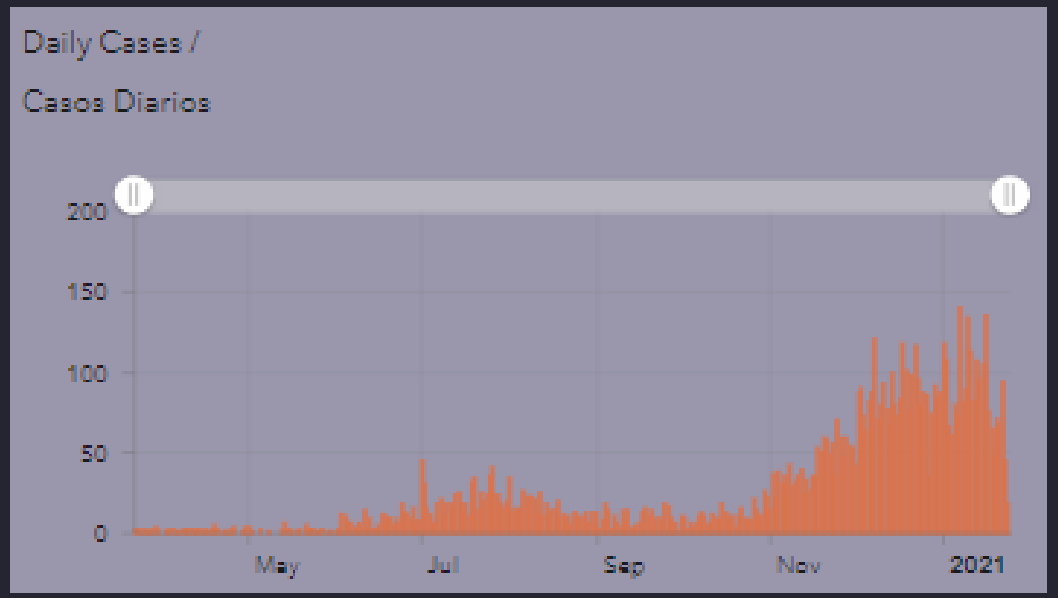
Cuando sea su turno de hablar, se le notificará que el anfitrión le ha dado permiso de hablar. Puede presionar * 9 nuevamente si desea ser eliminado de la fila.

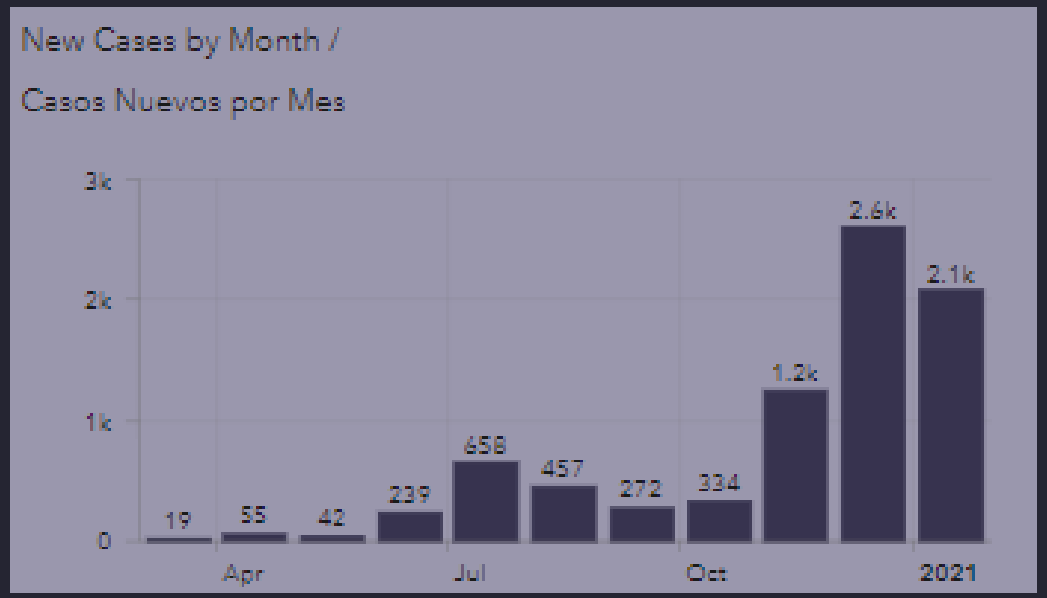
COVID-19 (SARS-CoV-2) UPDATES

January 26, 2021

Karen Relucio, MD
Public Health Officer
Deputy Director of HHSA

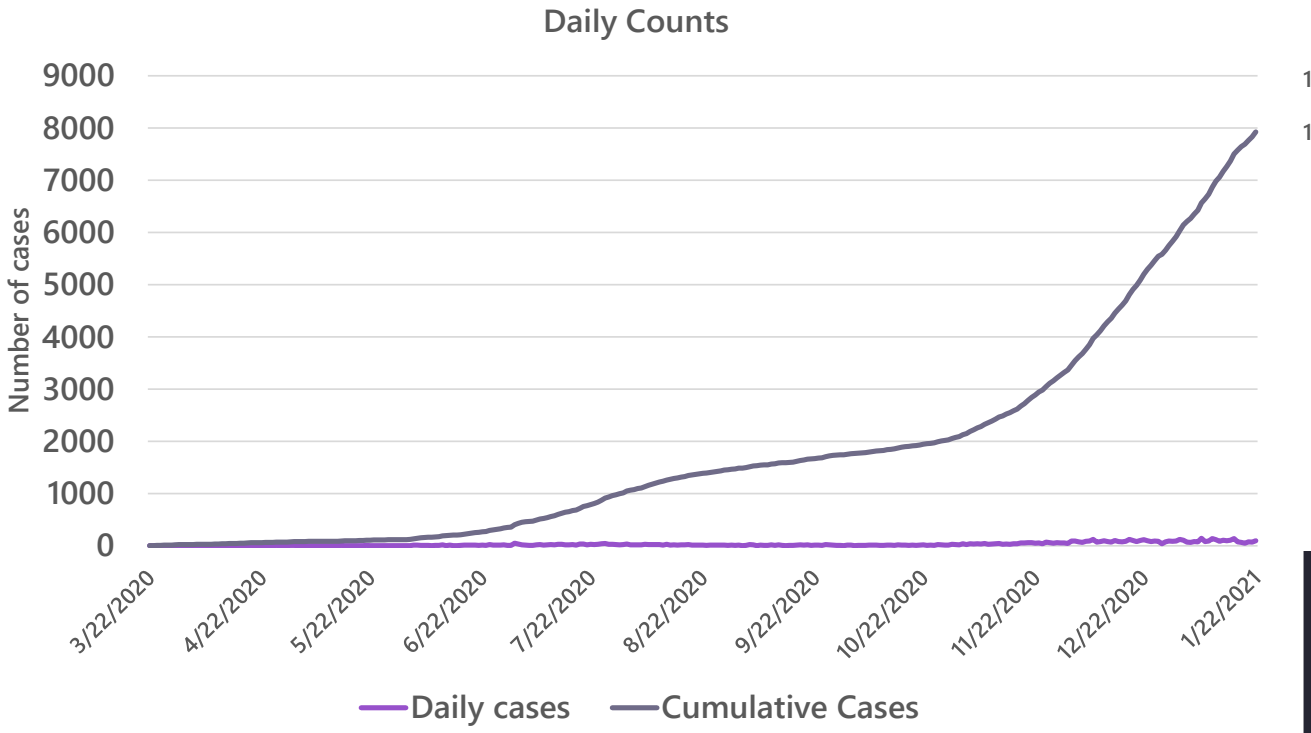
CASE TIME TRENDS

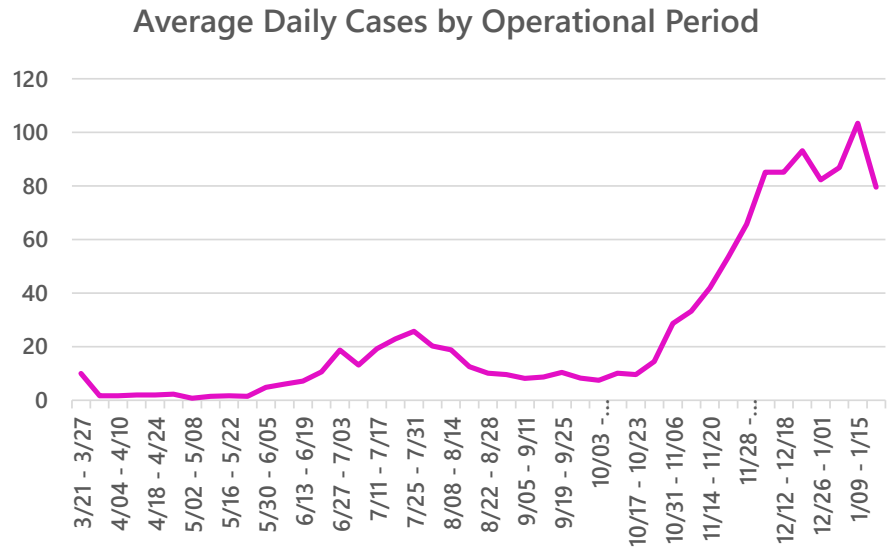




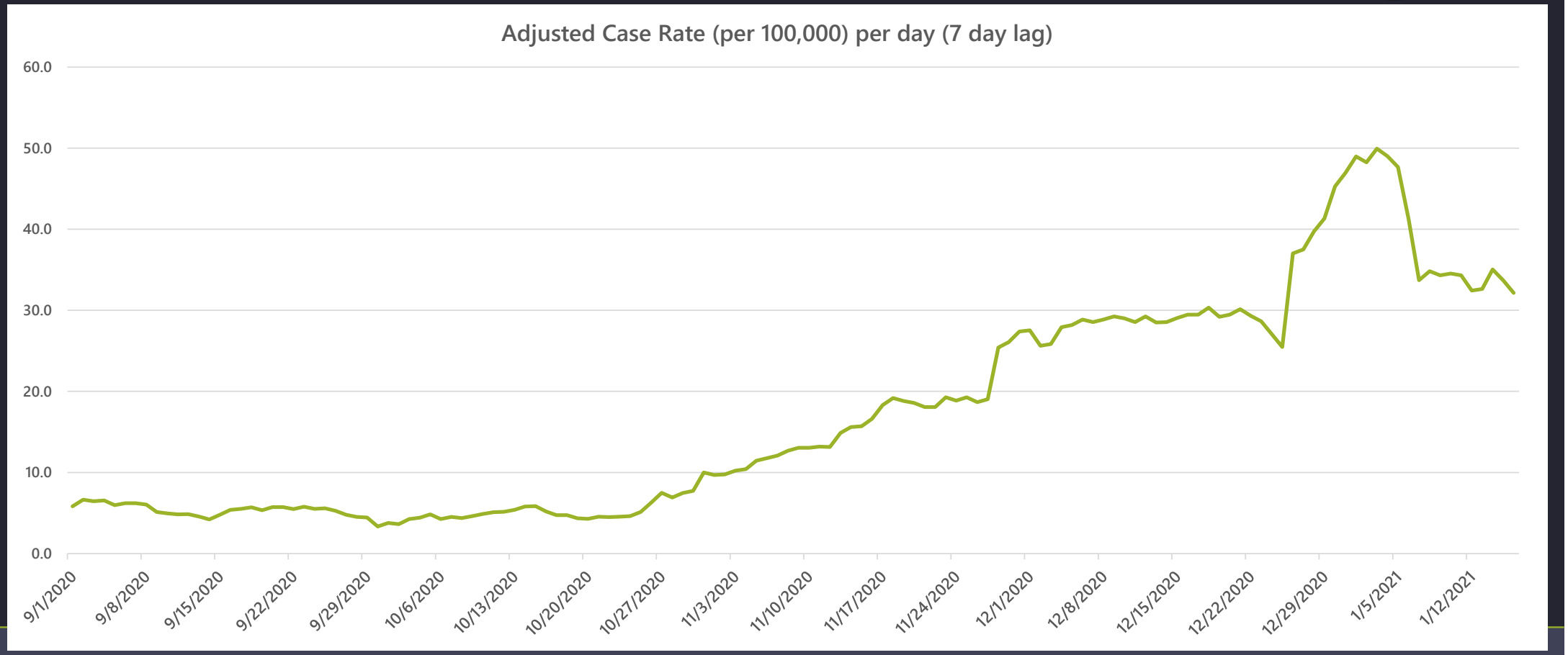
*Based on lab result date

CASE COUNT CURVE

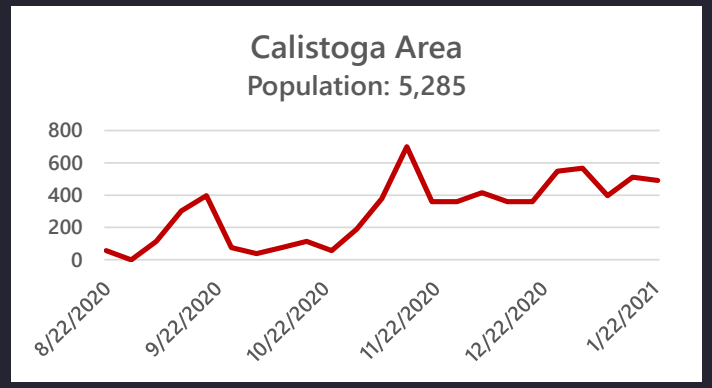


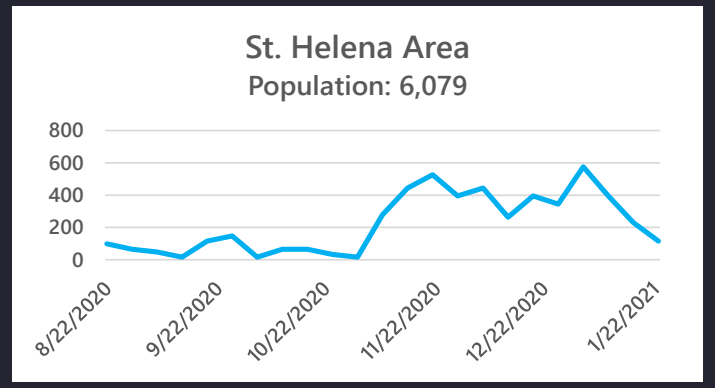


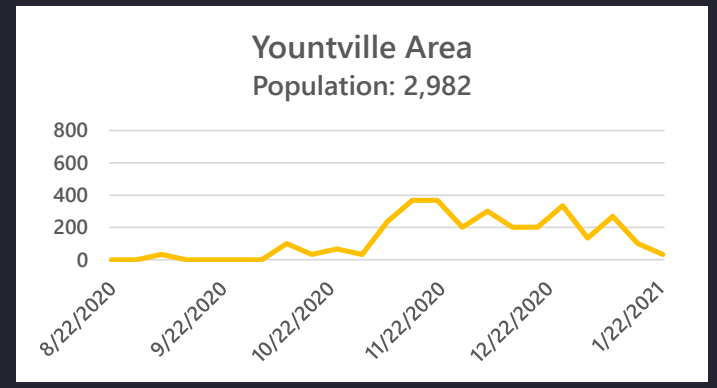
CASE RATES

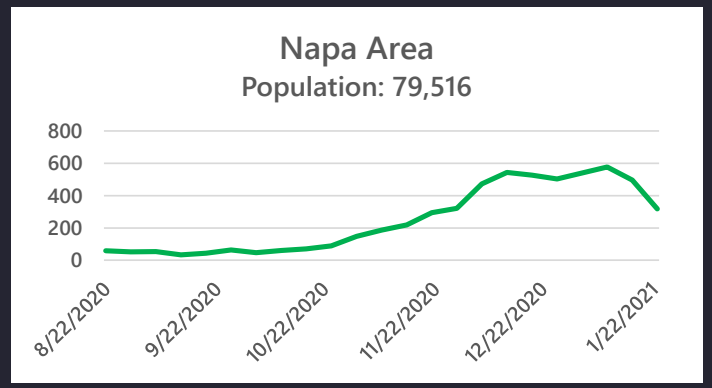

Adjusted Case Rate (per 100,000) per day (7 day lag)
60.0
50.0
40.0
30.0
20.0
10.0
0.0
9/1/2020
9/8/2020
9/15/2020
9/22/2020
9/29/2020
10/6/2020
10/13/2020
10/20/2020
10/27/2020
11/3/2020
11/10/2020
11/17/2020
11/24/2020
12/1/2020
12/8/2020
12/15/2020
12/22/2020
12/29/2020
1/5/2021
1/12/2021

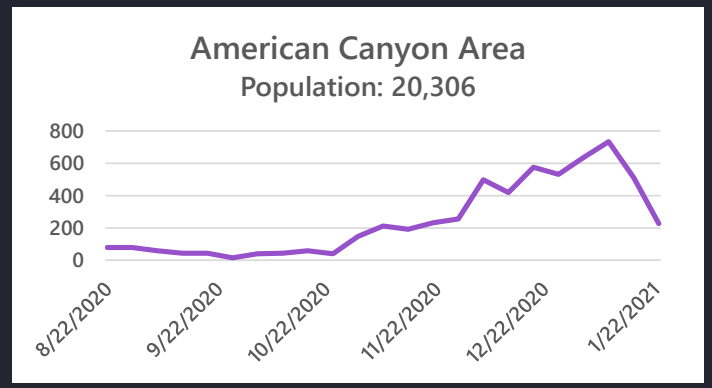
WEEKLY CASE RATE (PER 100,000) BY AREA





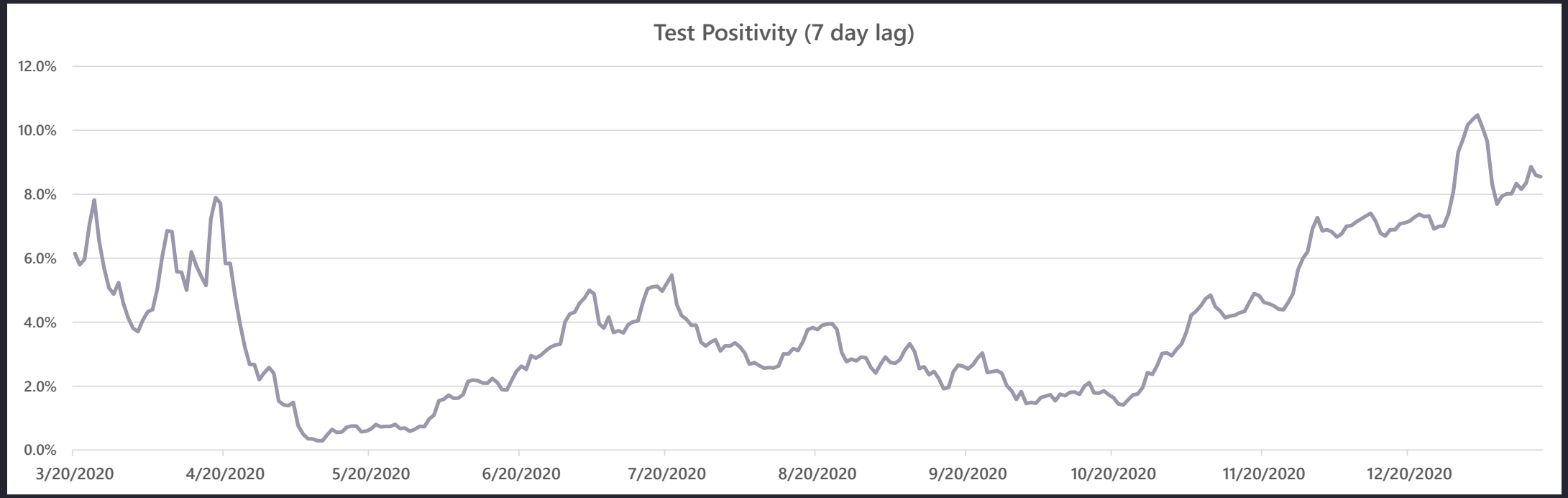




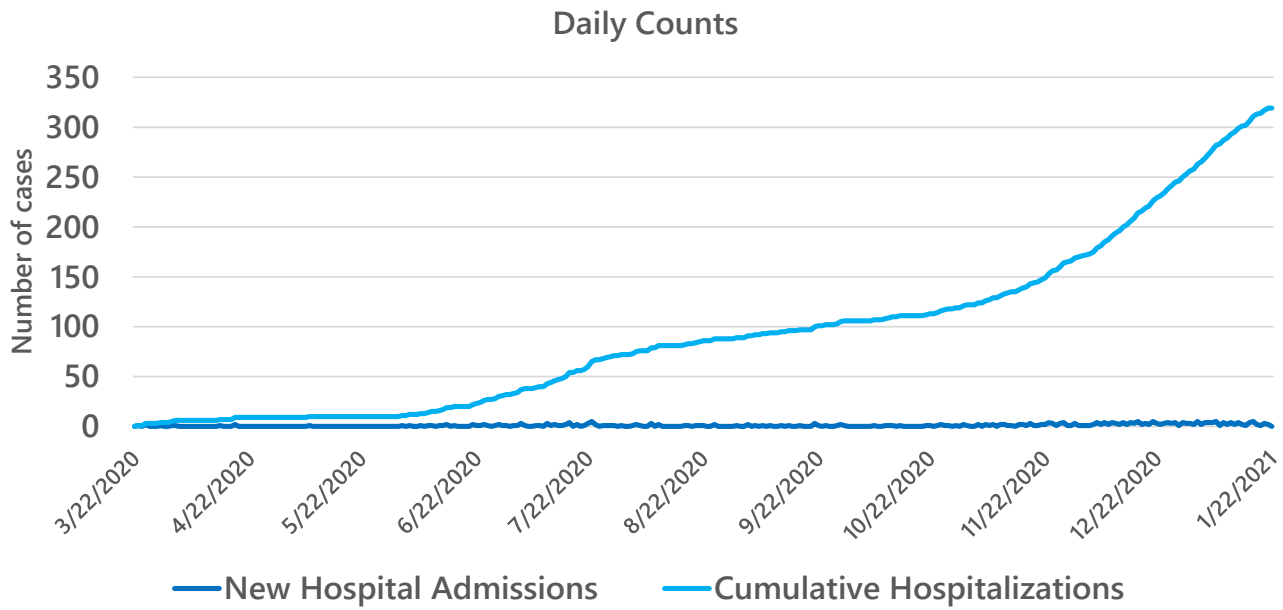


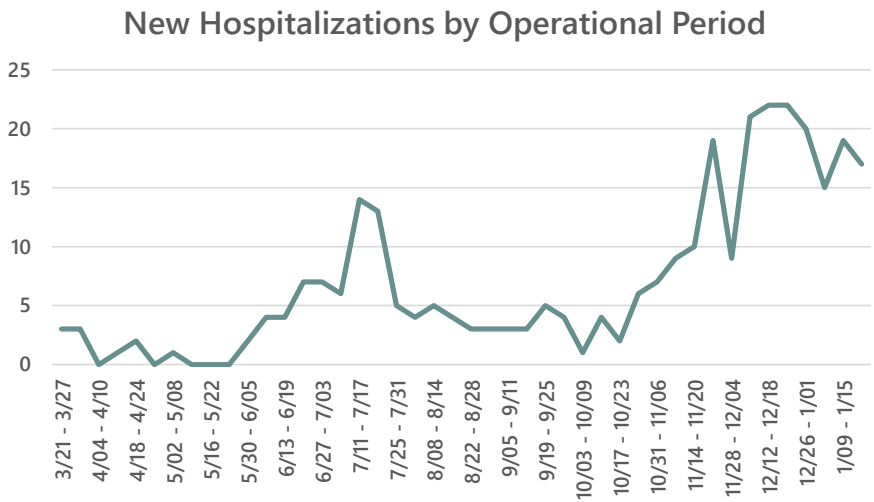
*Rates are estimates based on city address

TEST POSITIVITY

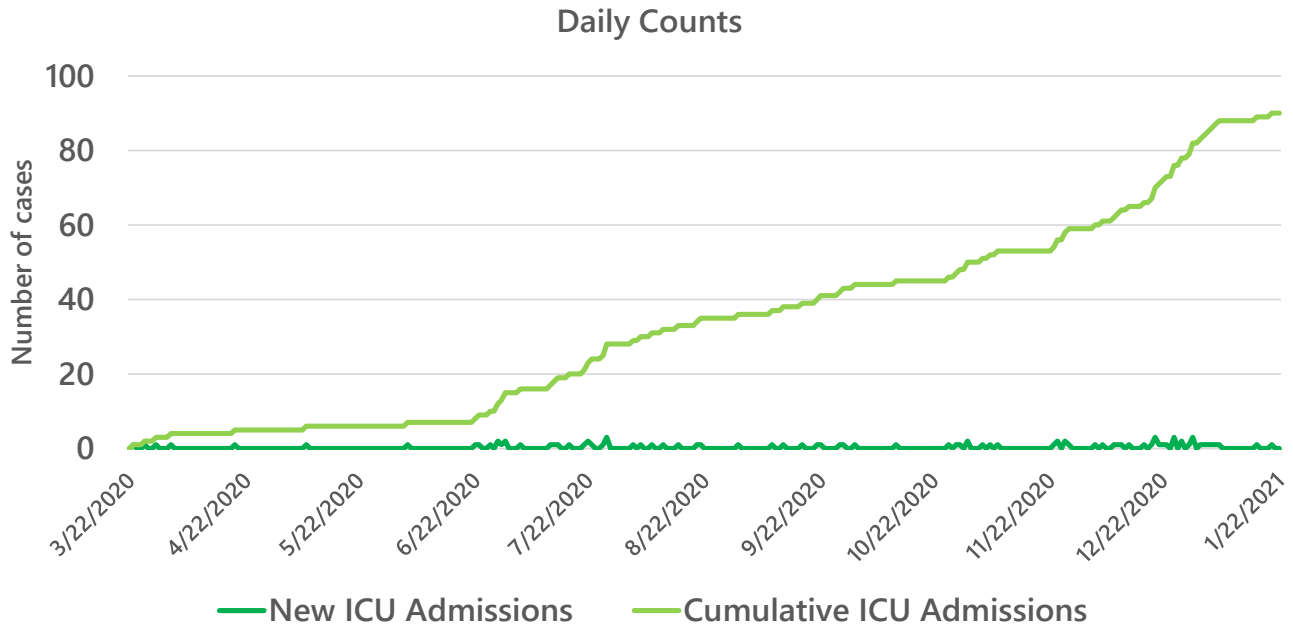


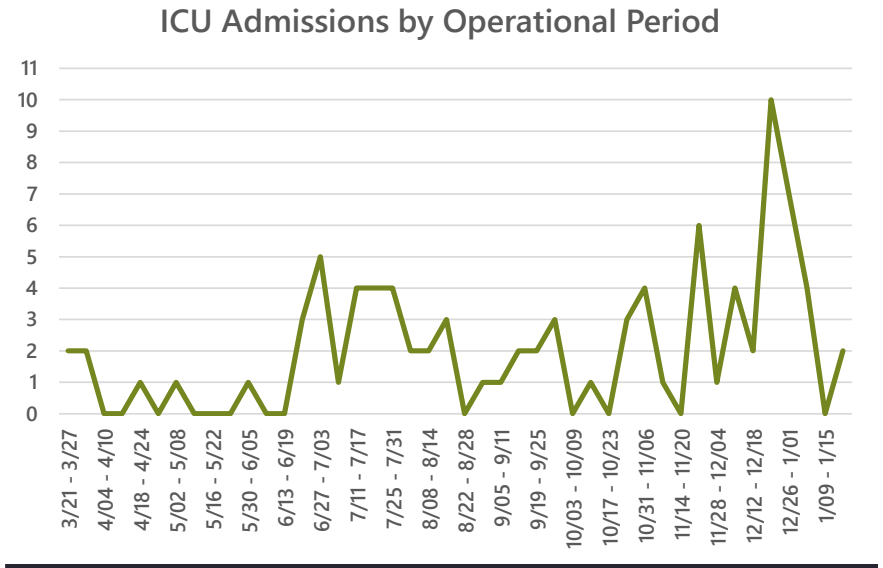
HOSPITALIZATION TRENDS



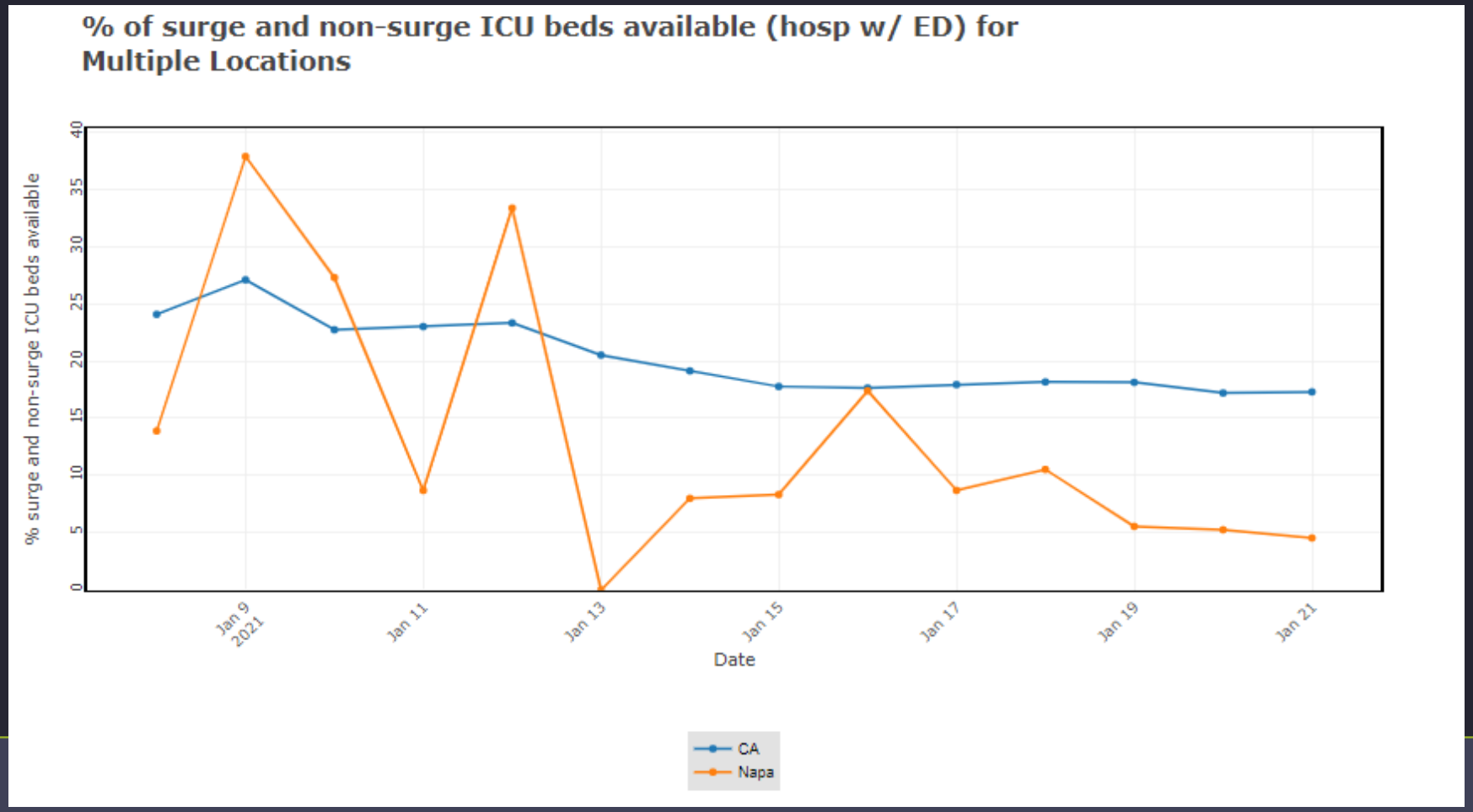


ICU ADMISSION TRENDS

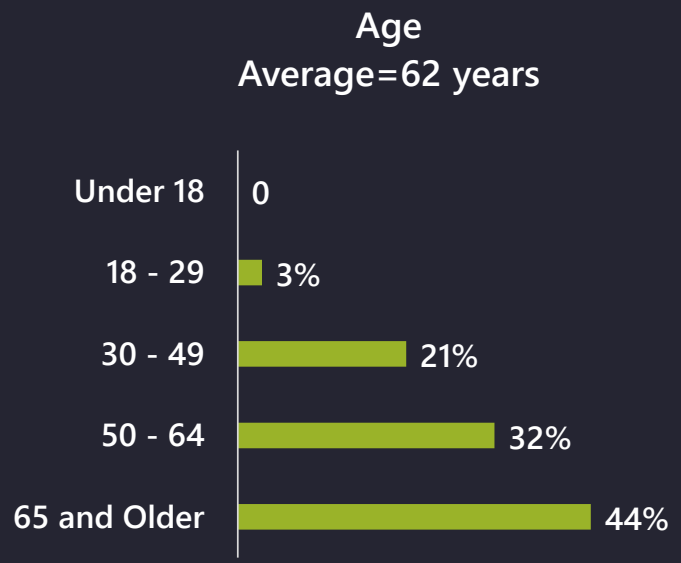


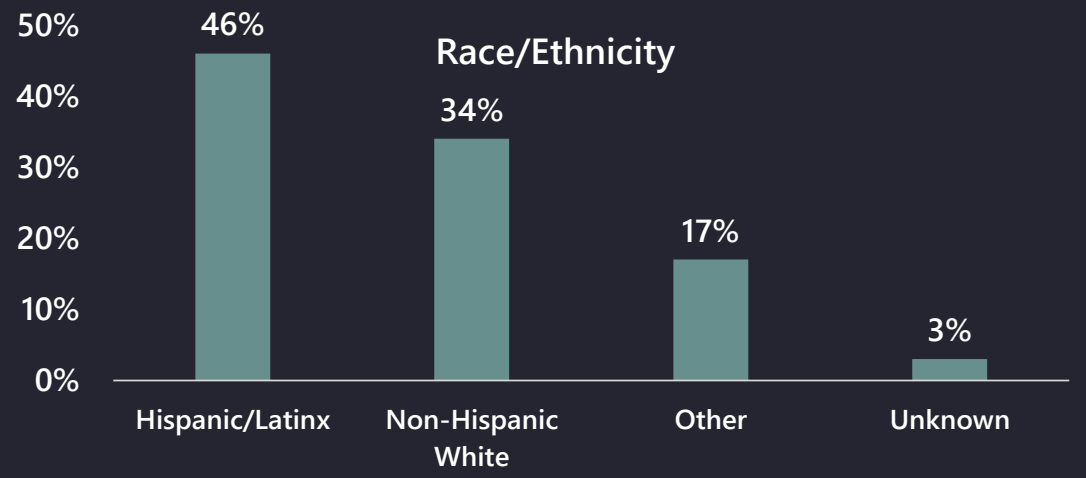


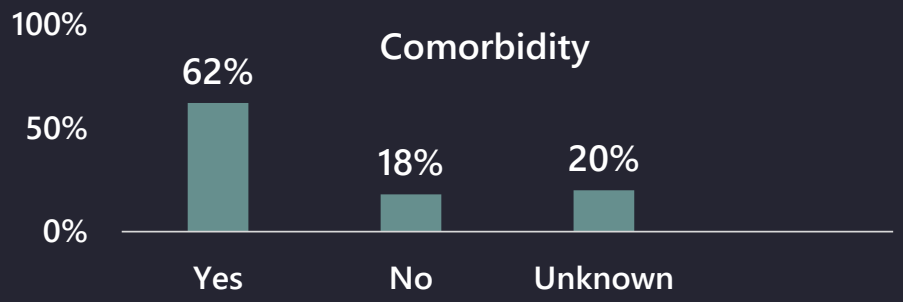
PERCENT OF ICU BEDS AVAILABLE

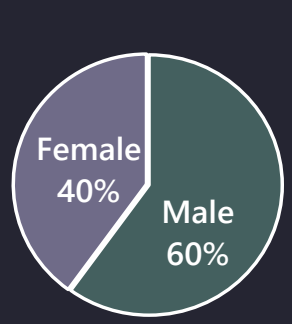


COVID-19 HOSPITALIZATION DEMOGRAPHICS







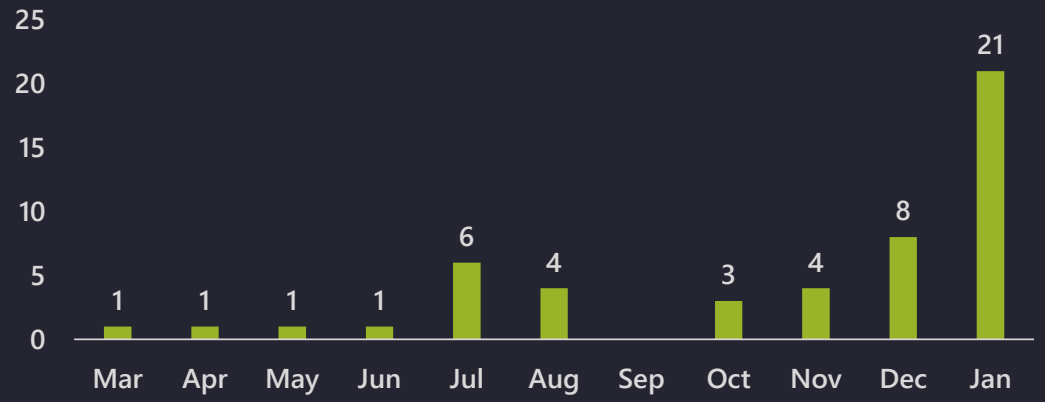


Unknown includes cases still under investigation.

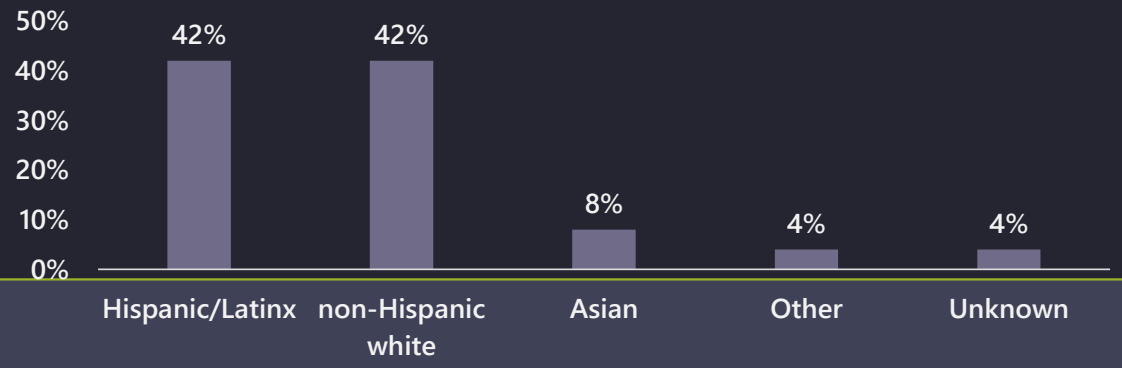
Total hospitalizations=320

DEATHS

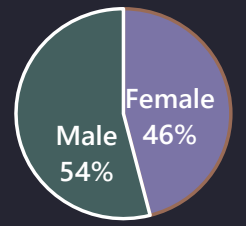
- 50 people have died of COVID-19 since March



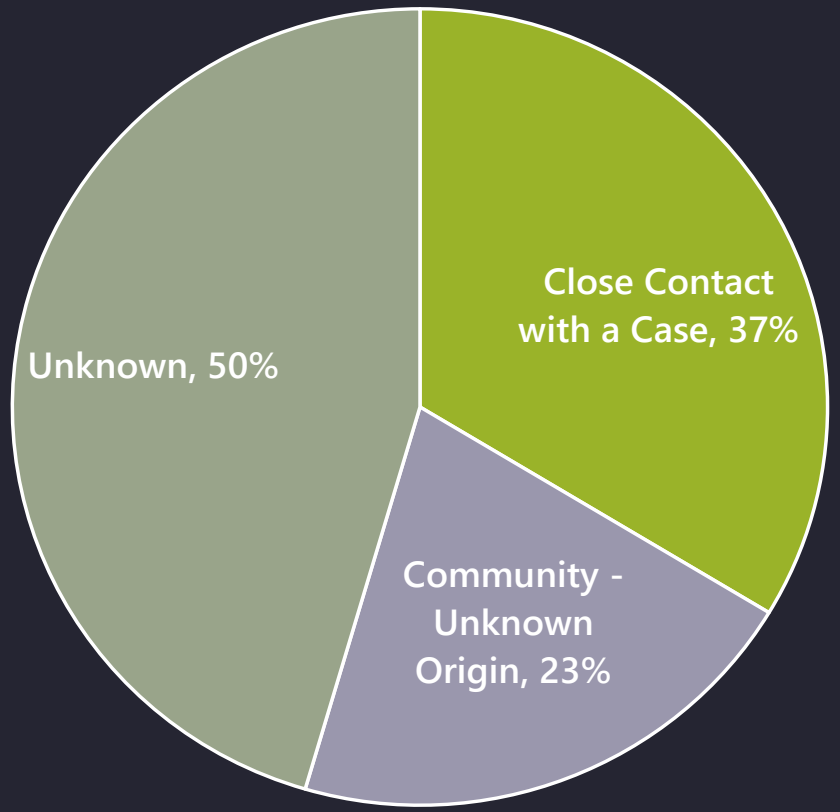
- Average age at death was 76 years (range 43 – 98 years)
- Race/ethnicity



Gender



TYPES OF EXPOSURE – LAST TWO WEEKS



Household was the most common type of close contact

Preliminary data. Unknown includes cases still under investigation, unable to reach or refused to answer

OUTBREAKS AND COHORT CLOSURES

Congregate Facility	Staff	Residents	Projected End Date
Assisted Living/Senior Care 1	5	15	1/25/21
Assisted Living/Senior Care 2	4	10	2/18/21
Assisted Living/Senior Care 3	12	13	2/5/21
Assisted Living/Senior Care 4	2	3	2/17/21
Assisted Living/Senior Care 5	5	3	1/12/21
Skilled nursing facility 1	199	145	2/18/21
Skilled nursing facility 2	8	8	2/8/21
Skilled nursing facility 3	51	36	2/16/21
Skilled nursing facility 4	21	3	2/16/21
Skilled nursing facility 5	40	46	2/1/21
Memory care facility 1	18	7	2/4/21
Memory care facility 2	18	2	2/11/21
Behavioral Health	28	39	2/2/21
Other Congregate Facility	10	6	2/17/21

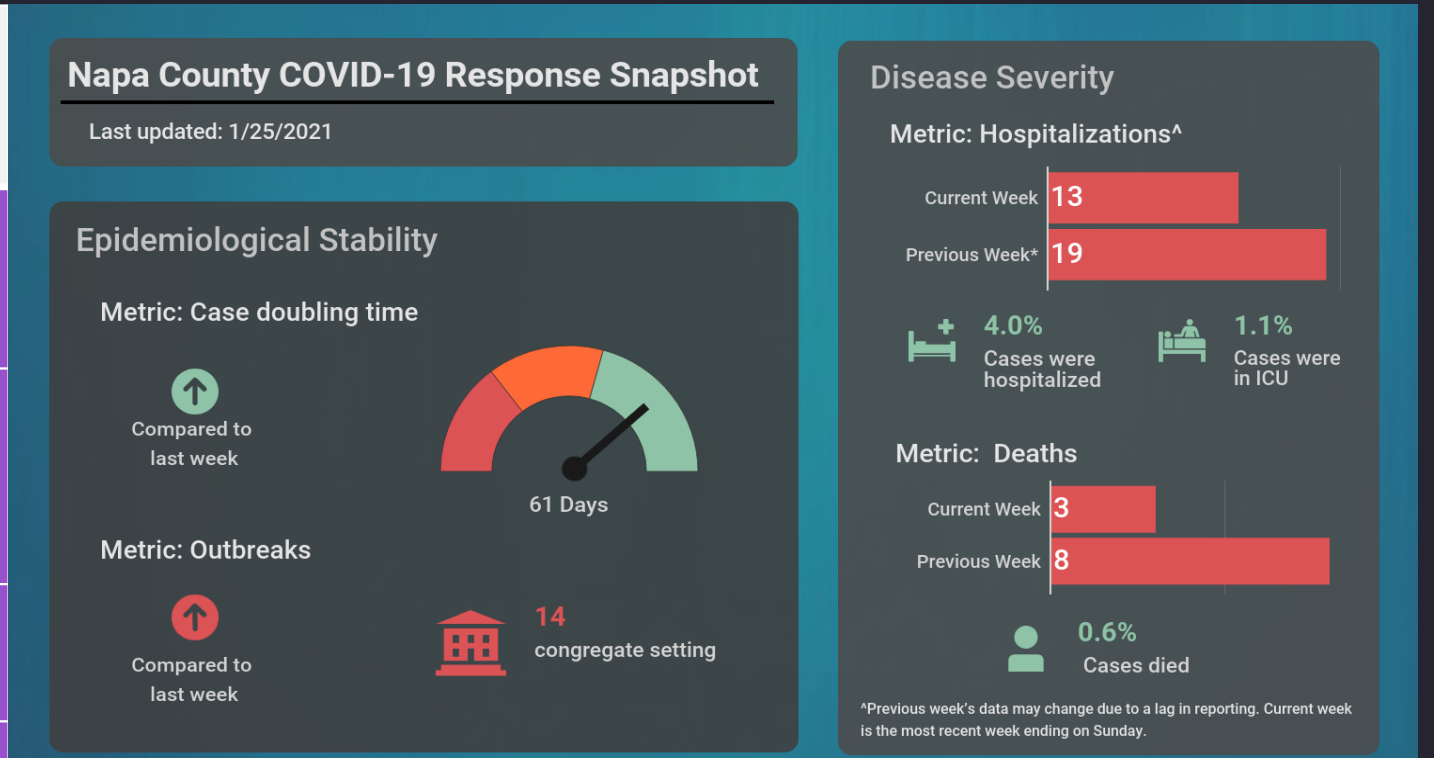
757 total cases

	Total	Closed	Reopened
School cohorts	31	0	31 – 4 reopened 1/25
Workplaces	36	--	--

BLUEPRINT FOR A SAFER ECONOMY

- Napa County is in deep purple

Measures	CDPH Estimates for Napa
New Cases per 100,000 population per day 7 day average	32.1
Adjusted New Cases per 100,000 population per day 7 day average	56.2
Testing positivity 7 day average	8.5%
Health equity testing positivity	12.9%



14

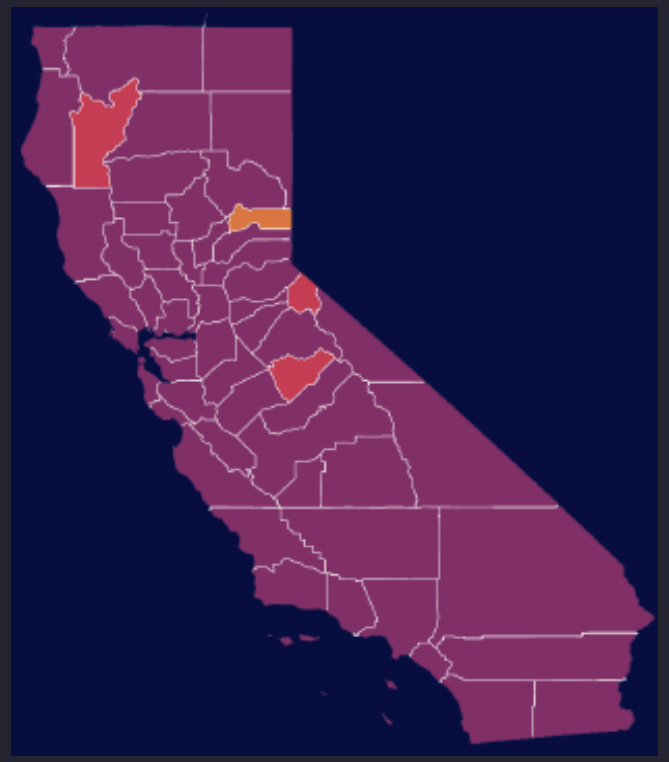
STATE'S REGIONAL STAY AT HOME ORDER LIFTED 1/25/21

Region	Projected ICU Capacity on 2/21
Southern California	33.3%
San Joaquin Valley	22.3%
Bay Area	25%
Greater Sacramento	27.3%
Northern California	18.9%

Projected capacity depends on 4 variables:

- Current estimated ICU capacity available
- Current community transmission
- Current regional case rates
- Proportion of cases admitted to the ICU

WHAT DOES THIS MEAN?



- Napa County lands back in the Purple Tier
- Removes the Limited SAH Order (curfew)
- Current ICU capacity is 10%
- Hospital surge state health officer order will still take effect for counties where ICU availability for that county is ten percent (10%) or less
  - All hospitals and ambulatory surgery centers operating under the hospital license shall delay Elective Surgery Acuity Scale (ESAS) Tier 1 and 2 surgical procedures

SECTORS	Widespread Tier 1	Substantial Tier 2	Moderate Tier 3	Minimal Tier 4
Critical Infrastructure	Open with modifications	Open with modifications	Open with modifications	Open with modifications
Gatherings*	Outdoor gatherings only with modifications • Max 3 households	Indoor gatherings strongly discouraged, allowed with modifications • Max 3 households	Indoor gatherings strongly discouraged, allowed with modifications • Max 3 households	Indoor gatherings strongly discouraged, allowed with modifications • Max 3 households
Limited Services	Open with modifications	Open with modifications	Open with modifications	Open with modifications
Outdoor Playgrounds & Outdoor Recreational Facilities ****	Open with modifications	Open with modifications	Open with modifications	Open with modifications
Hair Salons & Barbershops	Open Indoors with modifications	Open indoors with modifications	Open indoors with modifications	Open indoors with modifications

SECTORS	Widespread Tier 1	Substantial Tier 2	Moderate Tier 3	Minimal Tier 4
All Retail (including critical infrastructure, except standalone grocers)	Open Indoors with modifications • Max 25% capacity	Open Indoors with modifications • Max 50% capacity	Open Indoors with modifications	Open Indoors with modifications
Shopping Centers (Malls, Destination Centers, Swap Meets)	Open Indoors with modifications • Max 25% capacity • Closed common areas • Closed food courts	Open indoors with modifications • Max 50% capacity • Closed common areas • Reduced capacity food courts (see restaurants)	Open indoors with modifications • Closed common areas • Reduced capacity food courts (see restaurants)	Open Indoors with modifications • Reduced capacity food courts (see restaurants)
Personal Care Services* **	Open Indoors with modifications	Open indoors with modifications	Open indoors with modifications	Open indoors with modifications
Museums, Zoos, and Aquariums	Outdoor Only with modifications	Open indoors with modifications • Indoor activities max 25% capacity	Open indoors with modifications • Indoor activities max 50% capacity	Open indoors with modifications

SECTORS	Widespread Tier 1	Substantial Tier 2	Moderate Tier 3	Minimal Tier 4
Places of Worship	Outdoor Only with modifications	Open indoors with modifications • Max 25% capacity or 100 people, whichever is fewer	Open indoors with modifications • Max 50% capacity or 200 people, whichever is fewer	Open indoors with modifications • Max 50% capacity
Movie Theaters	Outdoor Only with modifications	Open Indoors with modifications • Max 25% capacity or 100 people, whichever is fewer	Open indoors with modifications • Max 50% capacity or 200 people, whichever is fewer	Open indoors with modifications • Max 50% capacity
Hotels and Lodging	Open with modifications	Open with modifications • +Fitness centers (+10%)	Open with modifications • +Fitness centers (+25%) • +Indoor pools	Open with modifications • +Fitness Centers (50%) • +Spa facilities etc.
Gyms and Fitness Centers	Outdoor Only with modifications	Open indoors with modifications • Max 10% capacity • +Climbing walls	Open indoors with modifications • Max 25% capacity • +Indoor pools	Open indoors with modifications • +Saunas • +Steam rooms • Max 50% capacity

SECTORS	Widespread Tier 1	Substantial Tier 2	Moderate Tier 3	Minimal Tier 4
Restaurants	Outdoor Only with modifications	Open indoors with modifications • Max 25% capacity or 100 people, whichever is fewer	Open indoors with modifications • Max 50% capacity or 200 people, whichever is fewer	Open indoors with modifications • Max 50% capacity
Wineries	Outdoor Only with modifications	Outdoor Only with modifications	Open indoors with modifications • Max 25% capacity indoors, or 100 people, whichever is fewer	Open indoors with modifications • Max 50% capacity or 200 people indoors, whichever is fewer
Bars, Breweries, and Distilleries **(where no meal provided)** **(follow restaurant guidance where meal is provided)**	Closed	Closed	Open Outdoors with modifications	Open indoors with modifications • Max 50% capacity
Family Entertainment Centers	Outdoor Only with modifications e.g. • Kart Racing • Mini Golf • Batting Cages	Outdoor Only with modifications e.g. • Kart Racing • Mini Golf • Batting Cages	Open Indoors for naturally distanced activities with modifications • Max 25% capacity • Bowling Alleys	Open indoors for activities with increased risk of proximity and mixing with modifications • Max 50% capacity • Arcade Games • Ice and roller skating • Indoor playgrounds

SECTORS	Widespread Tier 1	Substantial Tier 2	Moderate Tier 3	Minimal Tier 4
Cardrooms, Satellite Wagering	Outdoor Only with modifications	Outdoor Only with modifications	Open indoors with modifications • Max 25% capacity	Open indoors with modifications • Max 50% capacity
Offices	Remote	Remote	Open indoors with modifications • Encourage telework	Open indoors with modifications • Encourage telework
Professional Sports	Open • Without live audiences • With modifications	Open • Without live audiences • With modifications	Open • Without live audiences • With modifications	Open • Without live audiences • With modifications
Live Audience Sports* **	Closed	Closed	Outdoors Only • Max 20% • Regional visitors (120 miles) • Advanced reservations only • Assigned seating only • In-seat concessions only (No concourse sales)	Outdoors Only • Max 25% • Regional visitors (120 miles) • Advanced reservations only • Assigned seating only • In-seat concessions only (No concourse sales)

COVID-19 VACCINATION UPDATE

Vaccines Administered in Napa County to Date

A Tradition of Stewardship
A Commitment to Service

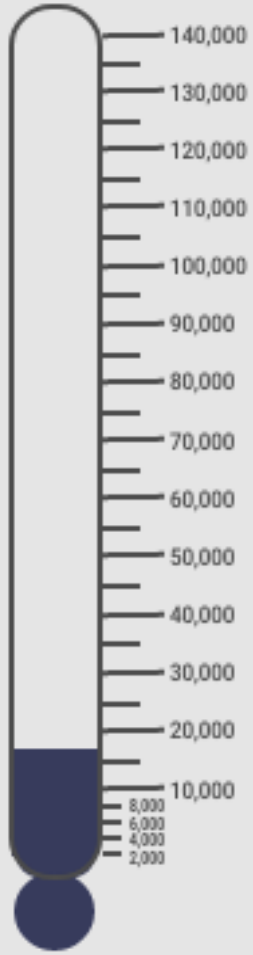
The total number of vaccines administered includes Napa County residents, as well as non-residents eligible for vaccination based on place of work.

Cantidad de vacunas administradas en el condado de Napa

El número total de vacunas administradas incluye residentes del condado de Napa y personas que no son residentes elegibles debido a su lugar del trabajo.

Total:

15,831 doses



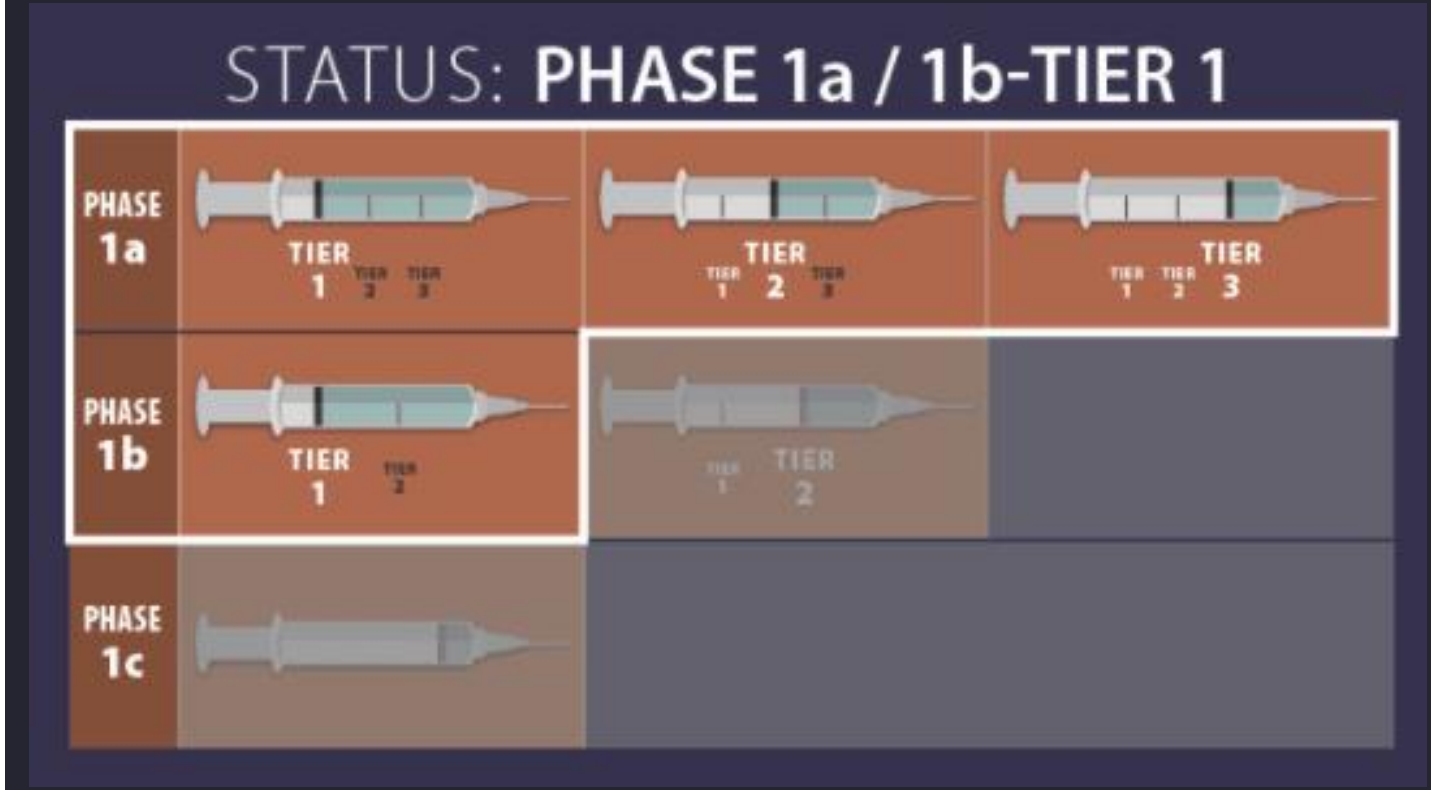
FREQUENTLY CHANGING STATE GUIDANCE

- Governor's Million Doses Initiative led to realization Napa County has the capacity to vaccinate many, but limited by vaccine supply
- Mixed messages about available vaccine supply
- Previous Phase 1B Tier 1:
  - 75 years of age or older (Around 9K)
  - First responders
  - Education and childcare
  - Food and agriculture
- Phase 1B Tier 1 changes now prioritizes people 65 years of age or older (17.4% of Napa County's population – over 24K)

PRIORITIZATION GUIDANCE AS IT CURRENTLY STANDS

- Vaccinate Phase 1a Tiers 1-3 for those who missed previous opportunities (healthcare workers)
- Continue through 65+, healthcare workers, and prioritize first responders, food & agriculture workers, teachers and school staff
  - 75 plus
  - 65-74 with medical conditions
  - 65-74 without medical conditions
  - Prioritize disproportionately impacted populations
- Transition to age-based eligibility

PROGRESS THROUGH PHASES AND TIERS



- Finishing Phase 1A
- Phase 1B Tier 1
  - Prioritizing 75 plus
  - Working through education and childcare and other missed sectors
- Insufficient vaccine supply may keep us at this phase and tier for a while

UTILIZING VS SAVING SECOND DOSES

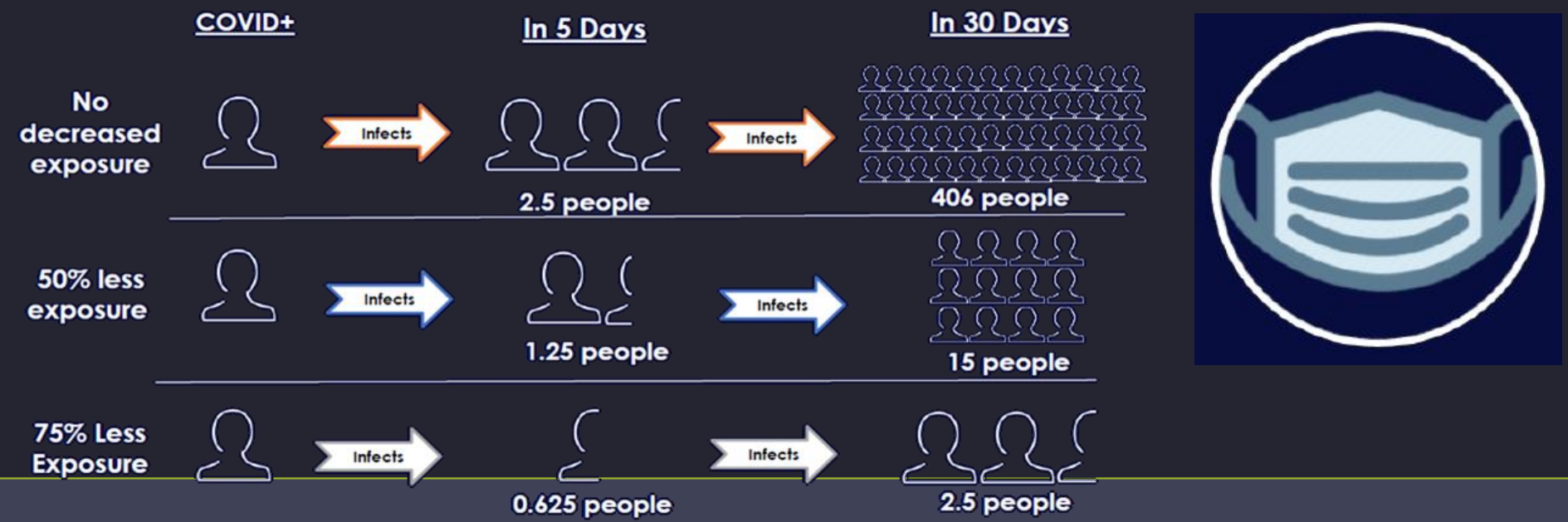
- Statewide, local health jurisdictions and healthcare systems are being asked not to save vaccines for second doses and are getting pressured to use them
- CDPH will reallocate or enable local health officers to reallocate vaccines from providers who have not used at least 65% of their available supply on hand for a week and have not submitted a plan for administering the remaining vaccine to prioritized populations within four days of notice

DELAYING 2ND DOSES NOT BACKED BY STATE OR FEDERAL GUIDANCE

- Decision to use second doses as first doses is not backed by vaccine rationing strategies and supply is uncertain
- UK proposed dose changes for how COVID vaccine is used:
  - Give only half the dose of vaccine assessed in the clinical trials
  - Delay administration of the second dose of the vaccine beyond the three-or four-week intervals tested in the phase 3 trials.
- The FDA and Western States Scientific Safety Review Workgroup concluded that the scientific data available to support the proposed changes are extremely limited

WE CANNOT BE COMPLACENT

- Practice the 3 Ws or the 4 M's: Masking, minimizing mixing and movement
- Let's pull away from PURPLE



MINUTES
City of St. Helena
Regular City Council Meeting
Tuesday, December 8, 2020 @ 6:00 PM

A complete video recording of this meeting, except for closed session, can be found at https://sthelena.civicweb.net/Portal/ or by calling the City Clerk at (707) 968-2742. The City Council video is the official record of the Council meeting.

Present: Vice Mayor Paul Dohring, Council Member Mary Koberstein, Mayor Geoff Ellsworth, Council Member David Knudsen, and Council Member Anna Chouteau

Absent: None

1. CALL TO ORDER

2. PLEDGE OF ALLEGIANCE

3. ROLL CALL

4. PUBLIC FORUM:

No public comment was received.

5. REPORTS BY STAFF AND CITY COUNCIL, FUTURE AGENDA ITEMS, and AB 1234 REPORTS:

Reports by Staff and City Council Members were made.

6. PRESENTATIONS AND PUBLIC RECOGNITIONS

6.1 Arbor Day Proclamation presented to Carlos Uribe, Public Works Assistant Operations Manager/City Arborist

7. STAFF BRIEFING

7.1 City Manager COVID-19 update

City Manager Mark Prestwich provided an update.

8. CONSENT ITEMS

Members of the Council or the public may ask that any items be considered individually for purposes of considering alternative action, for extended discussion, or for public comment. Unless that is done, one motion may be used to adopt all recommended actions. (Roll Call Vote)

8.1 Consideration and proposed approval of Regular Meeting Minutes of November 24, 2020
Prepared By: Cindy Tzafopoulos, City Clerk

8.2 Consideration and proposed approval of a resolution: (1) approving Redwood Empire Municipal Insurance Fund merger with Public Agency Risk Sharing Authority of California to create the California Intergovernmental Risk Authority (CIRA) and adopting the CIRA Joint Powers Agreement and Bylaws; and (2) adopting the REMIF Joint Powers Agreement and Bylaws which allow the self-insured health plan (Anthem Blue Cross/Blue Shield) to remain under the care, custody, and control of REMIF.

CEQA Determination: Not a CEQA project
Prepared By: Kathy Robinson, Human Resources & IT Director
Recommendation:
Approve resolution (1) approving Redwood Empire Municipal Insurance Fund merger with Public Agency Risk Sharing Authority of California to create the California Intergovernmental Risk Authority (CIRA) and adopting the CIRA Joint Powers Agreement and Bylaws; and (2) adopting the REMIF Joint Powers Agreement and Bylaws which allow the self-insured health plan (Anthem Blue Cross/Blue Shield) to remain under the care, custody, and control of REMIF.

8.3 Consideration and proposed approval of a resolution duly approving and adopting publicly available pay schedules in accordance with the requirement of California Code of Regulations, Title 2, Section 570.5 which includes a revised salary schedule for part-time Casual Worker classification

CEQA Determination: Not a CEQA project
Prepared By: Kathy Robinson, Human Resources & IT Director
Recommendation:
Staff recommends City Council duly approve and adopt publicly available pay schedules in accordance with the requirement of California Code of Regulations, Title 2, Section 570.5 which includes a revised salary schedule for the part-time Casual Worker classification, and make no other changes to the salary schedules for other classifications.

8.4 Consideration and proposed adoption of a Resolution making sole source findings in support of and awarding a Construction Contract with Got Power, Inc. doing business as CD & Power for CIP Project No. C20-06 Emergency Back-up Power in the amount not-to-exceed $285,755.25 and authorizing the Director of Public Works to approve change orders not to exceed 10% of the original contract amount.

CEQA Determination: Exempt from the requirements of CEQA pursuant to Section 15301, Class 1, which exempts the operation, leasing, or minor alteration of existing facilities

Prepared By: Erica Ahmann Smithies, Public Works Director and City Engineer
Recommendation:
Adopt a Resolution making sole source findings in support of and awarding a Construction Contract with Got Power, Inc. doing business as CD & Power for CIP Project No. C20-06 Emergency Back-up Power in an amount not-to-exceed $285,755.25 and authorizing the Director of Public Works to approve change orders not-to-exceed 10% of the original contract amount.

8.5 Consideration and proposed adoption of a Resolution (1) amending the Fiscal Year 2020-2021 adopted Capital Improvement Program Budget to include CIP Project No. C21-01 PSPS Emergency Back-up Power and authorizing a budget of $350,000; (2) authorizing a budget decrease of $50,000 from CIP Project W-106 Pump Station Upgrades with water funds being reallocated to C21-01; (3) authorizing a fund balance transfer of up to $50,000 from Fund 763 Water CIP to Fund 733 Civic CIP upon completion of CIP Project No. C21-01 to be used towards the purchase and installation of the fixed generator at the Louis Stralla Water Treatment Plant; and (4) approving an Equipment Purchase Agreement with Gonneville, Inc. for CIP Project No. C21-01 PSPS Emergency Back-up Power for an amount not-to-exceed $272,158.07.

CEQA Determination: Exempt from the requirements of CEQA pursuant to Section 15301, Class 1, which exempts the operation, leasing, or minor alteration of existing facilities
Prepared By: Erica Ahmann Smithies, Public Works Director and City Engineer
Recommendation:
Consideration and proposed adoption of a Resolution (1) amending the Fiscal Year 2020-2021 adopted Capital Improvement Program Budget to include CIP Project No. C21-01 PSPS Emergency Back-up Power and authorizing a budget of $350,000; (2) authorizing a budget decrease of $50,000 from CIP Project W-106 Pump Station Upgrades with water funds being reallocated to C21-01; (3) authorizing a fund balance transfer of up to $50,000 from Fund 763 Water CIP to Fund 733 Civic CIP upon completion of CIP Project No. C21-01 to be used towards the purchase and installation of the fixed generator at the LSWTP; and (4) approving an Equipment Purchase Agreement with Gonneville, Inc. for CIP Project No. C21-01 PSPS Emergency Back-up Power for an amount not-to-exceed $272,158.07.

8.6 Consideration and proposed approval of a Resolution approving an Equipment Purchase Agreement for a portable generator with Gonneville, Inc. for CIP Project No. W-106 Pump Station Upgrades for an amount not-to-exceed $87,318.76.

CEQA Determination: Exempt
Prepared By: Martin Beltran, Management Analyst
Recommendation:
Adopt a Resolution approving an Equipment Purchase Agreement for a portable generator with Gonneville, Inc. for the CIP Project No. W-106 Pump

Station Upgrades for an amount not-to-exceed $87,318.76.

8.7 Consideration and proposed approval of a resolution (1) ratifying an emergency public project without public bidding relating to the Glass Fire, and (2) ratifying a Commercial Service Agreement STH Contract: FY2021-039 with Restoration Management Company in an estimated amount of $500,000 based on time and materials for smoke mitigation at 10 City facilities.

CEQA Determination: Exempt from CEQA pursuant to Sections 21080(b)(3) and (4)
Prepared By: April Mitts, Finance Director
Recommendation:
Approval of a resolution: (1) ratifying an emergency public project without public bidding relating to the Glass Fire and (2) ratifying a Commercial Service Agreement STH Contract: FY2021-039 with Restoration Management Company in an estimated amount of $500,000 based on time and materials for smoke mitigation at 10 City facilities.

8.8 Consideration and proposed approval of a Resolution accepting the certification of the vote for the November 3, 2020 St. Helena General Municipal Election

CEQA Determination: Not a CEQA project
Prepared By: Cindy Tzafopoulos, City Clerk
Recommendation:
Adopt the resolution accepting the certification of the vote for Mayor, Council Members, and Advisory Measure G.

8.9 Consideration and Proposed Approval of a Resolution Approving Napa Valley Transportation Authority Joint Powers Agreement Amendment No. 12

CEQA Determination: Not a CEQA project
Prepared By: Cindy Tzafopoulos, City Clerk
Recommendation:
Staff recommends adopting the resolution approving the Napa Valley Transportation Authority Joint Powers Agreement Amendment No. 12.

8.10 Consideration and approval of a Resolution authorizing: (1) a budget increase of $30,000 to 561-5000-2130 in FY 2020-21 for costs associated with Phase II Water Restriction implementation and (2) use of Water Fund Balance in the amount of $30,000 in FY 2020-21.

CEQA Determination: Not a CEQA project
Prepared By: Martin Beltran, Management Analyst
Recommendation:
Staff recommends City Council approve a Resolution authorizing: (1) a budget increase of $30,000 to 561-5000-2130 in FY 2020-21 for costs associated with Phase II Water Restriction implementation and (2) use of Water Fund Balance

in the amount of $30,000 in FY 2020-21.

8.11 *NEW ITEM ADDED 12-4-20
Consideration and proposed adoption of a resolution certifying the Measure T Maintenance of Effort (MOE) for Fiscal Year 2020.

CEQA Determination: Not a CEQA project
Prepared By: Mandy Kellogg, Finance Manager
Recommendation:
Adopt a resolution certifying the Measure T Maintenance of Effort (MOE) for Fiscal Year 2020.

Council Member Mary Koberstein moved to approve Consent items 8.1 through 8.11. The motion was seconded by Council Member Anna Chouteau and on roll call carried by the following vote:

AYES: Vice Mayor Paul Dohring, Council Member Mary Koberstein, Mayor Geoff Ellsworth, Council Member David Knudsen, and Council Member Anna Chouteau
NOES: None
ABSENT: None
ABSTAIN: None
RECUSE: None

NEW BUSINESS items 11.1 through 11.4 were heard prior to the PUBLIC HEARING item.

11.1 Recognition of Outgoing Council Member David Knudsen and Mary Koberstein (A recess in recognition of outgoing Council Member David Knudsen and Mary Koberstein will be held.)

Outgoing Council Member David Knudsen and Mary Koberstein were recognized and presented with a plaque.

11.2 Oath of Office administered by City Clerk Cindy Tzafopoulos to Mayor-Elect Geoff Ellsworth and Council Member-Elect Eric Hall and Lester Hardy

City Clerk Cindy Tzafopoulos administered the Oath of Office to Mayor-Elect Geoff Ellsworth and Council Members-Elect Eric Hall and Lester Hardy.

11.3 Consideration of the Vice Mayor Nomination Made by the Mayor and Requiring Council Approval

CEQA Determination: Not a CEQA project
Prepared By: Cindy Tzafopoulos, City Clerk

Recommendation:
Mayor nominates Vice Mayor for Council approval.

No public comment was received.

Mayor Geoff Ellsworth moved to appoint Paul Dohring as Vice Mayor. The motion was seconded by Council Member Lester Hardy and on roll call carried by the following vote:

AYES: Vice Mayor Paul Dohring, Council Member Lester Hardy, Mayor Geoff Ellsworth, Council Member Eric Hall, and Council Member Anna Chouteau
NOES: None
ABSENT: None
ABSTAIN: None
RECUSE: None

11.4 Discussion and direction regarding a crosswalk study on Spring Street and Madrona Avenue, including possible adoption of a resolution appropriating Gas Tax Funds in an amount not-to-exceed $10,000 to complete this study and/or providing direction to advance a more comprehensive Citywide Active Transportation and Safe Routes to School Plan.

CEQA Determination: Not a CEQA project
Prepared By: Erica Ahmann Smithies, Public Works Director and City Engineer
Recommendation:
City Council discussion and direction regarding a crosswalk study on Spring Street and Madrona Avenue, including possible adoption of a resolution appropriating Gas Tax Funds in an amount not-to-exceed $10,000 to complete this study and/or providing direction to advance a more comprehensive Citywide Active Transportation and Safe Routes to School Plan.

Public Works Director Erica Ahmann Smithies reported on this item.

Patrick Band, William Wagner, Lucy Janev, Sophia Tsilimigras and Carlotta Sainto addressed the City Council.

Council Member Lester Hardy moved to direct Erica Ahmann Smithies, Public Works Director to request a modified proposal from GHD. The proposal would be for the entire active transportation network modified to separate the work into two phases. Phase I would be focusing on pedestrian safety improvements to the Madrona and Spring Street corridors. The motion also authorizes Erica Ahmann Smithies, Public Works Director, to negotiate a proposal for a cost not to exceed $25,000 and proceed on Phase I, and negotiate a scope and cost for Phase II. The motion was seconded by Council Member Anna Chouteau.

Cindy Tzafopoulos, City Clerk clarified with Council Member Hardy that the

motion included amending the Resolution to not exceed $25,000. Council Member Hardy and Council Member Chouteau agreed.

Vice Mayor Dohring requested the proposal amount be amended to not to exceed $20,000. Council Member Hardy and Council Member Chouteau agreed to amend the motion accordingly.

On roll call carried by the following vote:

AYES: Vice Mayor Paul Dohring, Council Member Lester Hardy, Mayor Geoff Ellsworth, Council Member Eric Hall, and Council Member Anna Chouteau
NOES: None
ABSENT: None
ABSTAIN: None
RECUSE: None

9. PUBLIC HEARINGS

9.1 Discussion of and Direction on the Potential Activities and Projects for Inclusion in the 2021 Community Development Block Grant (CDBG) Applications

CEQA Determination: Exempt from the requirements of CEQA for sections 15332, 15301, and 15303
Prepared By: April Mitts, Finance Director
Recommendation:
Provide direction on the activities and projects to be considered for funding under the 2021 Community Development Block Grant program.

Finance Director April Mitts reported on this item.

Mary Stephenson and Robyn Orsini addressed the City Council.

It was the consensus of the City Council to continue with the identified projects which are Multifamily Single Family Housing Acquisition and Rehabilitation Housing, Hunt's Grove Parking Project, Planning Technical Assistance and add Mental Health if possible.

Vice Mayor Paul Dohring moved to continue the meeting beyond 9:00 pm. The motion was seconded by Council Member Anna Chouteau and on roll call carried by the following vote:

AYES: Vice Mayor Paul Dohring, Council Member Lester Hardy, Mayor Geoff Ellsworth, Council Member Eric Hall, and Council Member Anna Chouteau
NOES: None
ABSENT: None
ABSTAIN: None

RECUSE: None

10. OLD BUSINESS

10.1 Discussion and update on the City of St. Helena Water Supply and Phase II Water Emergency (~~Staff report forthcoming~~ Provided 12-4-20)

CEQA Determination: Not a CEQA project
Prepared By: Martin Beltran, Management Analyst
Recommendation:
No action required at this time.

Public Works Director Erica Ahmann Smithies reported on this item and provided an update.

Alan Galbraith addressed the City Council.

Council Member Anna Chouteau moved to continue the meeting beyond 9:30 pm. The motion was seconded by Council Member Lester Hardy and on roll call carried by the following vote:

AYES: Vice Mayor Paul Dohring, Council Member Lester Hardy, Mayor Geoff Ellsworth, Council Member Eric Hall, and Council Member Anna Chouteau
NOES: None
ABSENT: None
ABSTAIN: None
RECUSE: None

11. NEW BUSINESS

11.1 ~~Recognition of Outgoing Council Member David Knudsen and Mary Koberstein (A recess in recognition of outgoing Council Member David Knudsen and Mary Koberstein will be held.)~~

11.2 ~~Oath of Office administered by City Clerk Cindy Tzafopoulos to Mayor-Elect Geoff Ellsworth and Council Member-Elect Eric Hall and Lester Hardy~~

11.3 ~~Consideration of the Vice Mayor Nomination Made by the Mayor and Requiring Council Approval~~

11.4 ~~Discussion and direction regarding a crosswalk study on Spring Street and Madrona Avenue, including possible adoption of a resolution appropriating Gas Tax Funds in an amount not-to-exceed $10,000 to complete this study and/or providing direction to advance a more comprehensive Citywide Active Transportation and Safe Routes to School Plan.~~

11.5 2021 City Council assignments to various City and Napa County Committees, Boards and Commissions

CEQA Determination: Not a CEQA project
Prepared By: Cindy Tzafopoulos, City Clerk
Recommendation:

1. Affirm or recommend City Council Liaisons to each committee:
   a. Active Transportation/Sustainability Committee
   b. Board of Library Trustees
   c. Parks and Recreation Commission

2. Affirm or recommend appointment to various City/County collaborative agency committees:
   a. One Alternate - City/SHUSD/Chamber/NVC (Monrovia)
   b. One Primary/One Alternate - Association of Bay Area Governments (ABAG) General Assembly
   c. One Primary - Napa Valley Tourism Corporation/St. Helena Tourism Improvement District (SHTID)
   d. One Alternate - Napa County City Selection Committee
   e. Two Primary - Napa County Regional Climate Action Committee

3. Make recommendation to the Napa County Board of Supervisors to affirm or recommend new member:
   a. One Alternate - Napa County Flood Control and Water Conservation District
   b. One Primary - Napa County Youth Opportunities Commission
   c. One Primary and One Alternate - Napa Valley Transportation Authority (NVTA)
   d. One Primary and One Alternate - Napa County Watershed Information Center & Conservancy (WICC)
   e. One Primary and One Alternate - Upper Valley Waste Management Board

City Clerk Cindy Tzafopoulos reported on this item.

No public comment was received.

It was the consensus of the City Council to affirm the following City Council Liaisons to each City committee:

a. Vice Mayor Dohring - Active Transportation/Sustainability Committee
b. Council Member Chouteau - Board of Library Trustees
c. Council Member Hall - Parks and Recreation Commission

It was the consensus of the City Council to affirm the following appointments to various City/County collaborative agency committees:

a. Vice Mayor Dohring - City/SHUSD/Chamber/NVC (Monrovia)
b. Vice Mayor Dohring Primary and Council Member Chouteau Alternate -

Association of Bay Area Governments (ABAG) General Assembly
c. Council Member Hall - Napa Valley Tourism Corporation/ St. Helena Tourism Improvement District (SHTID)
d. Vice Mayor Dohring - Napa County City Selection Committee Alternate
e. Mayor Ellsworth and Council Member Chouteau - Napa County Regional Climate Action Committee

It was the consensus of the City Council to recommend the following appoints to the Napa County Board of Supervisors:

a. Vice Mayor Dohring - Napa County Flood Control and Water Conservation District Alternate
b. Vice Mayor Dohring - Napa County Youth Opportunities Commission
c. Mayor Ellsworth and Vice Mayor Dohring are Primary and Council Member Chouteau Alternate - Napa Valley Transportation Authority (NVTA)
d. Mayor Ellsworth Primary and Council Member Hardy Alternate - Napa County Watershed Information Center & Conservancy (WICC)
e. Council Member Chouteau Primary and Hardy Alternate - Upper Valley Waste Management Board

12. ITEMS LIKELY TO BE PLACED ON THE NEXT OR FUTURE MEETING AGENDA:

12.1

January City Council Meetings: **1/12 (Staff reports due 12/23)** **1/26 (Staff reports due 1/8)**
STAFF BRIEFING:
1/12 & 1/26 Update on Waste Water Treatment Plant Upgrade Project by Erica Ahmann Smithies, Public Works Director and City Engineer
1/26 Monthly Water Update
1/12 & 1/26 City Manager COVID-19 update
CONSENT:
Fire Department - Approving Sale of Surplus Apparatus (Rescue-17)
Glass fire termination of emergency
1/12 Amendment to Oscar Larson Contract
1/12 NOC of Upper York Creek
1/12 Interpretation Services contract
1/12 Award Housing Element contract
1/12 Employee handbook
PH or OLD / NEW BUSINESS:
OB 1/12 Streetscape and Downtown sewer lateral discussion
1/12 Appoint Water Advisory Board Members

PH 12/8 - CDBG Grant discussion-planning technical assistance
1/12 Surplus property policy
1/12 Hunt Avenue Check in
1/12 2021 Mtg Calendar review
OB 1/12 – Elm Tunnel Tree Assessment

13. ADJOURNMENT

Mayor Ellsworth adjourned the meeting at 9:40 p.m.

CHALLENGING DECISIONS OF CITY ENTITIES

SUPPLEMENTAL MATERIAL RECEIVED AFTER THE POSTING OF THE AGENDA

APPROVED: **ATTEST:**

_____ _____

Geoff Ellsworth, Mayor Cindy Tzafopoulos, City Clerk

Report to the City Council
Regular City Council - 26 Jan 2021

Agenda Section: **CONSENT ITEMS**

Subject: **Consideration and proposed adoption of a resolution (1) authorizing the City Manager to execute Amendment No. 1 to STH Contract: FY 2019-028 in the amount of $52,500, to the Professional Services Agreement with Oscar Larson and Associates for designing CIP Projects: Tank 2 Rehabilitation W-101, Pump Station Upgrades W-106, and Rutherford Pump Station Upgrades W-110 for a total not-to-exceed amount of $197,690, and (2) authorize the transfer of $15,000 from Project W-101 Contingency to Project W-101 Design.**

CEQA Determination: **Exempt from the requirements of CEQA pursuant to Section 15301, Class 1, which exempts the operation, leasing, or minor alteration of existing facilities**

Prepared By: Erica Ahmann Smithies, Public Works Director and City Engineer

Reviewed By: April Mitts, Finance Director

Approved By: Mark T. Prestwich, City Manager

BACKGROUND

City Staff released a Request for Proposals (RFP) for multiple Capital Improvement Program (CIP) Water Projects in February 2018. Due to the number of similar water projects, the Public Works Department determined it would be beneficial and cost effective to coordinate through one design consultant and streamline project delivery. The CIP projects included in the RFP were the Tank 2 Rehabilitation W-101, Pump Station Upgrades W-106, and the Rutherford Pump Station Upgrades W-110.

Following the release of the RFP, staff received three proposals for the work. The three consulting firms who submitted proposals were GEI Consultants, Bennett Engineering, and Oscar Larson and Associates. The selection committee, comprised of Public Works Director Erica Ahmann Smithies, former Utilities & Operations Manager Felix Hernandez, and former Project Manager Tobias Barr, evaluated each proposal and

determined that Bennett Engineering and Oscar Larson should be interviewed for the work based on experience. Interviews were conducted by Ms. Smithies and Mr. Hernandez and, following the interviews, staff determined that Oscar Larson and Associates had the most applicable experience and would be the best fit for the projects. Oscar Larson and Associates has extensive experience with municipalities, has experience on similar sized projects within the area, and is the most knowledgeable with pump stations.

On September 25, 2018, City Council adopted Resolution 2018-128 authorizing the City Manager to execute a Professional Services Agreement with Oscar Larson and Associates for design services in the amount of $145,190.

DISCUSSION

The Agreement's current Scope of Services does not include the funds for additional work identified during City staff's review of the 50% plan submittal for each of the respective projects listed below. In addition to the 50% plan comments, the Glass Fire came very close to Tank 2 on Spring Mountain Road. Therefore, an additional site inspection and design funding has been included to address any additional work needed for the Tank 2 Rehabilitation. If it is found that any damage to Tank 2 occurred during the Glass Fire, the City will seek reimbursement by FEMA/CalOES for rehabilitation work.

Staff recommends an amendment to the current contract that will allow for additional work to complete design plans and specifications, as well as assist with bid and construction support services. The following services will be included in Amendment No. 1 for each of the projects.

W-101 Tank #2 Rehabilitation - $19,000

Consultant is to prepare Plans, Specifications, and Construction Cost Estimate (PS&E) for the Project. The work includes services during the bidding process including contractor pre-bid conferences, responses to requests for information (RFI's), evaluation, and recommendations on contractor bids. Construction inspection, construction management, and 11 month inspections are considered additional work and not included in this amendment.

W-106 Crystal Springs, Madrone Knoll, and Stonebridge Wells - $7,500

Consultant is to prepare, assemble, and forward all W-106 PS&E documents prepared to date for the project to the City. This amendment outlines the documents and Consultant's scope and cost to assemble and submit the documents of W-106 to the City to comply with the City's request.

W-110 Rutherford Pump Station $26,000

Consultant is to convert the current set of PS&E documents to a separate W-110 Rutherford Pump Station Project (RPS) set of PS&E's for this Project. Work will include

site inspection of electrical systems, and preparation of reports and recommendations, designs, response to RFI's, and review of and recommendations regarding bids.

Original Agreement Amount	$145,190
Amendment No. 1	$52,500
Total Compensation Not to Exceed	$197,690

FISCAL IMPACT

On September 25, 2018, STH Contract: FY 2019-028 with Oscar Larson and Associates was executed for a not-to-exceed amount of $145,190. Amendment No. 1 is for an additional $52,500, for a total not-to-exceed amount of $197,690. Sufficient funding for design is available in the total approved budget for each of the projects. Use of contingency funds for W-101 will be necessary to cover the costs of Amendment #1 for that project. Below is a breakdown of the budgeted/available amounts for each of the CIP Projects and Attachments 4, 5, and 6 are the adopted CIP budgets for W-101, W-106, and W-110.

CIP Project	Total Budget	Actual To-Date	Encumbered	Available	Amendment #1
W-101 (Design)	35,204	20,204	10,863	4,137	19,000
W-101 (Contingency)	60,000	-	-	60,000	
W-106 (Design)	52,851	33,853	1,118	7,880	7,500
W-110 (Design)	80,000	46,421	570	33,009	26,000

City Water Capital Improvement funds are budgeted for each of these projects.

RECOMMENDED ACTION

Staff recommends City Council adopt a Resolution (1) authorizing the City Manager to execute Amendment No. 1 to STH Contract: FY 2019-028 in the amount of $52,500, to the Professional Services Agreement with Oscar Larson and Associates for designing CIP Projects: Tank 2 Rehabilitation W-101, Pump Station Upgrades W-106, and Rutherford Pump Station Upgrades W-110 for a total not-to-exceed amount of $197,690 and (2) authorize the transfer of $15,000 from Project W-101 Contingency to Project W-101 Design.

ATTACHMENTS

Attachment 1: Resolution
Attachment 2: Amendment No 1 OLA
Attachment 3: Executed STH FY2019-028
Attachment 4: W-101
Attachment 5: W-106
Attachment 6: W-110

CITY OF ST. HELENA

RESOLUTION NO. 2021-

Authorizing the City Manager to (1) execute Amendment No. 1 to STH Contract: FY 2019-028 in the amount of $52,500, to the Professional Services Agreement with Oscar Larson and Associates for designing CIP Projects: Tank 2 Rehabilitation W-101, Pump Station Upgrades W-106, and Rutherford Pump Station Upgrades W-110 for a total not-to-exceed amount of $197,690 and (2) authorize the transfer of $15,000 from Project W-101 Contingency to Project W-101 Design.

RECITALS

A. City Staff released a Request for Proposals (RFP) for multiple Capital Improvement Program (CIP) Water Projects in February 2018; and

B. City staff selected Oscar Larson and Associates through a Request for Proposals process, and determined that Oscar Larson and Associates is highly qualified and has the best applicable experience for the projects; and

C. On September 25, 2018, City Council authorized resolution number 2018-128 authorizing the City Manager to execute a Professional Services Agreement with Oscar Larson for design services in the amount of $145,190; and

D. The Agreement's current Scope of Services does not include the funds, or the additional work needed to allow Oscar Larson and Associates to complete final design plans and bid documents in order to advertise and bid the projects separately; and

E. Amendment No. 1 is for an additional $52,500, for a total not-to-exceed amount of $197,690; and

F. Sufficient funding for design is available in the total approved budget for each of the projects.

RESOLUTION

NOW, THEREFORE, the City Council of the City of St. Helena resolves as follows:

1. Authorizes the City Manager to execute Amendment No. 1 to STH Contract: FY 2019-028 in the amount of $52,500, to the Professional Services Agreement with Oscar Larson and Associates for designing CIP Projects: Tank 2 Rehabilitation W-101, Pump Station Upgrades W-106, and Rutherford Pump Station Upgrades W-110 for a total not-to-exceed amount of $197,690; and
2. Authorizes the transfer of $15,000 from Project W-101 Contingency to Project W-101 Design.

Approved at a Regular Meeting of the St. Helena City Council on January 26, 2021 by the following vote:

Mayor Ellsworth: _____

Vice Mayor Dohring: _____

Councilmember Chouteau: _____

Councilmember Hall: _____

Councilmember Hardy: _____

APPROVED: ATTEST:

_____ _____

Geoff Ellsworth, Mayor Cindy Tzafopoulos, City Clerk

AMENDMENT NO. 1

TO PROFESSIONAL SERVICES AGREEMENT WITH OSCAR LARSON AND ASSOCIATES; STH CONTRACT NO: 2019-028 FOR DESIGN SERVICES ON THE FOLLOWING CAPITAL IMPROVEMENT PROJECTS: W-101 TANK 2 REHABILITATION, W-106 PUMP STATION UPGRADES, AND W-110 RUTHERFORD PUMP STATION UPGRADES

This Amendment No. 1 to Professional Services Agreement STH Contract: 2019-028 dated September 25, 2018 ("Agreement") is made as of this _____ day of _____, 2021 by and between the City of St. Helena, a municipal corporation ("City"), and Oscar Larson and Associates ("Consultant").

RECITALS

A. On September 25, 2018 the City and Consultant entered into the Agreement for Consultant to provide professional design services in connection with the project described as CIP Projects: W-101 Tank 2 Rehabilitation, W-106 Pump Station Upgrades, and W-110 Rutherford Pump Station Upgrades; and

B. The Agreement's current Scope of Services does not include the funds or the additional work needed to allow Oscar Larson and Associates to complete final design plans and bid documents in order to advertise and bid the projects separately; and

C. City and Consultant now desire to amend the Agreement with Consultant for the purpose of finalizing bid documents in order to meet the City's requirements and deadlines.

AGREEMENT

NOW, THEREFORE, in consideration of the promises and of the mutual covenants and agreements herein contained, for good and valuable consideration, the adequacy of which is hereby acknowledged, the parties agree to amend the Agreement as follows:

1. Section 1. Basic Services
   Parties agree to amend Exhibit A "Scope of Services" of the Agreement to provide additional services, as outlined in Exhibit A-1, "Scope of Services" attached hereto.

2. Section 4.A Compensation, is amended to read as follows:

Original Agreement Amount	$145,190
Amendment No. 1	$52,500
Total Compensation Not to Exceed	$197,690

Exhibit B-1, "Compensation" detailing the compensation modification is attached hereto.

All other terms of the Agreement shall remain in full force and effect.

Entered as of the day and year first above stated.

CONSULTANT:
OSCAR LARSON & ASSOCIATES
CONSULTING ENGINEERS, INC.

Signatures of Authorized Persons:

By: _____

Print Name: Kenneth G. Davlin
Title: Project Manager

CITY OF ST. HELENA
a Municipal Corporation

By: _____

Print Name: Mark T. Prestwich

Title: City Manager

APPROVED AS TO FORM:

_____
Ethan Walsh, City Attorney

ATTEST:

_____
City Clerk

Attachments:

Exhibit A-1: "Scope of Services"
Exhibit B-1: "Compensation"

Exhibit A-1
"Scope of Services"

Design Services for the following Capital Improvement Projects: W-101 Tank 2 Rehabilitation, W-106 Pump Station Upgrades, and W-110 Rutherford Pump Station Upgrades

W-101 Tank 2 Rehabiliation

1. W-101 Tank 2 Rehabilitation Deliverables:

   1.1. Consultant is to perform the work of this Exhibit A-1 to prepare Plans, Specifications and Construction Cost Estimate (PS&E) for the Project. The Plan List of Attachment 1 lists the plan sheets estimated to be required for the project. Work includes services during the bidding process, including contractor pre-bid conferences, responses to RFI's, evaluation and recommendations on contractor bids. Construction inspection, construction management and 11 month inspections will be additional work.

   1.2. City had previously requested Consultant to prepare Exhibit A-1 for revisions to W-101. Consultant prepared work scopes, costs, and schedules and submitted to City as requested. City subsequently requested this revised scope for this Project.

   1.3. Consultant is to complete the work in approximate accordance with the Schedule of Attachment 2, after Consultant's receipt of authorization to proceed. Consultant will submit 100% PS&E's to City approximately two weeks after Consultant's receipt of City review comments on 90% PS&E's. Parties agree to the extension of existing contract to 22 weeks after Consultant's receipt of a Notice to Proceed. Time of performance and completion will depend upon unplannable conditions upon both parties resulting from the current virus pandemic and the timing of decisions by City.

   1.4. Prepare and submit to City Engineer an application for a Building Permit, or include as a performance Building Permit requirement within the Construction Contract.

   1.5. Tank #2 – Design and PS&E's:

      1.5.1. City requests that Consultant perform a site inspection to ascertain whether any damage occured, as a result of recent fires, Consultant will assess whether damage occurred to the tank, its coating, its electrical components or any other site features, and prepare a report of findings for City. If damage is found, such damage may require additional work to be done by Consultant, which will result in Consultant's submittal of an amendment for its work to this scope.

      1.5.2. City additionally requests existing eight (8) tank vent screens be replaced by Contractor with new mesh screen per AWWA recommendations. This work was not a part of the original design scope, and OLA agrees to add the design requirements and amend the PS&E's.

1.5.3. City additionally requests existing tank overflow screens be replaced with new mesh screen per AWWA recommendations. This work was not part of the original design scope and OLA agrees to add the design requirements and to amend the PS&E's.

1.5.4. City requests that the existing manway on the south side of tank be replaced with a new manway, due to existing damage to the existing manway. This was not a part of the original design scope. OLA agrees to add the requirement to the design and to the PS&E's.

1.5.5. Where Consultant had prepared Drawing C5.0, notes 2 and 3 in the 50% design submittal, which notes referred to City removing and replacing cathodic protection hand holes, anodes, wires and other tank components; City additionally has now requested the Contractor, and not the City, do the work of removing, reinstalling, and/or replacing the entire cathodic system, and that the additional work be included within the work of this scope . Consultant agrees to add this work to the PS&E's. Consultant will revise the PS&E's with recommendations to City that the cathodic system will not be operational until after the 11-month inspection performed by contractor finds the tank in satisfactory physical and operating condition; at which time the cathodic system will be reconnected and tested by the Contractor. Consultant's work regarding the 11-month inspection will become an amendment to the work of this scope.

1.6. City agrees to pay an additional $19,000.00 to Consultant for the revised and additional work requested for Project W-101.

1.7. Consultant agrees to prepare the W-101 Project PS&E's to be bid as a single project with a single set of PS&E's for approval, bidding, funding and construction.

1.8. This work scope does not include any electrical system design, unless such systems are found to be damaged by recent forest fires, in which case the work to be done will become an amendment to this work scope. This work scope does not include any substantial recoating of the tank exterior due to recent fires. Any additional recoating work will become an amendment to this work scope.

2. Parties agree to assign Kenneth G. Davlin, PE, as the Project Manager.

3. Permit fees, permit processing costs, any environmental studies, permits or reports, the payment of or reporting upon prevailing wages to this project, any construction management or inspection, and any additional field investigations and reports will be additional costs to this work scope.

W-106 Pump Station Upgrades (Crystal, Madrone Knoll and Stonebridge Wells)

1. Original Project Description:
   1.1. Consultant was originally contracted to prepare Plans, Specifications and Estimates (PS&E's) for a project at five different sites – W-101 – 1 site (Tank #2); W-106 – 3 Sites (Crystal Springs, Madrone Knoll, Stoneridge); and W-110 – 1 Site (Rutherford). Consultant submitted 50% completed Construction Drawings per City request. City response was to request a contract amendment for Consultant to prepare three sets of PS&E's to allow separate bidding for each of the three projects. Consultant expended time and expenses to prepare work scopes, contract amendments, work plans, new lists of Construction Drawings, Consultant costs and other information in response to City. Prior to City approval of the requested amendment, City requested Consultant to prepare a second amendment. The request is now for Consultant to prepare PS&E's for Projects W-101 (Tank #2), and W-110 (Rutherford); and to not include W-106 (Crystal Springs, Madrone Knoll and Stonebridge) in the work. City has requested that Consultant prepare, assemble and forward all W-106 PS&E documents prepared to date for the project to the City.

2. Consultant will assemble and submit the following:

   2.1. Construction Plans. Plans have been completed to a greater than 50% complete format. Refer to Plan List of Attachment 3. The plans contain some, but do not include all, additions or changes requested by City in City's response to Consultant's submittal of the 50% complete plans and subsequent requests of City.

   2.2. Specifications. Draft specifications will be submitted in a preliminary and incomplete format as they had not been requested previously by City in Consultant's 50% submittals to City.

   2.3. Construction Cost Estimate (CCE). CCE's had not been previously submitted but what is available will be submitted in its present format for this amendment.

   2.4. Consultant will submit one copy each of the Geotechnical Exploration Reports for the site performed by Consultant's subconsultant LACO Associates. Consultant will submit one copy of the Site Survey performed by Consultant's subconsultant LACO Associates.

3. Documents will be submitted within 20 working days after Consultant's receipt of Notice to Proceed from City.

4. Parties agree to assign Kenneth G. Davlin, PE, as the Project Manager.

5. City agrees to pay $7,500.00 to Consultant for the work requested for Project W-106.

W-110 Rutherford Pump Station Upgrades

1. W-110 Rutherford Pump Station Deliverables:

1.1. Consultant is to perform the work of this Exhibit A-1 for the conversion of the current set of Plans, Specifications and Construction Cost Estimate (PS&E) documents to a separate W-110 Rutherford Pump Station Project (RPS) set of PS&E's for this Project. Estimated number of plan sheets is shown in Attachment 4. Work will include site inspection of electrical systems, and preparation of reports and recommendations, designs, response to RFI's, and review of and recommendations regarding bids.

1.2. City had previously requested Consultant to prepare Exhibit A-1 for revisions to W-101, W-106 and W-110 at the time of Consultant's 50% submittal of Plans. Consultant prepared work scopes, costs, and schedules and submitted to City as requested. City subsequently requested a revised work scope for this Project. City requests Consultant to prepare this third assessment of work scope and costs for a separate set of PS&E's. A site investigation of existing W-101 Tank #2 fire damage and W-110 Rutherford's electrical system can be done in one trip, and a report will be prepared regarding findings and recommendations for each project site.

1.3. Consultant is to complete the work of this Exhibit A-1 and submit the 90% PS&Es to City in approximate accordance with the Schedule of Attachment 2. Consultant will submit 100% PS&E's to City approximately two weeks after Consultant's receipt of City 90% review comments. Time of performance will depend upon unplannable conditions which may affect both parties resulting from the current virus pandemic and the timing of decisions by City.

1.4. Prepare and submit to City Engineer an application for a Building Permit, or include a permit as a requirement within the Construction Contract. Permit fees to be paid by others.

1.5. Rutherford Design and PS&E's:

1.5.1. City confirms that there exists in-place an 8" steel pipe surrounded by a 6" thick concrete encasement which extends under the existing shipping container building. City requests that the piping system is to remain in-place and operational. The plans currently show the pipe line running under the building. City requests no changes be made to this system, which might affect or interfere with this pipe and its encasement, and which might require a redesign of any portion of the currently in-place piping facilities.

1.5.2. City requests that the revised PS&E's will provide design of a new installed in-place generator at the RPS site, on a new concrete or AC base slab, with no roof structure overhead, at a revised location to be selected by City. Additional design work is necessary to prepare the new PS&E's to incorporate an open-to the-air new generator with no walls nor roof, new electrical design, and supporting components. Provide design and/or improvements to generally conceal the new generator installation itself from the view of highway traffic. The work does not include landscaping. City requests Consultant to perform

additional design and to augment and revise the PS&E's, and Consultant agrees to do the additional design and to make the additions to the PS&E's.

1.5.3. City confirms that the existing in-ground vault on the discharge side of the existing pump station is no longer used to inject chlorine. The vault is now used by City to draw water samples to feed the chlorine analyzer in the pump building. The City requests that the vault remain in-place for future operation by City. OLA agrees to prepare the PS&E's to achieve a design, which allows for and maintains the current City use of the vault.

1.5.4. As a result of a lack of space in the vicinity of the existing pump station, and due to existing easement conflicts, City requests a new design be prepared, which will add fences to the front and rear of the pump station site, but not on the sides of the pump station site. The fences are to be fitted with new gates with locks to restrict access. City is to provide its own locks and locking system. OLA agrees to perform the additional design and to augment and revise the PS&E's. No additional surveying, soils, geotechnical or title work is included.

1.5.5. City requested the removal of the existing 4" pressure sustaining and pressure relief valves, and a study of other design options to provide surge protection between the inlet and outlet sides of the pump station. Since OLA has not been authorized to perform a hydraulic analysis of the City's water system, and City does not now request OLA do such an analysis; and City will not provide such an analysis, OLA cannot make a recommendation nor a design in response to the effects resulting from the removal of the valve, or any other type of modifications regarding surge protection at this time without having available such a study which would become additional work to this scope. City at this time has decided to not make changes in this system, and has directed Consultant to leave in-place the valve as is shown per the 50% plans of the Consultant's previously prepared PS&E's. Consultant will make changes to the valve in the new PS&E's upon agreement of amendment to this scope.

1.5.6. City requests the addition of a secondary containment capability to the chlorine cabinet, which is shown on the 50% plans, and which is to be relocated by engineer's design, with City approval. OLA agrees to add this design and to augment the PS&E's with the additional design.

1.5.7. City requests the design additionally provide for removal of the "packing container" structure, and design of a new CMU building with a concrete floor, all around the existing systems. The building will include the installation of a new hand operated roll up door in the northerly wall of the new building for personnel and minor equipment access. OLA agrees to prepare the new design and to augment the PS&E's. The design of a new concrete floor in the building is intended to raise the floor level about 1 foot above the potential flood level, as recommended by the geotechnical engineer report.

1.6. Prepare and submit to City Engineer an application for a Building Permit, or include as a requirement within the Construction Contract. Permit fees to be paid by others.

2. City agrees to pay an additional $26,000.00 to Consultant for the revisions and additional work for creating a separate set of PS&E's for this amendment.

3. Parties agree to assign Kenneth G. Davlin, PE, as the Project Manager.

4. Permit fees, permit processing costs, any environmental studies, permits or reports, the payment of or reporting upon processing prevailing wages to this project, and any construction management or inspection, and any additional field investigations, sampling, testing and/or reports will be additional costs to this work scope.

City of St. Helena Attachment 1 to Exhibit A-1

W-106 - Crystal Springs BS, Madrone Knoll PS & Stonebridge Wells PS

SHEET NO.	DRAWING NO.	DESCRIPTION
1	G1	COVER SHEET
2	G2	NOTES, LEGEND AND ABBREVIATIONS
3	C1.0	CRYSTAL SPRINGS BOOSTER STATION VICINITY MAP AND SITE PLAN
4	C2.0	MADRONE KNOLL PUMP STATION VICINITY MAP AND SITE PLAN
5	C2.1	MADRONE KNOLL PUMP STATION ENLARGED PLAN & DETAILS
6	C3.0	STONEBRIDGE WELLS PUMP STATION VICINITY MAP AND SITE PLAN
7	C4	DETAILS
8	C5	DETAILS
9	E0	ELECTRICAL LEGEND
10	E1.0	CRYSTAL SPRINGS BOOSTER STATION PLAN VIEW
11	E1.1	CRYSTAL SPRINGS BOOSTER STATION SINGLELINE AND DETAILS
12	E1.2	CRYSTAL SPRINGS BOOSTER STATION SCHEMATIC AND DETAILS
13	E2.0	MADRONE KNOLL PUMP STATION PLAN VIEW
14	E2.1	MADRONE KNOLL PUMP STATION SINGLELINE AND DETAILS
15	E2.2	MADRONE KNOLL PUMP STATION SCHEMATIC AND DETAILS
16	E3.0	STONEBRIDGE WELLS PUMP STATION PLAN VIEW
17	E3.1	STONEBRIDGE WELLS PUMP STATION SINGLELINE AND DETAILS
18	E3.2	STONEBRIDGE WELLS PUMP STATION SCHEMATIC AND DETAILS

City of St. Helena

Engineering and Design Services for Revised W-101 (Tank #2) and W-110 (Rutherford PS)

Prepare Two Separate Bid Packages

Attachment 2 to Exhibit A-1

JN: 7361.5.1
7361.6.1

	Task	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Week 13	Week 14	Week 15	Week 16	Week 17	Week 18	Week 19	Week 20	Week 21	Week 22
1	Project Management																						
2	Site Investigations & Report																						
3	Prepare 90% Plans & Submit to City (General, Civil, Electrical, Detail Plans)																						
	W-101 (Tank #2)																						
	W-101 City Review & Response																						
	W-110 (Rutherford PS)																						
	W-110 City Review & Response																						
4	Prepare 90% Specs & Submit to City																						
	W-101 (Tank #2)																						
	W-101 City Review & Response																						
	W-110 (Rutherford PS)																						
	W-110 City Review & Response																						
5	Prepare 90% Cost Opinion & Submit to City																						
	W-101 (Tank #2)																						
	W-101 City Review & Response																						
	W-110 (Rutherford PS)																						
	W-110 City Review & Response																						
6	Prepare 100% PS&E's & Submit to City																						
	W-101 (Tank #2)																						
	W-101 City Review & Acceptance/Process																						
	W-110 (Rutherford PS)																						
	W-110 City Review & Acceptance/Process																						
7	City Bid Process - 5 Weeks																						
	W-101 (Tank #2)																						
	W-110 (Rutherford PS)																						
8	OLA Support During Bidding																						
	W-101 (Tank #2)																						
	W-110 (Rutherford PS)																						
9	City Award Process																						
	W-101 (Tank #2)																						
	W-110 (Rutherford PS)																						

Oscar Larson & Associates
Engineering - Planning - Construction Management

City of St. Helena Attachment 3 to Exhibit A-1

W-106 - Crystal Springs BS, Madrone Knoll PS & Stonebridge Wells PS

SHEET NO.	DRAWING NO.	DESCRIPTION
1	G1	COVER SHEET
2	G2	NOTES, LEGEND AND ABBREVIATIONS
3	C1.0	CRYSTAL SPRINGS BOOSTER STATION VICINITY MAP AND SITE PLAN
4	C2.0	MADRONE KNOLL PUMP STATION VICINITY MAP AND SITE PLAN
5	C2.1	MADRONE KNOLL PUMP STATION ENLARGED PLAN & DETAILS
6	C3.0	STONEBRIDGE WELLS PUMP STATION VICINITY MAP AND SITE PLAN
7	C4	DETAILS
8	C5	DETAILS
9	E0	ELECTRICAL LEGEND
10	E1.0	CRYSTAL SPRINGS BOOSTER STATION PLAN VIEW
11	E1.1	CRYSTAL SPRINGS BOOSTER STATION SINGLELINE AND DETAILS
12	E1.2	CRYSTAL SPRINGS BOOSTER STATION SCHEMATIC AND DETAILS
13	E2.0	MADRONE KNOLL PUMP STATION PLAN VIEW
14	E2.1	MADRONE KNOLL PUMP STATION SINGLELINE AND DETAILS
15	E2.2	MADRONE KNOLL PUMP STATION SCHEMATIC AND DETAILS
16	E3.0	STONEBRIDGE WELLS PUMP STATION PLAN VIEW
17	E3.1	STONEBRIDGE WELLS PUMP STATION SINGLELINE AND DETAILS
18	E3.2	STONEBRIDGE WELLS PUMP STATION SCHEMATIC AND DETAILS

City of St. Helena Attachment 4 to Exhibit A-1

W-110 - Rutherford Pump Station

SHEET NO.	DRAWING NO.	DESCRIPTION
1	G1	COVER SHEET
2	G2	NOTES, LEGEND AND ABBREVIATIONS
3	C1	SITE PLAN
4	C2	PIPING PLAN
5	C3	FLOOR PLAN & ELEVATIONS
6	C4	DETAILS - BUILDING
7	C5	DETAILS - SITE
8	C6	DETAILS - TYPICAL
9	E0	ELECTRICAL LEGEND
10	E1	SITE PLAN
11	E2	SINGLELINE & DETAILS
12	E3	CONDUIT PLAN & GENERATOR CONTROLS
13	E4	CONDUIT PLANS & SCHEDULE
14	E5	PUMP CONTROLLER SCHEMATIC
15	E6	PLC AND INSTRUMENT DIAGRAMS

Exhibit B-1
"Compensation"

A summary of the expected budget by project is as follows:

Amendment No. 1 Design Services

W-101 Tank Rehabilitation	$19,000
W-106 Pump Station Upgrades	$7,500
W-110 Rutherford Pump Station	$26,000
Amendment No. 1 Design Services Total:	**$52,500**

All work will be performed in accordance with the professional services agreement between the City and the Consultant. Services will be invoiced on a time and materials basis in accordance with standard billing rate schedule per project and in effect when services are rendered.

STH CONTRACT: FY 2019-028

AGREEMENT FOR PROFESSIONAL SERVICES

THIS AGREEMENT, made and entered into on 9/25, 2018 by and between the City of St. Helena, located in the County of Napa, State of California (City), and Oscar Larson and Associates (Consultant).

RECITALS:

A. City desires to employ Consultant to furnish professional services in connection with the project described as Rutherford Pump Station Upgrades W-110, Tank 2 Rehabilitation W-101, and Pump Station Upgrades W-106.

B. Consultant has represented that Consultant has the necessary expertise, experience, and qualifications to perform the required duties.

NOW, THEREFORE, in consideration of the mutual premises, covenants, and conditions herein contained, the parties agree as follows:

SECTION 1 – BASIC SERVICES

Consultant agrees to perform the services set forth in **Exhibit A, "Scope of Services"** and made part of this Agreement.

SECTION 2 – ADDITIONAL SERVICES

Consultant shall not be compensated for any services rendered in connection with its performance of this Agreement that are in addition to or outside of those set forth in this Agreement or **Exhibit A, "Scope of Services"**, unless such additional services and compensation are authorized in advance and in writing by the City Council or City Manager of the City.

SECTION 3 – TIME FOR COMPLETION

The time for completion of services shall be as identified in **Exhibit A, "Scope of Services"**.

SECTION 4 – COMPENSATION AND METHOD OF PAYMENT

A. Subject to any limitations set forth in this Agreement, City agrees to pay consultant the amount specified in Exhibit B, "Compensation" attached hereto and made a part hereof. Total compensation shall not exceed $145,190 unless additional compensation is approved in accordance with Section 2.

B. Consultant shall furnish to City an original invoice for all work performed and expenses incurred during the preceding month. The invoice shall detail charges by the following categories if applicable: labor (by sub-category), travel, materials, equipment, supplies, subconsultant contracts, and miscellaneous expenses. Each original invoice furnished shall include the expenses incurred during the preceding month, the cumulative Agreement amount,

and the amount remaining on the Agreement. City shall independently review each invoice submitted to determine whether the work performed and expenses incurred are in compliance with the provisions of this Agreement. If no charges or expenses are disputed, the invoice shall be approved, and City will use its best efforts to cause Consultant to be paid within 30 days of receipt of invoice. If the City disputes any charges or expenses, the City will return the original invoice to Consultant for correction and resubmission. If the City reasonably determines, in its sole judgment, that the invoiced charges and expenses exceed the value of the services performed to date and that it is probable that the Agreement will not be completed satisfactorily within the contract price, City may retain all or a portion of the invoiced charges and expenses. Within thirty (30) days of satisfactory completion of the project, City shall pay the retained amount, if any, to Consultant.

C. Payment to the Consultant for work performed pursuant to this Agreement shall not be deemed to waive any defects in work performed by Consultant.

SECTION 5 – STANDARD OF PERFORMANCE

Consultant represents and warrants that it has the qualifications, experience and facilities necessary to properly perform the services required under this Agreement in a thorough, competent and professional manner. Consultant shall at all times faithfully, competently and to the best of its ability, experience and talent, perform all services described herein. In meeting its obligations under this Agreement, Consultant shall employ, at a minimum, generally accepted standards and practices utilized by persons engaged in providing services similar to those required of Consultant under this Agreement.

SECTION 6 – INSPECTION AND FINAL ACCEPTANCE

City may inspect and accept or reject any of Consultant's work under this Agreement, either during performance or when completed. City shall reject or finally accept Consultant's work within sixty (60) days after submitted to City, unless the parties mutually agree to extend such deadline. City shall reject work by a timely written explanation, otherwise Consultant's work shall be deemed to have been accepted. City's acceptance shall be conclusive as to such work except with respect to latent defects and fraud. Acceptance of any of Consultant's work by City shall not constitute a waiver of any of the provisions of this Agreement including, but not limited to, the sections pertaining to indemnification and insurance.

SECTION 7 – INSURANCE REQUIRED

Consultant shall procure and maintain for the duration of the contract insurance against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the work hereunder by the Consultant, its agents, representatives, or employees, as indicated:

A. Minimum Scope of Insurance. Coverage shall be at least as broad as:
   1. Insurance Services Office Commercial General Liability coverage (occurrence form CG 0001).
   2. Insurance Services Office form number CA 0001 (Ed. 1/87) covering Automobile Liability, code 1 (any auto).

3. Workers' Compensation insurance as required by the State of California and Employer's Liability Insurance.

B. Minimum Limits of Insurance. Consultant shall maintain limits no less than:

1. General Liability: $2,000,000 per occurrence for bodily injury, personal injury and property damage including operations, products and completed operations, as applicable. If Commercial General Liability Insurance or other form with a General Liability Insurance or other form with a general aggregate limit is used, either the general aggregate limit shall apply separately to this project/location or the general aggregate limit shall be twice the required occurrence limit.
2. Automobile Liability: $2,000,000 per accident for bodily injury and property damage.
3. Employer's Liability: $2,000,000 per accident for bodily injury or disease.

C. Professional Liability Insurance. When Consultant under this Agreement is duly licensed under California Business and Professions Code as an architect, landscape architect, environmental engineer or other professional engineer, or land surveyor ("design professional"), Consultant shall maintain at least $2,000,000 of professional liability insurance.

D. Excess Limits. If Consultant maintains higher limits than the minimums shown above, City requires and shall be entitled to coverage for the higher limits maintained by Consultant. Any available insurance proceeds in excess of the specified minimum limits of insurance and coverage shall be available to the City.

E. Primary Coverage. For any claims related to this contract the Consultants insurance coverage shall be primary insurance as respects to City, its officers, officials, employees and volunteers. Any insurance or self-insurance maintained by the City, its officers, officials, employees, or volunteers shall be excess of Consultants insurance and shall not contribute with it.

F. Deductibles and Self-Insured Retentions. Any deductibles or self-insured retentions of $25,000 or greater must be declared to and approved by the City.

G. Other Insurance Provisions. The commercial general liability and automobile liability policies are to contain, or be endorsed to contain, the following provisions:

1. The City, its agent, officers, officials, employees, and volunteers are to be covered as additional insured as respects: liability arising out of work or operations performed by the Consultant or Consultant's subconsultants; or automobile owned, leased, hired or borrowed by the Consultant.
2. For any claims related to Consultant's conduct while performing the work of this project, the Consultant's insurance coverage shall be primary insurance as respects the City, its agents, officers, officials, employees and volunteers. Any insurance or self-insurance maintained by the City, its agents, officers, officials, employees or volunteers shall be excess of the Consultant's insurance and shall not contribute with it.
3. Each insurance policy required by this clause shall be endorsed to state that coverage shall not be cancelled by either party, except after thirty (30) days prior

written notice by certified mail, return receipt requested, has been given to the City.

4. Coverage shall not extend to any indemnity coverage for the active negligence of the additional insured in any case where an agreement to indemnify the additional insured would be invalid under Subsection (b) of Section 2782 of the Civil Code.

H. Waiver of Subrogation. Consultant's commercial general liability, automobile liability, workers' compensation, and employer's liability policies shall be endorsed with a waiver of subrogation. The insurance company, in its endorsement, agrees to waive all rights of subrogation against the City, its agents, officers, officials, employees and volunteers for losses paid under the terms of this policy which arises from the work performed by the named insured for the City.

I. The Acceptability of Insurers. Insurance is to be placed with insurers with a current A.M. Best's rating of no less than A: VII, unless otherwise acceptable to the City.

J. Verification of Coverage. Consultant shall furnish the City with original certificates and amendatory endorsements effecting coverage required by this clause. The endorsements should be on forms provided by the City or on forms that conform to City requirements. All certificates and endorsements are to be received and approved by the City before work commences. The City reserves the right to require complete, certified copies of all required insurance policies, including endorsements affecting the coverage required by these specifications at any time.

SECTION 8 – INDEMNIFICATION

A. To the fullest extent allowed by law (including without limitation California Civil Code Sections 2782 and 2782.8), as may be applicable, Consultant shall indemnify and hold harmless City, its agents, officers, officials, employees, and volunteers from any and all claims, demands, suits, loss, damages, injury, and/or liability (including any and all costs and expenses in connection therewith) (collectively, "Liabilities"), incurred by reason of any negligent or otherwise wrongful act or omission of Consultant, its officers, agents, employees and subcontractors, or any of them, under or in connection with this Agreement; and Consultant agrees at its own cost, expense and risk to defend any and all claims, actions, suits, or other legal proceedings brought or instituted against City, its agents, officers, officials, employees and volunteers, or any of them, arising out of such negligent or otherwise wrongful act or omission, and to pay and satisfy any resulting judgments.

B. When Consultant under this Agreement is duly licensed under California Business and Professions Code as an architect, landscape architect, professional engineer, or land surveyor ("design professional"), the provisions of this section regarding Consultant's duty to defend and indemnify apply only to claims that arise out of or relate to the negligence, recklessness, or willful misconduct of the design professional.

C. If any action or proceeding is brought against Indemnitees by reason of any of the matters against which Consultant has agreed to indemnify Indemnitees as provided above, Consultant, upon notice from City, shall defend Indemnitees at Consultant's expense by counsel acceptable to City, such acceptance not to be unreasonably withheld. Indemnitees need not have

first paid for any of the matters to which Indemnitees are entitled to Indemnification in order to be so indemnified. The insurance required to be maintained by Consultant shall ensure Consultant's obligations under this section, but the limits of such insurance shall not limit the liability of Consultant hereunder. The provisions of this section shall survive the expiration or earlier termination of this Agreement.

D. The provisions of this section do not apply to claims to the extent occurring as a result of the City's sole negligence, active negligence, or willful acts or misconduct.

E. Duty to Cooperate. Each party shall notify the other party immediately in writing of any claim or damage related to activities or services performed under this Agreement. The parties shall cooperate with each other in the investigation and disposition of all Liabilities arising out of the activities or services under this Agreement.

SECTION 9 – INDEPENDENT CONTRACTOR STATUS

A. Consultant is and shall at all times remain a wholly independent contractor and not an officer, employee or agent of City. Consultant shall have no authority to bind City in any manner or to incur an obligation, debt or liability of any kind on behalf of or against City, whether by contract or otherwise, unless such authority is expressly conferred under this Agreement or is otherwise expressly conferred in writing by City.

B. The personnel performing the services under this Agreement on behalf of Consultant shall at all times be under Consultant's exclusive direction and control. Neither City, nor any elected or appointed boards, officers, officials, employees or agents of City, shall have control over the conduct of Consultant or any of Consultant's officers, employees or agents, except as set forth in this Agreement. Consultant shall not at any time or in any manner represent that Consultant or any of Consultant's officers, employees or agents are in any manner officials, officers, employees or agents of City.

C. Neither Consultant, nor any of Consultant's officers, employees or agents, shall obtain any rights to retirement, health care or any other benefits which may otherwise accrue to City's employees. Consultant expressly waives any claim Consultant may have to any such rights.

SECTION 10 – CONFLICTS OF INTEREST AND ANTI-FRAUD AND ANTI-CORRUPTION POLICIES

A. Consultant covenants that neither it, nor any officer or principal of its firm, has or shall acquire any interest, directly or indirectly, which would conflict in any manner with the interests of City or which would in any way hinder Consultant's performance of services under this Agreement. Consultant further covenants that in the performance of this Agreement, no person having any such interest shall be employed by it as an officer, employee, agent, or subcontractor without the express written consent of the City Manager. Consultant agrees to at all times avoid conflicts with the interests of City in the performance of this Agreement.

B. City understands and acknowledges that Consultant is, as of the date of execution of this Agreement, independently involved in the performance of non-related services for other governmental agencies and private parties. Consultant is aware of any stated position of City

relative to such projects. Any future position of City on such projects shall not be considered a conflict of interest for purposes of this section.

C. Consultant understands and acknowledges City maintains an anti-fraud and anti-corruption policy to protect the City, its operations, and its employees from and against financial risks, operational breaches, and unethical, fraudulent and corrupt activities. Consultant represents and warrants that Consultant, its subcontractor(s) / subconsultant(s) and their respective employees providing services pursuant to the Agreement are (1) in good standing; (2) have not been previously investigated, convicted, or debarred for fraudulent or corrupt activities; (3) will not participate in fraudulent or corrupt activities, and (4) will take steps to ensure that its employees and subcontractor(s) / subconsultant(s) employees do not participate in any fraudulent or corrupt activities. Consultant acknowledges and agrees further that it has a duty to and will report to City any information or incident(s) about possible fraudulent or corrupt activities Consultant may discover, and will cooperate in any fraud or corruption investigation conducted, with respect to Consultant's service provided pursuant to this Agreement.

SECTION 11 – OWNERSHIP OF DOCUMENTS

A. All original maps, models, designs, drawings, photographs, studies, surveys, reports, data, notes, computer files, files and other documents prepared, developed or discovered by Consultant in the course of providing any services pursuant to this Agreement shall become the sole property of City and may be used, reused or otherwise disposed of by City without the permission of the Consultant. When requested by City, but no later than three years after project completion, Consultant shall deliver to City all such original maps, models, designs, drawings, photographs, studies, surveys, reports, data, notes, computer files, files and other documents.

B. All copyrights, patents, trade secrets, or other intellectual property rights associated with any ideas, concepts, techniques, inventions, processes, improvements, developments, works of authorship, or other products developed or created by Consultant during the course of providing services (collectively the "Work Product") shall belong exclusively to City. The Work Product shall be considered a "work made for hire" within the meaning of Title 17 of the United States Code. Without reservation, limitation, or condition, Consultant hereby assigns, at the time of creation of the Work Products, without any requirement of further consideration, exclusively and perpetually, any and all right, title, and interest Consultant may have in the Work Product throughout the world, including without limitation any copyrights, patents, trade secrets, or other intellectual property rights, all rights of reproduction, all rights to create derivative works, and the right to secure registrations, renewals, reissues, and extensions thereof.

SECTION 12 – CONFIDENTIAL INFORMATION; RELEASE OF INFORMATION

A. All information gained or work product produced by Consultant in performance of this Agreement shall be considered confidential, unless such information is in the public domain or already known to Consultant. Consultant shall not release or disclose any such information or work product to persons or entities other than City without prior written authorization from the City Manager, except as may be required by law.

B. Consultant, its officers, employees, agents or subcontractors, shall not, without prior written authorization from the City Manager or unless requested by the City Attorney of City, voluntarily provide declarations, letters of support, testimony at depositions, response to interrogatories or other information concerning the work performed under this Agreement. Response to a subpoena or court order shall not be considered "voluntary" provided consultant gives City notice of such court order or subpoena.

C. If Consultant, or any officer, employee, agent or subcontractor of Consultant, provides any information or work product in violation of this Agreement, then City shall have the right to reimbursement and indemnity from Consultant for any damages, costs and fees, including attorneys' fees, caused by or incurred as a result of Consultant's conduct.

D. Consultant shall promptly notify City should Consultant, its officers, employees, agents or subcontractors be served with any summons, complaint, subpoena, notice of deposition, request for documents, interrogatories, request for admissions or other discovery request, court order or subpoena from any party regarding this Agreement and the work performed thereunder. City retains the right, but has no obligation, to represent Consultant or be present at any deposition, hearing or similar proceeding. Consultant agrees to cooperate fully with City and to provide City with the opportunity to review any response to discovery requests provided by Consultant. However, this right to review any such response does not imply or mean the right by City to control, direct, or rewrite such response.

SECTION 13 – SUSPENSION OF WORK

City may, at any time, by ten (10) days written notice suspend further performance by Consultant. All suspensions shall extend the time schedule for performance in a mutually satisfactory manner and Consultant shall be paid for services performed and reimbursable expenses incurred prior to the suspension date.

SECTION 14 – COMPLIANCE WITH LAW

Consultant shall keep itself informed of and comply with all applicable federal, state and local laws, statutes, codes, ordinances, regulations and rules in effect during the term of this Agreement. Consultant shall obtain any and all licenses, permits and authorizations necessary to perform the services set forth in this Agreement. Neither City, nor any elected or appointed boards, officers, officials, employees or agents of City, shall be liable, at law or in equity, as a result of any failure of Consultant to comply with this section.

SECTION 15 – COMPLIANCE WITH CIVIL RIGHTS

During the performance of this contract, Consultant agrees as follows:

A. Equal Employment Opportunity. In connection with the execution of this Agreement, Consultant shall not discriminate against any employee or applicant for employment because of race, religion, color, ancestry, age, sexual orientation, gender, gender identity and gender expression as protected categories specifically and expressively in that category, physical handicap, medical condition, marital status, sex, or national origin. Such actions shall include, but not be limited to, the following: employment, promotion, upgrading, demotion, or transfer;

recruitment or recruitment advertising; layoff or termination; rate of pay or other forms of compensation; and selection for training including apprenticeship.

B. Nondiscrimination Civil Rights Act of 1964. Consultant will comply with all federal regulations relative to nondiscrimination to federally-assisted programs.

C. Solicitations for Subcontractors including Procurement of Materials and Equipment. In all solicitations, either by competitive bidding or negotiations, made by Consultant for work to be performed under a subcontract, including procurement of materials or leases of equipment, each potential subcontractor, supplier, or lessor shall be notified by Consultant of Consultant's obligations under this Agreement and the regulations relative to nondiscrimination.

SECTION 16 – RECORDS

A. Records of Consultant's direct labor costs, payroll costs, and reimbursable expenses pertaining to this project covered by this Agreement will be kept on a generally recognized accounting basis and made available to City if and when required for a period of up to 3 years from the date of Consultant's final invoice.

B. Consultant's records and design calculations will be available for examination and audit if and as required. The cost of any reproductions shall be paid by City.

SECTION 17 – COOPERATION BY CITY

All public information, data, reports, records, and maps as are existing and available to City as public records, and which are necessary for carrying out the work as outlined in the Exhibit A, "Scope of Services", shall be furnished to Consultant in every reasonable way to facilitate, without undue delay, the work to be performed under this Agreement.

SECTION 18 – NOTICES

All notices required or permitted to be given under this Agreement shall be in writing and shall be personally delivered, or sent by facsimile or first class mail, addressed as follows:

To City:
City Manager
1480 Main Street
St. Helena, California 94574

To Consultant:
John N. DeBoice, P.E., Ph.D.
317 Third Street
2nd Floor
Eureka, CA 95501

Notice shall be deemed effective on the date personally delivered or transmitted by facsimile, or, if mailed, three (3) days after deposit in the custody of the U.S. Postal Service.

SECTION 19 – TERMINATION

A. City may terminate this Agreement, with or without cause, at any time by giving ten (10) days written notice of termination to Consultant. If such notice is given, Consultant shall cease immediately all work in progress.

B. If either Consultant or City fail to perform any material obligation under this Agreement, then, in addition to any other remedies, either Consultant, or City may terminate this Agreement immediately upon written notice.

C. Upon termination of this Agreement by either Consultant or City, all property belonging to City which is in Consultant's possession shall be delivered to City. Consultant shall furnish to City a final invoice for work performed and expenses incurred by Consultant, prepared as set forth in this Agreement.

SECTION 20 – ATTORNEYS' FEES

If litigation or other proceeding is required to enforce or interpret any provision of this Agreement, the prevailing party in such litigation or other proceeding shall be entitled to an award of reasonable attorneys' fees, costs and expenses, in addition to any other relief to which it may be entitled. In addition, any legal fees, costs and expenses incurred to enforce the provisions of this Agreement shall be reimbursed to the prevailing party.

SECTION 21 – ENTIRE AGREEMENT

This Agreement, including the attached Exhibits, is the entire, complete, final and exclusive expression of the parties with respect to the matters addressed therein and supersedes all other agreements or understandings, whether oral or written, or entered into between Consultant and City prior to the execution of this Agreement. No statements, representations or other agreements, whether oral or written, made by any party which are not embodied herein shall be valid and binding unless in writing duly executed by the parties or their authorized representatives.

SECTION 22 – SUCCESSORS AND ASSIGNS

This Agreement shall be binding on the heirs, executors, administrators, successors and assigns of the parties. However, this Agreement shall not be assigned by Consultant without written consent of the City.

SECTION 23 – CONTINUITY OF PERSONNEL

Consultant shall make every reasonable effort to maintain the stability and continuity of Consultant's staff assigned to perform the services required under this Agreement. Consultant shall notify City of any changes in Consultant's staff assigned to perform the services required under this Agreement, prior to any such performance.

SECTION 24 – DEFAULT

In the event that Consultant is in default under the terms of this Agreement, the City shall not have any obligation or duty to continue compensating Consultant for any work performed after the date of default and may terminate this Agreement immediately by written notice to Consultant.

SECTION 25 – WAIVER

Waiver by any party to this Agreement of any term, condition, or covenant of this Agreement shall not constitute a waiver of any other term, condition, or covenant. Waiver by any party of any breach of the provisions of this Agreement shall not constitute a waiver of any other provision, or a waiver of any subsequent breach or violation of any provision of this Agreement. Acceptance by City of any work or services by Consultant shall not constitute a waiver of any of the provisions of this Agreement.

SECTION 26 – LAW TO GOVERN; VENUE

This Agreement shall be interpreted, construed and governed according to the laws of the State of California. In the event of litigation between the parties, venue in state trial courts shall lie exclusively in the County of Napa. In the event of litigation in a U.S. District Court, venue shall lie exclusively in the Northern District of California, in San Francisco.

SECTION 27 – SEVERABILITY

If any term, condition or covenant of this Agreement is declared or determined by any court of competent jurisdiction to be invalid, void or unenforceable, the remaining provisions of this Agreement shall not be affected thereby and the Agreement shall be read and construed without the invalid, void or unenforceable provision(s).

SECTION 28 – SPECIAL PROVISIONS

This Agreement is subject to the following special provisions: none.

IN WITNESS WHEREOF, the parties hereto have accepted, made, and executed this Agreement upon the terms, conditions, and provisions above stated, the day and year first above written.

Consultant:

By: _____
Name: JOHN N. DEBONCE
Title: SENIOR ENGINEER

City:

By: _____
Name: Mark T. Prestwich
Title: City Manager

Approved as to Form:

By: _____
Name: Thomas B. Brown
Title: City Attorney

Exhibit A

Scope of Services

Task 1 Project Management, Kick-off Meeting, Field Investigation, Document Review and Land Owner Outreach

Task 1 consists of 5 subtask and includes project management, kick off and other meetings, field investigations, document review, topographical surveys for all applicable facilities, geotechnical investigation and technical memorandum, as well as landowner and PG&E coordination.

1.1 Project Management

Consultant to provide overall project management for the duration of the project under this task.

1.2 Kick-off and City Council Meetings

Consultant will initiate the project by having a kick-off meeting with City staff to introduce key staff members, establish communications, obtain all relevant documentation and review the City staff goals for each project. The consultant will participate in a kick-off meeting, regular updates and milestone meetings with city staff to discuss project progress, design and engineering specifics and seek City staff approval. A minimum of one in-person meeting in St. Helena is required and other meetings can be by conference call. If the consultant is required to present at City Council meetings to answer questions from City Council and the public, or additional in person meetings with staff, costs would additional and could be funded through contingency tasks. .

1.3 Field Investigations, Document Review, Site Inspections and Property Survey

Consultants will conduct detailed site inspections of each facility with City staff to further discuss existing conditions and goals for all improvements. City staff will provide consultants with available facility documentation including but not limited to drawings, operations data and property information. The consultant shall perform topographical survey of each of the project sites as required to obtain the necessary information for design improvements. The survey will include:

- Review of City provided base maps and as-built drawings for information of existing structures and utilities.
- Collect survey data on existing features, such as water tanks, fences, structures, access roads, above ground utilities, water features, trees greater that 6" diameter, grade breaks and elevations as necessary.
- Establish true horizontal and vertical datums on site with use of GPS survey techniques.
- Provide location of bench marks for use in the design phase of the project.
- Process and analyze field data for use with computer aided drafting software.
- Prepare a base map and existing ground surface (.dwg format).
- Utilize GIS software to deliver maps of facilities to the City of St. Helena.

Consultant will also perform research into existing easement record data at project locations in order to determine project feasibility and access rights. Tasks include the following:

Review City provided Preliminary Title Reports, base maps, and as-built drawings for information pertaining to existing easements benefiting the City of St. Helena

- Perform calculations to construct easement locations based on record data
- Incorporate easements into base maps (.dwg format)
- Utilize GIS software to deliver maps of easements to the City of St. Helena

1.4 Geotechnical Investigation

After determining the extent of locations of the tank(s) and other structures, a geotechnical investigation of those location will be performed to obtain information for design of foundations and structures. The geotechnical exploration will address the planned new generator at Madrone Knoll pump station and the new pump station building at Rutherford Pump Station. The following will be performed:

- Review City Projected existing maps and reports regarding geologic/geotechnical conditions in the project vicinity
- Obtain drilling permits with the County of Napa Department of Environmental Health
- Explore subsurface conditions by drilling 2 test borings up to 40 feet deep at new tank site, 2 test borings up to 15 feet deep at Madrone Knoll Pump house, and 2 test borings, up to 15 feet deep at the new Rutherford Pump Station Building.
- Log borings and obtain samples of the soil/rock materials encountered.
- Perform laboratory testing on selected soil/rock samples, including strength, classification, density and moisture content, resistance (R-) value, and maximum density, as necessary.
- Using the results of our field and laboratory tests, perform the necessary geologic and engineering analysis to develop conclusions and recommendations regarding the following:
    - Foundation type and design criteria
    - Estimates of foundation settlement
    - Site preparation and grading
    - Allowable cut and fill inclinations
    - Lateral earth pressures for retaining walls
    - Surface and subsurface drainage
    - Flexible pavement design
    - Construction considerations, including rock excavatibility
- Consultant to provide City with geotechnical results if a brief technical memorandum.

1.5 Landowner Outreach and PG&E Coordination

Consultant will obtain contact information from the City of the landowners impacted by the projects and write letters to inform them of the project and request any available mapping or other relevant information and documentation. Additionally the consultant shall coordinate all projects with PG&E representative for the City to obtain necessary service, approvals and upgrades from PG&E.

1.6 Contingency for Task 1

The contingency task will cover any unforeseen costs related to Task 1 such as additional in person meetings, presentations by consultant to City Council if needed, additional geotechnical work, etc.

Task 2: Tank 2 Rehabilitation

Task 3 will address the design, engineering, specification and bid supported required for the rehabilitation and recoating Tank 2.

2.1 Plans and Specifications

The consultant will prepare plans and specifications in the City's format to be submitted for review. The final submittal will include full and half sized hard copies and digital copies in both pdf and AutoCAD format. The City will provide comments on the 50 and 90% plan submittals. If necessary, the consultant shall meet with the City to discuss the comments and concerns. The plans will consist of the following at a minimum:

- Cover Sheet
- Site Plan and Details
- Electrical plan and details

The design will address the existing tank mixing issued and include modifications to improve the tank mixing.

Deliverables are as follows:

- 50% Plans and Specification Submittal to City
- 90% Plans and Specification Submittal to the City
- Bid Set Plans and Specifications Submittal to the City

2.2 Prepare Cost Estimate

The consultant will prepare a detailed cost estimate which will be submitted to the City in a preliminary form with the 90% submittal of the plans and in final form with the bid set plans and specifications.

2.3 Respond to RFIs & Other Bidding Services

The consultant will be available as necessary to respond to any request for information RFIs during the bidding process and to assist with other aspects of the bidding process.

2.4 Contingency for Task 3

The contingency is intended to cover any additional costs related to Task 3 such as additional meetings, unforeseen changes to plan and specifications, additional bidding support services, etc.

Task 3: Pump Station and Stonebridge Wells Upgrades

Task 4 will integrate back-up generation at the Stonebridge Wells Facility, Crystal Springs Booster Station and a new pumping station with back-up generation at the Rutherford Pump Station. The facilities will be evaluated under Task 1.2 to determine what improvements are needed to streamline back-up generation and replace the existing Rutherford Pump Station.

Task 3.1 Plans and Specifications

Plans and Specifications will be developed under this task. The design will address how to maintain service to customers during construction of the improvements. Plan set will included, at a minimum:

- Notes, symbols & abbreviations

- Site plan – existing
- Site plan – proposed
- Erosion and sediment control plan (if applicable)
- Pump station site plan & interior
- Standby generator foundation
- Electrical plan and details
- Control details and diagrams

Deliverables include:

- 50% Plans and Specifications Submittal to City
- 90% Plans and Specifications Submittal to City
- Bid Set Plans and Submittals to the City

3.2 Prepare Cost Estimate

The consultant will prepare a detailed cost estimate which will be submitted to the City in preliminary form with the 90% submittal of the plans and in final form with the bid set submittal.

3.3 Respond to RFIs and Other Bidding Services

The consultant shall be available to respond to any information RFI during the bidding process and to assist with other aspects of the bidding process.

3.4 Prepare Record Drawings

At the completion of the construction of the various projects, the consultant will prepare and submit to the City record drawings based on information provided by the City.

Exhibit B

Compensation

Task	Subtask	Description	Total
1	1.1	Project Management	$2,998
	1.2	Kick-off Meeting	$3,703
	1.3	Field Investigation and Inspection, Document Review and Property Survey	$26,572
	1.4	Geotechnical Investigation	$19,809
	1.5	Landowner Outreach and PG&E Coordination	$1,274
	1.6	Contingency for Task 1	$5,000
2	2.1	Plans and Specifications - Tank 2 Rehabilitation	$12,484
	2.2	Prepare Cost Estimates	$1,295
	2.3	Respond to RFIs and Other Bidding Services	$2,500
	2.4	Contingency for Task 3	$875
3	3.1	Prepare Plans and Specifications	$53,259
	3.2	Prepare Cost Estimates	$9,324
	3.3	Respond to RFIs and Other Bidding Services	$2,646
	3.4	Prepare Record Drawings	$3,451
		TOTAL	**$145,190**

Tank 2 Rehabilitation

Project No: W-101

Category: Water

Project Location: APN 022-420-019

Responsible Department:

PROJECT PURPOSE & DESCRIPTION: Rehabilitate Tank 2 at Lower Reservoir.

EXPENDITURE ACCOUNTS:

Fund: 763 **Dept**: 5030

EXPENDITURES	Total YTD	Rollover Funds	2020-21	2021-22	2022-23	2023-24	2024-25	PROJECT TOTAL
3110 - Design	20,204		15,000					35,204
3150 - Construction Management		53,051						53,051
3160 - Construction Contract	8,572	561,428						570,000
3170 - Contingency		60,000						60,000
EXPENDITURE TOTALS	28,776	674,479	15,000					718,255
FUNDING SOURCES								
763-Water Capital Improvement	28,776	674,479	15,000					718,255
FUNDING TOTALS	28,776	674,479	15,000					718,255

Pump Station Upgrades

Project No: W-106

Category: Water

Project Location: Crystal Springs Booster

Responsible Department:

PROJECT PURPOSE & DESCRIPTION: Upgrade existing pump stations with back-up power in the event of a power outage as required by the State Department of Health

EXPENDITURE ACCOUNTS:

Fund: 763 **Dept**: 5030

EXPENDITURES	Total YTD	Rollover Funds	2020-21	2021-22	2022-23	2023-24	2024-25	PROJECT TOTAL
3110 - Design	46,704	6,147						52,851
3150 - Construction Management		20,000						20,000
3160 - Construction Contract		127,149						127,149
3170 - Contingency			5,000					5,000
EXPENDITURE TOTALS	46,704	153,296	5,000					205,000
FUNDING SOURCES								
763-Water Capital Improvement	46,704	153,296	5,000					205,000
FUNDING TOTALS	46,704	153,296	5,000					205,000

Rutherford Pump Upgrade

Project No: W-110

Category: Water

Project Location: 1851 St Helena Hwy.

Responsible Department:

PROJECT PURPOSE & DESCRIPTION: Upgrade electrical equipment and install permanent structure.

FY 21 Design and FY 22 Construction

EXPENDITURE ACCOUNTS:

Fund: 763 **Dept**: 5030

EXPENDITURES	Total YTD	Rollover Funds	2020-21	2021-22	2022-23	2023-24	2024-25	PROJECT TOTAL
3110 - Design	58,476	1,524	20,000					80,000
3150 - Construction Management				50,000				50,000
3160 - Construction Contract	2,384	3,116		350,000				355,500
3170 - Contingency				50,000				50,000
EXPENDITURE TOTALS	60,860	4,640	20,000	450,000				535,500
FUNDING SOURCES								
763-Water Capital Improvement	60,860	4,640	20,000	450,000				535,500
FUNDING TOTALS	60,860	4,640	20,000	450,000				535,500

Report to the City Council
Regular City Council - 26 Jan 2021

Agenda Section: **CONSENT ITEMS**

Subject: **Consideration and proposed approval of a Resolution authorizing the waiver of certain development impact fees in an amount not to exceed $76,987.68 in order to accommodate a five-unit affordable housing project at 963 Pope Street in the Medium Density Residential district.**

CEQA Determination: **Exempt**

Prepared By: Aaron Hecock, Senior Planner

Reviewed By: Maya DeRosa, Planning & Building Director

Approved By: Mark T. Prestwich, City Manager

BACKGROUND

On August 27, 2019 the City Council authorized entering into a loan agreement with Our Town St. Helena (OTSH) in an amount not to exceed $450,000 from the Affordable Housing Trust Fund and Measure E Funds for OTSH to acquire the property located at 963 Pope Street (both parcels) in order to facilitate additional affordable housing in the City (Attachment 1).

On May 27, 2020 the OTSH submitted planning applications for a use permit, design review, and a lot merger in order to construct four new affordable units (one unit is existing) on the property located at 963 Pope Street (Planning File No. PL20-015).

On November 10, 2020 the City Council approved a Resolution authorizing: (1) the payment of in-lieu fees to achieve water neutrality to accommodate a five unit affordable housing project at 963 Pope Street; (2) use of Affordable Housing Trust Funds in an amount not-to-exceed $109,002 to fulfill a request from Our Town St. Helena (OTSH) to waive planning application fees, to waive in-lieu fees to achieve water neutrality, and to waive building permit/development impact fees in order to accommodate a five unit affordable housing project at 963 Pope Street in the Medium Density Residential district;

and (3) a budget increase of $109,002 to 751-4000-2412. Council also directed staff to return with a consent item detailing what impact fees could be waived outright opposed to using affordable housing trust funds to pay them.

On November 19, 2020 the Planning Commission approved a lot merger, use permit and design review in order to construct four new affordable units (five units total) in a multi-family housing development on the property located at 963 Pope Street.

DISCUSSION

As noted in the background section, on November 10, 2020, the Council directed staff to return with a consent item detailing what impact fees associated with the 963 Pope Street affordable housing project could be waived outright opposed to using affordable housing trust funds to pay them.

Building/Impact Fees

Development impact fees are imposed on new development or conversions within the City to pay for public improvements related to civic improvement projects, public safety, sewer projects, water projects, traffic mitigation, parks, and storm drainage. SHMC Section 3.32.120(A) states that a developer of any project, including any new building or addition to or conversion of any existing building, subject to the fees described in SHMC Sections 3.32.050 through 3.32.100 may apply to the City Council for a reduction or adjustment of the fee(s), or a waiver of the fee(s), based upon the absence of any reasonable relationship between the nature of the impact of the development and either the amount of the fee charged or the type of facilities to be financed.

The Building Department estimates the following development impact fees would apply to the project:

Public Safety - $4,656.96
Civic Improvement - $8,759.52
Parks - $54,626.88
Water - $5,728.80
Sewer - $2,956.80
Storm Drainage - $3,104.64
Traffic - $10,570.56
Fire Sprinklers - $2,000

TOTAL: $92,404.16

Staff Response: Based on information provided below, the City Council may consider waiving the following impact fees without the use of Affordable Housing Trust Funds:

1. *The addition of four new housing units on an existing developed site where a single-family home currently exists would not create a significant new demand on*

City parks nor require the creation of any new recreational facilities. For this reason, the $54,626.88 park fee may be waived.

2. *The project site is located on Pope Street, which is classified as a downtown mixed-use street in the 2040 General Plan Update. The site is walking distance to downtown and existing City services. As such, the $10,570.56 traffic impact fee may be waived.*
3. *As previously noted, a single-family home currently exists on-site. All the infrastructure required to serve the site is already in place. For this reason, the water, sewer, and storm drainage impact fees may also be waived ($11,790.24 in total).*

The sum total of the impact fees recommended to be waived is $76,987.68. The remaining development impact fees would be paid by the Affordable Housing Trust Fund (approximately $15,416.48) as previously approved by the Council.

CEQA

Staff has conducted the requisite analysis and concluded that the project is exempt from the requirements of CEQA pursuant to CEQA Guidelines Section 15194, which exempts Affordable Housing Projects that meet certain criteria. Additionally, the project is categorically exempt from the requirements of CEQA pursuant to CEQA Guidelines Section 15301, which exempts the demolition and removal of small structures including accessory structures and Section 15303, which exempts the construction of small structures including multi-family residential structures four units or less. The proposed project is not subject to any of the exceptions to the use of a categorical exemption as outlined in CEQA Section 15300.2. The project site is not located on or near an environmentally sensitive area, is not visible from a scenic highway, is not included on a hazardous waste site, and will not impact historic resources or otherwise generate or contribute to any potentially significant impacts.

FISCAL IMPACT

Any development impact fees waived would reduce fee revenue to the City.

RECOMMENDED ACTION

Approval of a Resolution authorizing the waiver of certain development impact fees in an amount not to exceed $76,987.68 in order to accommodate a five unit affordable housing project at 963 Pope Street in the Medium Density Residential district.

ATTACHMENTS

Resolution - Fee Waiver

CITY OF ST. HELENA

RESOLUTION NO.

RESOLUTION OF THE CITY COUNCIL OF THE CITY OF ST. HELENA AUTHORIZING THE WAIVER OF CERTAIN DEVELOPMENT IMPACT FEES IN AN AMOUNT NOT TO EXCEED $76,987.68 IN ORDER TO ACCOMMODATE A 5-UNIT AFFORDABLE HOUSING PROJECT AT 963 POPE STREET IN THE CITY OF ST. HELENA, CALIFORNIA

Recitals

1. St. Helena Municipal Code (SHMC) Section 3.32.120(A) authorizes the City Council to waive the fees described in SHMC Sections 3.32.050 through 3.32.100; and
2. Per SHMC Section 17.146.030, monies deposited in the housing fund along with any interest earnings on such monies shall be used solely to increase and improve the supply of housing affordable to households of moderate, low and very low income households, including, but not limited to acquisition of property and property rights; cost of construction including costs associated with planning, administration, and design, as well as actual building or installation, as well as any other costs associated with the construction or financing of affordable housing.
3. The addition of four new housing units on an existing developed site where a single-family home currently exists would not create a significant new demand on City parks nor require the creation of any new recreational facilities. Therefore, the City Council is waiving the $54,626.88 park fee.
4. The project site is located on Pope Street, which is classified as a downtown mixed-use street in the 2040 General Plan Update. The site is walking distance to downtown and existing city services. Therefore, the City Council is waiving the $10,570.56 traffic impact fee.
5. A single-family home currently exists on-site. All the infrastructure required to serve the site is already in place. For this reason, the City Council is waiving the water, sewer, and storm drainage impact fees ($11,790.24 in total).
6. The sum total of impact fee's being waived is not to exceed $76,987.68. The remaining development impact fees will be paid by the Affordable Housing Trust Fund (approximately $15,416.48) as previously approved by the Council.

Resolution

A. The City Council of the City of St. Helena hereby resolves as follows:

   1. To approve the waiver of certain development impact fees in an amount not to exceed $76,987.68 in order to accommodate a 5-unit affordable housing project at 963 Pope Street in the Medium Density Residential district.

I HEREBY CERTIFY that the City of St. Helena City Council approved the foregoing at a Regular Meeting of the St. Helena City Council on January 26, 2021, by the following vote:

Mayor Ellsworth: _____
Vice Mayor Dohring: _____
Councilmember Chouteau: _____
Councilmember Hardy: _____
Councilmember Hall: _____

APPROVED:

_____
Geoff Ellsworth, Mayor

ATTEST:

_____
Cindy Tzafopoulos, City Clerk

Report to the City Council
Regular City Council - 26 Jan 2021

Agenda Section: **CONSENT ITEMS**

Subject: **Consideration and Adoption of a Resolution: (1) awarding a Professional Services Agreement with Mintier Harnish Planning Consultants for preparation of the City's 2023-2031 6th Cycle Housing Element Update in an Amount Not-to-Exceed $228,024 and authorizing the City Manager to execute the agreement; (2) authorizing a budget increase of $49,012 to 101-4500-2145; (3) authorizing use of General Fund Reserves in an amount not-to-exceed $49,012; (4) authorizing a budget increase of $114,012 to 751-4500-2145; and (5) authorizing use of the Affordable Housing Trust Fund balance for an amount not-to-exceed $114,012.**

CEQA Determination: **Not a CEQA project**

Prepared By: Aaron Hecock, Senior Planner

Reviewed By: Maya DeRosa, Planning & Building Director

Approved By: Mark T. Prestwich, City Manager

BACKGROUND

The California State Legislature considers providing housing for all Californians is of vital importance. Because of this, since 1969, Housing Elements have been a mandatory element of local General Plans in California. A Housing Element provides an analysis of a community's housing needs for all income levels and strategies to provide for those housing needs.

State Law requires that each city accommodate its fair share, or Regional Housing Needs Allocation (RHNA), of affordable housing as an approach to distributing housing needs throughout the state. As part of RHNA, the California Department of Housing and Community Development (HCD), determines the total number of new homes needing to be build in the Bay Area and how affordable those homes need to be in order to meet

the housing needs of people at all income levels. The Housing Element must demonstrate how the City can accommodate its assigned RHNA. Unlike other mandatory general plan elements, the Housing Element is required to be updated every five to eight years. It is also subject to detailed statutory requirements and mandatory review and approval by HCD.

The City's current Housing Element (5th cycle) was adopted on May 26, 2015 and spans the years 2015-2023. The current Housing Element details how the City planned to accommodate a RHNA of 31 units within this time frame.

ABAG/MTC is currently in the process of finalizing the 6th RHNA cycle (2023-2031) numbers and the City expects to receive their final housing unit allocation numbers from ABAG/MTC later this year. Based on the draft methodology prepared by ABAG/MTC, the City of St. Helena's RHNA is expected to increase to around 170 units for the 2023-2031 cycle.

DISCUSSION

On Friday, October 23, 2020, the City of St. Helena issued a Request for Proposal (RFP) for the City's 2023-2031 6th Cycle Housing Element Update (Housing Element). At the close of the RFP on November 23, 2020, five proposals were submitted to the City for preparation of the requested services. The Proposal Review Committee consisted of four members: City Council Member Lester Hardy, Planning and Building Director Maya DeRosa, Senior Planner Aaron Hecock, and Assistant to the City Manager Preya Nixon. After review of the proposals received, three firms were selected to be interviewed.

Proposed budgets from the three firms selected for interviews were $129,929; $220,363; and $228,024 respectively. While the estimated budget was a serious factor in consideration of the three firms, cost alone was not the sole factor considered when deciding the firm to recommend to City Council. In accordance with St. Helena Municipal Code (SHMC) Section 3.04.320, contracts should only be awarded to firms or persons who have demonstrated an adequate level of experience, competence, staffing, and other professional qualifications necessary for more than a satisfactory performance of the services provided. Once the department requesting the service has determined a firm has an adequate level of competence, the cost of the service may be considered.

The Proposal Review Committee evaluated each consultant for the strengths of their project understanding, qualifications, project experience, community engagement experience, and ability keep St. Helena as a high priority to complete the 6th Cycle Housing Element. Because the Housing Element Update is a complicated and heavily scrutinized process it is of the utmost importance that the City requires the consultant to deliver a document that meets the challenging new HCD requirements, dedicate their most experienced personnel as the Project Manager, and keep the City of St. Helena as a high priority.

The Planning Department has very limited capacity and Mintier Harnish strongly impressed the Proposal Review Committee in that they are a firm who can take the lead, strategically analyze potential housing opportunity sites, navigate community sensitivity regarding housing growth, and provide diverse methods of public engagement while guiding the process to completion. It is also of critical importance to select a firm quickly as cities across the region are currently competing for the most qualified firms. Cities in the Southern California Region (whose Housing Elements need to be adopted in 2021) that did not act early have found themselves without qualified consultants and may not be able to adopt their Housing Elements on-time which could result in consequences from the State.

For these reasons, it is recommended the City Council award a Professional Services Agreement (PSA) to Mintier Harnish for the Housing Element Update preparation services for a total not-to-exceed amount of $228,024. Mintier Harnish has demonstrated they have the experience, knowledge, and expertise to get the Housing Element Update completed and certified on time. Founded in 1985, Mintier Harnish is a professional planning firm specializing in general plans, housing elements, and zoning code practices in California. Having prepared over 80 housing elements during all six housing element cycles, Mintier Harnish is one of the foremost experts on Housing Elements.

FISCAL IMPACT

The recommended PSA with Mintier Harnish is for a not-to-exceed amount of $228,024. The adopted FY 2020-21 budget includes $65,000 for the Housing Element Update. This amount has been funded through a Local Early Action Planning (LEAP) grant which will be used to assist in the costs associated with preparation of the Housing Element Update. Additionally, staff anticipates receiving a $20,000 non-competitive Regional Early Action Planning (REAP) grant in the coming months to further assist in this effort. Additional completive grants are also available and the City will apply for these grants; however, it is not guaranteed the City will be awarded any additional funds. With $85,000 already budgeted, it is necessary for the City to appropriate an additional $143,024 to execute this agreement.

Approximately 50% (or $114,012) of the total costs of the Housing Element Update is directed at affordable housing, including accommodation of housing for very low- and low-income families, policies and programs directed at increasing housing supply and affordability, and the community dialog surrounding those policies and programs.

To fund the agreement, it is recommended the City Council authorize a budget increase of $49,012 to 101-4500-2145, authorize use of General Fund Reserves not-to-exceed $49,012, authorize a budget increase of $114,012 to 751-4500-2145, and authorize use of the Affordable Housing Trust Funds for an amount not-to-exceed $114,012. If additional revenues are received through grants, the amount required from each fund can be decreased accordingly.

If the full amount of $49,012 is used from the General Fund, it would decrease the estimated 6/30/21 fund balance from $5,394,254 to $5,142,742, which is 41% of the net position.

The current balance in Fund 751 - Affordable Housing Trust Fund is $511,566. Of this amount, $15,000 has been committed to Our Town St. Helena for as part of the FY 2020-21 Non-Profit Grant Program leaving an available balance of $496,566.

RECOMMENDED ACTION

Staff is recommending City Council approve Resolution (1) awarding a Professional Services Agreement with Mintier Harnish Planning Consultants for preparation of the City's 2023-2031 6th Cycle Housing Element Update in an Amount Not-to-Exceed $228,024 and authorizing the City Manager to execute the agreement; (2) authorizing a budget increase of $49,012 to 101-4500-2145; (3) authorizing use of General Fund Reserves in an amount not-to-exceed $49,012; (4) authorizing a budget increase of $114,012 to 751-4500-2145; and (5) authorizing use of the Affordable Housing Trust Fund balance for an amount not-to-exceed $114,012.

ATTACHMENTS

PSA Mintier Harnish
Exhibit A - Mintier Harnish Scope of Services
Resolution Mintier Harnish Agreement

AGREEMENT FOR PROFESSIONAL SERVICES

THIS AGREEMENT, made and entered into on January 26, 2021 by and between the City of St. Helena, located in the County of Napa, State of California (City), and Mintier Harnish Planning Consultants (Consultant).

RECITALS:

A. City desires to employ Consultant to furnish professional services in connection with the project described as the 2023-2031 6th Cycle Housing Element Update.

B. Consultant has represented that Consultant has the necessary expertise, experience, and qualifications to perform the required duties.

NOW, THEREFORE, in consideration of the mutual premises, covenants, and conditions herein contained, the parties agree as follows:

SECTION 1 – BASIC SERVICES

Consultant agrees to perform the services set forth in **Exhibit A, "Scope of Services"** and made part of this Agreement.

SECTION 2 – ADDITIONAL SERVICES

Consultant shall not be compensated for any services rendered in connection with its performance of this Agreement that are in addition to or outside of those set forth in this Agreement or **Exhibit A, "Scope of Services"** (the "Services"), unless such additional Services and compensation are authorized in advance and in writing by the City Council or City Manager of the City.

SECTION 3 – TIME FOR COMPLETION

The time for completion of Services shall be as identified in **Exhibit A, "Scope of Services"**. The parties expressly agree that time is of the essence in the performance of this Agreement.

SECTION 4 – COMPENSATION AND METHOD OF PAYMENT

A. Subject to any limitations set forth in this Agreement, City agrees to pay consultant the amount specified in Exhibit A, "Compensation" attached hereto and made a part hereof. Total compensation shall not exceed $228,024 unless additional compensation is approved in accordance with Section 2.

B. Consultant shall furnish to City an original invoice for all work performed and expenses incurred during the preceding month. The invoice shall detail charges by the following categories if applicable: labor (by sub-category), travel, materials, equipment, supplies, subconsultant contracts, and miscellaneous expenses. Each original invoice furnished shall include the expenses incurred during the preceding month, the cumulative Agreement amount,

and the amount remaining on the Agreement. City shall independently review each invoice submitted to determine whether the work performed and expenses incurred are in compliance with the provisions of this Agreement. If no charges or expenses are disputed, the invoice shall be approved, and City will use its best efforts to cause Consultant to be paid within 30 days of receipt of invoice. If the City disputes any charges or expenses, the City will return the original invoice to Consultant for correction and resubmission. If the City reasonably determines, in its sole judgment, that the invoiced charges and expenses exceed the value of the Services performed to date and that it is probable that the Agreement will not be completed satisfactorily within the contract price, City may retain all or a portion of the invoiced charges and expenses. Within thirty (30) days of satisfactory completion of the project, City shall pay the retained amount, if any, to Consultant.

C. Payment to the Consultant for work performed pursuant to this Agreement shall not be deemed to waive any defects in work performed by Consultant.

SECTION 5 – STANDARD OF PERFORMANCE

A. Consultant represents and warrants that it has the qualifications, experience and facilities necessary to properly perform the Services required under this Agreement in a thorough, competent and professional manner. Consultant shall at all times faithfully, competently and to the best of its ability, experience and talent, perform all Services described herein. In meeting its obligations under this Agreement, Consultant shall employ, at a minimum, generally accepted standards and practices utilized by persons in the same or similar geographical area engaged in providing Services similar to those required of Consultant under this Agreement.

B. In order to induce City to enter into this Agreement, Consultant represents that it is duly organized, existing and in good standing under applicable state law; Consultant is licensed to perform all aspects of the Services; Consultant will employ only persons and Subconsultants with all required licenses and certifications; that Consultant is duly qualified to conduct business in the State; that Consultant has duly authorized the execution, delivery and performance of this Agreement and the Services to be performed herein; and that the Agreement does not violate or create a default under any instrument, agreement, order or decree binding on Consultant.

SECTION 6 – INSPECTION AND FINAL ACCEPTANCE

City may inspect and accept or reject any of Consultant's work under this Agreement, either during performance or when completed. City shall reject or finally accept Consultant's work within sixty (60) days after submitted to City, unless the parties mutually agree to extend such deadline. City shall reject work by a timely written explanation, otherwise Consultant's work shall be deemed to have been accepted. City's acceptance shall be conclusive as to such work except with respect to latent defects and fraud. Acceptance of any of Consultant's work by City shall not constitute a waiver of any of the provisions of this Agreement including, but not limited to, the sections pertaining to indemnification and insurance.

SECTION 7 – INSURANCE REQUIRED

Consultant shall procure and maintain for the duration of the contract insurance against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the work hereunder by the Consultant, its agents, representatives, or employees, as indicated:

A. Minimum Scope of Insurance. Coverage shall be at least as broad as:
   1. Insurance Services Office Commercial General Liability coverage (occurrence form CG 0001).
   2. Insurance Services Office form number CA 0001 (Ed. 1/87) covering Automobile Liability, code 1 (any auto).
   3. Workers' Compensation insurance as required by the State of California and Employer's Liability Insurance.

B. Minimum Limits of Insurance. Consultant shall maintain limits no less than:
   1. General Liability: $1,000,000 per occurrence for bodily injury, personal injury and property damage including operations, products and completed operations, as applicable. If Commercial General Liability Insurance or other form with a General Liability Insurance or other form with a general aggregate limit is used, either the general aggregate limit shall apply separately to this project/location or the general aggregate limit shall be twice the required occurrence limit.
   2. Automobile Liability: $1,000,000 per accident for bodily injury and property damage.
   3. Employer's Liability: $1,000,000 per accident for bodily injury or disease.

C. Professional Liability Insurance. When Consultant under this Agreement is duly licensed under California Business and Professions Code as an architect, landscape architect, environmental engineer or other professional engineer, or land surveyor ("design professional"), Consultant shall maintain at least $2,000,000 of professional liability insurance. When Consultant is not a design professional, Consultant shall maintain at least $1,000,000 of professional liability insurance combined single limit for each occurrence, insuring against professional errors and omissions in the Services performed by Consultant under this Agreement, including, without limitation, claims for negligence, misrepresentation, violation of good faith and fair dealing, and inaccurate advise arising out of, resulting from, or in connection with Services performed by Consultant under this Agreement.

D. Excess Limits. If Consultant maintains higher limits than the minimums shown above, City requires and shall be entitled to coverage for the higher limits maintained by Consultant. Any available insurance proceeds in excess of the specified minimum limits of insurance and coverage shall be available to the City.

E. Primary Coverage. For any claims related to this contract the Consultants insurance coverage shall be primary insurance as respects to City, its officers, officials, employees and volunteers. Any insurance or self-insurance maintained by the City, its officers, officials, employees, or volunteers shall be excess of Consultants insurance and shall not contribute with it.

F. Deductibles and Self-Insured Retentions. Any deductibles or self-insured retentions of $25,000 or greater must be declared to and approved by the City.

G. Other Insurance Provisions. The commercial general liability and automobile liability policies are to contain, or be endorsed to contain, the following provisions:

1. The City, its agent, officers, officials, employees, and volunteers are to be covered as additional insured as respects: liability arising out of work or operations performed by the Consultant or Consultant's subconsultants; or automobile owned, leased, hired or borrowed by the Consultant.
2. For any claims related to Consultant's conduct while performing the work of this project, the Consultant's insurance coverage shall be primary insurance as respects the City, its agents, officers, officials, employees and volunteers. Any insurance or self-insurance maintained by the City, its agents, officers, officials, employees or volunteers shall be excess of the Consultant's insurance and shall not contribute with it.
3. Each insurance policy required by this clause shall be endorsed to state that coverage shall not be cancelled by either party, except after thirty (30) days prior written notice by certified mail, return receipt requested, has been given to the City.
4. Coverage shall not extend to any indemnity coverage for the active negligence of the additional insured in any case where an agreement to indemnify the additional insured would be invalid under Subsection (b) of Section 2782 of the Civil Code.

H. Waiver of Subrogation. Consultant's commercial general liability, automobile liability, workers' compensation, and employer's liability policies shall be endorsed with a waiver of subrogation. The insurance company, in its endorsement, agrees to waive all rights of subrogation against the City, its agents, officers, officials, employees and volunteers for losses paid under the terms of this policy which arises from the work performed by the named insured for the City.

I. The Acceptability of Insurers. Insurance is to be placed with insurers with a current A.M. Best's rating of no less than A: VII, unless otherwise acceptable to the City.

J. Verification of Coverage. Consultant shall furnish the City with original certificates and amendatory endorsements effecting coverage required by this clause. The endorsements should be on forms provided by the City or on forms that conform to City requirements. All certificates and endorsements are to be received and approved by the City before work commences. The City reserves the right to require complete, certified copies of all required insurance policies, including endorsements affecting the coverage required by these specifications at any time.

SECTION 8 – INDEMNIFICATION

A. To the fullest extent allowed by law (including without limitation California Civil Code Sections 2782 and 2782.8), as may be applicable, Consultant shall indemnify, defend, and hold harmless City, its agents, officers, officials, employees, representatives, and volunteers from any and all claims, demands, suits, loss, damages, injury, and/or liability (including any and all costs and expenses in connection therewith, including legal fees and expert witness costs)

(collectively, "Liabilities"), incurred by reason of any negligent or otherwise wrongful act or omission of Consultant, its officers, agents, employees, subconsultants, and subcontractors, or any of them, under or in connection with this Agreement; and Consultant agrees at its own cost, expense and risk to defend any and all claims, actions, suits, or other legal proceedings brought or instituted against City, its agents, officers, officials, employees and volunteers, or any of them, arising out of, pertaining to, or relating to such negligent or otherwise wrongful act or omission, and to pay and satisfy any resulting judgments.

B. When Consultant under this Agreement is duly licensed under California Business and Professions Code as an architect, landscape architect, professional engineer, or land surveyor (i.e., a "design professional," pursuant to Civil Code § 2782.8(c)), the provisions of this section regarding Consultant's duty to defend and indemnify apply only to claims that arise out of, pertain to, or relate to the negligence, recklessness, or willful misconduct of Consultant.

C. If any action or proceeding is brought against Indemnitees by reason of any of the matters against which Consultant has agreed to indemnify Indemnitees as provided above, Consultant, upon notice from City, shall defend Indemnitees at Consultant's expense by counsel acceptable to City, such acceptance not to be unreasonably withheld. Indemnitees need not have first paid for any of the matters to which Indemnitees are entitled to Indemnification in order to be so indemnified. The insurance required to be maintained by Consultant shall ensure Consultant's obligations under this section, but the limits of such insurance shall not limit the liability of Consultant hereunder. The provisions of this section shall survive the expiration or earlier termination of this Agreement.

D. The provisions of this section do not apply to claims to the extent occurring as a result of the City's sole negligence, active negligence, or willful acts or misconduct.

E. Duty to Cooperate. Each party shall notify the other party immediately in writing of any claim or damage related to activities or Services performed under this Agreement. The parties shall cooperate with each other in the investigation and disposition of all Liabilities arising out of the activities or Services under this Agreement.

F. In the event that Consultant executes any subconsulting agreements in connection with the Services performed under this Agreement, Consultant shall place in all such subconsulting agreements, and cause its subconsultants to agree to, the indemnity and insurance obligations in favor of City and other Indemnitees, as provided herein, in the exact form and substance of those contained in this Agreement.

SECTION 9 – INDEPENDENT CONTRACTOR STATUS

A. Consultant is and shall at all times remain a wholly independent contractor and not an officer, employee or agent of City. Consultant shall have no authority to bind City in any manner or to incur an obligation, debt or liability of any kind on behalf of or against City, whether by contract or otherwise, unless such authority is expressly conferred under this Agreement or is otherwise expressly conferred in writing by City.

B. The personnel performing the Services under this Agreement on behalf of Consultant shall at all times be under Consultant's exclusive direction and control. Neither City, nor any

elected or appointed boards, officers, officials, employees or agents of City, shall have control over the conduct of Consultant or any of Consultant's officers, employees or agents, except as set forth in this Agreement. Consultant shall not at any time or in any manner represent that Consultant or any of Consultant's officers, employees or agents are in any manner officials, officers, employees or agents of City.

C. Neither Consultant, nor any of Consultant's officers, employees or agents, shall obtain any rights to retirement, health care or any other benefits which may otherwise accrue to City's employees. Consultant expressly waives any claim Consultant may have to any such rights.

SECTION 10 – CONFLICTS OF INTEREST AND ANTI-FRAUD AND ANTI-CORRUPTION POLICIES

A. Consultant covenants that neither it, nor any officer or principal of its firm, has or shall acquire any interest, directly or indirectly, which would conflict in any manner with the interests of City or which would in any way hinder Consultant's performance of Services under this Agreement. Consultant further covenants that in the performance of this Agreement, no person having any such interest shall be employed by it as an officer, employee, agent, or subcontractor without the express written consent of the City Manager. Consultant agrees to at all times avoid conflicts with the interests of City in the performance of this Agreement.

B. City understands and acknowledges that Consultant is, as of the date of execution of this Agreement, independently involved in the performance of non-related Services for other governmental agencies and private parties. Consultant is aware of any stated position of City relative to such projects. Any future position of City on such projects shall not be considered a conflict of interest for purposes of this section.

C. Consultant understands and acknowledges City maintains an anti-fraud and anti-corruption policy to protect the City, its operations, and its employees from and against financial risks, operational breaches, and unethical, fraudulent and corrupt activities. Consultant represents and warrants that Consultant, its subcontractor(s) / subconsultant(s) and their respective employees providing Services pursuant to the Agreement are (1) in good standing; (2) have not been previously investigated, convicted, or debarred for fraudulent or corrupt activities; (3) will not participate in fraudulent or corrupt activities, and (4) will take steps to ensure that its employees and subcontractor(s) / subconsultant(s) employees do not participate in any fraudulent or corrupt activities. Consultant acknowledges and agrees further that it has a duty to and will report to City any information or incident(s) about possible fraudulent or corrupt activities Consultant may discover, and will cooperate in any fraud or corruption investigation conducted, with respect to Consultant's service provided pursuant to this Agreement.

SECTION 11 – OWNERSHIP OF DOCUMENTS

A. All original maps, models, designs, drawings, photographs, studies, surveys, reports, data, notes, computer files, files and other documents prepared, developed or discovered by Consultant in the course of providing any Services pursuant to this Agreement shall become the sole property of City and may be used, reused or otherwise disposed of by City without the permission of the Consultant. When requested by City, but no later than three years after project

completion, Consultant shall deliver to City all such original maps, models, designs, drawings, photographs, studies, surveys, reports, data, notes, computer files, files and other documents.

B. All copyrights, patents, trade secrets, or other intellectual property rights associated with any ideas, concepts, techniques, inventions, processes, improvements, developments, works of authorship, or other products developed or created by Consultant during the course of providing Services (collectively the "Work Product") shall belong exclusively to City. The Work Product shall be considered a "work made for hire" within the meaning of Title 17 of the United States Code. Without reservation, limitation, or condition, Consultant hereby assigns, at the time of creation of the Work Products, without any requirement of further consideration, exclusively and perpetually, any and all right, title, and interest Consultant may have in the Work Product throughout the world, including without limitation any copyrights, patents, trade secrets, or other intellectual property rights, all rights of reproduction, all rights to create derivative works, and the right to secure registrations, renewals, reissues, and extensions thereof.

SECTION 12 – CONFIDENTIAL INFORMATION; RELEASE OF INFORMATION

A. All information gained or work product produced by Consultant in performance of this Agreement shall be considered confidential, unless such information is in the public domain or already known to Consultant. Consultant shall not release or disclose any such information or work product to persons or entities other than City without prior written authorization from the City Manager, except as may be required by law.

B. Consultant, its officers, employees, agents or subcontractors, shall not, without prior written authorization from the City Manager or unless requested by the City Attorney of City, voluntarily provide declarations, letters of support, testimony at depositions, response to interrogatories or other information concerning the work performed under this Agreement. Response to a subpoena or court order shall not be considered "voluntary" provided consultant gives City notice of such court order or subpoena.

C. If Consultant, or any officer, employee, agent or subcontractor of Consultant, provides any information or work product in violation of this Agreement, then City shall have the right to reimbursement and indemnity from Consultant for any damages, costs and fees, including attorneys' fees, caused by or incurred as a result of Consultant's conduct.

D. Consultant shall promptly notify City should Consultant, its officers, employees, agents or subcontractors be served with any summons, complaint, subpoena, notice of deposition, request for documents, interrogatories, request for admissions or other discovery request, court order or subpoena from any party regarding this Agreement and the work performed thereunder. City retains the right, but has no obligation, to represent Consultant or be present at any deposition, hearing or similar proceeding. Consultant agrees to cooperate fully with City and to provide City with the opportunity to review any response to discovery requests provided by Consultant. However, this right to review any such response does not imply or mean the right by City to control, direct, or rewrite such response.

SECTION 13 – SUSPENSION OF WORK

City may, at any time, by ten (10) days written notice suspend further performance by Consultant. All suspensions shall extend the time schedule for performance in a mutually satisfactory manner and Consultant shall be paid for Services performed and reimbursable expenses incurred prior to the suspension date.

SECTION 14 – COMPLIANCE WITH LAW

Consultant shall keep itself informed of and comply with all applicable federal, state and local laws, statutes, codes, ordinances, regulations and rules in effect during the term of this Agreement. Consultant shall obtain any and all licenses, permits and authorizations necessary to perform the Services set forth in this Agreement. Neither City, nor any elected or appointed boards, officers, officials, employees or agents of City, shall be liable, at law or in equity, as a result of any failure of Consultant to comply with this section.

SECTION 15 – COMPLIANCE WITH CIVIL RIGHTS

During the performance of this contract, Consultant agrees as follows:

A. Equal Employment Opportunity. In connection with the execution of this Agreement, Consultant shall not discriminate against any employee or applicant for employment because of race, religion, color, ancestry, age, sexual orientation, gender, gender identity and gender expression as protected categories specifically and expressively in that category, physical handicap, medical condition, marital status, sex, or national origin. Such actions shall include, but not be limited to, the following: employment, promotion, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rate of pay or other forms of compensation; and selection for training including apprenticeship.

B. Nondiscrimination Civil Rights Act of l964. Consultant will comply with all federal regulations relative to nondiscrimination to federally-assisted programs.

C. Solicitations for Subcontractors including Procurement of Materials and Equipment. In all solicitations, either by competitive bidding or negotiations, made by Consultant for work to be performed under a subcontract, including procurement of materials or leases of equipment, each potential subcontractor, supplier, or lessor shall be notified by Consultant of Consultant's obligations under this Agreement and the regulations relative to nondiscrimination.

SECTION 16 – COMPLIANCE WITH CALIFORNIA LABOR CODE REQUIREMENTS

A. Consultant is aware of the requirements of California Labor Code Sections 1720 et seq. and 1770 et seq., which require the payment of prevailing wage rates and the performance of other requirements on certain "public works" and "maintenance" projects ("Prevailing Wage Laws"). If the services are being performed as part of an applicable "public works" or "maintenance" project, as defined by the Prevailing Wage Laws, and if the total compensation is $1,000 or more, Consultant agrees to fully comply with such Prevailing Wage Laws. Consultant shall defend, indemnify and hold the City, its officials, officers, employees and agents free and

harmless from any claims, liabilities, costs, penalties or interest arising out of any failure or alleged failure to comply with the Prevailing Wage Laws. It shall be mandatory upon the Consultant and all subconsultants to comply with all California Labor Code provisions, which include but are not limited to prevailing wages (Labor Code Sections 1771, 1774 and 1775), employment of apprentices (Labor Code Section 1777.5), certified payroll records (Labor Code Sections 1771.4 and 1776), hours of labor (Labor Code Sections 1813 and 1815) and debarment of contractors and subcontractors (Labor Code Section 1777.1). The requirement to submit certified payroll records directly to the Labor Commissioner under Labor Code section 1771.4 shall not apply to work performed on a public works project that is exempt pursuant to the small project exemption specified in Labor Code Section 1771.4.

B. If the services are being performed as part of an applicable "public works" or "maintenance" project, then pursuant to Labor Code Sections 1725.5 and 1771.1, the Consultant and all subconsultants performing such services must be registered with the Department of Industrial Relations. Consultant shall maintain registration for the duration of the Project and require the same of any subconsultants, as applicable. Notwithstanding the foregoing, the contractor registration requirements mandated by Labor Code Sections 1725.5 and 1771.1 shall not apply to work performed on a public works project that is exempt pursuant to the small project exemption specified in Labor Code Sections 1725.5 and 1771.1.

C. This Agreement may also be subject to compliance monitoring and enforcement by the Department of Industrial Relations. It shall be Consultant's sole responsibility to comply with all applicable registration and labor compliance requirements. Any stop orders issued by the Department of Industrial Relations against Consultant or any subcontractor that affect Consultant's performance of services, including any delay, shall be Consultant's sole responsibility. Any delay arising out of or resulting from such stop orders shall be considered Consultant caused delay and shall not be compensable by the City. Consultant shall defend, indemnify and hold the City, its officials, officers, employees and agents free and harmless from any claim or liability arising out of stop orders issued by the Department of Industrial Relations against Consultant or any subcontractor.

SECTION 17 – AUDIT AND INSPECTION OF RECORDS

A. Records of Consultant's direct labor costs, payroll costs, and reimbursable expenses pertaining to this project covered by this Agreement will be kept on a generally recognized accounting basis and made available to City if and when required for a period of up to 3 years from the date of Consultant's final invoice.

B. Consultant shall maintain all documents and records prepared by or furnished to Consultant during the course of performing the Services for at least three (3) years following completion of the Services. Such records include, but are not limited to, correspondence, internal memoranda, technical reports and investigations, calculations, books and accounts, accounting records documenting its work under its Agreement, and invoices, payrolls, records and all other data related to matters covered by this Agreement.

C. Consultant shall permit City to audit, examine and make copies, excerpts and transcripts from such records, and the Consultant shall in no event dispose of, destroy, alter, or mutilate said books, records, accounts, and data in any matter whatsoever for three (3) years

after City makes the final or last payment or within three (3) years after any pending issues between City and Consultant with respect to this Agreement are closed, whichever is later.

SECTION 18 – LIMITATION OF LIABILITY

A. Consultant agrees that any liability of City arising in connection with this Agreement shall be limited exclusively to the City-entity identified as the "City" under this Contract. Under no circumstance shall any other City-entity be liable to Consultant under any theory, whether in contract, tort, or otherwise, and Consultant waives unconditionally any such claims. Consultant hereby waives and release other City-entites from any liability under this Agreement.

B. Notwithstanding any other provision of this Agreement, in no event shall City be liable, regardless of whether any claim is based on contract or tort, for any special, consequential, indirect or incidental damages, including, but not limited to, lost profits or revenue, arising out of or in connection with this Agreement or the Services performed hereunder.

SECTION 19 – COOPERATION BY CITY

All public information, data, reports, records, and maps as are existing and available to City as public records, and which are necessary for carrying out the work as outlined in the Exhibit A, "Scope of Services", shall be furnished to Consultant in every reasonable way to facilitate, without undue delay, the work to be performed under this Agreement.

SECTION 20 – NOTICES

All notices required or permitted to be given under this Agreement shall be in writing and shall be personally delivered, or sent by facsimile or first class mail, addressed as follows:

To City: City Manager
1572 Railroad Avenue
St. Helena, California 94574

To Consultant: Mintier Harnish
1415 20th Street
Sacramento, CA 85811

Notice shall be deemed effective on the date personally delivered or transmitted by facsimile, or, if mailed, three (3) days after deposit in the custody of the U.S. Postal Service.

SECTION 21 – TERMINATION

A. City may terminate this Agreement, with or without cause, at any time by giving ten (10) days written notice of termination to Consultant. If such notice is given, Consultant shall cease immediately all work in progress.

B. If either Consultant or City fail to perform any material obligation under this Agreement, then, in addition to any other remedies, either Consultant, or City may terminate this Agreement immediately upon written notice.

C. Upon termination of this Agreement by either Consultant or City, all property belonging to City which is in Consultant's possession shall be delivered to City. Consultant shall furnish to City a final invoice for work performed and expenses incurred by Consultant, prepared as set forth in this Agreement.

SECTION 22 – ATTORNEYS' FEES

If litigation or other proceeding is required to enforce or interpret any provision of this Agreement, the prevailing party in such litigation or other proceeding shall be entitled to an award of reasonable attorneys' fees, costs and expenses, in addition to any other relief to which it may be entitled. In addition, any legal fees, costs and expenses incurred to enforce the provisions of this Agreement shall be reimbursed to the prevailing party.

SECTION 23 – ENTIRE AGREEMENT

This Agreement, including the attached Exhibits, is the entire, complete, final and exclusive expression of the parties with respect to the matters addressed therein and supersedes all other agreements or understandings, whether oral or written, or entered into between Consultant and City prior to the execution of this Agreement. No statements, representations or other agreements, whether oral or written, made by any party which are not embodied herein shall be valid and binding unless in writing duly executed by the parties or their authorized representatives.

SECTION 24 – SUCCESSORS AND ASSIGNS

This Agreement shall be binding on the heirs, executors, administrators, successors and assigns of the parties. However, this Agreement shall not be assigned by Consultant without written consent of the City.

SECTION 25 – CONTINUITY OF PERSONNEL

Consultant shall make every reasonable effort to maintain the stability and continuity of Consultant's staff assigned to perform the Services required under this Agreement. Consultant shall notify City of any changes in Consultant's staff assigned to perform the Services required under this Agreement, prior to any such performance.

SECTION 26 – DEFAULT

In the event that Consultant is in default under the terms of this Agreement, the City shall not have any obligation or duty to continue compensating Consultant for any work performed after the date of default and may terminate this Agreement immediately by written notice to Consultant.

SECTION 27 – WAIVER

Waiver by any party to this Agreement of any term, condition, or covenant of this Agreement shall not constitute a waiver of any other term, condition, or covenant. Waiver by any party of any breach of the provisions of this Agreement shall not constitute a waiver of any other provision, or a waiver of any subsequent breach or violation of any provision of this Agreement. Acceptance by City of any work or Services by Consultant shall not constitute a waiver of any of the provisions of this Agreement.

SECTION 28 – LAW TO GOVERN; VENUE

This Agreement shall be interpreted, construed and governed according to the laws of the State of California. In the event of litigation between the parties, venue in state trial courts shall lie exclusively in the County of Napa. In the event of litigation in a U.S. District Court, venue shall lie exclusively in the Northern District of California, in San Francisco.

SECTION 29 – SEVERABILITY

If any term, condition or covenant of this Agreement is declared or determined by any court of competent jurisdiction to be invalid, void or unenforceable, the remaining provisions of this Agreement shall not be affected thereby and the Agreement shall be read and construed without the invalid, void or unenforceable provision(s).

SECTION 30 – THIRD PARTY BENEFICIARIES

Consultant's subconsultants shall agree to be bound to the terms of the Agreement to the extent of their scope of Services, including but not limited to, terms regarding indemnity and dispute resolution, and shall agree that City is deemed an express third party beneficiary of their subconsultant agreements. Nothing contained in this Agreement, however, shall operate to confer such or similar rights or benefits on persons or entities not party to this Agreement.

SECTION 31 – STATUTES OF LIMITATION

As between the parties to this Agreement, any applicable statute of limitations for action arising out of, pertaining to, or relating to any act or failure to act in connection with this Agreement shall commence to run on the date of City's issuance of the final Certificate for Payment, or termination of this Agreement, whichever is earlier, except for latent defects and/or deficiencies, for which the applicable statute of limitation shall begin to run upon discovery of the defect and/or deficiency and its cause.

SECTION 32 – SPECIAL PROVISIONS

This Agreement is subject to the following special provisions: none.

IN WITNESS WHEREOF, the parties hereto have accepted, made, and executed this Agreement upon the terms, conditions, and provisions above stated, the day and year first above written.

Consultant:

By: _____
Name: _____
Title:_____

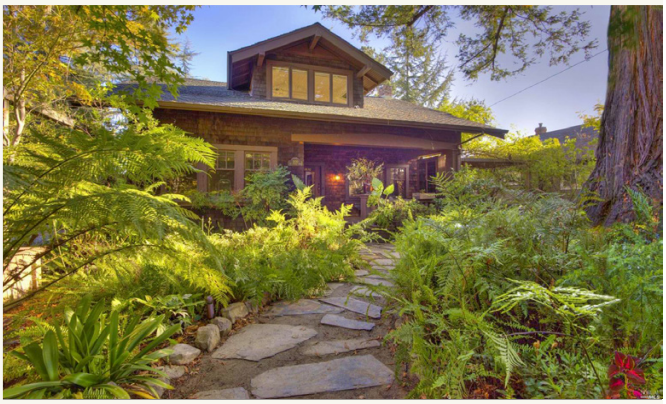
City:

By: _____
Name: Mark T. Prestwich
Title: City Manager

Approved as to Form:

By: _____
Name: Ethan Walsh
Title: City Attorney

CITY OF ST. HELENA



6th Cycle / 2023-2031 Housing Element

PROPOSAL FOR SERVICES

November 23, 2020

Submitted to:
City of St. Helena
Office of the City Clerk
Attention: Cindy Tzafopoulos
1572 Railroad Avenue
St. Helena, CA 94574

Submitted by:
Mintier Harnish
1415 20th Street
Sacramento, CA 95811

In association with:
Rincon Consultants, Inc.

mintierharnish
Planning Tomorrow Today®

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www.mintierharnish.com

City of St. Helena
Office of the City Clerk
Attention: Cindy Tzafopoulos
1572 Railroad Avenue
St. Helena, CA 94574

[Submitted electronically to ctzafopoulos@cityofsthelena.org]

November 23, 2020

RE: Proposal to Prepare the City of St. Helena Housing/Safety Element Update

Dear Ms. Tzafopolos:

Mintier Harnish is pleased to submit this proposal to assist the City of St. Helena (City) in the preparation of the 6th cycle 2023-2031 Housing Element and Safety Element update. We are excited about the opportunity to work with the city on this important project and have assembled a team of highly skilled planning professionals with extensive experience in the preparation of general plans, housing elements, safety elements, and compliance with the California Environmental Quality Act (CEQA). Having prepared over 80 housing elements during all six cycles of housing element updates, Mintier Harnish is one of the foremost experts on housing elements throughout California and in the Napa, Sonoma, and Sacramento region. We feel that our broad housing element experience, along with our knowledge of local and current housing issues, makes us the best-qualified firm to complete the City's Housing Element Update.

As part of the update process, we will also provide the necessary updates to the City's existing Safety Element. This update will include any consistency changes required by the Housing Element update as well as addressing all changes in State law, the new 2020 Napa County Multi-Jurisdictional Hazard Mitigation Plan, and local needs since the element was last updated in 2019. The Safety Element update will be among many important issues, address the City's response to the ever-increasing wildfire risks to the community.

I will be the Project Director for the overall project. Rick Rust will be the Project Manager and directly manage the Housing and Safety Element updates. Amy Yang will support Rick as the Deputy Project Manager, with a primary focus on the housing element. Ryan Lester and Michael Gibbons will assist the team on all aspects of the project. Joining our team for collaboration on the Safety

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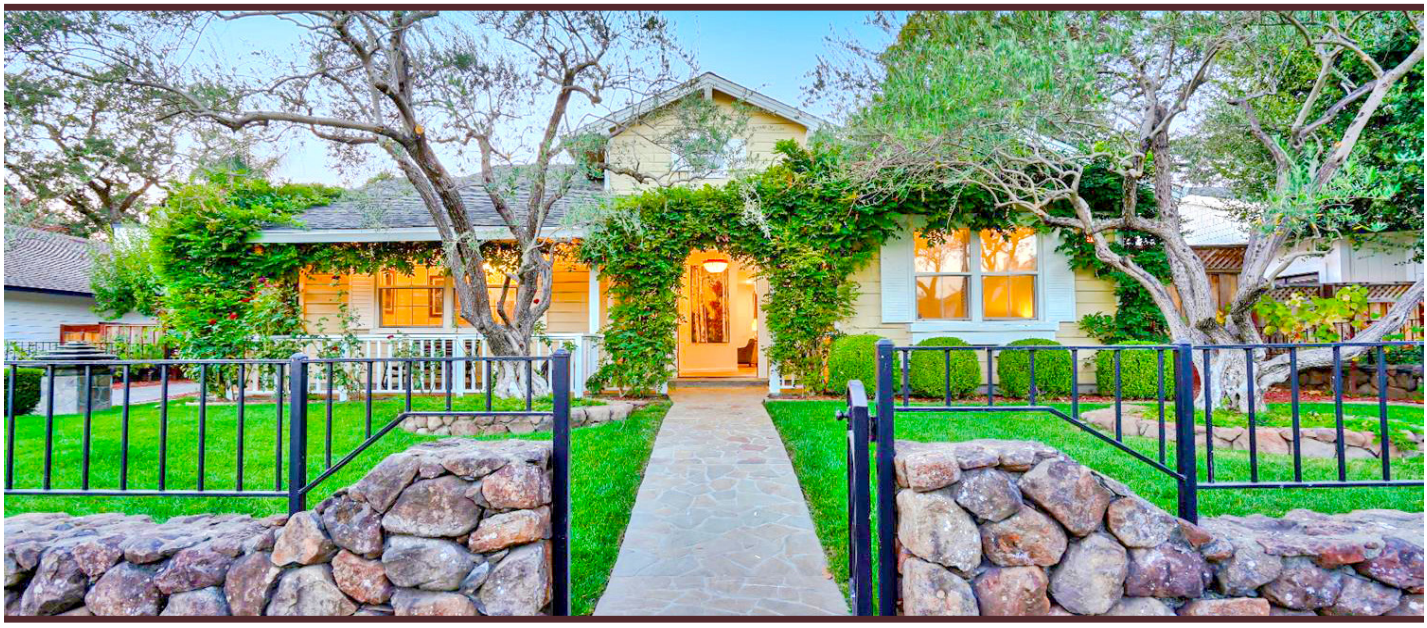
Element update, community engagement, and CEQA compliance, is Rincon Consultants, a firm we have worked with on a number of successful general plan and housing element projects over the years. Matt Maddox, AICP, Principal with Rincon, will lead the Rincon team.

Beyond our experience and technical qualifications, we take a team-oriented approach to our projects that has resulted in lasting relationships with our clients and their communities. We recommend you contact our references as part of your selection process to learn more about our professionalism and collaborative approach to projects.

As the owner of Mintier Harnish, I am authorized to bind the firm to the terms of our proposal. I attest that all information submitted with the Proposal is true and correct. I acknowledge receiving the addendum responding to questions about the RFP. If you have any questions or require additional information regarding the content of our proposal, please contact me at 916-446-0522 or jim@mintierharnish.com. We look forward to discussing our proposal with you in more detail, and ultimately, to working with the City of St. Helena.

Sincerely,

Jim Harnish, JD
Principal/Owner



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2 Project Approach, Scope Of Work And Deliverables

Our Understanding

The City's Request for Proposals (RFP) details the key issues to be addressed as well as expectations for the proposal contents. Based on this direction, we understand the Project must address the following:

Prepare an **Updated 6th Cycle Housing Element** that:

- meets all the content and procedural requirements of California Housing Element and General Plan law, other State and regional requirements, and meets Regional Housing Needs Assessment (RHNA) targets for St. Helena;
- is prepared on a schedule that accommodates a robust public outreach strategy, reasonable periods for City staff review, includes adequate time for response to HCD review, the City's formal adoption process, and HCD certification;
- includes a robust vacant and underutilized site assessment;
- uses the City's limited resources efficiently; and
- ensures the update is completed on time and is approved by the California Department of Housing and Community Development (HCD).

Prepare **General Plan Amendments** that:

- assure consistency between other elements of the General Plan and the updated Housing Element; and
- update the Safety Element.

Prepare a **CEQA Document** that:

- addresses the potential environmental effects of adopting the updated Housing and Safety Elements.

Our Team

We are pleased to submit this proposal to update the City of St. Helena Housing and Safety Elements and CEQA documentation. The Housing Element Update effort will include all steps necessary for securing certification by the HCD and meeting the adoption deadline established by State law. The Safety Element Update will address all changes in State law since the Element was last updated. Joining Mintier Harnish in this project will be Rincon Consultants, who will be responsible for the required CEQA documentation. Both firms are based in Sacramento, providing convenient access to both St. Helena and HCD offices.

Having prepared over 80 housing elements during all six housing element cycles, Mintier Harnish is one of the foremost experts on housing elements. We have experience preparing housing elements for many cities and counties throughout California. In the region, we have completed Housing Elements and General Plan updates for Windsor and Rohnert Park, and are currently working with the City of American Canyon on the update of their General Plan. Our broad housing element experience, along with our knowledge of local and current housing issues, makes us the best-qualified firm to complete the City's Housing Element Update. We have also recently assisted several cities and counties with updating Safety Elements consistent with recent changes in State law.

Our Approach

Our mission as a firm is to help public agencies, residents, businesses, and other stakeholders plan their communities and improve their quality of life through solid research, community involvement, innovation, and policy leadership.

> *Since our founding in 1985, we have prepared over 60 general plans, 80 housing elements, and 20 zoning codes in California.*

We Specialize in General Plans and Housing Elements

First and foremost, Mintier Harnish is a small business comprised of professional planners focused on the general plan, housing element, and zoning code practice in California. As part of this work, we constantly stay abreast of the latest State laws and best practices and have developed tools designed to help communities update existing general plans, housing elements, and zoning codes to meet current regulations, contemporary planning practice, and incorporating appropriate technologies into our plans (e.g., interactive websites and interactive planning documents). Most recently, we have been focused on SB 2-funded projects designed to increase housing supply and decrease regulatory impediments to housing production.

We Emphasize Community Engagement

We design and carry out tailored community engagement programs that ensure citizens and stakeholders are engaged in the process and are given ample opportunity to provide input. The key objective of our community engagement program is to maximize opportunities for everyone interested in the Housing Element to participate. We are now facing COVID-19 related challenges to continued effective community engagement in the public decision-making process. We are actively working with clients to apply new tools and techniques to facilitate

engagement, including virtual townhalls, webinars, stakeholder interviews and Focus Group meetings via using a range of video conferencing services (such as Zoom), and on-line surveys and exercises.

We Address Changes in State Housing Law

During the Update process, we will address all changes in State housing law relevant to the Housing Element. There have been at least 25 new laws enacted by the State in the last four years to address the housing crisis. We are already actively working on 6th Cycle housing elements that are responsive to these new requirements. We will use this experience to help St. Helena respond to new State requirements in an effective and results-oriented way.

We Assess the Potential Environmental Impacts

We have prepared environmental documents for every one of our updated housing elements to evaluate the potential physical impacts of their policies, programs, and regulations. We will work with City staff to determine the appropriate level of CEQA analysis and then prepare the necessary documentation required by law.

We Emphasize Efficient Project Management

We take project management seriously. Effective project management can make the difference in the success of a project. While project management may not be as creative or rewarding as public outreach or policy development, it is every bit as essential to the success of a major planning project and ensures that we maintain the schedule and budget. We emphasize three components to effective project management: clear objectives, organized approach, and proven tools.

Work Style

As part of the Housing and Safety Element update effort, we will be working closely with the community, stakeholders, City staff, the Planning Commission, and City Council. To have an effective, stress-free, and enjoyable process, you need a team that is great to work with. The Mintier Harnish team has a very approachable, collegial, and comfortable work style with our clients. We are not ideological or stylistic. We bring great process experience and tailor it to the needs and personality of each individual client and community.

Scope of Services

To successfully complete this project within the required time frame, we have divided the process into seven phases plus a project management task. We have organized these phases to best convey the flow of the project, with the key components of the Housing Element described under Task 2.9, Administrative Draft Housing Element. While it does not match the City's tasks exactly, all of the items requested by the City have been included. If selected for the project, we will work with City staff to refine the scope of work and schedule to include committee meetings, topics, and milestones.

Phase 1: Project Initiation

The Consultants will work in close collaboration with City staff to refine the project work plan, schedule, and community engagement program. We will develop a project website, logo/and branding, get initial direction from the Planning Commission and City Council, and publish a newsletter to inform the community about the project.

Task 1.1: Project Kick-off Meeting

The Consultants will facilitate a project kick-off meeting (possibly virtual or via conference call) with City staff. The Consultants will work with City staff to accomplish the following:

- Review the work scope and schedule.
- Establish communication protocols, including monthly status reporting, project status coordination calls, and conference call/ online video call protocols.
- Determine a typical review schedule needed by City staff for draft work products.
- Review and discuss overall organization of the Housing Element Update.
- Discuss the community engagement strategy, City staff and Consultant roles and responsibilities, and formation of the Focus Group.
- Identify informational sources and available GIS mapping data, including its level of accuracy, status, and most recent updates.
- Discuss the ABAG/MTC mapping tool.
- Review preliminary RHNA and discuss the potential and strategy for an appeal.
- Discuss data resources, approach, and methodology for the sites analysis.
- Discuss critical housing issues and the City's existing Housing Element.
- Discuss critical safety issues, with particular focus on wildfires.
- Determine consultation and coordination with appropriate governmental agencies.
- Review Safety Element requirements and update approach.

Task 1.2: Community Engagement Strategy

Based on input from City staff at the kick-off meeting, the Consultants will finalize the details of the comprehensive Community Engagement Strategy. The strategy will describe engagement methods, responsibilities, and publicity protocols. The Consultants will structure the Strategy to be inclusive of all those who make up the "community," including residents; workers; businesses; property owners; developers and residential builders; educational institutions; civic, community, and non-profit organizations; religious, social, cultural, and ethnic groups; and public agencies. In addition to being inclusive, the goal is to create meaningful opportunities for involvement throughout the preparation of the Housing and Safety Element Updates.

Our engagement tools include both in-person and socially-distanced engagement that is responsive to the changing requirements of social interaction associated with COVID-19. We assume there will be no in-person meetings until at least mid-2021. Once a COVID-19 vaccine is widely available, we assume in-person meetings can resume.

Task 1.3: Project Branding and Logo

The Consultants will develop a branding package for the Housing and Safety Element Updates. The branding package will include a project logo and style templates for all work products, maps, and publicity materials to build enthusiasm about the project and ensure that this effort is distinct in the minds of the community. The Consultants will give the City up to three options from which to choose a branding package.

Task 1.4: Website and Online Engagement

The Consultants will develop an interactive, informational website, or page on the City's website, for the Housing Element Update to provide an easy-to-use tool for residents to stay informed during the Update process. The website will provide project information, access to all materials developed for the project, and an access point for online engagement tools for polling and idea generation. This will provide access to virtual meetings that can support those that cannot attend events due to personal circumstances or public health restrictions. The Consultants will regularly update the online engagement tools with new questions, surveys, opinion polls, and geographic mapping tools.

Task 1.5: Newsletter #1: Housing Element Update Overview

The Consultants will prepare a newsletter that describes what a housing element is, how and why it is being updated, the project schedule, and how to get involved in the process. We will also include a section on State Housing Element law FAQs. The newsletter will also describe the other components of the project, including General Plan amendments, Safety Element, and environmental analysis. The newsletter will publicize upcoming community engagement opportunities and the first on-line engagement tools.

Task 1.6: Focus Group Meeting #1

The Consultants will assist City staff with facilitating the first Focus Group meeting. The meeting will include a discussion of the Focus Group organization and meeting protocols. We will present an overview of the project and schedule and get input and direction on member expectations for the project. We will use the opportunity to discuss housing issues and gain an understanding of the Group members' housing-related priorities and concerns. This is likely to be a virtual meeting via Zoom or other on-line technology.

Task 1.7: Planning Commission and City Council Joint Study Session

The Consultants will facilitate a Joint Study session with the Planning Commission and City Council to present an overview of the project and schedule and get input and direction on their expectations for the project. We will introduce the Focus Group members and ask the Commission and Council to express to the Group their expectations for the Group's work. We will use the opportunity to discuss housing issues and gain an understanding of the Commissioners and Councilmembers housing-related priorities and concerns. This is likely to be a remote, virtual

meeting via Zoom or other on-line technology. We will assure full public access and participation.

Task 1.8: RHNA Appeal Assistance

The Consultants will assist City staff, if necessary, with an appeal of the City's RHNA. We will review the ABAG RHNA methodology, conduct an analysis to determine whether the methodology as applied to St. Helena is reasonable and defensible, and prepare conclusions and recommendations to support an appeal if the City determines it appropriate.

Phase 1 Deliverables:

- Stakeholder and community contact list (digital; Excel, pdf)
- Community engagement strategy (digital; Word, pdf)
- Project logo and branding package (Digital; pdf)
- Website and online engagement (digital; online)
- Newsletter #1 (Digital; InDesign, pdf)
- Joint Study Session PowerPoint presentation (digital; PowerPoint, pdf)

Phase 2: Housing Element Update

The Consultants will prepare an Administrative Draft Housing Element. The format and organization of the Element will be consistent with the General Plan. The Element will, at a minimum, address the following:

- Background and Introduction
- Key Findings of the Background Report
- Current Housing Element Review
- Available Land Inventory
- Housing Goals, Policies, Programs, and Quantified Objectives
- Implementation Time Frame

The following tasks describe the steps that the Consultants will take to update the Housing Element.

Task 2.1: Community Workshop #1: Housing Concerns and Needs

The Consultants will facilitate a community workshop as a virtual townhall event as described in the RFP. This event will be designed to engage residents and stakeholders throughout the city. The workshop will provide a common understanding of the purpose of the Housing Element Update, key steps in the process, and seek public input on housing issues and distinct economic, social, and geographic housing needs.

Once the State, County, and City have determined that in person events are feasible, the Consultants will move to an in-person format. For community workshops in-person, we will create large-format informational displays on the project and topical areas, prepare a presentation to welcome workshop attendees, provide an overview of the activities, facilitate group exercises (in teams with City staff), and provide handouts related to each activity. Like the virtual events, the workshops will conclude with each group reporting out major findings, conclusions, and take-aways from the activities and discussions.

Even when in-person events are resumed, we will also provide on-line engagement opportunities for those unable to attend the workshop in person.

Task 2.2: Focus Group Meeting #2

The Consultants will assist City staff with facilitating a Focus Group meeting to discuss the results of the first community workshop and how the public input should be considered when preparing the Housing Element. We will also review the next steps in the update, with a focus on the site assessment. This is likely to be a virtual meeting via Zoom or other on-line technology.

Online Community Workshops

In response to COVID-19, the City has requested that the Consultants plan to conduct virtual community workshops in 2021. Having conducted dozens of Zoom workshops over the past eight plus months, Mintier Harnish is extremely adept at putting this technology to work in a way that is both accessible and responsive to community needs. For these workshops to be successful, we conduct the following:

- **Getting the Word Out**. Working with the City, we provide plenty of advanced notice of the virtual event in a number of formats, including social media announcements (using City social media and other related social media feeds). We also provide notices that can be transmitted by the City and interested community organizations to their members. Media information is also provided to local newspapers and radios stations to get the word out.
- **Project Website**. The project website will be regularly updated with a project calendar providing information on upcoming events.
- **Zoom Training**. The project website will also contain a short training video on how to use Zoom from a computer, tablet, or phone. This is a good mechanism to take the stress out of joining the event.
- **Housing Element Training**. The project website will also contain information on the Housing Element Update process so that people are always up to date with the project.

Like in-person workshops, each event will have a theme and set of objectives to accomplish. These will relate directly to the stage of development and refinement of the Housing Element. In general, these online events will have the following structure:

- **Welcome**. We suggest a welcome by someone in City leadership to enforce the importance of the project and public input.
- **Presentation**. The Consultants will provide a presentation with information relevant to the subject of the event. During the presentation, the audience will be kept engaged with polling activities that build off the discussion and gain public input. The audience responses will be shared live after polling.
- **Breakout Groups**. For many events, small group breakouts will also be used after the presentation. These small groups, facilitated by a Consultant or City staff member in each breakout room will work with the groups to discuss assigned topics.
- **Report Out**. Following the breakouts, all members will come back into the main virtual room and facilitators will provide a summary of the discussion points from their breakout room.

Following the event, we will post a summary of the event to the project website.

Task 2.3: Vacant and Underutilized Sites Assessment

The Consultants will use the city's RHNA allocation, city-supplied data (e.g., Excel spreadsheets, GIS data layers), and the ABAG/MTC mapping tool to develop an initial "first-pass" adequate sites inventory that will be refined throughout the development of the draft Element.

We will prepare a complete draft of the sites inventory and analysis, in accordance with Government Code Section 65583(a)(3). To accomplish this, we will review and update the vacant and underutilized sites inventory using the current Assessor's data and field spot checks. The sites inventory will be a parcel-specific land inventory, as required by AB 2348, based on the current General Plan and Zoning Code, and other recent planning efforts related to land use.

We will strive to ensure that the inventory provides sufficient sites to meet the City's RHNA for both affordable and market-rate housing. This site inventory analysis will require further refinement than previous Housing Elements due to AB 1397, which enacted stricter requirements for the adequacy of housing sites, including non-vacant sites and sites that were identified in previous Housing Elements. Sites need to have sufficient available infrastructure and realistic dwelling unit capacity based on development of affordable housing at the likely density, rather than the maximum density permitted.

> *Using GIS and Excel based modeling, we develop site inventory models that allow the testing of what-if scenarios. What if we change density in a specific designation? What if we assume a higher participation in accessory dwelling units? What if…? This gives our clients a chance to evaluate a range of possibilities to find the mix that best fits the community.*

If this analysis reveals insufficient sites, the Consultants will work with City staff to expand the inventory by identifying possible sites for rezoning, modifying densities, and outlining other approaches to increasing housing capacity. We have experience with this process and, if necessary, will work with City staff to identify the most suitable sites for rezoning and advise on potential CEQA implications. The Consultants will collaborate to avoid potentially significant environmental impacts, to the extent feasible, while examining feasible housing sites. We will also assess the real-world constraints that may be presented in development of potential sites (e.g., habitat/open space restrictions, agency permitting requirements, easements).

The Consultants will maintain the inventory as it develops during the process in an easily-tracked format, so it can be revised as necessary during the Housing Element update. The Consultants will provide the City with the inventory files (i.e., GIS data layers, Excel spreadsheets) prior to the project's conclusion. Following initial review by HCD, the final sites used in the Housing Element will be inserted into HCDs standard sites form for submittal with the Final Housing Element.

Task 2.4: Focus Group Meeting #3

The Consultants will assist City staff with facilitating a Focus Group meeting to discuss the results of the vacant and underutilized sites assessment. We will review our methodology, present our findings, discuss the implications for rezoning and the CEQA assessment, and discuss options. This is likely to be a virtual meeting via Zoom or other on-line technology.

Additional Tools: ABAG Regional Housing Technical Assistance Program

Funded by REAP, ABAG's Regional Housing Technical Assistance Program is focused on supporting local jurisdictions to adopt compliant Housing Elements to implement the 6th cycle RHNA. The Technical Assistance Program is currently developing two key data tools that have the potential increase efficiency and decrease costs.

Preapproved Housing Needs Data Packets. ABAG staff is generating data packets to assist in the completion of the housing needs analysis. The packets will illustrate relevant jurisdiction-level data through a series of tables and figures, including charts and graphs that cities and counties can add directly into their housing elements. These local data packets will include data relevant to the implementation of new State laws regarding Affirmatively Furthering Fair Housing, and key statistics will be summarized by race. As part of this effort, ABAG also plans to provide county-level narrative templates that summarize key topics or questions (e.g., how do we meet the needs of seniors?), which could include more detailed analysis of Affirmatively Furthering Fair Housing, resilience, and other topics of local interest. Importantly, all data provided within the Housing Needs Packets will be preapproved by HCD before release to ensure minimum State requirements are met.

Site Selection Tool. To support local planning staff with completion of the Housing Element "Site Inventory and Analysis" section, ABAG-MTC staff are developing a web-based mapping tool to guide jurisdictions in identifying potential sites that align with State requirements as well as regional and local priorities. This tool will prescreen sites based on HCD's minimum requirements, allow users to select, and recategorize sites, and, when complete, will automatically populate sections of HCD's new reporting form. Although currently limited to minimum State requirements, ABAG staff plans to further expand the tool to provide deeper analyses related to capacity calculations, non-vacant sites, rezoning, accessory dwelling units, Affirmatively Furthering Fair Housing, resilience, GHG/VMT reduction.

In addition to these two data tools, the Technical Assistance Program expects to release a variety of regionally applicable products that can be tailored by local staff to meet their needs. These products will include staff report templates, FAQs and slide decks on common topics like changes to housing element laws, including new Affirmatively Furthering Fair Housing requirements. The Consultants will use these tools and materials to their fullest extent, proving cost savings throughout the Housing Element.

Task 2.5: Community Workshop #2: Vacant and Underutilized Sites Assessment

The Consultants will facilitate a virtual community workshop on the results of the vacant and underutilized sites assessment. We will conduct a webinar to review our methodology, present our findings, describe the implications for rezoning, and layout options. We will then facilitate a question and answer session and small group breakouts to discuss the siting solutions presented. The on-line workshop will also include a community opinion survey based on the sites assessment to provide an additional opportunity for community input. The webinar and polling will remain on the website for two to three weeks to assure full community participation. We will summarize the results of the input received.

Task 2.6: Focus Group Meeting #4

The Consultants will assist City staff with facilitating a Focus Group meeting to discuss the results of the community discussion and survey about the vacant and underutilized sites assessment. We will solicit ideas and direction from the Focus Group about how to address community concerns as we initiate preparation of the Housing Element. This is likely to be a virtual meeting via Zoom or other on-line technology.

Task 2.7: Planning Commission and City Council Joint Study Session

The Consultants will facilitate a Joint Study session with the Planning Commission and City Council to discuss the results of the community discussion, survey, and Focus Group meetings on the sites assessment. We will solicit ideas and direction from the Commission and Council about how to address community concerns as we initiate preparation of the Housing Element. This is likely to be a virtual meeting via Zoom or other on-line technology.

Task 2.8: Administrative Draft Housing Element

Task 2.8A: Existing Housing Needs Analysis

The Existing Housing Needs Analysis is a comprehensive evaluation of current demographic, employment, housing, and housing market conditions and trends. We will use this section as the basis for determining the existing unmet housing needs in the city. The Consultants will update the assessment of housing needs for all income groups and identify the city's special housing needs. We will include the following topic areas in this assessment:

Demographic Profile and Employment Profile. This section establishes "baseline" population and employment characteristics for the city, including population growth trends, age characteristics, race and ethnicity, income, and local employment trends, as well as population and employment projections.

Household Characteristics and Housing Stock. The Consultants will use recent data sources to update the description of the existing housing stock in terms of housing stock growth and composition, vacancy rates, housing age and conditions, and overcrowding. The Consultants will also describe housing cost burdens and the ability of households of different income levels to pay for housing. The Consultants will describe current housing market trends, home sales prices, and rental rates using recent data sources (e.g., DataQuick, Zillow, CalREALTORS records) and based on conversations with local realtors.

Special Needs Housing Analysis. The Consultants will update the analysis of housing needs for special needs populations, including senior households, persons with disabilities, including persons with developmental disabilities, large families, single female-headed

households, farmworkers, seasonal workers, extremely low-income households, persons in need of emergency shelter, and students.

Task 2.8B: Housing Resources and Opportunities

The Housing Resources and Opportunities section will examine the resources and opportunities available for the development, rehabilitation, and preservation of housing. Included is an inventory and analysis of the land resources (i.e., vacant and underutilized sites), as well as the financial and administrative resources available to support housing activities.

Vacant and Underutilized Sites Assessment

A description and discussion of findings from the assessment conducted under Task 2.3 will be included under this section in the Housing Element. We will also take into consideration community input and Focus Group direction in preparing this section

Affirmatively Further Fair Housing

As a part of the sites assessment the Consultants will analyze whether the identified sites serve the purpose of replacing segregated living patterns with truly integrated and balanced living patterns that work to transform racially and ethnically concentrated areas of poverty into areas of opportunity. In this effort, we will:

- ensure that sites zoned to accommodate housing for lower-income households are not concentrated in lower resource areas and segregated concentrated areas of poverty, but rather dispersed throughout the community, including in areas with access to greater resources, amenities, and opportunity; and
- draft policies and programs to be incorporated into the housing element that are designed to remediate conditions where sites zoned to accommodate housing for lower-income households are located in lower resource areas and segregated concentrated areas of poverty. We will also draft place-based strategies that create opportunity in areas of disinvestment (such as investments in enhanced infrastructure, services, schools, jobs, and other community needs).

> ***Affirmatively Furthering Fair Housing is a significant new addition to 6th Cycle Housing Elements. Having recently completed this analysis for the City of Carlsbad, Mintier Harnish is fully up to speed on HCD reporting requirements and policy needs.***

Adequacy of Public Facilities and Services

The Consultants will prepare an assessment of the adequacy of water and wastewater infrastructure to meet existing and future housing needs based on existing master plans and discussions with City staff.

Inventory of Financial and Administrative Resources

The Consultants will describe local, regional, State, and Federal financial and administrative resources available to help the City implement its housing programs.

Energy Conservation Opportunities

The Consultants will describe opportunities for energy conservation, including the City's General Plan policies that promote energy conservation and air quality protection, and other alternative energy and green building measures. The Consultants will also describe local energy conservation programs, such as weatherization and rebate programs provided by local utility companies.

Task 2.8C: Housing Constraints

The Consultants will review and update the analysis of both governmental and non-governmental constraints, such as land and

development costs, site constraints, existing or planned infrastructure, land use controls, building code regulations, fees, and permit and processing procedures. The Consultants will also analyze constraints on housing for persons with disabilities, as well as the City's current permitting procedures for emergency shelters, transitional and supportive housing, and single-room occupancy units. The Consultants will update this section to address the current economic, climate, and housing market conditions. The housing constraints analysis will also document local efforts to remove governmental constraints to improve the City's ability to meet its share of the regional housing needs.

Task 2.8D: Evaluation of Previous Housing Element

The Consultants will review and evaluate the implementation of the current Housing Element policies and programs based on information provided by City staff and annual Housing Element reports submitted to HCD. The evaluation will identify which programs have been accomplished, which programs have been the most successful, and why some housing programs have not been implemented or have been unsuccessful. The Consultants will prepare an assessment memo summarizing the results from this analysis and recommending specific changes to be incorporated into the Housing Element Update.

Task 2.8E: Administrative Draft Policy Document

The Consultants will update the current Housing Element goals, policies, programs, and quantified objectives based on the evaluation of the performance of these items in the current Housing Element, the housing needs and constraints, recent changes to State Housing Element law, public input, and feedback from City staff. Housing policies and programs will build upon the most successful policies and programs in the current Housing Element.

Task 2.9: Community Workshop #3: Affirmatively Furthering Fair Housing

Meeting the housing needs of all populations without discrimination is a requirement for an adequate Housing Element. To effectively combat housing discrimination and affirmatively further fair housing, HCD has identified recommendations and action steps to address the 10 impediments to fair housing. As part of this virtual workshop, the community will be presented information on population, demographic, socioeconomic, and geographic indicators of housing impediment. Following the presentation, the community will meet in small groups to identify methods to help overcome these issues.

Task 2.10: Focus Group Meeting #5

The Consultants will assist City staff with facilitating a Focus Group meeting to review the Administrative Draft Housing Element. This will be either an in-person or virtual meeting via Zoom or other on-line technology, depending on the status of the COVID-19 public meeting guidelines at this point in the process. Based on the Focus Group comments and direction, we will prepare a second Administrative Draft Housing Element for staff.

Task 2.11: Public Review Draft Housing Element

The Consultants will prepare a Public Review Draft Housing Element based on City staff comments on the second Administrative Draft. The Consultants will also prepare an appendix with Public Review Draft General Plan and Zoning Ordinance Amendments.

Phase 2 Deliverables:

- Underutilized and Vacant Sites Assessment (digital; GIS, Excel, pdf)
- Community Workshop Materials (digital; webinar, PowerPoint, on-line opinion survey)
- Opinion Survey Results (digital; Word, pdf)
- Administrative Draft Housing Element (#1) (hard copy (1); digital; Word, pdf)
- Administrative Draft Housing Element (#2) (hard copy (1); digital; Word, pdf)
- Public Review Draft Housing Element (hard copy (1); digital; Word, pdf)

Phase 3: Public Health, Safety, and Noise Element (Safety Element) Update

Task 3.1: Review and Evaluation

The Consultants shall review and evaluate the current Safety Element to determine compliance with all aspects of State law, including but not limited to: climate adaptation and resiliency strategies and identification of new information relating to flood and fire hazards in conformance with SB 99, SB 379, and SB 1035 as applicable. Following this review, we will provide a list or document in markup format noting any corrections that must occur to text and/or exhibits to bring it into compliance.

Task 3.2: Safety Element Revision

The Consultants will work with City staff to revise the Safety Element to ensure consistency with other General Plan elements, compliance with State law, and incorporation of information from the recently adopted 2020 Napa County Multi-Jurisdictional Hazard Mitigation Plan. This scope does not include a comprehensive update of the Safety Element. This task is intended to be limited in scope and only includes an update to portions of the Safety Element as necessary for compliance with State law and consistency with other elements in the General Plan.

> ***Wildfire Risks***
>
> ***The Safety Element will be updated to cover the full range of manmade and natural hazards that could potentially impact the community. With changes in climate parameters and encroachment into wildland areas in both Napa and Sonoma Counties, addressing wildfire risks will be a key concern. This will include resource planning, evacuation planning, proactive development designs to reduce risk, and recovery planning. Recent major fires in the area include the 2019 Kincade fire, 2020 Lightning Complex fire, and the 2020 Glass fire.***

The element will include information about the regulatory and governance issues surrounding natural and human-related hazard abatement including applicable local, State, and Federal policies and regulations. We will use the State's Office of Planning & Research 2017 General Plan Guidelines and recent legislation to update the Safety Element to ensure consistency with the State's latest requirements and guidance. This will include addressing AB 747, General Plan Safety Elements; SB 99, Safety Elements, Emergency Evacuation Routes; SB 379, Climate Adaptation and Resiliency; SB 1035, General Plans; and SB 1241, Fire Hazard Impacts. The elements will set up the framework for any updates necessary to the municipal code, including the potential for a disaster recovery ordinance to help the City organize and expedite recovery in advance of a declared disaster and to mitigate hazardous conditions before and after such a disaster. The Consultants will develop an Administrative Draft Safety Element with all required updates and submit for review by City staff.

Task 3.3: Second Administrative Draft Safety Element

Following review and comment by City staff, the Consultants will make appropriate corrections and updates and create a second Administrative Draft Safety Element. This version will ensure all appropriate changes have been completed.

Task 3.4: Public Review Draft Safety Element

Following review and comment by City staff, the Consultants will make appropriate corrections and updates and prepare a Public Review Draft Safety Element.

Task 3.5: Focus Group Meeting #6

The Consultants will assist City staff with facilitating a Focus Group meeting to discuss the Safety Element. This is likely to be a virtual meeting via Zoom or other on-line technology.

Task 3.6: Community Workshop #4: Safety Element

The Consultants will facilitate a community workshop on the Safety Element. We assume that at this point in the Project, COVID-19 meeting restrictions will be lifted and that this will be an in-person event. We will present the element and discuss the key changes. We will then facilitate a question and answer session and interactive small group sessions. The workshop will also include a community opinion survey based on the Safety Element to provide an additional opportunity for community input. We will post the survey on the website for two to three weeks to assure full community participation. We will summarize the results of the input received.

Task 3.7: Planning Commission and City Council Joint Study Session

The Consultants will facilitate a Joint Study session with the Planning Commission and City Council to present the Draft Safety Element and discuss the results of the community discussion, survey, and Focus Group meeting. We will solicit input and direction from the Commission and Council. We will revise the Safety Element as necessary following the study session.

Task 3.8: Other General Plan and Zoning Code Amendments

The Consultants will prepare a memorandum summarizing all other General Plan and Zoning Code text Amendments necessary to maintain consistency with the updated Housing and Safety Elements. The General Plan table of contents (including figures, tables, and charts), glossary, and index will be updated as appropriate to reflect changes made throughout the Housing and Safety Elements. We assume that the City will initiate any Zoning Map amendments as a part of a subsequent Housing Element implementation program.

Phase 3 Deliverables:

- Administrative Draft Safety Element (#1) (hard copy (1); digital; Word, pdf)
- Administrative Draft Safety Element (#2) (hard copy (1); digital; Word, pdf)
- Public Review Draft Safety Element Elements (hard copy (1); digital; Word, pdf)
- Community Workshop Materials (digital; webinar, PowerPoint, on-line opinion survey)
- Opinion Survey Results (digital; Word, pdf)
- Memorandum summarizing other General Plan and Zoning Code Text Amendments (Digital; Word, pdf)

Phase 4: Public Review Draft Housing Element

Task 4.1: Newsletter #2: Public Review Draft Housing Element

The Consultants will prepare a newsletter that provides a summary of the key take-aways in the Public Review Draft Housing Element, particularly key changes to policies and programs, any proposed changes to land use designations (locations or density ranges), and what these changes mean for their community. The newsletter will provide an update on the Housing Element process and information on how to provide input on the draft Housing Element.

Task 4.2: Focus Group Meeting #7

The Consultants will assist City staff with facilitating a Focus Group meeting to discuss the Public Review Draft Housing Element. This is likely to be a virtual meeting via Zoom or other on-line technology.

Task 4.3: Community Workshop #5: Public Review Draft Housing Element

The Consultants will facilitate a community workshop designed to engage residents and stakeholders throughout the city. The workshop will provide a summary of the Public Review Draft Housing Element, particularly key changes proposed and what these changes mean for the community. Proposed General Plan Amendments will also be described.

The Consultants will facilitate an open-house style meeting with informational stations that enable participants to drop by and stay as long as they want. We will create large-format informational displays on the project and topical areas, and prepare a presentation to welcome workshop attendees. We will provide on-line engagement opportunities for those unable to attend the workshop. We will adapt the workshop to a fully on-line format if in-person meetings are still discouraged.

Task 4.4: Planning Commission Study Session

The Consultants will attend a study session with the Planning Commission to solicit input on the Public Review Draft Housing Element and General Plan Amendments. At the end of the study session, the Planning Commission will formulate a recommendation for the City Council to authorize City staff to submit the Housing Element to HCD for the mandated 60-day review period. The Consultants will prepare and present a PowerPoint presentation.

Task 4.5: City Council Study Session

The Consultants will attend a study session with the City Council to solicit input on the Public Review Draft Housing Element and General Plan Amendments, and request authorization to submit the Housing Element to HCD for the mandated 60-day review period. The Consultants will describe all input received from the community workshop and on-line input and any revisions to the project documents proposed in response to this input. The Consultants will prepare and present a PowerPoint presentation.

Phase 4 Deliverables:

- Newsletter #2 (digital; InDesign, pdf)
- Community Workshop Materials (hard copy large format posters; digital; PowerPoint)
- Study Session Materials (digital; PowerPoint)
- Addendum outlining revisions of Public Review Draft in response to input and comments from the Planning Commission and City Council Study Sessions, including track changes of revisions. (digital; Word, pdf)

Phase 5: HCD Review and Coordination

The Consultants will assist City staff with coordinating HCD review of the Draft Housing Element.

Task 5.1: HCD Review Draft Housing Element, HCD Checklists, and Transmittal to HCD

The Consultants will revise the Public Review Draft Housing Element based on direction from the Planning Commission and the City Council and prepare the draft to be delivered to HCD. The Consultants will provide a digital copy of the HCD Review Draft Housing Element for posting on the City website and will send out an email to stakeholders and community meeting attendees. The Consultants will also prepare a cover memorandum to accompany submission of the Draft Housing Element to HCD. Under State law, HCD has up to 60 days to review the Draft Housing Element. During the HCD review process, the Consultants will maintain close contact with the designated HCD reviewer to respond to any questions he/she may have during the process.

Task 5.2: Meeting with HCD

Following submission of the HCD Review Draft Housing Element and prior to the end of the 60-day review period, the Consultants and City staff will meet with HCD staff or conduct a phone call meeting to discuss the Draft Housing Element and preliminary HCD comments.

Task 5.3: Response to HCD Comments

Following the City's receipt of HCD comments on the HCD Review Draft Housing Element, the Consultants will prepare a preliminary response to HCD comments and provide this to City staff for their review. Based on comments received from City staff, the Consultants will then prepare a formal written response to HCD comments and submit them to HCD. The Consultants will work closely with HCD to seek a timely conditional approval letter prior to Planning Commission and City Council hearings. If necessary, the Consultants will meet with HCD after submitting the response to comments to facilitate the review process.

Phase 5 Deliverables:

- HCD Review Draft Housing Element (digital, pdf)
- Completeness Checklist (digital; Word, pdf)
- Response to HCD Comments (digital; Word, pdf)

Phase 6: Environmental Documentation

Given that the City's General Plan and its associated environmental impact report (EIR) were adopted and certified, respectively, in 2019, we believe the most efficient approach to complying with the California Environmental Quality Act (CEQA) is to prepare an Addendum to the General Plan EIR. Per CEQA Guidelines Section 15164, an addendum may be prepared if some changes or additions are necessary, but none of the conditions have occurred that would trigger a subsequent or supplemental document (CEQA Guidelines Sections 15162 and 15163). This is the most efficient approach because we believe that the General Plan's projected growth would incorporate the anticipated growth and changes related to the Housing Element Update and RHNA numbers. Revisions to the Safety Element will not result in any new environmental impacts and are likely to result in the reduction of impacts.To that end, we have prepared a scope of work to achieve CEQA compliance using the most efficient pathway possible. If rezoning or upzoning is required to satisfy RHNA needs,

the transportation impacts would need to be analyzed at that time in a separate CEQA process to comply with CEQA.

The Consultants will analyze, update as necessary, and edit existing information to provide an environmental document that adheres to current CEQA requirements and focuses on those mitigation measures that are required based on the impacts identified in the analysis.

The Consultants will prepare an Addendum to the City of St. Helena 2040 General Plan EIR (May 2019), in accordance with CEQA Guidelines Section 15164. The Consultants will review information from the certified General Plan EIR and will reference verified information from this document in the Addendum. The Addendum will supplement the General Plan EIR analysis with new or updated analysis as necessary and appropriate, especially for issue areas which are the subject of new regulations or standards since certification of the General Plan EIR.

The Addendum will, to the extent possible, rely on existing environmental documentation and technical studies prepared for the project area, including the General Plan Final EIR, and the technical studies completed for that project. This work program outlines the steps that would be needed to adhere to State environmental documentation requirements. Preparation of the Addendum will include the following tasks:

Task 6.1: Project Initiation and Data Collection

As part of this task, we will gather any additional materials, planning documents, technical analyses prepared by the City, and recent environmental documentation prepared within the City to supplement earlier data collection efforts and to support the specific data needs of the CEQA documentation.

Task 6.2: Administrative Draft Addendum

This task includes all of the steps necessary to complete an Administrative Draft Addendum for the Housing and Safety Element Update. The Addendum would contain all sections required pursuant to CEQA. In accordance with CEQA Guidelines Section 15164, the Addendum will include only the information necessary to make the previous EIR adequately apply to the project in the changed situation. As explained in CEQA Guidelines Section 15151:

> *"An EIR should be prepared with a sufficient degree of analysis to provide decision-makers with information which enables them to make a decision which intelligently takes account of environmental consequences. An evaluation of the environmental effects of a proposed project need not be exhaustive, but the sufficiency of an EIR is to be reviewed in light of what is reasonably feasible."*

To the extent possible, The Consultants will incorporate information from existing environmental and planning documents that are applicable to the project area and project.

The Consultants will prepare a detailed project description, including tabular and graphic information, for review by the City and project team. This review is critical, since it forms the basis for environmental evaluation under CEQA. The project description will provide a detailed summary of the proposed Housing and Safety Element Update. The project description will be based on additional information to be provided by the City and project team. Textual, tabular, and graphic presentation will be used as necessary to facilitate a thorough understanding of the proposed project. Tables and graphics will be prepared to illustrate clearly the changes proposed by the Housing and Safety Element Update. The project description will include:

- A thorough explanation of proposed changes to the Housing and Safety Elements
- A discussion of planned development characteristics at buildout
- Features that have been incorporated into the project to minimize potential environmental or land use conflicts, if any
- Tables illustrating project characteristics and the degree of change from existing conditions and currently adopted Zoning Code and land use designations
- Supporting graphics

We will provide the City with an electronic version of the draft project description for review. Upon City approval of the draft project description, we will prepare the Administrative Draft Addendum. This task includes all components necessary to complete the environmental impact analysis.

Issues of Concern:

Aesthetics. The aesthetic analysis will consider such issues as alteration of public views, changes in visual character, and increased light and glare in comparison to the General Plan EIR.

Air Quality and Greenhouse Gas Emissions. We will prepare this section in accordance with Bay Area Air Quality Management District (BAAQMD) Guidelines. We will analyze both temporary construction effects and long-term regional effects. We will compare growth potential under the General Plan EIR to the Housing Element. This analysis will also consider the project's potential contribution to cumulative impacts related to greenhouse gas (GHG) emissions and climate change. An overview of the current regulatory framework regarding GHGs/climate change including SB 32, AB 32, SB 97, and SB 375, as well as adopted amendments to the CEQA Guidelines, will be described.

Noise. We will compare the noise impacts from the additional traffic based on the transportation study to the General Plan EIR impacts.

Population and Housing. It is not anticipated that the Housing or Safety Element would displace people or housing. Therefore, this section will focus on a comparison of General Plan population and housing estimates to the Housing Element estimate.

Public Services and Recreation. We will address potential impacts relating to police protection and fire protection services, schools, and parks and recreational facilities in comparison to General Plan EIR.

Transportation. We assume the transportation analysis performed for the General Plan will be sufficient for the Housing and Safety Element Update, and that no new transportation modeling will be required.

Utilities and Service Systems. We will compare impacts on water supply and service systems, wastewater conveyance and treatment systems, and solid waste collection and disposal systems from the General Plan EIR to the Housing and Safety Elements.

Tribal Cultural Resources. We will assist the City conduct government-to-government tribal consultation in accordance with Assembly Bill 52 of 2014 (AB 52) and Senate Bill 18 of 2004 (SB 18). We will prepare the AB 52- and SB 18-specifc letters to be placed on City letterhead; preparing and submitting a Native American Heritage Commission Sacred Lands File SB 18 request; and preparing a tracking sheet and instructions to be provided to the City. The instructions will include details regarding schedule and timelines associated with AB 52 and SB 18 to ensure timely consultation.

Wildfire. This section will discuss changes to impacts related from wildfire risk from the General Plan to the Housing and Safety Elements,

as well as the revised Safety Element policies and programs that reduce wildfire risk.

The Consultants will submit electronic copies of the Administrative Draft Addendum, along with associated appendices, to the City and project team for review and comment. This task includes two rounds of review and revisions.

Task 6.3: Final Addendum

Upon receiving one consolidated set of City comments on the Administrative Draft Addendum, we will prepare a Final Addendum for certification. We will provide 10 hardcopies of the Addendum to the City to distribute along with the final Housing Element and provide one electronic version for the City's use. We will provide the full administrative CEQA record to the City at this time.

There are no public notification or review requirements for an addendum. The City will present the Addendum along with the Housing Element for City Council approval at the same time. Once the Addendum is certified, we will file the Notice of Determination with the County and the State Clearinghouse if desired. We assume the City will have its receipt from filing the California Department of Fish & Wildlife (CDFW) fees at the time the General Plan EIR was certified. Otherwise, additional CDFW fees could be required.

Phase 6 Deliverables:

- Draft Project Description (digital; Word, pdf)
- Administrative Draft Addendum (digital; Word, pdf)
- Final Addendum (10 hard copies; digital: Word, pdf)
- Full Administrative record (digital; pdf)

Phase 7: Public Review and Adoption

The Consultants will work with City staff to respond to HCD staff comments., incorporate those responses into a Public Hearing Draft Housing Element, and facilitate adoption of the Final Housing Element. During this phase, updates to proposed General Plan Amendments will also be made.

Task 7.1: Public Hearing Draft Documents

The Consultants will prepare a Public Hearing Draft Housing Element that incorporates all the responses to HCD comments. We will also include the Safety Element and other General Plan Amendments. The Consultants will provide a digital copy of the Public Hearing Draft Housing and Safety Elements, and other General Plan and Zoning Code Amendments to post on the City website, as well as the Housing Element website, and will send out an email to stakeholders and the community.

Task 7.2: Public Hearings and Adoption (4)

The Consultants will attend four public hearings–two with the Planning Commission and two with the City Council–to present the Draft Housing and Safety Elements, and other General Plan and Zoning Code Amendments, respond to questions, and record the recommendations of the Planning Commission and the action of the City Council.

Task 7.3: Final Housing Element and Transmittal to HCD

The Consultants will prepare the Final Housing Element that incorporates any changes made by the Planning Commission and City Council in adopting the Housing Element. The Consultants will print hard copies and provide a digital copy of the Final Housing Element. The Consultants

will prepare a cover memorandum to accompany submission of the Final Housing Element to HCD for the final 90-day review period.

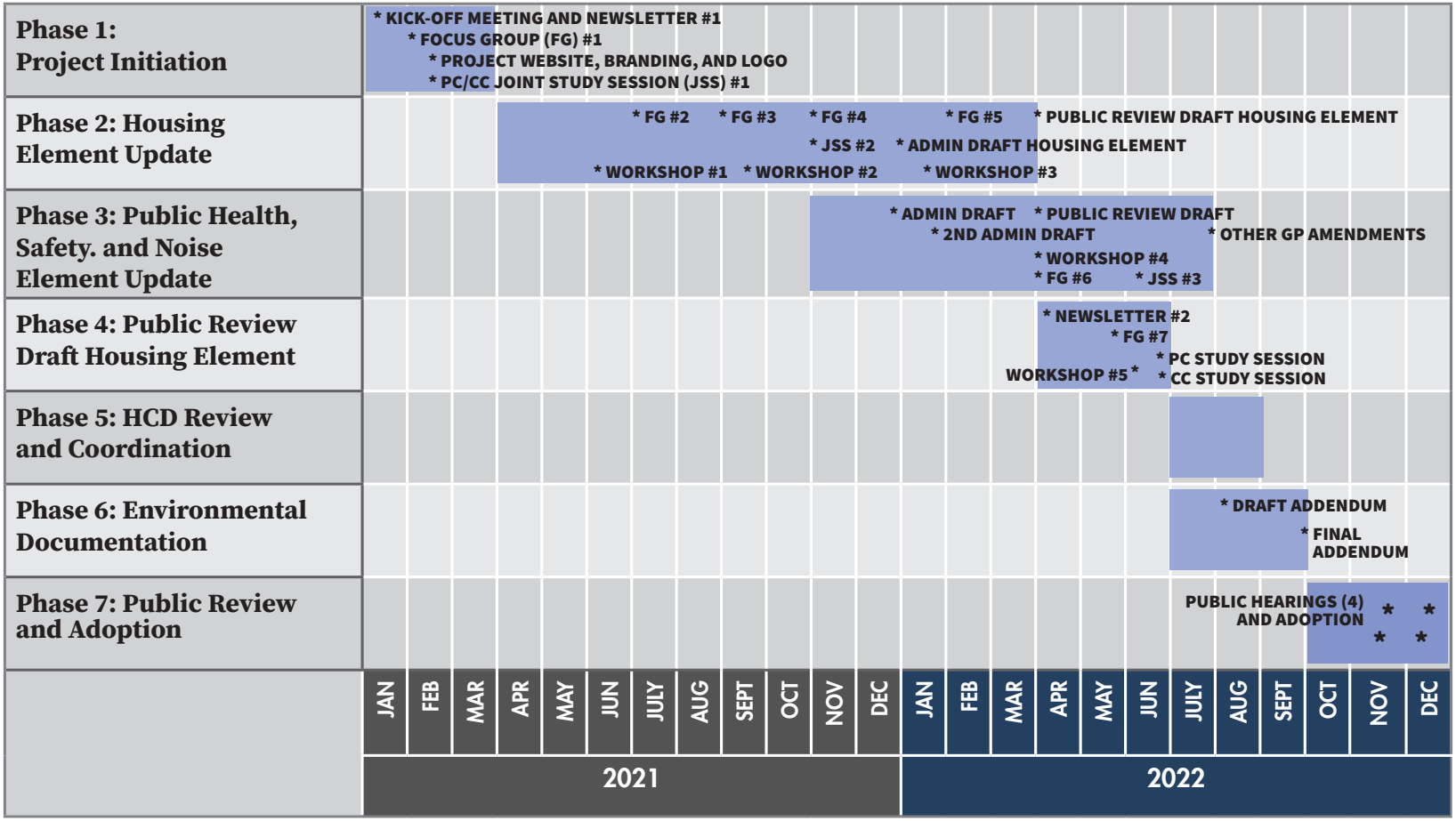
Phase 7 Deliverables:

- Housing and Safety Elements, and other General Plan and Zoning Code Amendments (digital; pdf)
- Planning Commission and City Council Public Hearing materials (digital; PowerPoint; pdf)
- Final Housing Element transmittal memorandum to HCD (digital; Word, pdf)
- Final Housing Element (10 bound hard copies; digital; Word, pdf)
- Final Safety Element (digital; Word, pdf)
- Final Zoning Code Text amendments (digital: Word, pdf)

Project Management and Ongoing Communication and Coordination

The Consultants will regularly communicate with City staff on a weekly or bi-weekly basis, or as necessary to resolve issues. The Consultants will prepare monthly status reports documenting the progress made each month on completing the project, and review and update the schedule, as necessary.

Project Schedule



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3 Consultant Identification and Team

Mintier Harnish

Mintier Harnish is a planning consulting firm specializing in land use, housing, zoning, community development, and environmental issues. We are a Sacramento-based Limited Partnership. Since our founding in 1985, we have been involved in over 80 housing element updates and over 60 comprehensive general plan updates. We have been involved in all six rounds of housing element updates since the mid-1980s. Services we provide include overall project management, meeting facilitation, community outreach, and land use and housing planning and policy. Since our founding, we have been a leader in preparing implementable plans that address contemporary planning and housing issues and prepare communities for the future.

As one of California's foremost experts in preparing general plans and housing elements, our mission is to be a partner to public agencies, residents, businesses, and other stakeholders. Through solid research, community involvement, innovation, and policy leadership, we support our clients as they plan their communities and improve quality of life for their residents. Above all, we are dedicated to providing the highest quality service to our clients and their communities.

Rincon Consultants, Inc.

Rincon Consultants will lead the preparation of the CEQA analysis.

Rincon Consultants, Inc. (Rincon) is a multidisciplinary environmental science, planning, and engineering consulting firm that provides quality professional services to government and industry. Rincon prides itself on the considerable depth of its staff, which includes AICP-certified urban planners, accredited LEED professionals, wildlife biologists and resource ecologists, professional geologists, including a certified engineering geologist and geochemists, certified wetland specialists, arborists, and botanists; and noise and air quality experts. Our approach to projects is centered upon the development of well-designed and creative solutions that respond to our clients' specific needs in a cost-effective manner.

CEQA is a core business area for Rincon, and they have provided environmental consulting services for various projects for over 25 years, including Housing Element updates and complete General Plan updates.

Relevant Experience

We recognize that the Housing and Safety Elements, like other general plan elements, will greatly impact the lives of those who live, work, and own property in a community. It is vital that these elements meet not only the requirements of State law, but more importantly, the needs of the community. We pride ourselves on preparing housing elements that exceed the minimum standards for certification by the California Department of Housing and Community Development (HCD) and serve as a practical guide for day-to-day decision-making.

Mintier Harnish draws on its broad experience in preparing housing elements for diverse communities across California. We are able to apply innovative policy solutions and practical experience to the communities we work in.

Our experience as general plan policy specialists helps us prepare housing elements that are consistent with the general plan. We stay connected to the latest updates concerning housing legislation and best practices, and continually update our extensive library of resources with current housing policy research.

Staffing

Mintier Harnish is a small business offering personalized service. Jim Harnish will be the overall Project Director, Rick Rust will be the Project Manager, and Amy Yang will serve as the Deputy Project Manager. Ryan Lester and Michael Gibbons will provide planning support. We have included our detailed resumes in Appendix A.

Jim Harnish, JD
Principal/Owner
Role: Project Director

Jim Harnish, JD, is the Principal/Owner of Mintier Harnish and will be the project team leader. Jim has been a planner and project manager since 1970. He has been an attorney since 1981, with extensive experience in land use and CEQA. Jim has been Planning Director for three cities (Galt, Folsom, and South San Francisco) and understands every aspect of city and county planning and zoning. He has managed or is currently managing general plan updates for the cities of Alturas, Folsom, Galt, Gilroy, Hayward, Healdsburg, Isleton, Millbrae, Sacramento, South San Francisco, Union City, Wheatland, and Windsor, and the counties of Calaveras, Fresno, Merced, Modoc, San Benito, San Joaquin, and Ventura. Jim is currently managing zoning code updates or amendments, some of which are SB2-funded projects, for the cities of Gilroy, Santa Clara, South Lake Tahoe, Ukiah, and Windsor and the counties of Fresno, Mariposa, and Sierra. Finally, Jim is managing the Shasta Lake Housing Element Update, which is currently in the HCD 60-day review period. Jim has an unparalleled working knowledge of general plan updates and has prepared dozens of general plan work programs and budgets.

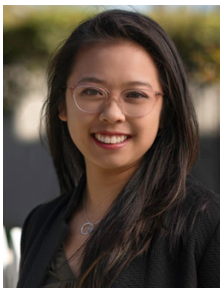
Rick Rust, AICP, GISP
Principal Planner
Role: Project Manager

Rick Rust, AICP, GISP has more than 38 years of experience in the management and preparation of general and comprehensive plans, housing elements, specific plans, zoning codes, and environmental compliance documents. His work is based on a comprehensive set of skills in community planning, downtown planning, urban design, economic development, environmental compliance, and community engagement. He also has an extensive background in the application of GIS technologies to planning. Rick has been working with Mintier Harnish on a range of housing elements, general plans, and environmental compliance documents for 20 years. Rick officially joined Mintier Harnish as a Principal Planner over two years ago.

For meeting the housing needs of a community or county, Rick brings extensive experience managing successful projects in California and nationwide. This mix of experience gives Rick insight into a wide range of issues and solutions developed in consultation with dozens of communities.

Rick also has extensive experience in active public participation, such as workshops, charrettes, surveys, and in presenting technical issues in a simple and understandable manner at public meetings and hearings. This includes extensive experience in successful electronic outreach methods, specializing in ArcGIS online applications, website design and development, online surveys, and use of a variety of collaboration systems.

Rick holds a masters degree in Urban and Regional Planning from California Polytechnic University, Pomona, and a bachelors degree in Environmental Sciences, from the University of California, Riverside.



Amy Yang, Associate Planner
Role: Deputy Project Manager

Amy Yang is an associate planner who specializes in community development, scenario planning, environmental justice, community health planning and health care accessibility, and geographic information systems.

At Mintier Harnish, Amy performs GIS analysis for a variety of projects, including preparing the RTP/SCS for MCAG and StanCOG in compliance with SB 375. She has been integral to the analysis of land use alternatives and development of the Policy Document for the Union City General Plan Update. Amy has also carried out disadvantaged communities analyses for projects in compliance with SB 1000. Prior to working for Mintier Harnish, Amy was based in New York City, working on health care access, waterfront access, public space activation, and community engagement.

Amy is currently assisting Rick with the City of Carlsbad Housing Element Update. Amy is also managing General Plan Updates for the cities of Livingston and Rohnert Park.

Amy holds a master's degree in Urban Planning and a master's degree in Public Health from Columbia University in the city of New York. Amy also received a bachelor's degree in Music with a Minor in Medical Anthropology from the University of Michigan-Ann Arbor.

Ryan Lester, Planner

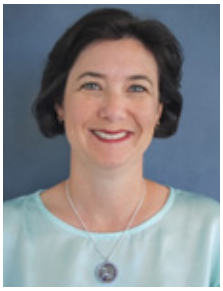
Ryan is a planner with an eye for design. A skilled user of industry-standard graphic design software, Ryan specializes in preparing accessible, user-friendly materials that present planning concepts to the public in concise, easy-to-understand, and engaging ways. Ryan applies these skills while crafting existing conditions and trends analyses, housing needs assessments, objective design standards, and land use alternatives analyses for cities and counties throughout the state. Additionally, Ryan specializes in community engagement. He designs project websites, produces informative infographics and contextual materials, and constructs interactive exercises and surveys for both in-person and online engagement efforts.

In seven years with Mintier Harnish, Ryan has worked on over a dozen General Plans and an equal number of housing elements. Among other projects, Ryan is currently working on three 6th-cycle housing elements and is drafting Objective Design and Development Standards for SB 35 compliance for a half dozen cities.

Michael Gibbons, Planner

Michael Gibbons is a Planner with Mintier Harnish. Michael serves as the day-to-day planner for a variety of long-term planning projects including general plans, zoning code updates, and housing elements. He has experience in land use planning, zoning regulations, Crime Prevention Through Environmental Design, urban design, architectural applications, historic preservation, real estate development, regulatory code, and public policy. Michael has worked in both the public and private sector, as well as in law enforcement. Michael holds a bachelor's degree in City and Regional Planning from Cal Poly, San Luis Obispo. Among a number of projects, Michael is currently assisting with the preparation of the Mariposa County Development Code Update, the Town of Windsor Zoning Code Amendments, and the City of Gilroy General Plan and Zoning Code Updates.

Rincon Consultants



Darcy Kremin, AICP
Environmental Practice Manager
Role: CEQA Director

Darch Kremin has over 21 years of planning and CEQA and NEPA experience for nonprofit, private, and public sector clients. Ms. Kremin has managed large projects for public utilities, including water and energy transmission, and dozens of development projects for cities and counties. She also has experience with various public and charter school projects. She has managed multiple large and complex programmatic EIRs, for a variety of planning efforts. Most recently, she is managing the Sonoma County Rezone for Housing Sites EIR, which entails over 2,000 new residential units throughout the County, and has a large public outreach component. She is well known for creative solutions to achieve CEQA compliance. She has managed projects in the cities of Belmont, Redwood City, Sunnyvale, San Jose, San Leandro, Hayward, Oakland, among others. planning, sustainable design, and greenhouse gas analysis.

Matt Maddox, MESM, AICP, Senior Program Manager
Role: CEQA Task Manager

Matt Maddox is involved in a wide range of urban planning and land use studies, sustainable, resilient and adaptation policy development, air quality and GHG analysis, and CEQA/NEPA environmental documentation, as well as community involvement and permitting activities. Mr. Maddox has a strong background in land use and transportation planning, policy, and environmental planning. He has contributed to successful environmental and planning projects ranging from general plans to housing elements to focused inner city redevelopment studies, to climate action plans and documentation for compliance with environmental regulations, to GHG emissions analysis for industrial facilities. Mr. Maddox has developed a focus in the area of urban planning, sustainable design and resiliency policy, and GHG analysis. He is currently Principal-in-Charge of Housing Elements for the cities of Carlsbad, San Fernando, Corona, and Beaumont for the 6th Cycle.

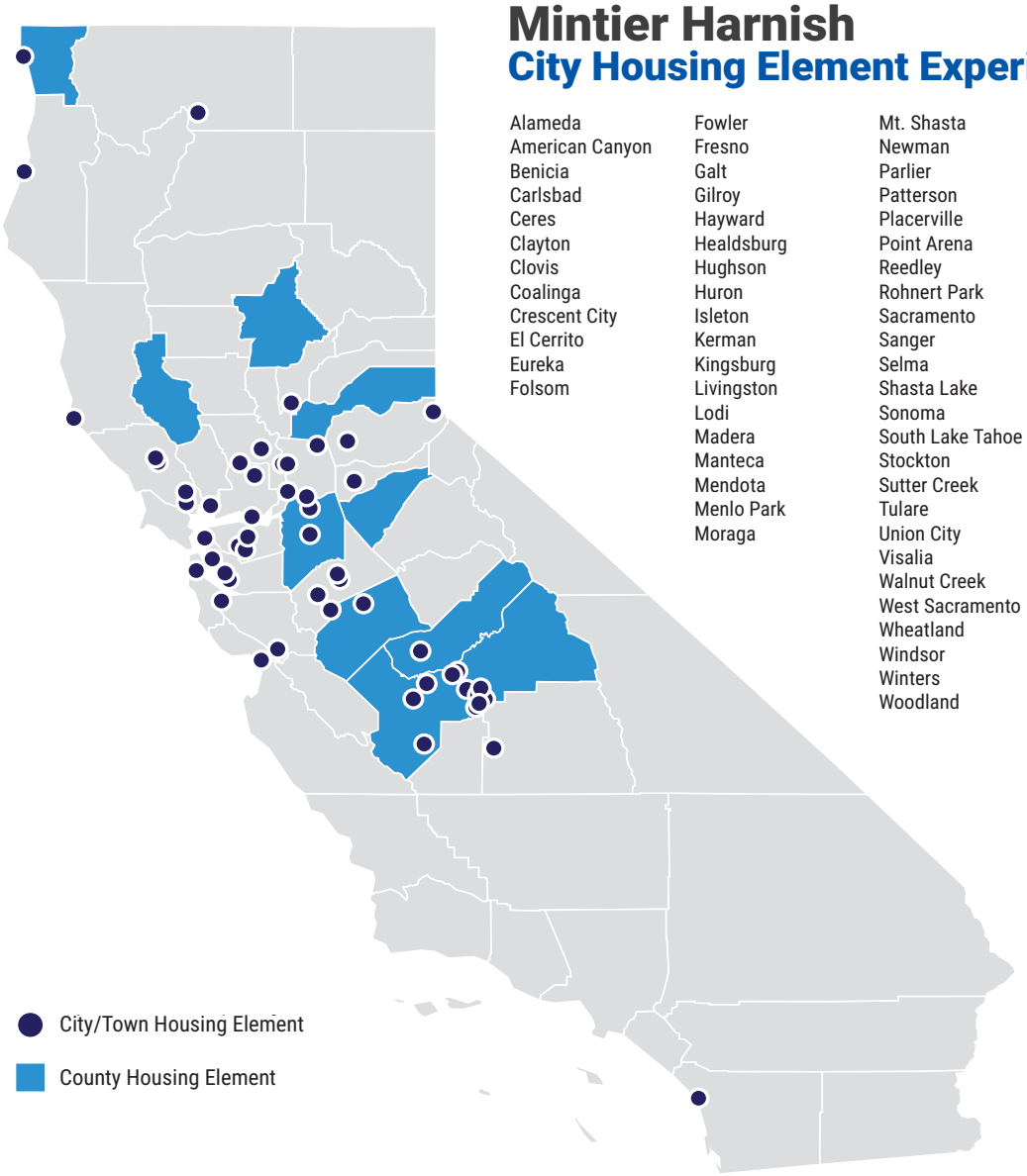
We have included our detailed resumes in the Appendix.

4 Related Project Examples and References

We pride ourselves on preparing housing elements that exceed the minimum standards for certification by the California Department of Housing and Community Development (HCD) and serve as a practical guide for day-to-day decision-making.

For this project, St. Helena also needs expertise in developing an update to the Public Health, Safety, and Noise element. For these areas, Mintier Harnish provides the expertise and experience needed to make this update process a success.

The following pages contain descriptions and references for related projects that demonstrate our capabilities.



Mintier Harnish

City Housing Element Experience

Alameda
American Canyon
Benicia
Carlsbad
Ceres
Clayton
Clovis
Coalinga
Crescent City
El Cerrito
Eureka
Folsom
Fowler
Fresno
Galt
Gilroy
Hayward
Healdsburg
Hughson
Huron
Isleton
Kerman
Kingsburg
Livingston
Lodi
Madera
Manteca
Mendota
Menlo Park
Moraga
Mt. Shasta
Newman
Parlier
Patterson
Placerville
Point Arena
Reedley
Rohnert Park
Sacramento
Sanger
Selma
Shasta Lake
Sonoma
South Lake Tahoe
Stockton
Sutter Creek
Tulare
Union City
Visalia
Walnut Creek
West Sacramento
Wheatland
Windsor
Winters
Woodland

County Housing Element Experience

Butte
Calaveras
Del Norte
Fresno
Lake
Madera
Merced
Placer
San Joaquin
Sierra
Yolo

mintierharnish
planning consultants

City of Carlsbad Housing Element (2021)

Mintier Harnish and Rincon are teamed in assisting the City of Carlsbad in the preparation of their Housing Element Update and General Plan Maintenance. The project kicked off in January 2020 with inventorying the City's existing, but underutilized, and available housing sites and conducting environmental constraints analyses for multiple issue areas, including air quality, biological resources, cultural resources, GHG emissions, noise, and transportation. Mintier Harnish is managing preparation of the Housing Element and interactions with HCD. Rincon will play a significant role in public outreach and information management at the local level, as well as oversee the citizen housing advisory committee meetings throughout the course of the project. Rincon will review relevant legislation to assess bills including, but not limited to, those related to environmental justice, GHG emissions, infill and affordable housing development, vehicle miles traveled, climate change adaptation and resiliency including responding to threats from wildfires and sea level rise.

The team will then review other Carlsbad land use documents, such as the Safety Element, City's Zoning Ordinance, Climate Action Plan, Local Coastal Plan, Growth Management Plan, and Habitat Management Plan, to determine if additional amendments are necessary to those documents upon adoption of the General Plan amendments. Based on the evaluation of the current General Plan, issues and opportunities identified as part of the legislative analysis, and in conjunction with the Housing Element Update, we will prepare revisions to existing goals, policies, and actions, as appropriate and propose new goals, policies, and actions, as appropriate. Rincon will also be preparing a Supplemental EIR to address potential environmental impacts that may result from the Housing Element Update and General Plan Maintenance that have not already been addressed in the City's existing General Plan EIR.

Contact: Scott Donnell, Senior Planner
City of Carlsbad
760-434-2820 | scott.donnell@carlsbadca.gov

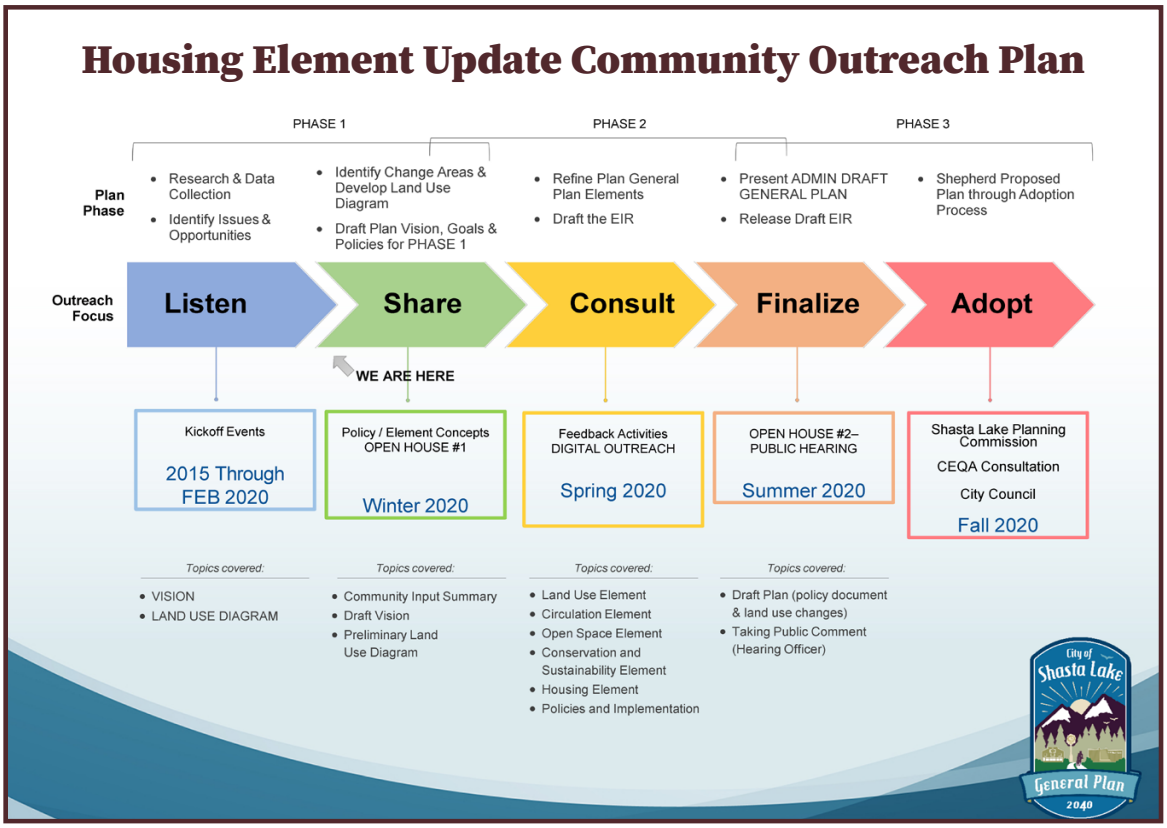
Contract Amount:
Team Members: Rick Rust, Amy Yang, Ryan Lester

City of Shasta Lake 2020-2028 Housing Element

Mintier Harnish, working with Dynamic Planning + Science completed the 6th Cycle Housing Element for the City of Shasta Lake. Updated in conjunction with the General Plan, the Housing Element was developed to align with the General Plan vision to develop connections between land uses and transportation, seeking to provide services close to where growth will occur. Issues in the city include substandard housing, a lack of variety in housing types, high construction costs, and areas lacking proper utility infrastructure. The Housing Program addressed each of these issues, and also included programs to address new State laws involving Fair Housing and Affirmatively Furthering Fair Housing, accessory dwelling units, SB 35 streamlining, governmental constraints, employee housing, and low barrier navigation centers. Community engagement included two GPAC meetings, a community workshop, and Planning Commission and City Council study sessions. Public noticing included flyers, website posts, social media posts, eblasts, and doorhangers, as well as and direct contacts with community organizations. The Housing Element was adopted on August 4, 2020 and certified by the Department of Housing and Community Development on September 11, 2020.

Contact: Jassaca Lugo, Assistant City Manager
530-275-7464 | jlugo@cityofshasalake.org

Contract Amount:
Team Members: Jim Harnish, Ryan Lester



City of Gilroy General Plan, Housing Element, and Zoning Code Update

Mintier Harnish is currently leading a multi-disciplinary consulting team to update the City's General Plan and Zoning Code Updates. The General Plan Update is focused on engaging the community, economic growth, fiscal sustainability, and transforming and revitalizing infill areas. The project included 40 GPAC meetings, six community workshops, a robust alternatives analysis, and one of the first Environmental Justice Elements.

The updated General Plan is expected to be adopted by the end of 2020. Mintier Harnish also prepared the 5th cycle Gilroy Housing Element, which was adopted on December 1, 2014. Mintier Harnish was able to capitalize on the General Plan Advisory Committee to coordinate the Housing Element update with the overall General Plan and Zoning Ordinance updates, promoting better housing production capabilities by appropriately reducing development standards.

Mintier Harnish is currently leading a team to prepare a comprehensive update of the City's Zoning Code and to provide Objective Design and Development Standards to address the requrements of SB 35.

Key elements of the update include compliance with Federal and State laws and regulations, implementation of the general plan, including new mixed-use and innovative zoning districts, and housing supply-related provisions addressing ADUs, objective multifamily residential design standards, streamline housing development approvals, and an ADU Workbook.

Contact: Julie Wyrick, Customer Service Manager
City of Gilroy
408.846.0451
Julie.Wyrick@cityofgilroy.org

Contract Amount:
Team Members: Jim Harnish, Amy Yang, Ryan Lester, Michael Gibbons

Rincon Consultants

Rincon has prepared CEQA documents for housing elements throughout California in various types of land use, environmental, and socioeconomic settings. Our planning group is involved with only a select number of housing element assignments at a time, ensuring undistracted focus on the issues relevant to those select projects. Our team's statewide experience highlights a breadth and depth of knowledge of our internal staff and teaming partners, demonstrating the strength we can bring to the City's Housing Element Sixth Cycle. The list below highlights our select housing element experience.

Project	County
Union City Housing Element Rezone IS-MND	Alameda
Marina Housing Element IS-MND	Monterey
Seaside Housing Element Update IS-MND	Monterey
Monterey County Housing Element	Monterey
Guadalupe Housing Element Update and EIR	Santa Barbara
Ojai Housing Element EIR	Ventura
Simi Valley Housing Element	Ventura
Port Hueneme General Plan and Housing Element	Ventura
Port Hueneme Housing Element IS-MND	Ventura
Ventura Housing Element Update	Ventura
Camarillo Housing Element	Ventura
Claremont Housing Element Update CEQA	Los Angeles
Walnut Housing Element	Los Angeles
Malibu 2008-2014 Housing Element EIR	Los Angeles
Los Angeles Citywide Housing Element Update	Los Angeles
Calabasas Housing Element Update and General Plan Update and EIR	Los Angeles
Duarte Housing Element Update and General Plan Update and EIR	Los Angeles
Burbank Housing Element Update and General Plan Update and EIR	Los Angeles
West Hollywood Housing Element Update and General Plan Update and EIR	Los Angeles
Santa Fe Springs Housing Element	Los Angeles
Monrovia Housing Element	Los Angeles
Brea Housing Element	Orange
Carlsbad Housing Element and General Plan Update	San Diego
Vista Housing Element Update	San Diego

Provided on the following pages are select detailed experience for projects involving similar scopes of services.

Rezoning Sites for Housing Project Environmental Impact Report

County of Sonoma

Reference Information:
Chris Seppeler, Senior Environmental Specialist
County of Sonoma, Permit Sonoma
2550 Ventura Avenue
Santa Rosa, California 95403-2809
707-565-8353 | Chris.Seppeler@sonoma-county.org

Dates: November 2019 to Present

Rincon is currently preparing a Program EIR for the County's Rezone Sites for Housing Project. The proposed project will identify sites to be added to the County's General Plan Housing Element site inventory to comply with State law and will implement current General Plan Policies and Programs that require the County to identify urban sites near jobs and transit which may appropriately accommodate additional housing. It will also identify appropriate sites on which to place the Workforce Housing Combining Zone, which would allow the development of jobs and/or housing on the same site or within walking distance from one another. Specifically, project implementation would rezone up to 59 urban sites in designated Urban Service Areas throughout unincorporated Sonoma County. The project would add sites to the County's Housing Element site inventory to comply with new inventory requirements in Housing Element law; it would implement current General Plan policies and programs to consider a variety of sites for higher-density and affordable housing, and encourage the identification of urban sites near jobs and transit to appropriately accommodate additional housing.

Rincon held a virtual public scoping meeting and will provide support for additional virtual public meetings as the CEQA process continues. Key environmental issues include historic resources, vehicle miles traveled and wildfire impacts.

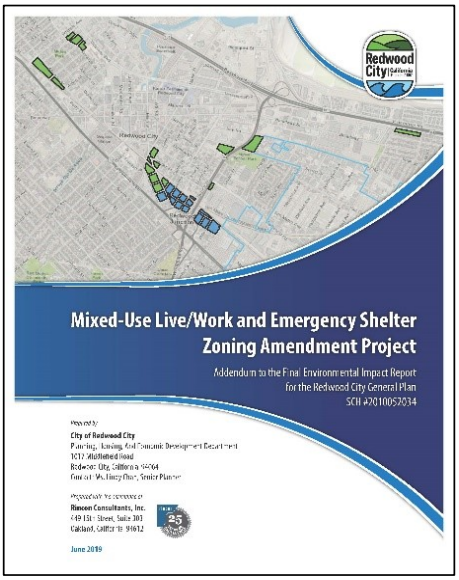
Mixed Use Live/Work and Emergency Shelter Zoning Amendment Project
City of Redwood City

Client Information:

Lindy Chan, Senior Planner
City of Redwood City
1017 Middlefield Road
Redwood City, California 94064
650-780-7237 | lchan@redwoodcity.org

Dates: November 2018 - December 2019

Rincon prepared an Addendum EIR for Redwood City's Mixed-Use: Live/Work and Emergency Shelter Zoning Amendment Project. The proposed project involves amendments to the mixed-use live/work (MULW) zoning district and the mixed-use emergency shelter (MUES) combining district on 30 blocks totaling 37.5 acres. Rincon prepared the Addendum to the previously certified *A New General Plan for Redwood City Final Environmental Impact Report (EIR)* (State Clearinghouse # 2010052034).



The zoning amendment would alter the required floor area ratios, density, stories and height on MULW and MUES zoning district and provide intensity bonuses for developments which include certain qualifying community benefits. Qualifying community benefits include but are not limited to: child care facilities, publicly accessible open space, shared/ connected parking, affordable housing, community facilities or services, live/work units and or new streets or pathways. Prior to project approval, the City would determine if the proposed community benefit qualifies a project for additional FAR, density, stories or height.

Housing Element Rezone Project
City of Union City

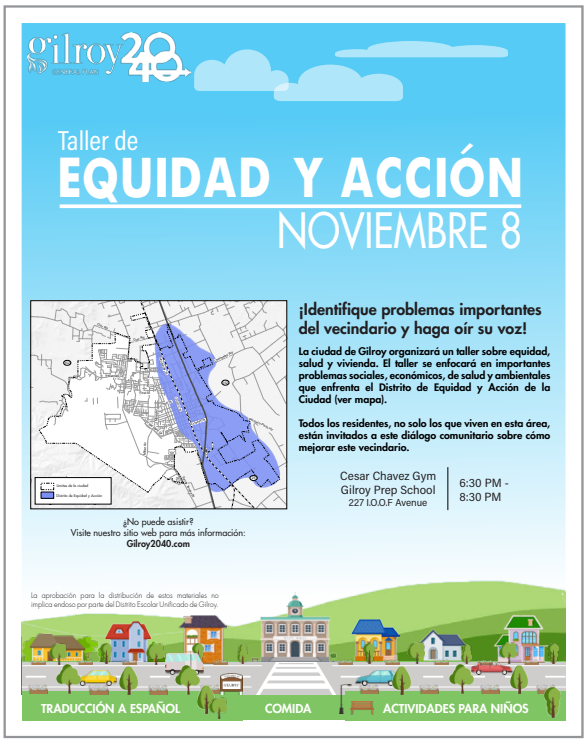
Client Information:

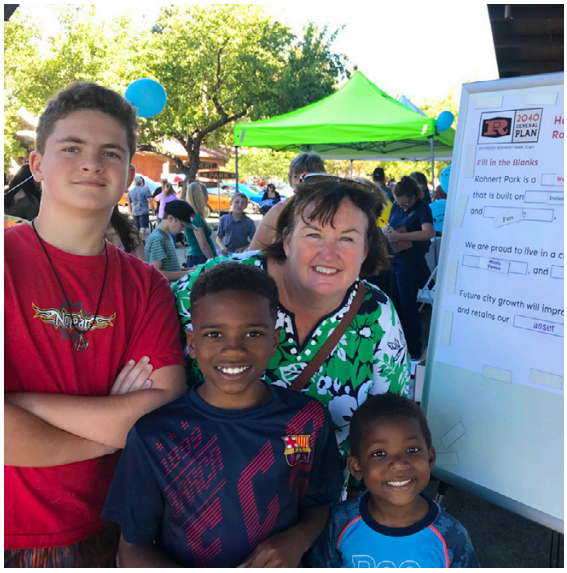
Avalon Schultz, AICP, Principal Planner
City of San Leandro (formerly with City of Union City)
510-577-3325 | aschultz@sanleandro.org

Dates: July 2015 to January 2016

Staff: Richard Daulton (Principal-in-Charge)
Abe Leider (Senior Project Manager)
Matt Maddox (Senior Advisor)

Rincon prepared an MND for the City's Housing Element Update General Plan Amendment and Rezone. This project proposed rezoning to allow increased residential density on several key parcels. Rincon successfully completed this assignment within budget despite achieving an expedited schedule. The project was approved and MND adopted in January 2016. Key issues included aesthetics, agricultural resources, biological resources, and traffic. Mitigation measures were included to address air quality, biological resources, cultural resources, geology and soils, hazards and hazardous materials, hydrology and water quality, and noise impacts.


gilroy2040
Taller de
EQUIDAD Y ACCIÓN
NOVIEMBRE 8
¡Identifique problemas importantes del vecindario y haga oír su voz!
La ciudad de Gilroy organizará un taller sobre equidad, salud y vivienda. El taller se enfocará en importantes problemas sociales, económicos, de salud y ambientales que enfrenta el Distrito de Equidad y Acción de la Ciudad (ver mapa).
Todos los residentes, no solo los que viven en esta área, están invitados a este diálogo comunitario sobre cómo mejorar este vecindario.
Cesar Chavez Gym
Gilroy Prep School
227 I.O.O.F Avenue
6:30 PM - 8:30 PM
¿No puede asistir?
Visite nuestro sitio web para más información:
Gilroy2040.com
La aprobación para la distribución de estos materiales no implica endoso por parte del Distrito Escolar Unificado de Gilroy.
TRADUCCIÓN A ESPAÑOL
COMIDA
ACTIVIDADES PARA NIÑOS



5 Public Outreach Experience

Our Understanding

In all of our planning work with local governments, maximizing public participation is essential to developing a plan that is supported and can be implemented. Community engagement is a key element of every general plan, housing element, and zoning code update project of which we are part. Our engagement programs have three key components: information and education (e.g., logo, branding, website, newsletters, eblasts, press releases, social media); engagement and interaction (e.g., stakeholder interviews, workshops, opinion surveys, on-line engagement, webinars, speaker series, pop-up events, youth engagement, translation services) ; and validation and direction (e.g., focus groups, decision-maker study sessions). We structure the engagement program for each project based on the project needs and community expectations. Each of 60 general plan, 80 housing element, and 20 zoning code update projects on which we have participated included a community engagement program designed to fit the needs of that project and community. The following are a few examples:

Carlsbad Housing Element. Mintier Harnish and Rincon Consultants are currently working with the City of Carlsbad to prepare its 6th cycle Housing Element. The community engagement program for the project was revised mid-course to go from an in-person workshop format to a virtual/online engagement format. Effective use of video conferencing, an online survey (gathering over 4,500 responses), enhanced use of social media messaging, dedicated website, an educational video (English and Spanish versions), enhanced outreach to community organizations and low-income housing areas, and incorporating Housing Element components into public hearings with the Planning Commission and City Council helped to keep the community informed, educated, and engaged.

Shasta Lake Housing Element. Mintier Harnish, in collaboration with Dynamic Planning + Science recently completed the 6th cycle Housing Element for the City of Shasta Lake. Community engagement for this project included multiple eblasts, the placement of doorhangers on every residence in the city, two GPAC meetings, a community workshop, and Planning Commission and City Council study sessions.

Gilroy General Plan Update. As another example of our outreach experience, Mintier Harnish recently completed the City of Gilroy General Plan Update. This project had a full range of community engagement activities, including a project website (www.gilroy2040.com), logo and branding, multiple eblasts and press releases, engagementHQ, 15 stakeholder interviews, 37 GPAC meetings, seven community workshops, written and verbal Spanish translation at all workshops, and five study sessions.

All of our general plan update projects include some combination of the engagement activities we facilitated in Gilroy. Outreach is at the core of our work. Mintier Harnish staff are all experienced in the full range of community engagement activities. We have facilitated literally hundreds of community workshops and related events, GPAC or focus group meetings, and study sessions. We have created dozens of project websites and logos. We are currently adapting our engagement strategies to the COVID-19 restrictions. We have refined our use of Zoom for staff coordination, stakeholder interviews, and webinars. We have developed on-line opinion and visual preference surveys and can conduct virtual workshops.

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6 Fee Proposal

Phases, Tasks	Description	MINTIER HARNISH							
		HARNISH Project Director	RUST Project Manager	YANG Deputy PM	LESTER, GIBBONS Planner	TOVAR-GONZALEZ Assistant Planner	Support	Subtotal Hours	Subtotal Costs
Phase 1	**Project Initiation**								
Task 1.1	Project Kick-off Meeting (virtual)	2	2	2	4			10	$1,790
Task 1.2	Community Engagement Strategy	2	4	8	8			22	$3,740
Task 1.3	Project Branding and Logo		2	2	8			12	$1,870
Task 1.4	Website and Online Engagement	2	8	4	40			54	$8,440
Task 1.5	Newsletter #1		2	4	8			14	$2,190
Task 1.6	Focus Group Meeting #1 (virtual)	2	4	8	12			26	$4,300
Task 1.7	PC/CC Joint Study Session (virtual)	2	4	4	4			14	$2,540
Task 1.8	RHNA Appeal Assistance	4	12	12	16	24		68	$10,220
Subtotal		**14**	**38**	**44**	**100**	**24**	**0**	**220**	**$35,090**
Phase 2	**Housing Element Update**								
Task 2.1	Community Workshop #1 (virtual)	2	4	8	16	8		38	$5,700
Task 2.2	Focus Group Meeting #2 (virtual)		4	8	8			20	$3,260
Task 2.3	Vacant and Underutilized Sites Assessment	2	12	16	24	40		94	$13,180
Task 2.4	Focus Group Meeting #3 (virtual)		4	4	4			12	$2,060
Task 2.5	Community Workshop #2 (in-person)		8	12	12			32	$5,320
Task 2.6	Focus Group Meeting #4 (virtual)		4	4	4			12	$2,060
Task 2.7	PC/CC Joint Study Session (In-person)		8	12				20	$3,640
Task 2.8	Admin. Draft Housing Element	4	12	24	40	40		120	$17,180
Task 2.9	Community Workshop #3 (in-person)		8	12	12			32	$5,320
Task 2.10	Focus Group Meeting #5 (virtual)		4	4	8			16	$2,620
Task 2.11	Public Review Draft Housing Element		4	8	8	8	8	36	$4,940
Subtotal		**8**	**72**	**112**	**136**	**96**	**8**	**432**	**$65,280**
Phase 3	**Public Health and Safety Element Update**								
Task 3.1	Review and Evaluation		4	8				12	$2,140
Task 3.2	Safety Element Revision	4	8	16		24		52	$7,760
Task 3.3	2nd Admin. Draft Safety Element		2	8		8		18	$2,550
Task 3.4	Public Review Draft Safety Element		2	4		4	4	14	$1,910
Task 3.5	Focus Group Meeting #6 (virtual)		4	4				8	$1,500
Task 3.6	Community Workshop #4 (in-person)		8	12	8			28	$4,760
Task 3.7	PC/CC Joint Study Session (in-person)		8					8	$1,720
Task 3.8	Other General Plan and Zoning Code Amendments	4	8	16	40			68	$10,840
Subtotal		**8**	**44**	**68**	**48**	**36**	**4**	**208**	**$33,180**
Phase 4	**Public Review Draft Housing Element**								
Task 4.1	Newsletter #2		2	4	8			14	$2,190
Tasl 4.2	Focus Group Meeting #7 (virtual)		4	4	4			12	$2,060
Task 4.2	Community Workshop #5 (in-person)		8	12	8			28	$4,760
Task 4.3	PC Study Session (in-person)		8					8	$1,720
Task 4.4	CC Study Session (in-person)		8					8	$1,720
Subtotal		**0**	**30**	**20**	**20**	**0**	**0**	**70**	**$12,450**
Phase 5	**HCD Review and Coordination**								
Task 5.1	HCD Review Draft, Checklists, and Transmittal		2	4	8			14	$2,190
Task 5.2	Meeting with HCD		2	4				6	$1,070
Task 5.3	Response to HCD Comments	2	4	8	12			26	$4,300
Subtotal		**2**	**8**	**16**	**20**	**0**	**0**	**46**	**$7,560**
Phase 6	**Environmental Documentation**								
Task 6.1	Project Initiation and Data Collection							0	$0
Task 6.2	Administrative Draft Addendum		4					4	$860
Task 6.3	Final Addendum		2					2	$430
Subtotal		**0**	**6**	**0**	**0**	**0**	**0**	**6**	**$1,290**
Phase 7	**Public Review and Adoption**								
Task 7.1	Public Hearing Draft Documents		4	8	12			24	$3,820
Task 7.2	Public Hearings and Adoption (4)		32	4	8			44	$8,640
Task 7.3	Final Housing Element and Transmittal to HCD		4	8	8			20	$3,260
Subtotal		**0**	**40**	**20**	**28**	**0**	**0**	**88**	**$15,720**
PM	**Project Management and Ongoing Communication and Coordination**								
Subtotal		4	24	40			60	**128**	**$18,820**
TOTAL									
Total Hours		36	262	320	352	156	72	1,198	-
2020 Billing Rates		$240	$215	$160	$140	$105	$105	-	-
Labor Subtotals		$8,640	$56,330	$51,200	$49,280	$16,380	$7,560	-	**$189,390**
Direct Expenses (e.g., printing, travel)									**$1,000**
TOTAL COST									**$190,390**

1) This represents a total not to exceed cost based on the provided scope of work.
2) The distribution of hours between firms, staff categories, and tasks are an estimate.
While the total costs will not change, the distribution of hours/costs may vary depending on actual execution.
3) Labor rates are subject to change every January 1st, although this change will not change the total budget.

Phases, Tasks	RINCON CONSULTANTS INC									
	KREMIN Director	MADDOX Principal I	KARI ZAKAC Professional IV	Professional III	Technical Editor	GIS/CAD Specialist	Production Specialist	Subtotal Hours	Subtotal Costs	TOTAL COSTS
Phase 1										
Task 1.1								0	$0	**$1,790**
Task 1.2								0	$0	**$3,740**
Task 1.3								0	$0	**$1,870**
Task 1.4								0	$0	**$8,440**
Task 1.5								0	$0	**$2,190**
Task 1.6								0	$0	**$4,300**
Task 1.7								0	$0	**$2,540**
Task 1.8								0	$0	**$10,220**
Subtotal	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**$0**	**$35,090**
Phase 2										
Task 2.1								0	$0	**$5,700**
Task 2.2								0	$0	**$3,260**
Task 2.3								0	$0	**$13,180**
Task 2.4								0	$0	**$2,060**
Task 2.5								0	$0	**$5,320**
Task 2.6								0	$0	**$2,060**
Task 2.7								0	$0	**$3,640**
Task 2.8								0	$0	**$17,180**
Task 2.9								0	$0	**$5,320**
Task 2.10								0	$0	**$2,620**
Task 2.11								0	$0	**$4,940**
Subtotal	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**$0**	**$65,280**
Phase 3										
Task 3.1		4	8					12	$2,040	**$4,180**
Task 3.2		4	16	24				44	$5,960	**$13,720**
Task 3.3		2	8	8				18	$2,520	**$5,070**
Task 3.4			2	4				6	$750	**$2,660**
Task 3.5			4					4	$580	**$2,080**
Task 3.6			8					8	$1,160	**$5,920**
Task 3.7			8					8	$1,160	**$2,880**
Task 3.8								0	$0	**$10,840**
Subtotal	**0**	**10**	**54**	**36**	**0**	**0**	**0**	**100**	**$14,170**	**$47,350**
Phase 4										
Task 4.1								0	$0	**$2,190**
Tasl 4.2								0	$0	**$2,060**
Task 4.2								0	$0	**$4,760**
Task 4.3								0	$0	**$1,720**
Task 4.4								0	$0	**$1,720**
Subtotal	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**$0**	**$12,450**
Phase 5										
Task 5.1								0	$0	**$2,190**
Task 5.2								0	$0	**$1,070**
Task 5.3								0	$0	**$4,300**
Subtotal	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**$0**	**$7,560**
Phase 6										
Task 6.1	1	2						3	$660	**$660**
Task 6.2	7	12	32	24	8	4		87	$12,976	**$13,836**
Task 6.3	2	4		8	2	4		20	$2,964	**$3,394**
Subtotal	**10**	**18**	**32**	**32**	**10**	**8**	**0**	**110**	**$16,600**	**$17,890**
Phase 7										
Task 7.1								0	$0	**$3,820**
Task 7.2		16						16	$3,520	**$12,160**
Task 7.3								0	$0	**$3,260**
Subtotal	**0**	**16**	**0**	**0**	**0**	**0**	**0**	**16**	**$3,520**	**$19,240**
PM										
Subtotal	**4**	**8**					8	**20**	**$3,344**	**$22,164**
TOTAL										
Total Hours	14	52	86	68	10	8	8	246	-	-
2020 Billing	$220	$220	$145	$115	$112	$125	$88	-	-	-
Labor Subt	$3,080	$11,440	$12,470	$7,820	$1,120	$1,000	$704	-	**$37,634**	**$227,024**
Direct Expe										**$1,000**
TOTAL COST									**$37,634**	**$228,024**

A Appendix: Detailed Resumes

We have included our detailed resumes on the following pages.

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JIM HARNISH, JD

PRINCIPAL/OWNER

EDUCATION

Juris Doctor
McGeorge School of Law,
University of the Pacific

Bachelor of Arts, History
University of California, Davis

CERTIFICATIONS/ AFFILIATIONS

California State Bar Association
(Bar No. 99326)

American Planning Association

Urban Land Institute

EXPERIENCE

Mintier Harnish
Principal/Owner

City of South San Francisco
Chief Planner

Sugnet & Associates
Vice President

City of Folsom
Community Development Director

City of Sacramento
Environmental Coordinator

Balfrey & Abbott
Attorney

Mintier Harnish & Associates
Partner

Sacramento Area Council of Governments
Planner

County of Sacramento
Planner

PROJECTS

General plans for over 23 cities and counties throughout California

Environmental impact reports for over 100 general plans and other projects

Zoning and subdivision ordinance revisions for several cities and counties

jim@mintierharnish.com

Jim Harnish is the Principal/Owner of Mintier Harnish. He has been a planner and project manager since 1970. He is also an attorney with extensive experience in land use and CEQA. He has managed public agencies and private consulting firms. He specializes in project management for general plans, specific plans, and large private planning projects; CEQA compliance and environmental document peer review; zoning and regulatory ordinance preparation; and public outreach and consensus-building.

Jim is currently Project Director on general plan updates for the cities of Gilroy, Los Gatos, Rohnert Park, American Canyon, and Livingston, and the counties of Fresno, Sierra, and Ventura, and zoning code updates for the cities of Folsom, Gilroy, and Santa Clara, and the counties of Fresno, Mariposa, Merced, and Sierra.

Jim's broad experience, in both the public and private sector, in land use planning, regulatory codes and ordinances, permit processing, environmental analysis, toxics and hazardous materials, wetlands and endangered species, and legal analysis enables him to bring a wealth of experience to every project.

Jim has extensive experience in supervising large planning staffs and managing interdisciplinary consultant teams on complex planning projects. Jim has managed or prepared general plans for the cities of Alturas, Folsom, Galt, Hayward, Healdsburg, Isleton, Sacramento, South San Francisco, Wheatland, and Windsor and the counties of Calaveras, Fresno, Merced, Modoc, San Benito, and San Joaquin.

He has managed the preparation of specific plans for Southwest Live Oak, the Mountain House New Town in San Joaquin County, and the Gold Rush Ranch in Sutter Creek. He also assisted Genentech with the preparation and approval of its South San Francisco Campus Master Plan and EIR. Jim has also prepared zoning ordinance updates for several jurisdictions, including, Kern, Sierra, and San Joaquin Counties and the cities of Folsom, Gilroy, Santa Clara, Santa Rosa, and South San Francisco.

Jim has been principal-in-charge of several regional planning projects in the San Joaquin Valley, including the San Joaquin Valley Blueprint implementation project, which included the Valley Planners Toolkit. He also managed the Metro Rural Loop Study for the Fresno Council of Governments and the San Joaquin Valley Greenprint II program.

Jim has managed the preparation of or conducted critical third party review of numerous EIRs and negative declarations. As Environmental Coordinator for the City of Sacramento, he led the restructuring of the City's environmental review procedures. He has worked extensively with State and Federal regulatory agencies in creating and negotiating Habitat Conservation Plans (Coalinga), 404 permits, and wetland mitigation plans.

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RICK RUST, AICP, GISP

PRINCIPAL PLANNER

EDUCATION

Bachelor of Science, Environmental Sciences, UC Riverside, 1983

Masters of Urban and Regional Planning, California Polytechnic University, Pomona, 1990

CERTIFICATIONS/ AFFILIATIONS

American Institute of Certified Planners

Geographic Information Systems Professional

EXPERIENCE

Matrix Design Group, Inc.
Vice President

BRW / URS
Planning Director

Jones & Stokes
Associate Principal

Chambers Group
Planning Director

TRW
Socioeconomics Analyst

City of Norco
Planning Technician

PROJECTS

Housing Element Updates for cities and counties throughout California

General plans for cities and counties throughout California

Environmental impact reports for general plans and other plans

Zoning codes for several cities and counties

rick@mintierharnish.com

Rick Rust, AICP, GISP, has more than 38 years of experience in the management and preparation of general and comprehensive plans, housing elements, specific plans, zoning codes, and environmental compliance documents. His work is based on a comprehensive set of skills in community planning, downtown planning, urban design, economic development, environmental compliance, and community engagement. He also has an extensive background in the application of GIS technologies to planning.

For general and comprehensive plans, Rick brings extensive experience managing successful projects in California and nationwide. This mix of experience gives Rick insight into a wide range of issues and solutions developed in consultation with dozens of communities. The following is a partial listing of the general planning projects that Rick has managed or is currently managing:

- Del Norte County, CA, General Plan and EIR
- Fresno County, General Plan, Zoning Code Update, Objective Design Standards
- Kern County Existing Conditions, Policy Framework, SB 1000/SB 244
- Lake County, CA, General Plan, Zoning Code Update, EIR, Housing Element
- Tulare County, CA, General Plan and EIR
- Ventura County, CA General Plan, Zoning Code, EIR, Housing Element Sites Inventory
- City of American Canyon, General Plan and EIR
- City of Carlsbad Housing Element Update (6th-Cycle)
- City of Indio, CA General Plan, EIR, Housing Element
- City of Lincoln, CA, General Plan, Housing Element
- City of Los Gatos, CA, General Plan and EIR
- City of Oxnard, CA, General Plan and EIR, Housing Element
- City of Pleasant Hill, CA, General Plan and EIR
- City of Ridgecrest, CA, General Plan, EIR, Housing Element
- City of Rohnert Park, CA, General Plan and EIR
- City of San Luis Obispo, CA, Land Use and Circulation Elements
- City of Stockton, CA, General Plan, EIR, Infrastructure Master Plan, Housing Element
- City of Tulare, CA, General Plan
- City of Union City, CA, General Plan and EIR
- City of Newport, RI, Comprehensive Plan
- Hagåtña, GU, Master Plan, Design Guidelines, Zoning, Governance Plan
- Pennington County, SD, Comprehensive Plan
- City of La Junta, CO, Comprehensive Plan
- Town of Lochbuie, CO, Comprehensive Plan and Land Development Code

Rick also has extensive experience in active public participation, such as workshops, charrettes, surveys, and in presenting technical issues in a simple and understandable manner at public meetings and hearings. This includes extensive experience in successful electronic outreach methods, specializing in ArcGIS online applications, website design and development, online surveys, and use of a variety of collaboration systems.

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AMY YANG

ASSOCIATE

EDUCATION

Master of Science in Urban Planning
Columbia University

Master of Public Health
Columbia University

Bachelor of Music
University of Michigan

AFFILIATIONS

American Planning Association, Sacramento Valley Section, Awards Coordinator (2018-present) and Young Planners' Group Programs Coordinator (2018-present)

EXPERIENCE

Mintier Harnish
Associate

Manhattan Community Board 3
Community Planning Fellow; Consultant

Franklin County Emergency Management and Homeland Security
GIS Intern

PROJECTS

General Plan Updates for the cities of Folsom, Rohnert Park, and Union City, and Ventura County

Sustainable Communities Strategies for MCAG and StanCOG

SB 1000 compliance for Union City, Rohnert Park, and Ventura County

Sunset Area Plan Update (Placer County)

amy@mintierharnish.com

Amy Yang is an Associate with Mintier Harnish. She specializes in community development, community engagement, community health planning and health care accessibility, as well as geographic information systems.

At Mintier Harnish, Amy performs GIS analysis for a variety of projects, including to prepare the RTP/SCS for MCAG and StanCOG in compliance with SB 375. She has been integral to the analysis of land use alternatives and development of the Policy Document for the Union City General Plan Update. Amy has also carried out disadvantaged communities analyses for projects in compliance with SB 1000.

Prior to working for Mintier Harnish, Amy was based in New York City, working on health care access, waterfront access, public space activation, and community engagement. In collaboration with Community Board 3 and the residents of Lower Manhattan, New York, she worked to identify which neighborhoods were in need of better access to health care. With the Hudson River Park Trust as her client, Amy worked with a team to identify strategies to activate public space, as well as to improve waterfront access and park connectivity. While in New York, she also participated in projects concerning public park financing, transit-oriented development, and retail mix. In Ohio, Amy provided technical support in GIS and interactive online mapping for the Franklin County Emergency Management and Homeland Security.

Outside of work, Amy is active in the local planning scene. She is currently serving as the Awards Coordinator for the American Planning Association Sacramento Valley Section (SVS), working to highlight and honor the planning work of local organizations. She is also active in the SVS Young Planners' Group as a Programs Coordinator, working to put on networking and educational events for the planning community.

Amy holds a Master's Degree in Urban Planning and a Master's Degree in Public Health from Columbia University in the City of New York. Amy also received a Bachelor's Degree in Music with a Minor in Medical Anthropology from the University of Michigan-Ann Arbor.

RYAN LESTER

PLANNER

Ryan is a planner with an eye for design. A skilled user of industry-standard graphic design software, Ryan specializes in preparing accessible, user-friendly materials that present planning concepts to the public in concise, easy-to-understand, and engaging ways. Beyond research and writing, he crafts practical objective residential design standards , builds user-friendly project websites, and produces digestible engagement materials and infographics.

In seven years with Mintier Harnish, Ryan has contributed to Housing Elements for the Cities of American Canyon, Carlsbad, Livingston, Madera, Mt. Shasta, Patterson, Shasta Lake, Stockton, Tulare, and Walnut Creek, the Town of Moraga, and the Counties of Fresno, Madera, Merced, and San Joaquin. Additionally he has worked on General Plans for the Cities of American Canyon, Folsom, Gilroy, Kerman, Millbrae, Pleasant Hill, Sacramento, Ukiah, and Union City, the Towns of Los Gatos, Truckee, and Windsor, and Fresno, Kern, and Ventura Counties. Ryan is also currently preparing Objective Design and Development Standards for more than a half dozen cities.

Ryan holds a Master's Degree in U.S. Social and Cultural History from California State University, Sacramento, as well as a Bachelor's Degree in U.S. History from the same institution.

EDUCATION

Master of Arts, U.S. Social and Cultural History
California State University, Sacramento

Bachelor of Arts, U.S. History
California State University, Sacramento

EXPERIENCE

Mintier Harnish
Planner

The League of California Cities
Member Services Representative

PROJECTS

General Plans for the Cities of Folsom, Gilroy, Kerman, Millbrae, Pleasant Hill, Sacramento, Ukiah, and Union City, the Towns of Los Gatos, Truckee, and Windsor, and the Counties of Fresno, Kern, and Ventura

Housing Elements for the Cities of American Canyon, Carlsbad, Livingston, Madera, Mt. Shasta, Patterson, Shasta Lake, Tulare, and Walnut Creek, the Town of Moraga, and the Counties of Fresno, Madera, Merced, and San Joaquin

Zoning Code Updates for the Cities of Folsom and Santa Clara, and the County of Merced

Objective Design and Development Standards for the cities of Folsom, Gilroy, Santa Clara, South Lake Tahoe, and Ukiah, and the Town of Windsor

Additional Projects:
San Joaquin County Greenprint Phase II, SMUD Environmental Sustainability Plan, Sunset Area Plan Update (Placer County)

SOFTWARE/ WEB DESIGN

Adobe Illustrator, InDesign, Photoshop
HTML and CSS
Microsoft Office

ryanl@mintierharnish.com

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MICHAEL GIBBONS

PLANNER

EDUCATION

Bachelor of Science in City and Regional Planning
Cal Poly, San Luis Obispo

Associate of Science in Mathematics with a Concentration in Architecture
Cuesta College, San Luis Obispo

California Peace Officer Standards and Training Certificate
Napa Valley Police Academy, Napa

AFFILIATIONS

American Planning Association, Sacramento Valley Section

EXPERIENCE

City of Napa
Police Officer

City of Napa
Assistant Planner

Mintier Harnish
Planner, Intern

City of Hollister
Community Development Intern

City of Gilroy
Community Development Intern

PROJECTS

General Plan Updates for the Cities of Gilroy, Pleasant Hill, Livingston, American Canyon, and Los Gatos, and the County of Kern

Zoning Ordinance Updates for the Cities of Gilroy, Folsom, and Santa Clara, and the County of Mariposa

michael@mintierharnish.com

Michael is a Planner with Mintier Harnish. He has worked in both the public and private sector, as well as in law enforcement. He has experience in land use planning, zoning regulations, Crime Prevention Through Environmental Design, urban design, architectural applications, historic preservation, real estate development, regulatory code, and public policy.

Michael started his career as the Assistant Planner for the City of Napa, where his technical duties included processing zoning clearances, temporary use permits, sign permits, business licenses, and building permits. He reviewed development proposals and applications for compliance with appropriate regulations and policies, and subsequently made recommendations to the City Council, Planning Commission, and Cultural Heritage Commission.

During his tenure with the City of Napa, Michael decided to serve the community in a different capacity. Working in the community he served and lived in fueled his desire to transition into Law Enforcement, where he became a City of Napa Police Officer. Michael attended the Napa Valley College Criminal Justice Training Center, where he received his California POST Peace Officer Certification. Michael transitioned back into Land Use Planning in 2019.

Michael's prior experience includes working as a Community Development Intern for the City of Gilroy, where he assisted with sign permitting, front counter assistance, and the review of plot plans. He also worked as a Housing and Community Development Intern for the City of Hollister, where he performed site and architectural review, the processing of user permits and variances, CEQA document review, and minor subdivision review. Additionally, Michael worked as an Intern for Mintier Harnish, where he performed a variety of planning and office support tasks.

Michael graduated with honors from California Polytechnic State University (Cal Poly), San Luis Obispo, and holds a Bachelor's Degree in City and Regional Planning. While at Cal Poly, Michael minored in both Real Estate Development and Sustainable Environments, and served two terms as the Associated Students in Planning (ASP) President. Michael also holds an Associate of Science in Mathematics with a concentration in Architecture from Cuesta College in San Luis Obispo.

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Environmental Scientists · Planners · Engineers

Darcy G. Kremin, AICP

Environmental Planning Practice Leader

Ms. Kremin has over 21 years of planning and CEQA and NEPA experience for nonprofit, private, and public sector clients. Ms. Kremin has managed large projects for public utilities, including water and energy transmission, and dozens of development projects for cities and counties. She also has experience with various public and charter school projects. She has managed multiple large and complex programmatic EIRs, for a variety of planning efforts. Most recently, she is managing the Sonoma County Rezone for Housing Sites EIR, which entails over 2,000 new residential units throughout the County, and has a large public outreach component. She is well known for creative solutions to achieve CEQA compliance. She has managed projects in the cities of Belmont, Redwood City, Sunnyvale, San Jose, San Leandro, Hayward, Oakland, among others.

EDUCATION

MA, Urban and Environmental Policy, Tufts University

BA, Geography/ Environmental Studies and Political Science, University of California, Los Angeles

CERTIFICATIONS/ REGISTRATIONS

American Institute of Certified Planners, 2003 (no. 018287)

SELECT PROJECT EXPERIENCE

Project Manager, Sonoma County – Rezone Sites for Housing Project EIR, Sonoma County
Ms. Kremin is currently managing the preparation of a Program EIR for the County's Rezone Sites for Housing Project. The proposed project will identify sites to be added to the County's General Plan Housing Element site inventory to comply with State law and will implement current General Plan Policies and Programs that require the County to identify urban sites near jobs and transit which may appropriately accommodate additional housing. It will also identify appropriate sites on which to place the Workforce Housing Combining Zone, which would allow the development of jobs and/or housing on the same site or within walking distance from one another. Rincon held a virtual public scoping meeting and will provide support for additional virtual public meetings as the CEQA process continues. Key environmental issues include historic resources, vehicle miles traveled and wildfire impacts.

Project Manager, City of Redwood City – Mixed-Use: Live/Work and Emergency Shelter Zoning Amendment Project Addendum EIR, Redwood City
Ms. Kremin served as Project Manager for an Addendum EIR for Redwood City's Mixed-Use: Live/Work and Emergency Shelter Zoning Amendment Project. The proposed project involves amendments to the mixed-use live/work (MULW) zoning district and the mixed-use emergency shelter (MUES) combining district on 30 blocks totaling 37.5 acres. Rincon prepared the Addendum to the previously certified A New General Plan for Redwood City Final EIR. The zoning amendment would alter the required floor area ratios, density, stories and height on MULW and MUES zoning district and provide intensity bonuses for developments which include certain qualifying community benefits.

Senior Planner, City of Berkeley (subconsultant to Raimi & Associates) – Adeline Corridor Specific Plan Environmental Impact Report, Berkeley
Rincon completed an EIR for the proposed Adeline Corridor Specific Plan in the City of Berkeley. The Plan Area is in the southern portion of the City of Berkeley and extends approximately 1.3 miles north from the Berkeley/Oakland border along Adeline Street and Shattuck Avenue to the intersection of Shattuck Avenue and Dwight Way. The Plan Area abuts Downtown Berkeley to the north and extends to the City of Oakland border to the south. The Adeline Corridor Specific Plan is intended to direct changes in land uses and development and right-of-way improvements for the Plan Area. The vision for the Plan Area is to champion equitable, transit-oriented development that supports a thriving community and provide safe, "complete streets." Key issues analyzed in the EIR include traffic/circulation, cultural resources, population and housing, noise, air quality, and GHG emissions.

CEQA Technical Manager, Belmont-Redwood Shores School District – Ralston Avenue and Tahoe Drive Improvements, Belmont
At a prior firm, Ms. Kremin was responsible for managing the preparation of a Categorical Exemption analysis for the district, which proposed to reconfigure Tahoe Drive and Ralston Avenue to alleviate traffic backups for Ralston Middle School. The main environmental issues were biological resources and traffic. The team provided surveying, road design, drainage evaluation, specifications, structural design, environmental evaluation and permitting, public involvement, right-of-way, public involvement, and bidding and construction phase services for roadway improvements to Ralston Avenue and Tahoe Drive.

CEQA Technical Manager, City of Hermosa Beach (subconsultant to Raimi & Associates) – PLAN Hermosa EIR, Hermosa Beach
At a prior firm, Ms. Kremin was responsible for managing the preparation of the EIR for PLAN Hermosa, the City's General Plan update (sub to Raimi & Associates on behalf of Hermosa Beach). Major issues included aesthetics, cultural resources, greenhouse gas, noise, traffic, utilities, and a carbon neutral alternative.

Project Manager, City of South San Francisco – On-Call Environmental Consulting Services, South San Francisco
Ms. Kremin has served as Project Manager on various projects under the firm's on-call contract with the City of South San Francisco. Examples include:

- 499 Forbes Boulevard Office Project EIR. Ms. Kremin was responsible for managing the EIR for the large office project, east of 101. The project would introduce more vehicle trips in an area that does not include residents or local retail; therefore, the project's vehicle miles travelled would be significant.
- 840 El Camino Real Hotel Project IS-MND. Ms. Kremin was responsible for managing the CEQA process for a new hotel on El Camino Real. The project would demolish a vacant restaurant structure and construct a 95-room hotel within proximity to San Francisco International Airport.
- Community Civic Campus Project. At a prior firm, Ms. Kremin was responsible for managing the subsequent environmental impact report (SEIR) to the El Camino Real/Chestnut Avenue Area Plan Environmental Impact Report. The Community Civic Campus project was not included in the original EIR. Three possible site plan scenarios were identified for the purposes of community input and varied only by the type of parking (surface, underground, or structured) and location of parking on site.
- Oyster Point Phase II Municipal Services Assessment. At a prior firm, Ms. Kremin was responsible for managing the preparation of a municipal services assessment for the redevelopment of Oyster Point including additional mixed use and office space. Because this area has not been assessed for infrastructure and public services needs, the City is looking for support to develop a needs assessment and cost estimate for the necessary infrastructure and public services.

Project Manager, City of Millbrae – 401 Millbrae Avenue Hotel Project IS-MND, Millbrae

Ms. Kremin was responsible for preparing the IS-MND for a new hotel in Millbrae next to San Francisco International Airport. The proposed project would involve development of a 209-room, six-story hotel. The footprint of the hotel would be rectangular, with a length of approximately 192 feet that would run parallel with the eastern edge of the site, and a width of approximately 43 feet. In addition, a new electronic billboard would be constructed at the western edge of the property next to U.S. Highway 101. Key issues included greenhouse gas emissions and consistency with the City's sign ordinance.

Project Manager, City of Mountain View -- Shorebreeze Apartments Initial Study and Environmental Assessment, Mountain View

At a prior firm, Ms. Kremin was responsible for the preparation of a CEQA IS/ND and a NEPA EA for an additional 62 affordable housing units on the site of an existing apartment complex. After project completion, the Shorebreeze Apartment complex would consist of a total of 170 affordable housing units. Key environmental issues included trees, aesthetics, traffic and noise.

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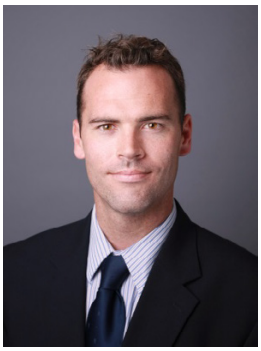
Environmental Scientists · Planners · Engineers



EDUCATION

MESM, Bren School of Environmental Science and Management, University of California, Santa Barbara

BA, Political Science, California Polytechnic State University, San Luis Obispo

CERTIFICATIONS

American Planning Association – AICP Certified

Accredited Greenhouse Gas Emissions Lead Verifier – California Air Resources Board

Matt Maddox, MESM, AICP

Principal

Mr. Maddox is involved in a wide range of urban planning and land use studies, sustainable, resilient and adaptation policy development, air quality and GHG analysis, and CEQA/NEPA environmental documentation, as well as community involvement and permitting activities. Mr. Maddox has a strong background in land use and transportation planning, policy, and environmental planning. He has contributed to successful environmental and planning projects ranging from general plans to housing elements to focused inner city redevelopment studies, to climate action plans and documentation for compliance with environmental regulations, to GHG emissions analysis for industrial facilities. Mr. Maddox has developed a focus in the area of urban planning, sustainable design and resiliency policy, and GHG analysis. He is currently Principal-in-Charge of Housing Elements for the cities of Carlsbad, San Fernando, Corona, and Beaumont for the 6th Cycle.

SELECT PROJECT EXPERIENCE

Principal in Charge, Sonoma County – Rezone Sites for Housing Project EIR, Sonoma County
Mr. Maddox is overseeing the preparation of a Program EIR for the County's Rezone Sites for Housing Project. The proposed project will identify sites to be added to the County's General Plan Housing Element site inventory to comply with State law and will implement current General Plan Policies and Programs that require the County to identify urban sites near jobs and transit which may appropriately accommodate additional housing. It will also identify appropriate sites on which to place the Workforce Housing Combining Zone, which would allow the development of jobs and/or housing on the same site or within walking distance from one another. Rincon held a virtual public scoping meeting and will provide support for additional virtual public meetings as the CEQA process continues. Key environmental issues include historic resources, vehicle miles traveled and wildfire impacts.

Principal in Charge, City of Carlsbad – Housing Element Update and General Plan Maintenance, Carlsbad
Rincon is assisting the City of Carlsbad in the preparation of their Housing Element Update and General Plan Maintenance. The project kicked off in January 2020, with the initial priority of inventorying the existing, but underutilized, and available housing sites and conducting environmental constraints analyses for air quality, biological resources, cultural resources, GHG emissions, noise, and transportation. Rincon will play a significant role in public outreach and information management, as well as overseeing the citizen housing advisory committee meetings. Rincon will review legislation including those related to environmental justice, GHG emissions, infill and affordable housing development, VMT, climate change adaptation and resiliency including threats from wildfire and sea level rise. We will then review other Carlsbad land use documents, to determine if additional amendments are necessary. We will prepare revisions to existing goals, policies, and actions, and propose new goals, policies, and actions, as appropriate. Rincon will also prepare a Supplemental Environmental Impact Report to address environmental impacts that have not already been addressed in the existing General Plan EIR.

Associate Planner, City of Calabasas – 2030 General Plan Update and Environmental Impact Report, Calabasas
Rincon completed the 2030 General Plan Update and Environmental Impact Report for the City of Calabasas. The 2030 General Plan update program was designed to build upon the vision and community values that have made Calabasas a special place to live, work, and visit and to address new issues that had emerged since the development of the previous long-range planning program. Key issues in the environmentally-conscious community revolved around the preservation of open space, development of new recreational opportunities, and incorporation of sustainability and green building concepts. GIS and graphics design capabilities were an important component of the work program for this study as the environmental consultant needed to use, update, and create new layers within the City's existing GIS database. The database was used to identify constraints and opportunity areas, specifically identifying the opportunity to re-focus future development potential into newly created mixed use districts along the City's main commercial corridors. The comprehensive General Plan update and its associated Environmental Impact Report were completed (Phases 1-3) and adopted in less than two years and at 3% less than the City Council authorized expenditures.

Technical Advisor, City of Kerman – 2017-2037 General Plan Update and Environmental Impact Report, Kerman
Rincon partnered with Mintier Harnish in updating Kerman's general plan and preparing a Program Environmental Impact Report. As part of the partnership, the team prepared a Background Report for the City and presented those findings to a joint Planning Commission-City Council Hearing. Based on the feedback received from that meeting and information obtained in preparing the Background report, the team has prepared a draft General Plan and Draft Program Environmental Impact Report, which received minimal comments during the public review of the documents. Specific tasks conducted by Rincon include a noise analysis that included conducting noise measurements and preparing noise contour mapping, Assembly Bill 52 consultation, public outreach, and assessment of traffic impacts related to vehicle miles traveled in conformance with the requirements of Senate Bill 743, and coordination with Caltrans on identifying new alignments for the two State Routes (SR) in Kerman, SR 180 and SR 145. City contract Counsel praised the report for being thorough, legally defensible, self-mitigating, and written to be easily understood by the public.

Principal in Charge, City of Millbrae (subconsultant to Mintier Harnish) – General Plan Update, Priority Development Area, and Environmental Impact Report, Millbrae
Rincon was selected to work as part of a team to complete an update to the City of Millbrae General Plan, and to prepare the associated Environmental Impact Report. As part of this task, Rincon prepared Natural Resources and Hazards and Safety sections of the Background Report, which included water resources, biological resources, open space, scenic resources, cultural resources, seismic and geologic hazards, flood and fire hazards, and hazardous materials. Rincon will also assist with preparation of the PDA Specific Plan and the General Plan policy document, and is also currently selected to prepare an Environmental Impact Report on the General Plan Update and PDA Specific Plan. The Environmental Impact Report will establish the cumulative, growth-inducing, unavoidable, and irreversible significant effects framework for consideration of the environmental impacts of subsequent development projects.

Environmental Planner, City of Calipatria – General Plan and Zoning Ordinance Update, Calipatria
Rincon prepared the General Plan Update and assisted with the Zoning Ordinance for the City of Calipatria. The reports are tools to help address, from a land use, circulation, and environmental planning perspective, several challenges facing the City of Calipatria. These challenges include overcoming a high unemployment rate, stagnant commercial sector, and adverse effects of climate change on the agricultural sector, air quality, and public health. The General Plan update provides the vision and policy basis to promote more efficient land use patterns, induce economic development and social equity, encourage alternative transportation, make better use of existing infrastructure, and facilitate energy efficiency. A key issue to the update is the Cliff Hatfield Memorial Airport, which was examined separately as an "air element". By examining the airport separately, Rincon outlined the airport interaction with surrounding land uses and guided its role in the local economy. The resulting improvement in the efficiency of the land use pattern is intended to produce several benefits, including improvement of air quality, promotion of public health, economic revitalization, and protection of natural and agricultural resources.

CITY OF ST. HELENA

RESOLUTION NO. 2021-

RESOLUTON OF THE COUNCIL OF THE CITY OF ST. HELENA: (1) AWARDING A PROFESSIONAL SERVICES AGREEMENT WITH MINTIER HARNISH PLANNING CONSULTANTS FOR PREPARATION OF THE CITY OF ST. HELENA'S 2023-2031 6th CYCLE HOUSING ELEMENT UPDATE IN AN AMOUNT NOT-TO-EXCEED $228,024 AND AUTHORIZING THE CITY MANAGER TO EXECUTE THE AGREEMENT; (2) AUTHORIZING A BUDGET INCREASE OF $49,012 TO 101-4500-2145; (3) AUTHORIZING USE OF GENERAL FUND RESERVES IN AN AMOUNT NOT-TO-EXCEED $49,012; (4) AUTHORIZING A BUDGET INCREASE OF $114,012 TO 751-4500-2145; AND (5) AUTHORIZING USE OF AFFORDABLE HOUSING TRUST FUND BALANCE FOR AN AMOUNT NOT-TO-EXCEED $114,012

RECITALS

A. On Friday, October 23, 2020, the City of St. Helena issued a Request for Proposal (RFP) for the City's 2023-2031 6th Cycle Housing Element Update (Housing Element Update); and

B. At the close of the RFP on November 23, 2020, five proposals were submitted to the City for the services requested; and

C. After review of the proposals received, three firms were selected to be interviewed; and

D. Following the interviews, staff recommended Mintier Harnish Planning Consultants be awarded a Professional Services Agreement (PSA) for Housing Element Update preparation services; and

E. Mintier Harnish has demonstrated they have skills and knowledge to complete the Housing Element Update; and

F. Founded in 1985, Mintier Harnish is a professional planning firm that specializes in general plans, housing elements, and zoning code practices in California. Having prepared over 80 housing elements during all six housing element cycles, Mintier Harnish is one of the foremost experts on housing elements; and

G. City and Consultant now desire to enter into a PSA for Housing Element Update services; and

H. The total contract is for a not-to-exceed amount of $228,024.

RESOLUTION

The City Council of the City of St. Helena hereby resolves as follows:

1. The City Council approves a Professional Services Agreement with Mintier Harnish Planning Consultants for preparation of the City's 2023-2031 6th Cycle Housing Element Update for a total contract amount not-to-exceed $228,024; and
2. The City Council authorizes the City Manager to execute the agreement on behalf of the City; and
3. The City Council authorizes a budget increase of $49,012 to 101-4500-2145; and
4. The City Council authorizes use of General Fund reserves in an amount not-to-exceed $49,012; and
5. The City Council authorizes a budget increase of $114,012 to 751-4500-2145; and
6. The City Council authorizes use of Affordable Housing Trust Funds in an amount not-to-exceed $114,012.

Approved at a Regular Meeting of the St. Helena City Council on January 26, 2021, by the following vote:

Mayor Ellsworth: _____
Vice Mayor Dohring: _____
Councilmember Chouteau: _____
Councilmember Hardy: _____
Councilmember Hall: _____

APPROVED: ATTEST:

_____ _____
Geoff Ellsworth, Mayor Cindy Tzafopoulos, City Clerk

Report to the City Council
Regular City Council - 26 Jan 2021

Agenda Section: **CONSENT ITEMS**

Subject: **Consideration and Proposed Approval of a Resolution: (1) authorizing an increase in the Downtown Sewer Lateral Improvement Program from an amount not-to-exceed $7,500 per sewer lateral connection to an amount not-to-exceed $15,000 per sewer lateral connection; (2) authorizing an increase in FY 2020-21 General Fund Expenses for an additional $202,500 for a total not-to-exceed amount of $405,000, (3) authorizing use of General Fund reserves for an additional amount of $202,500 for a total not-to-exceed amount of $405,000 to provide loans to downtown businesses as part of the Downtown Sewer Lateral Improvement Program; and (4) authorizing an update to the Improvement Financing Agreement increasing the amount to not-to-exceed $15,000 and requiring work be completed on or before July 31, 2021.**

CEQA Determination: **Not a CEQA project**

Prepared By: April Mitts, Finance Director

Reviewed By: Mark T. Prestwich, City Manager

Approved By: Mark T. Prestwich, City Manager

BACKGROUND

The City is in the process of finalizing the design of R18-81 Downtown Sidewalk Improvements Project. A large portion of R18-81 includes the replacement of sidewalks, trees, and implementation of traffic calming devices on Main Street between Mitchell Drive and Pine Street. Approximately 3,609 linear feet of sidewalk and 17 Amercans with Disabilities (ADA) curb ramps will be replaced.

As part of this project, the City conducted closed circuit television video (CCTV) inspections of the downtown properties' sewer laterals. The sewer laterals are evaluated based on a 5-point grading system (5 being the best and 1 being the worst). There is a total of 27 properties affected by this project. The following table shows the overall assessment for these properties:

Sewer Lateral Grade	Number of Properties
5	1
4	1
3	14
2	5
1	6

In order to receive wastewater collection and treatment services from the City, property owners within the City must construct new, or repair or replace existing, private sewer laterals, which remain the property and responsibility of the property owner. The property owner owns the private lateral, up to and including, the connection to the public sewer main. Based on the above noted CCTV inspections, a majority of the downtown properties affected by the R18-81 Downtown Sidewalk Improvements Project are also in need of sewer lateral repairs and improvements. Accordingly, replacing or repairing the degraded sewer laterals after project construction will increase costs considerably for the individual property owner, as it will likely involve removing/replacing the new sidewalk. The City is encouraging all property owners affected by the downtown project to replace their sewer lateral before construction begins.

On August 11, 2020, a staff report was brought to City Council providing an update on CIP R18-81 Downtown Sidewalk Improvement Project. This report also sought direction from the City Council to offer loans to finance private sewer laterals for those downtown businesses affected by the Downtown Sidewalk Improvement Project.

At this meeting, City Council adopted Resolution 2020-83 authorizing the Sewer Lateral Improvement Program. This Program allows the City to finance the costs of the private sewer lateral improvements through voluntary agreements that would provide City payment of of the costs upfront, up to a maximum amount of $7,500 per property, to be paid back in installments recorded against the property and, if desired, collected on the property tax roll. The City is expressly authorized to finance and construct repairs and replacement of existing sewer laterals in this manner pursuant to Health & Safety Code sections 5464, 5465, and 5474. The authorized agreement contains the following basic terms:

- City’s payment of actual costs of repairs/replacement, up to a maximum amount of $7,500 (actual costs expected to vary for each property);
- Payment provided in the form of a 0% interest loan, paid in installments over a 5-year period, which shall be recorded against the property;

- Loan must be paid back in full upon transfer of property ownership, or at the end of the term;
- Property owner is responsible for conducting a CCTV inspection of the sewer lateral, obtaining an estimate of the needed repairs/replacement from a licensed contractor, and directly contracting for the work (i.e., the City is not performing the work);
- Acknowledgement of voluntary nature of agreement and waiver of Prop. 218 with respect to installment payments; and
- Indemnification provisions.

The loan amount of $7,500 was determined from a preliminary bid provided to the City after completing the March 2020 CCTV inspections. If all 27 property owners partake in this program for the maximum amount allowed ($7,500 each), the total fiscal impact for the City would be $202,500 from the General Fund which would be recorded as a receivable and paid back to the City within five years or upon transfer of property.

DISCUSSION

Following the August 11, 2020, City Council meeting, City staff began preparing for the distribution of information to property owners regarding the Sewer Lateral Improvement Program ("Program"). Shortly thereafter, the City endured several emergencies including the LNU Complex Fire, PSPS events, the Glass Fire, and continued COVID-19 related activities which has delayed distribution of the information for the Program.

City staff intended to distribute information regarding the Program via email to all affected properties; however, after further consideration, it was determined the most efficient way to introduce the Program and answer questions would be through a virtual information meeting where City staff could present the Program and answer any questions property owners may have.

A total of three informational meetings with property owners have been held to date: a morning and evening meeting on December 10, 2020 with the property owners, City Manager, Public Works Director, Public Works Operations Manager, and other City staff and a meeting on January 19, 2021 with City staff. A total of 21 property owners are responsible for 27 sewer laterals between Pine and Mitchell on Main Street. The meetings were recorded and are available to property owners, along with an informational webpage found on the City's Public Works website.

While it is the responsibility of the property owner to maintain, repair, and/or replace private sewer laterals connecting to the City’s wastewater system, there can be significant negative impacts to the City’s sewer system if maintenance and repair do not occur. Thus, it is in the City’s interest to encourage and facilitate the private sewer lateral repairs. City staff are encouraging property owners to work together and mobilize

their repairs which may result in reduced costs, reduced impact to tenants, and easier project management.

At the December 10, 2020, informational meeting, the property owner of 1331 Main shared three bids received which ranged from $28,351 to $68,060. These bids came from general contractors for a complete sewer lateral replacement using conventional excavation. All informational meetings and communication with property owners has been positive, although property owners have expressed concern about the cost of repairs.

Following the initial meeting, the 1331 Main Street property owner received an additional bid from Gopher-It Trenchless, a contractor who specializes in trenchless alternative for sewer repair with minimal property disruptions. This bid came back at $14,300 per sewer lateral. Property owners may be subject to additional fees, such as City Encroachment Permit Major ($500), and business license fee for selected contractor ($104+).

The COVID-19 pandemic has not only impacted businesses, but many property owners as well, with businesses closing, offering reduced rent and rent deferrals. It is in the City's best interest to support property owners in completing their repairs prior to the R18-81 Downtown Sidewalk Improvement Project and during months in which tourism is reduced.

Based on the higher than anticipated costs for sewer laterals, City staff recommends increasing the Sewer Lateral Improvement Program loan from a not-to-exceed amount of $7,500 to a not-to-exceed amount of $15,000 per sewer lateral. Additionally, staff recommends the loan program be available to property owners who complete their work on or before July 31, 2021, as this may, again, further incentivize property owners to expedite their repairs. All other terms would remain the same.

FISCAL IMPACT

If all 27 property owners partake in this program for the maximum amount allowed ($15,000 each), the total fiscal impact for the City would be $405,000 from the General Fund. This is an increase of $202.500 from the amount approved by City Council on August 11, 2020. These funds will be paid back to the City upon transfer of property or over a five-year period and the loan would be recorded against the property. If the full amount of $405,000 is utilized, it would decrease the estimated 06/30/21 General Fund fund balance from $5,142,742 to $4,940,242 and the percentage of fund balance would decrease from 38% to 36%.

RECOMMENDED ACTION

Staff recommends City Council adopt a resolution: (1) authorizing an increase in the Downtown Sewer Lateral Improvement Program from an amount not-to-exceed $7,500 per sewer lateral connection to an amount not-to-exceed $15,000 per sewer lateral connection; (2) authorizing an increase in FY 2020-21 General Fund Expenses for an

additional $202,500 for a total not-to-exceed amount of $405,000, (3) authorizing use of General Fund reserves for an additional amount of $202,500 for a total not-to-exceed amount of $405,000 to provide loans to downtown businesses as part of the Downtown Sewer Lateral Improvement Program; and (4) authorizing an update to the Improvement Financing Agreement increasing the amount to not-to-exceed $15,000 and requiring work be completed on or before July 31, 2021.

ATTACHMENTS

Resolution increasing contribution to the Sewer Lateral Improvement Program
COSH_PSL Improvement Financing Agreement-v2 final

RESOLUTION NO. _____

RESOLUTION OF THE CITY COUNCIL OF THE CITY OF ST. HELENA AUTHORIZING: (1) AN INCREASE IN THE DOWNTOWN SEWER LATERAL IMPROVEMENT PROGRAM FROM AN AMOUNT NOT-TO-EXCEED $7,500 TO AN AMOUNT NOT-TO-EXCEED $15,000 PER SEWER LATERAL CONNECTION; (2) AUTHORIZING AN INCREASE IN FY 2020-21 GENERAL FUND EXPENESE FOR AN ADDITIONAL $202,500 FOR A TOTAL NOT-TO-EXCEED AMOUNT OF $405,000; (3) AUTHORIZING USE OF GENERAL FUND RESERVES FOR AN ADDITIONAL $205,000 FOR A TOTAL NOT-TO-EXCEED AMOUNT OF $405,000; AND (4) AUTHORIZING AN UPDATE TO THE IMPROVEMENT FINANCING AGREEMENT INCREASING THE AMOUNT TO NOT-TO-EXCEED $15,000 AND REQUIRING WORK TO BE COMPLETED ON OR BEFORE JULY 31, 2021.

WHEREAS, the City is authorized to provide wastewater collection and treatment services to properties located within the jurisdictional boundaries of the City; and

WHEREAS, in order to receive wastewater collection and treatment services from the City, property owners within the City must construct new, or repair or replace existing, private sewer laterals, which remain the property and responsibility of the property owner; and

WHEREAS, a total of 27 properties are affected by the City's R18-81 Downtown Sidewalk Improvements Project, and based on CCTV inspections of the sewer laterals each impacted commercial property contains a private sewer lateral in varying conditions of degradation; and

WHEREAS, replacing or repairing the degraded sewer laterals after project construction will increase costs considerably, as it will likely involve removing/replacing the new sidewalk; and

WHEREAS, the City is encouraging all property owners affected by the downtown project to replace their sewer lateral before construction begins, and the City desires to provide financial assistance to property owners, upon mutual agreement, to further incentivize the timely construction of the sewer lateral improvements; and

WHEREAS, Health & Safety Code sections 5464, 5465, and 5474 authorize public entities, including cities, to fix fees or charges for the privilege of connecting to sanitation or sewerage facilities, as well as to construct improvements such as repairing or replacing existing sewer laterals, with the costs of those improvements to constitute a lien on property paid in installments and, if desired, collected on the property tax roll; and

WHEREAS, the City Council therefore desires to finance the sewer lateral improvements through the use of voluntary contractual agreements, with the costs of the improvements to be paid in installments that may constitute a lien on the property, and which are further authorized to be collected on the property tax roll pursuant to Health and Safety Code section 5470 et seq.; and

WHEREAS, there are significant negative impacts to the City's sewer system if private sewer lateral maintenance and repair does not occur, and thus the City Council further finds that financing the private sewer lateral improvements is in the City's interest; and

WHEREAS, preventing the discharge of untreated wastewater into the environment through leaky or unsound sewer lines protects the public health, safety, and welfare of the City and the environment; and

WHEREAS, upgraded private sewer laterals help ensure the efficiency and safety of the City's wastewater system by preventing leaks, breaks, ruptures, or blockages and thus preserving the integrity of the City's underground infrastructure and provision of public services; and

WHEREAS, the City Council finds that these are significant public benefits, and that financing private sewer lateral repairs as described in this resolution is for a primary public purpose, notwithstanding the benefit to private property owners.

NOW, THEREFORE BE IT RESOLVED by the City Council of the City of St. Helena as follows:

Section 1. **Recitals; Findings.** The City Council hereby adopts the above recitals as true and correct findings of the City Council and incorporates them herein. The City Council additionally finds that the City's offer to finance private sewer lateral improvements for the properties affected by the City's R18-81 Downtown Sidewalk Improvements Project is in the best interest of the City and serves an important public purpose and confers significant public benefits. Financing the sewer lateral improvements as specified in this Resolution will promote the timely and efficient repair and replacement of degraded sewer laterals, thereby preventing the discharge of untreated wastewater into the environment through leaky or unsound sewer lines and ensuring the efficiency and safety of the City's wastewater system. This will further preserve the integrity of the City's underground infrastructure and provision of public services and will extend the life of the Downtown Project through the prevention of emergency repairs and construction on newly paved streets and sidewalks. The City Council further finds that facilitating timely improvements to downtown businesses in this time of severe economic hardship imposed by the COVID-19 pandemic is necessary to further promote a safe and vibrant downtown in the long-term, as it provides assistance for needed repairs without further jeopardizing the downtown businesses' financial stability and that all sewer lateral repairs must be completed by July 31, 2021 unless written consent by both parties is given.

Section 2. **Approval.** The City Council hereby approves the Agreement for Payment of Installments to Finance Private Sewer Laterals, in substantially the form attached hereto. The City Manager, in consultation with the City Attorney, is authorized to modify the form of the

Agreement as may be necessary to facilitate the sewer lateral improvements, so long as the material terms of the agreement remain consistent with the form agreement approved herein.

Section 3. **Expenditure.** The City Council, in approving the Agreement for Payment of Installments to Finance Private Sewer Laterals in an amount not-to-exceed $15,000 per sewer lateral connection, authorizes an increase in FY 2020-21 General Fund expenses and authorizes the City's payment of sewer lateral improvement costs to be made from the General Fund reserves in a total amount not-to-exceed $405,000.

Section 4. Effective Date. This Resolution shall become effective immediately upon its adoption.

APPROVED at a regular meeting of the St. Helena City Council on January 26, 2021, by the following votes:

Mayor Ellsworth: _____

Vice Mayor Dohring: _____

Council Member Chouteau: _____

Council Member Hall: _____

Council Member Hardy: _____

APPROVED: ATTEST:

_____ _____

Geoff Ellsworth, Mayor Cindy Tzafopoulos, City Clerk

RECORDING REQUESTED BY and
AFTER RECORDING MAIL TO:

CITY OF ST. HELENA
1572 Railroad Avenue
St. Helena, CA 94574
ATTN: City Manager

Recording without fee requested pursuant to Gov. Code § 6103 (Space above this line for County Recorders Use Only)

AGREEMENT FOR PAYMENT OF INSTALLMENTS
TO FINANCE PRIVATE SEWER LATERALS

THIS AGREEMENT FOR PAYMENT OF INSTALLMENTS TO FINANCE PRIVATE SEWER LATERAL IMPROVEMENTS ("Agreement") is entered into as of _____, 20___, between _____, ("Participant") and the **City of St. Helena**, a municipal corporation ("City"). The parties may hereafter be referred to individually as "Party" and collectively as "Parties."

RECITALS

A. The City is authorized to provide wastewater collection and treatment services to properties located within the jurisdictional boundaries of the City.

B. In order to receive wastewater collection and treatment services from the City, property owners within the City must construct new, or repair or replace existing, private sewer laterals which remain the property and responsibility of the property owner (the "Improvements"). The cost of Improvements are the responsibility of each property owner requesting service from the City.

C. The costs for the Improvements may be significant, and the City has determined to provide financial assistance to property owners, upon mutual agreement, in the form of amortizing the cost of the Improvements over a period of five (5) years (the "Installments").

D. The City is authorized to enter into voluntary agreements for contractual assessments with property owners for the Improvements pursuant to California Health and Safety Code section 5464 *et seq.* (the "Law"), pursuant to which authority the City may perform the necessary work to complete the Improvements, and collect such costs from the property owner in Installments. The Law further authorizes the City to impose a lien on the property for which the Improvements are provided in order to secure payment of the Installments. The Installments are further authorized to be collected on the property tax roll, pursuant to Health and Safety Code section 5470 *et seq.,* or through a demand for payoff of the entire amount borrowed prior to a transfer of ownership.

E. Property-based fees, charges, and assessments, when imposed by a local agency, are subject to the requirements of article XIII D of the California Constitution. Assessments may

only be imposed in accordance with notice, protest, and ballot procedures required under Article XIII D, section 4, and property-related fees and charges may only be imposed in accordance with the notice and protest procedures of article XIII D, section 6. Article XIII D also creates substantive requirements applicable to imposition of assessments, and property-related fees and charges (collectively, these requirements are referred to herein as "Article XIII D Requirements"). The Article XIII D requirements are inapplicable to amounts charged as a result of voluntary, arms' length negotiations, or amounts charged as a part of a voluntary arrangement with the agency, such as the Installments proposed to be charged for financing the costs of the Improvements.

F. Participant is the owner of certain real property within the City requiring the Improvements, as more particularly described in Exhibit A hereto. Participant has requested assistance with financing the costs of the Improvements through entering into this Agreement for payment of Installments, and the City has agreed to provide such assistance.

G. In order for Participant to finance the Improvements, the City will be required to pay the up-front costs of the Improvements, to be repaid by the Installments. In consideration for providing such assistance to Participant, Participant wishes to acknowledge and agree that this Agreement is voluntary in nature, and the Installments are not "imposed" for purposes of the Article XIII D Requirements, and therefore, the Article XIII D Requirements do not apply. Participant further wishes to enter into this Agreement for establishing the terms for the Installments, including term, interest rate, enforcement mechanisms, and other matters set forth herein.

NOW, THEREFORE, the City and the Participant agree as follows:

Section 1. **Recitals**. The foregoing Recitals are true and correct.

Section 2. **Participant's Obligations**.

(a). **Advances to the City for Agreement Expenses.** Participant shall, immediately upon execution of this Agreement, advance the initial sum of $_____ (the "Advance") to the City to be used for reimbursing the City for the costs associated with preparing and entering into this Agreement, for the costs of implementing this Agreement and the Installments, including any costs associated with enforcement of this Agreement, and placement of the Installments on the property tax roll.

(b). **Construction of Improvements**. As conditions precedent to the City's obligations to pay upfront costs of the Improvements, Participant shall contract with a licensed contractor to perform a closed-circuit television (CCTV) inspection of Participant's private sewer lateral connected to the City's sewer line(s) and obtain an estimate of the total costs of needed repairs or replacement. Participant shall provide proof of inspection and estimate to the satisfaction of the City. Upon execution of this Agreement, and with payment by Participant of the Advance, Participant shall commence or contract for the construction of the Improvements. Participant shall forward all applicable invoices for the actual costs incurred for the Improvements to the City within ___xx_ days of receipt. All Improvements shall be completed no later than July 31, 2021 unless agreed upon in writing by both parties.

(c). **Payment of Installments**. Participant further agrees to pay the Installments required under this Agreement, subject to the terms set forth herein.

i. **Term.** Participant agrees to pay the Installments for a term of five (5) years or prior to Participant's transfer of ownership of the Property as described herein, whichever comes first. Prior to transfer of ownership of the Property, Participant agrees to pay to the City all unpaid principal and any accrued interest, in addition to any amounts owed or that the City will be required to pay under any underlying financing by which proceeds for the Installments are made available.

ii. **Interest Rate**. Participant agrees to pay interest on the outstanding amount due for the Improvements at the rate of 0% per annum.

iii. **Total Cost of Improvements**. The total estimated cost of the Improvements is $_____. Participant expressly agrees to pay the total actual cost of Improvements. Regardless of the total cost of Improvements, Participant agrees that only the portion of the costs paid upfront by the City, which shall not exceed $15,000, shall be paid by Participant through Installments, subject to the terms of this Agreement, unless otherwise agreed by the Parties. If the cost of Improvements exceeds $15,000, Participant shall be solely liable for paying the costs that exceed $15,000.

iv. **Payment Schedule**. The Improvements shall be paid in five (5) annual Installments, as set forth in Exhibit B hereto, which amounts shall include both the principal and interest component for each Installment. Each Installment shall be due on the dates set forth on Exhibit B hereto, and shall be the responsibility of Participant.

v. **Collection on Property Tax Roll.** The City may take action in any year, subject to approval by the City's City Council, to provide for collection of the Installments on the property tax roll in the same manner and at the same time as property taxes, pursuant to the authority granted in Health and Safety Code section 5465, and 5470 *et seq.*. Should the City Council determine to place the Installments on the property tax roll, Participant agrees not to submit a written protest or otherwise take any action to prevent the City from placing the Installments on the property tax roll.

Section 3. **City's Obligations**.

(a). **Implementation of Agreement**. The City shall take all actions necessary to pay the upfront costs of the Improvements, up to a maximum amount of $15,000, pursuant to the terms of this Agreement, provided, however, that the obligation to pay such upfront costs shall be conditioned on Participant completing the Improvements on or before July 31, 2021, subject to extension of such date by mutual agreement of the Parties, and to collect the Installments as set forth in Exhibit B hereto, following (i) execution of this Agreement by the Parties, and (ii) payment by Participant of the Advance to the City.

(b). **Use and Administration of the Participant Advances**. The City shall use the Advance solely for the payment of expenses relating to implementation and enforcement of this Agreement and the Installments. The City agrees to keep records consistent with its

regular accounting practices of the amount of monies advanced by the Participant and the expenditure of such monies. Additionally, the City shall enter into and maintain contracts with all consultants and contractors providing services related to construction of the Improvements, implementation of this Agreement and the Installments that shall specify the scope of services and compensation to be paid to all such consultants. Such records and contracts shall be available for copying by the Participant at Participant's expense, and review during normal business hours upon reasonable notice to the City. If the proceedings to construct the Improvements are not completed and are abandoned by either Party hereto for any reason at any time prior to the completion thereof, there will be no obligation on the part of the City to reimburse Participant for any monies previously advanced pursuant to this Agreement; provided, however, the City does agree to return to Participant any monies previously advanced which remain on deposit with the City and which the City determines are in excess of the amount necessary to pay for any outstanding expenses previously incurred by the City for the purposes of implementing and/or enforcement this Agreement or constructing the Improvements.

Section 4. **Participant's Representations**.

(a). Participant understands and acknowledges that:

1. California Constitution, Article XIII D, Section 4 ("Article XIII D") establishes certain procedural and substantive requirements that apply when any local agency, such as the City, imposes a new or increases an existing property-related assessment.

2. The procedural requirements of Article XIII D include, among other things, the following:

A. The local agency shall identify the parcels upon which the assessment shall be imposed and provide written notice by mail of the proposed assessment to the record owner of each identified parcel.

B. The notice shall identify (i) the amount of the assessment; (ii) the basis upon which the amount was calculated; (iii) the reason for the assessment; and the (iv) date, time, and location of a public hearing on the proposed assessment.

C. The local agency shall conduct a public hearing upon the proposed assessment not less than 45 days after mailing the notice of the public hearing and the proposed assessment, accompanied by an assessment ballot whereby the owner of property proposed to be assessed may express such owner's support for or opposition to such assessment. After the public hearing has been closed, the public agency shall tabulate all assessment ballots received prior to the closure of the public hearing. The agency shall not impose the assessment, if there is a majority protest. A majority protest exists if the assessment ballots submitted in opposition to the levy of assessments outweighs the assessment ballots submitted in support to the levy of the assessments. Each assessment ballot is weighted according to the amount of the assessment proposed to be levied on the parcel for which such assessment ballot has been submitted.

3. The substantive requirements of Article XIII D include, among other things, the following:

A. Revenues derived from any assessment shall not exceed the special benefit provided to the property and improvements.

B. Revenues derived from the assessment shall not be used for any purpose other than that for which the assessment was imposed.

C. The amount of the assessment levied on a parcel shall not exceed the special benefit received by such parcel from the improvements being financed by such assessment.

4. California Constitution Article XIII D, Section 6 also sets forth certain procedural and substantive requirements any time a local agency imposes a new or increases an existing property-related fee or charge. Procedural requirements include holding a public hearing, with notice provided at least 45 days in advance, at which public hearing a majority of affected property owners or customers of record may protest the property-related fee or charge. Additional substantive requirements apply, including requirements that the property-related fee or charge not exceed the proportional cost of service, and be used only for the services for which the fee or charge is imposed.

5. The description of the procedural and substantive requirements established by and contained in Article XIII D set forth above are intended only to summarize certain of such procedural and substantive requirements, and were previously defined as the Article XIII D Requirements.

6. Participant has had a reasonable opportunity to thoroughly read and review the Article XIII D Requirements in their entirety and has further had a reasonable opportunity to consult with Participant's attorney regarding the Article XIII D Requirements.

(b). Participant and City acknowledge, understand, and agree that this Agreement is entered into for the benefit of Participant, in order to accommodate Participant's request to finance the Improvements. Participant and City further acknowledge, understand and agree that the Installments represent the reasonable estimate of the cost of the Improvements, plus interest as authorized by law. Participant further acknowledges, understands and agrees that City is entering into this Agreement with Participant in reliance on Participant's acceptance of and agreement with the amount calculated for the Installments, and that City would not have entered into this Agreement had Participant not agreed to such amounts. Participant further acknowledges, understands, and agrees that this Agreement is voluntary in nature, and is the result of an arms' length negotiation in which Participant had the opportunity to consult with independent counsel. As such, the Installments are not "imposed" for purposes of Article XIII C or Article XIII D of the California Constitution, and the Article XIII D Requirements do not apply and are otherwise waived. Such understanding, acknowledgement, and waiver are granted knowingly and in consideration for the City's willingness to finance Participant's Improvements through the Installments, and in order that the City may be assured of its ability to be repaid for the Improvements with the Installments.

Section 5. **Effect of Agreement**. Nothing contained herein shall be construed as releasing Participant from any condition of or requirement imposed by the City, including payment of any other fee, charge, tax, or assessment of City, or any other agreement with the City or by any law rule, or regulation of the City, the County of Napa, the State of California, or the federal government respecting the Property.

Section 6. **Lien; Recordation**. Upon execution of this Agreement by the parties hereto, City shall cause this Agreement to be recorded in the office of the County Recorder of the County of Napa. The Parties hereby acknowledge and agree that this Agreement, and the obligation of Participant to pay the Installments, shall constitute a lien on the Property.

Section 7. **Events of Default**. The following events shall each constitute an Event of Default hereunder:

(a) Failure to make any Installment due hereunder, provided the City shall provide a grace period of five (5) business days from the due date of each Installment in the event the Installments are not collected on the property tax roll.

(b) Failure to comply with any other provision hereunder.

(c) In the event the City's City Council determines to place the Installments on the property tax roll, submission by Participant of a protest against placement of the Installments on the property tax roll.

Section 8. **Remedies**. If an Event of Default occurs, Participant agrees and acknowledges that such a default shall be treated in the same way as a violation of any of the City's ordinances, rules, or regulations, as they exist on the date of such Event of Default, and all remedies existing thereunder shall be available to the City in the enforcement of this Agreement. In addition, upon occurrence of an Event of Default, the City shall have any of the following additional remedies:

(a) The City may terminate this Agreement and declare all amounts remaining of the Installments immediately due and payable on the date thereof.

(b) If Participant fails to pay the Installments, the City may initiate proceedings for termination of sewer service in accordance with the City's ordinances, rules, or regulations, or whatever policy for termination of sewer service exists at such time. Sewer service shall not be resumed until all delinquent charges, including the Installments due hereunder, as well as costs of disconnection and reconnection, have been paid in full to the City.

(c) The City may exercise any and all other remedies available to the City under law. To the extent the Installments are collected by the County of Napa on the property tax roll, the Installments shall be subject to the same remedies and enforcement mechanisms applicable to property taxes.

(d) In addition, if an Event of Default under Section 7(c) occurs, the City, in its sole discretion, may opt not to terminate this Agreement, but shall be entitled to charge an

additional 10% of the amount of each Installment not collected on the property tax roll, in order to compensate the City for the costs of manually collecting the Installments.

Section 9. **Indemnification**. To the fullest extent permitted by law, Participant shall defend (with counsel of the City's choosing), indemnify and hold the City, its officials, officers, employees, volunteers, and agents free and harmless from any and all claims, demands, causes of action, costs, expenses, liability, loss, damage or injury of any kind, in law or equity, in any manner arising out of, pertaining to, or incident to the payment of the Improvements, or the subject matter of this Agreement, including without limitation the payment of all damages, expert witness fees and attorney's fees and other related costs and expenses. Participant's obligation to indemnify shall not be restricted to insurance proceeds, if any, received by Participant, the City, its officials, officers, employees, agents, or volunteers. This section shall survive any expiration or termination of this Agreement.

Section 10. **Miscellaneous Provisions**.

(a) **Applicable Law**. This Agreement and any disputes relating to this Agreement shall be construed under the laws of the State of California.

(b) **Venue**. In the event of any legal or equitable proceeding to enforce or interpret the terms or conditions of this Agreement, the parties agree that venue shall lie in Napa County.

(c) **Modification**. This Agreement may not be altered in whole or in part except by a modification, in writing, signed by the parties hereto.

(d) **Entire Agreement**. This Agreement, together with all the exhibits attached hereto and thereto, contains all the representations and the entire understanding between the parties regarding payment of the costs of the Improvements. The parties mutually declare that there have not been any oral promises or agreements not contained in this Agreement. Participant further expressly agrees that Participant has not relied upon any oral promises or oral agreements of anyone connected with the City in executing this Agreement.

(e) **Binding Effect**. This Agreement shall inure to the benefit of a binding upon the parties and their respective purchasers, successors, heirs, and assigns.

(f) **Unenforceable Provisions**. The terms, conditions, and covenants of this Agreement shall be construed whenever possible as consistent with all applicable laws and regulations. To the extent that any provision of this Agreement, as so interpreted, is held to violate any applicable law or regulation, the remaining provisions shall nevertheless be carried into full force and effect and remain enforceable.

(g) **Representation of Capacity to Contract**. The party signing this Agreement on behalf of Participant hereby expressly warrants and represents that he/she has the authority to execute this Agreement on behalf of the Participant.

(h) **Opportunity to be Represented by Independent Counsel**. Participant warrants and represents that he/she has been advised to consult independent legal counsel of

Participant's own choosing and has had a reasonable opportunity to do so prior to executing this Agreement. Participant further warrants and represents that he/she has carefully read all of this Agreement and has executed this Agreement voluntarily and with full understanding of all terms and conditions herein.

(i) **Notices**. All letters, statements, or notices required pursuant to this Agreement shall be deemed effective upon receipt when personally served or sent certified mail, return receipt requested, to the following addresses:

To Participant:

[Insert contact information]

To City:

City of St. Helena
ATTN: City Manager
1572 Railroad Avenue
St. Helena, CA 94574

(j) **Attorney's Fees**. In the event any action or proceeding is filed by anyone to challenge, invalidate, interpret or enforce this Agreement, the prevailing party between the City and the Participant shall be entitled to recover all attorney's fees and litigation expenses in addition to all other relief afforded by applicable law.

CITY OF ST. HELENA

By: _____

Mark T. Prestwich
City Manager

PARTICIPANT

By: _____

[INSERT NAME OF PARTICIPANT]

ATTEST:

_____

By: _____

Cindy Tzafopoulos, City Clerk

STATE OF CALIFORNIA)
)
COUNTY OF NAPA)

ON _____, before me, _____,Notary Public, personally appeared_____ _____, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s) or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature: _____(SEAL)

STATE OF CALIFORNIA)
)
COUNTY OF NAPA)

ON _____, before me, _____,Notary Public, personally appeared _____ _____, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s) or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature: _____(SEAL)

ATTACHMENT A

DESCRIPTION OF PROPERTY

[insert legal description of Property]

ATTACHMENT B

INSTALLMENTS

[insert amortization schedule[

Report to the City Council
Regular City Council - 26 Jan 2021

Agenda Section: **OLD BUSINESS**

Subject: **Annual Elm Tree Tunnel Update and Presentation by HortScience, a division of Bartlett Consulting on (1) the updated Tree Risk Assessment which includes an Advanced Assessment of 30 Mature Elms and (2) a review of updated Elm Tree Management Plan**

CEQA Determination: **Exempt**

Prepared By: Martin Beltran, Management Analyst

Reviewed By: Erica Ahmann Smithies, Public Works Director and City Engineer

Approved By: Mark T. Prestwich, City Manager

BACKGROUND

The City and Caltrans have been adhering to the 2011 St. Helena Elm Tunnel Management Plan since it was originally introduced and approved in 2011. The Plan was drafted with the intent to facilitate communication and partnership between the State and City to provide maintenance, preservation, and restoration of the historic Elm Tunnel in a way that meets current safety requirements. The Management Plan consists of a set of coordinated protocols with identified functional areas within the State and the City to address short-term as well as longer-term work on the Elm Tunnel as the original trees near the end of their natural lifespan.

At the request of the Beautification Foundation and further direction provided by City Council, City staff procured the services of a consulting arborist to assess the 2011 Elm Tunnel Management Plan as well as perform a Tree Risk Assessment of 144 Elm trees in the tunnel. This would assist staff in either ratifying and/or modifying standing practices from the 2011 Elm Management Plan to ensure the preservation and restoration of both mature trees and the replacements.

On January 8, 2019, HortScience, a division of Bartlett Consulting (HortScience/Consultant), was selected and scheduled to commence the work. On February 5, 2019, the Consultant and City staff met on site to review the scope of work and initiate the tree assessment by tagging all trees and providing City staff with direction on pruning 55 young Elm trees. On May 29, 2019, HortScience conducted a second inspection to address the health of the mature trees and then compiled all information and observations gathered from the two visits and provided a draft report to staff on September 11, 2019. Staff reviewed the report and provided comments to the Consultant.

DISCUSSION

At the November 26, 2019 City Council meeting, the City Council received a presentation and recommendations from HortScience on the 2011 St. Helena Elm Tunnel Management Plan as well as the Tree Risk Assessment of 144 elms.

As an outcome of the presentation, City Council provided the following direction:

- Conduct an Advanced Assessment of mature Elm trees (including an aerial assessment);
- Utilize information from the Advanced Assessment of the mature Elm trees and from the 2019 Risk Assessment to prepare a 5/10/15 year Elm Tree Removal and Replacement plan; and
- Update the 10-year Elm Tree Management Plan, if necessary.

Following the November 26, 2019 City Council meeting, HortScience began working on the Advanced Assessment of mature Elm trees. The Advanced Assessment was conducted on June 18, 2020 and on August 14, 2020. Following the Advanced Assessment the Consultant complied its findings and development of the Elm Tree Removal and Replacement Plan. Additionally, HortScience updated the 10-year Elm Tree Management Plan.

In addition, and as outlined in the updated Elm Tunnel Management Plan, annual tree assessments to identify changes in health and structure and periodic risk assessments should be performed as the trees continue to change over time. These annual tree assessments are conducted in corroboration with Caltrans to ensure the Elm Tree Management Plan is followed.

The following documents are included as attachments to this staff report: the updated Elm Tree Management Plan (attachment 1), the updated Tree Risk Assessment report for the 30 mature Elm trees (attachment 2), the initial Tree Risk Assessment Report (attachment 3), and the 2011 Elm Tree Tunnel Management Plan (attachment 4).

FISCAL IMPACT

Not applicable

RECOMMENDED ACTION

Review and provide direction to staff

ATTACHMENTS

Attachment 1: Final Elm Tunnel Management Plan
Attachment 2: Updated Tree Risk Assessment Report
Attachment 3: Initial Tree Risk Assessment Report
Attachment 4: 2011 Elm Tunnel Management Plan
Attachment 5_ Elm Tree Tunnel PowerPoint Presentation

Elm Tunnel Management Plan

Beringer Elm Tunnel
Saint Helena, CA

PREPARED FOR:
City of St. Helena
Public Works Department
1480 Main St.
St. Helena CA 94575

PREPARED BY:
HortScience | Bartlett Consulting
325 Ray St.
Pleasanton, CA 94566

January 20201

Elm Tunnel Management Plan
Beringer Elm Tunnel
Saint Helena, CA

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Exhibits

Appendix A: *Specifications for Pruning Young Trees*

Appendix B: *Updated Summary of Risk Ratings*

Appendix C: *Maintenance Schedule*

Tree Risk Rating Map

Tree Removal Group Priority Map

Note 1: *Selecting a Quality Tree*

Note 2: *Planting a Quality Tree*

Note 3: *Pruning Young Trees*

Note 4: *Irrigating Young Trees*

Note 5: *Monitoring Tree Health and Structure*

Elm Tunnel Management Plan
Beringer Elm Tunnel
Saint Helena, CA

Introduction and Overview

The City of St. Helena manages a stand of mature elm trees. HortScience | Bartlett Consulting, Divisions of The F. A. Bartlett Tree Expert Company (H|BC) prepared a **Tree Risk Assessment Report** for the trees in November 2019. As a result of our 2019 work, 30 trees were identified for advanced assessments. Advanced assessments to estimate the extent of internal decay were performed in the summer of 2020 and an **Updated Tree Risk Assessment Report** was prepared in October 2020.

HBC also recommended the City develop a comprehensive plan to manage the trees from 'cradle to grave', which the City requested H|BC prepare. This report is the culmination of our work to date and provides the following information:

- A 15-year Elm Tunnel Management Plan that identifies goals, actions and priorities for the following based on City of St. Helena and stakeholder input, industry standards and best management practices:
    a. near-term and long-term tree management goals;
    b. plant procurement, contract growing, nursery specifications;
    c. plant inspections and standards for accepting plant material;
    d. planting methods and standards;
    e. staking methods and standards;
    f. irrigation methods/volumes/timing;
    g. pruning methods/timing and standards;
    h. disease management methods/timing and standards;
    i. shoot/sucker management;
    j. tree monitoring (health and risk assessment), management and thresholds for action;
    k. wood reuse.

I have organized this report in the approximate chronological order of operations for a new Elm Tunnel planting from 'cradle to grave'. The report is organized into sections based on maintenance activities and provides a brief description of the following for each activity:

- Definition of the 'Management challenge' being addressed and any unique constraints for the Elm Tunnel,
- Identification of management options to address the 'Management challenge' and recommend preferred option, where applicable,
- Identification of the timing of management treatments, where applicable,
- Identification of the relevant industry standards and best management practices (BMP's), where they exist.

In addition, I have provided one-sheet reference pages for use in the maintenance shop or field for reference and guidance without having to go to this report (see Exhibits). The thought was that these could be laminated and kept handy for quick reference.

Background

In 1885 Beringer Brothers planted an alee of American elms (*Ulmus Americana*) in front of their winery, located just north of downtown St. Helena. The two rows of elms now create a tunnel of canopy over Highway 29, known as the St. Helena Historic Elm Tunnel (the Elm Tunnel). The Beringer Winery and local community want to perpetuate the Elm Tunnel experience for the community and visitors. The trees are recognized components of the Beringer Winery Historic District, and contribute to the National Historic Landmark designation of the site.

At approximately 135 years of age, the original elms are reaching the end of their normal expected lifespan. Over the years, individual trees in the stand have died due to Dutch elm disease (DED), creating gaps in the canopy. Some trees have failed, losing branches that fell onto the highway. Young elms include three generations of replacement trees planted by the City between 2011 and 2019.

The trees are growing on California Department of Transportation (Caltrans) property and located within the City of St. Helena. Maintenance responsibilities for pruning, disease management, tree removal and planting of new trees are shared by the State and City. This unique dynamic requires a partnership between the vested parties to develop and implement a strategic plan for preserving the functional and aesthetic beauty of the trees into the future.

The City of St. Helena requested that HortScience | Bartlett Consulting, Divisions of The F. A. Bartlett Tree Expert Company (H|BC) visually inspect the trees and prepare a **Tree Risk Assessment Report** that described the risk associated with each tree and recommends risk abatement treatments. That report was completed in Nov. 2019 and included 144 trees, 88 of which were mature and 56 of which were young. Based on the results of the 2019 risk assessment, we performed advanced inspections, including aerial and/or internal decay inspections of 27 trees and revised our management recommendations as appropriate based on those results, which were provided in the Updated Risk Assessment (Oct. 8, 2020).

Perpetuating the experience and benefits of the elm tunnel into the future requires thoughtful, strategic tree management that includes removal of old, dying trees and planting new ones to replace them. To help guide management decisions, the City of St. Helena asked H|BC to prepare an Elm Tree Management Plan (ETMP). The purpose of the ETMP is to identify the goals, actions and priorities for tree management from 'cradle to grave' for the next 15 years. This document is a result of that effort.

A Vision for the Elm Tunnel

Through conversations with City staff, review of relevant documents, and comprehensive evaluation of the tree resource, H|BC developed a vision statement and near term and long term goals to meet that vision.

Vision Statement
The historic aesthetic, functional and experiential features of the elm tunnel that contribute to the Historic Landmark designation of the Beringer winery are sustained into the future for the benefit of the St. Helena community and visitors.

Goals and Objectives
The Elm Tunnel will be sustained into the future through adaptive management to foster tree health and structural stability, and by selective removal and replacement of declining and hazardous trees with DED resistant American elm tree varieties.

1. Sustain the integrity of the Elm Tunnel for future generations to experience.

    a. Plan for the removal and replacement of individual trees as they reach the end of their lifespan.
    b. Protect trees from injury by vehicles and avoidable wounding by maintenance activities.

2. Manage the trees to minimize risk of damage to people and property while preserving historic trees within the limits of their lifespan.

    a. Identify, remove and replace highest-risk trees.

b. Visually Inspect trees annually and following storms to identify structural weaknesses and provide appropriate abatement treatments.

3. Foster tree health and structural stability to prolong life of individual trees to the extent possible.

    a. Identify reliable source(s) of DED-resistant replacement elms.
    b. Purchase high quality, pest free trees.
    c. Prepare planting sites and install new trees according to best management practices and industry standards.
    d. Provide good quality irrigation water according to tree needs.
    e. Prune young trees annually for first 5 to 10 years to develop strong structure that minimizes branch failure and need for large pruning cuts on mature trees.
    f. Monitor trees for signs and symptoms of DED and other pests.
    g. Provide adaptive management that responds to changes in pest pressure, environment, weather extremes, and tree age.

4. Engage with the community.

    a. Engage with the St. Helena's Elm Tunnel Army, the St. Helena Beautification Foundation and St. Helena's Historic Elm Tunnel Facebook page.
    b. Consider opportunities for the community to be involved in caring for the Elm Tunnel, such as elm tree planting events.
    c. Consider creating a page on the City's website about the Elm Tunnel plan and activities.
    d. Consider providing open access to historic and current information about individual trees in the Elm Tunnel (similar to New York City).
    e. Consider creating birth certificates for new trees and maintaining growth charts.
    f. Consider allowing the public to send love letters to trees (similar to Melbourne).
    g. Consider ways to utilize wood from removed trees in community projects, art installations and educational installations.

Plant Procurement

Management challenge
The City has struggled to procure Dutch Elm Disease (DED) resistant cultivars of American elm to use as replacements within the Elm Tunnel.

Management options
Several options exist for obtaining DED resistant cultivars, including:

- Purchasing the trees from wholesale nurseries. As the City has already discovered, the wholesale nursery market is not always reliable. Due to several factors, DED resistant cultivars are not always available and if they are, plant quality may be not be high and the desired cultivar(s) may not be available.

- Establishing a nursery on City property. This would require locating the space and hiring additional staff knowledgeable in tree nursery practices. Knowledge of the industry standards for proper care and maintenance of young trees would be required to provide the City with the number, size and quality of plant material desired.

- Contract growing the trees. Contract growing involves establishing a relationship with a grower and getting a contract in place with sufficient lead time for the grower to procure, plant and grow the trees to the desired size.

I recommend the City consider having the DED resistant trees contract grown. This is an attractive option that would provide the City with a reliable source of high-quality plant material and greater control over the process. This would also allow the City to specify the size and cultivar, limiting the potential for a mix of cultivars, forms/growth rates/fall colors.

In researching the possibility of contract growing the trees, I contacted Dr. Larry Costello. Dr. Costello previously worked with the City on the Beringer elms and is now operating the Oracle Oak Nursery in Hopland California.

Timing
Based on discussions with Dr. Costello, he indicated he does grow DED-resistant elms, which he purchased as bareroot stock from Oregon. Depending on the cultivar and size at planting, it will take 1-2 years for the new trees to be ready for sale.

Dr. Costello said he would need the following information to provide a quote:

- Species and cultivar
- Stock size (15 gallon or 24" box)
- Delivery date and location

Cultivars
Currently, the City has planted the "Accolade' and 'Frontier' varieties of American elm. I recommend the City identify a preferred cultivar based on the plant characteristics and performance. While ongoing testing of new varieties will help identify potential preferred candidates, it can also create inconsistencies in plant appearance and performance in the Elm Tunnel over time.

Industry Standards for Contract Growing
The following are the current industry standards related to the nursery trade. The ANSI standards will help the City in the development of contract language and specifications. The additional industry resources provide more information on what to expect and look for when inspecting plant material from a contract grower/nursery.

ANSI Z60.1 American Standard for Nursery Stock

- This ANSI Standard establishes a common terminology for the nursery trade to facilitate communications and contractual relations between buyers and sellers. The Standard is intended for use by professional horticulturists and landscape architects with an understanding of common horticultural terms, plant nomenclature, and plant attributes.

- This ANSI standard does not deal with plant quality and what to look for in terms of specifying and accepting plant material based on plant form, structure and root architecture. For information on writing specifications for nursery grown trees and what to look for when accepting nursery grown trees, I recommend resources that can be found on the Urban Tree Foundation and Mann Made Resources websites (see following links).

Urban Tree Foundation
Mann Made Resources

Plant Inspections and Acceptance

Management challenge
No matter where the City choses to purchases the replacement elms, tree quality is of paramount importance to future tree performance, form and structure. Therefore, the trees must be inspected prior to accepting them to ensure they meet industry standards (see **Note 1**. *Selecting a Quality Tree*).

Management Recommendations
Ideally, the City sends an employee or a representative, such as a Consulting Arborist, to inspect and select the best trees from the available stock at the nursery. This avoids the potential for plant material being rejected at the time of delivery and project delays.

Barring inspecting and selecting the plants at the nursery, they should be inspected prior to acceptance (which sometimes means before they come off the truck).

When inspecting the trees, I recommend focusing first on the health and structure of the crowns (see Figure 1 and Urban Tree Foundation tree quality cue card), looking for:

- Overall form - does the tree have good form for the species?
- Health and vigor – are twigs and branches alive and not broken/damaged? Are leaves desiccated or dead or is there evidence of insect or disease damage?
- Central leader – is there a central leader or was the tree headed back (topped) in the nursery? Avoid trees with multiple stems emerging at the same point.
- Branch spacing – is there good vertical spacing between branches? Avoid trees with tightly clustered branches.

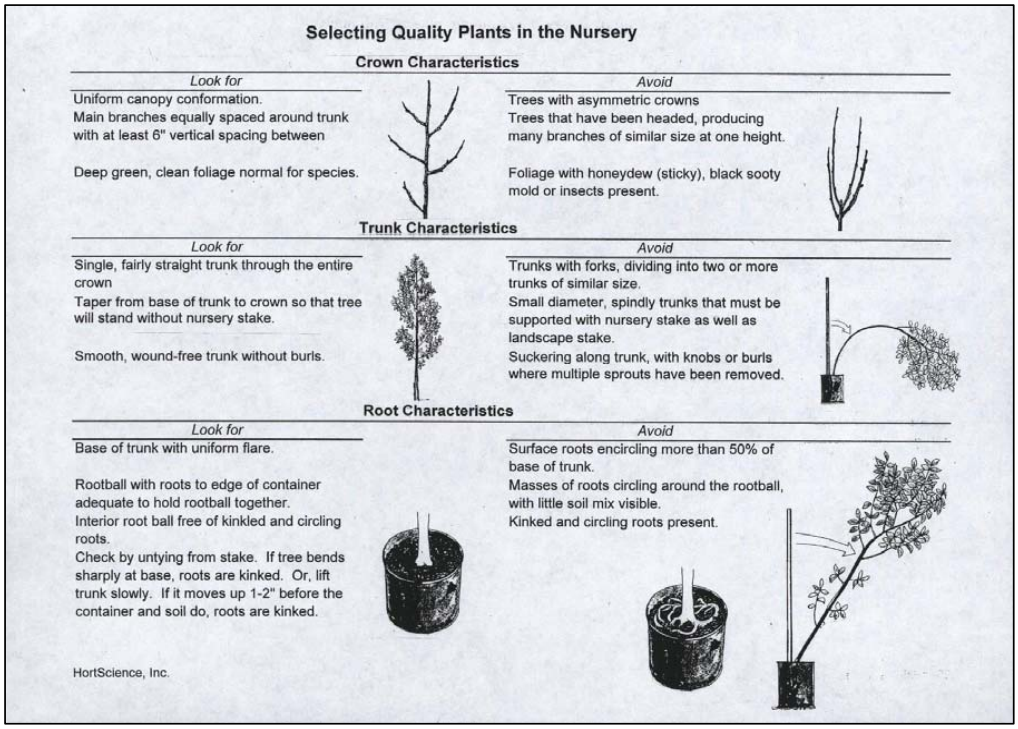


Figure 1: provides examples of what to look for and what to avoid when selecting new trees.

Next, inspect the roots by turning the tree on its side and removing the pot. I recommend looking for:

- Excessive circling/girdling roots – this occurs when roots hit the edge of the container and then turn sideways and grow along the perimeter of the container. All container-grown trees will likely have some circling roots. What we want to avoid is trees with a thick matt of tightly wound, woody roots. Avoid trees with circling woody roots larger than a pencil, indicating the tree has been in the pot for too long (Photos 1 and 2). Circling roots must be cut at the time of planting to avoid future growth problems; if many roots must be cut, tree health is endangered.
- Kinked roots – these occur when trees are potted up from a smaller size container and then circling roots are not cut. They are often difficult to find because they are within the rootball, not at the edge. Remove the soil near the trunk to check for kinked roots.
- Root health –scratch away the outer epidermis of several roots; the interior should be light in color. Dead roots are soft and brown. The outer portion of a dead root will easily pull away, leaving the thread-like cortex.
- Drainage – is the soil waterlogged or does it have an anaerobic smell? Soil should be light and moist and drain easily.

Photo 1 (R): Shows a tree with fewer but larger and woody roots approaching the diameter of a pencil. Larger woody roots will need to be cut prior to planting.

Photo 2 (L): Shows a tree with a dense matt of fine roots to the edge of the container. The matt should be broken-up but no woody roots need to be cut.

Timing

Ideally, plant inspection is performed at the nursery prior to delivery. This allows for selection and acceptance of only the highest quality trees that meet or exceed industry standards.

In a minimum, new trees are inspected prior to delivery, which sometimes means they have to be inspected on the truck.

Industry Standards
The following link provides the industry standard for planting specifications. These were written by Ed Gilman and Brian Kempf (Urban Tree Foundation) and published by the International Society of Arboriculture (ISA). While they primarily focus on planting, they include a section on plant quality (see page 11).

ISA tree planting specifications

They are also available on the Urban Tree Foundation website:

Urban Tree Foundation planting specifications

Planting

Management challenge
Proper site and plant preparation will promote tree establishment, long-term success and reduced maintenance costs. Planting requires the knowledge and equipment to prepare the planting hole and root ball so the tree is positioned at the proper depth. Planting is the first step in providing the tree and root system with what it needs for a long, healthy and stable life (see **Note 2**. *Planting a Quality Tree*). The City currently plants 15 gallon trees, or bare root when available.

Management options
Where possible, loosening and breaking-up of a minimum of 5x5 feet of soil surrounding the planting hole will promote root growth beyond the limits of the actual planting hole. For the Elm Tunnel, this may not be possible due to the presence of roots from adjacent mature trees. Where mature trees are adjacent to the new tree, minimize damage to roots 2" and larger in diameter when preparing the soil.

If a group of mature trees are removed to create space for new trees, removal of as much of the root systems as possible will reduce root sucker development in the planting area and promote faster tree establishment. This can be accomplished by carefully excavating a trench at either end of the planting area and pruning roots 2" and larger in diameter from the adjacent mature trees. Advice and guidance on root pruning of mature trees can be provided as needed.

The planting hole should be excavated to a minimum of 2 to 3 times the width and twice the depth of the container size to be planted. Native or amended soil will need to be added back to the bottom of the hole and lightly compacted, such that the top of the root ball sits flush with finish grade (Figure 2, following page). Use excess soil to construct a 4-6" soil berm just outside the root ball to help retain water. The soil berm will need to be expanded as the tree grows.

The first step in determining the height of the root ball, is to remove any soil that accumulated around the tree trunk as it was grown in the nursery. Remove soil around the trunk by hand to expose the trunk/root flare (the transition zone between trunk and roots where the base of the trunk widens and begins to form roots - Photo 3). Once the height of the root flair has been properly identified, build the soil pedestal to a height that will place the trunk flare at or no more than 1" above the surrounding natural grade to allow for settling of the root ball. Avoid planting the tree too deep.

Photo 3: Shows the removal of soil from around the base of the tree to expose the root flare (courtesy of C. Pfeiffer).

Current research suggests not adding any compost and planting in 100% native soil. I recommend amending native soil with no more than 10% (by volume) high organic matter compost, adding the soil mix in layers and compacting lightly with the foot or shovel. Do not place soil over the top of the root ball. Create a 4" to 6"- tall earthen berm at the outer edge of each root ball to hold irrigation water.

Apply a minimum of 5 gallons of water within the soil berm around each tree following planting. Water will likely need to be in two 2.5-gallon applications to avoid overflowing the berms. Continue to tamp soil with the foot or a shovel between water applications. If the soil settles, add additional soil/amendment mix to bring the soil level to the bottom of the trunk flare.

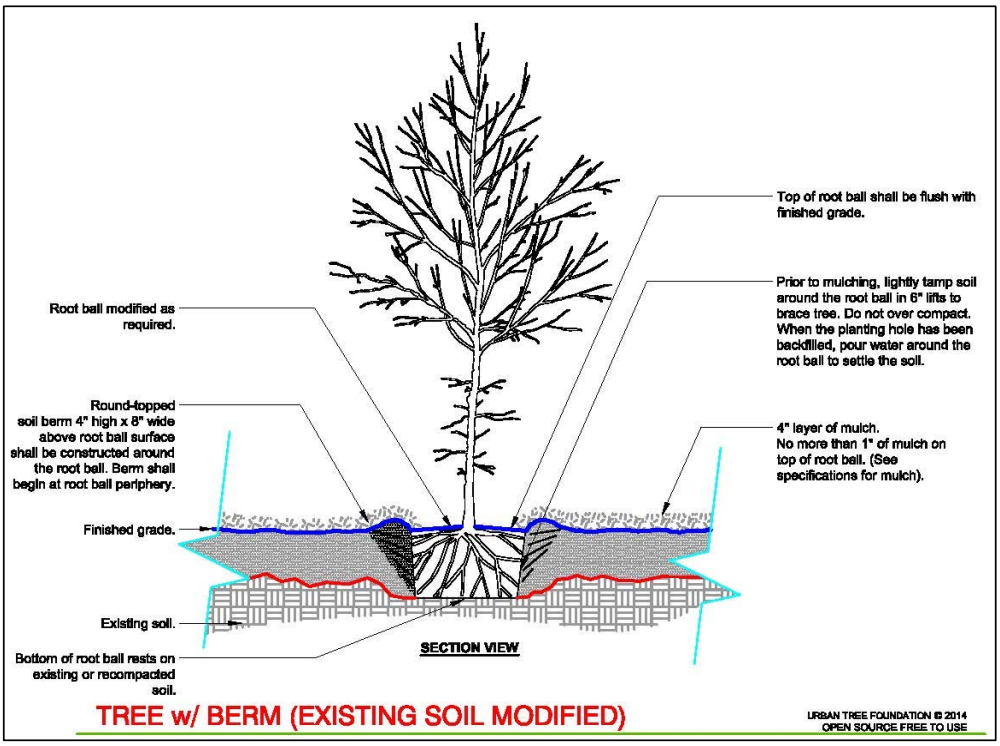


Figure 2: provides details and specifications for planting new trees (Courtesy of Urban Tree Foundation).

Stake young trees with 2 or 3 lodge poles (or similar) as described in detail in the following section on staking. The goal of stakes is to provide **temporary** support to newly planted trees while they are establishing roots into the surrounding soil.

Several of the young trees we assessed in the field had been planted with the wire baskets in which they were grown. I strongly recommend the City avoid the use of wire baskets or in the minimum, remove the top 1/4 to 1/3 of the wire or burlap.

Apply 3-4" of course wood chip mulch within the planting area around each tree, maintaining it a minimum of 2' to 3' from the base of mature trees (just outside the soil berm) and 1' from the base of newly planted trees. The mulch will help regulate soil temperatures, retain moisture, and reduce competition from weeds.

Timing
I generally recommend late winter/early spring (ideally no later than April 1 to avoid elm leaf beetle activity) for planting trees. The goal is to have the tree in the ground well before bud break, but when the soil has warmed sufficiently to allow for growth. This varies from year to year but is generally before March/April for American elm in the Napa region. If for some reason trees needed to be installed in the late fall/early winter, they can be expected to survive, as long as either supplemental irrigation is being applied or winter rains have begun.

Industry Standards
ANSI A300 Transplanting and Planting – Part 6:

- The ANSI standards represent the industry criteria for performing tree care operations. The standards can be used for general familiarity with professional requirements, as well as for preparation of tree care contract specifications.

Best Management Practices – Tree Planting, 2nd Ed.

- This BMP focuses on the active process of tree planting, including site and species selection, planting practices, post-planting pruning, and early tree care. It also serves as a companion publication for the ANSI transplanting/planting standard. Topics in this BMP include:
  - Time of Planting
  - Nursery Stock: Types, Selection, and Handling
  - Preparing the Planting Hole
  - Planting Practices
  - Root Loss and New Root Growth
  - Redevelopment of Root Structure
  - Pruning
  - Palms
  - After Planting
  - Final Inspection

ISA tree planting specifications:

- These specifications rely on and reference the above documents as well as providing additional and more detailed information on tree planting.

ISA tree planting specifications

They are also available on the Urban Tree Foundation website, which also provides brief summary in the form of a cue card

Urban Tree Foundation planting specifications

Urban Tree Foundation tree quality cue card

Plant Spacing and Location

Management challenge
American elms in the Elm Tunnel were originally planted at 18' on center and are now within 4.5' to 9.5' from the edge of Highway 29. Because of the large mature size of American elms, I typically recommend 25 to 30 foot spacing. The close spacing of the Elm Tunnel trees has resulted in most having an asymmetric form, with the majority of branches extending to the east and west where space is available. The close proximity of the trees to the edge of the road increases the likelihood of them being struck by a vehicle, causing damage to the lower trunks and increasing the likelihood of decay becoming established.

Management options
Spacing of the elm trees may be dictated by historic preservation requirements and deviations from the 18' on center spacing may not be allowed.

From an arboricultural standpoint, increasing the spacing between the trees is one way to achieve a more balanced tree form, with fewer branches concentrated over Highway 29. This would also have the added benefit of there being fewer and better structured trees requiring less maintenance while still successfully preserving the tunnel effect over Highway 29.

Planting trees at closer spacing and thinning the stand (removing trees) to achieve the desired spacing is another option. This is a common practice in forestry and in landscapes where an immediate visual affect (such as screening) is desired.

If possible, I recommend the City explore increasing the spacing between trees to 25' on center. This avoids the costs associated with overplanting and removing trees and will create the greatest opportunity for trees with good form, structure, reduced maintenance and longevity.

The City should also consider planting new trees as far from the edge of the road as is possible, given the constraints of the existing infrastructure.

Timing
If trees are over-planted, removing trees is generally recommended when branches of adjacent trees begin to overlap and before the trees begin to affect each other's form and structure.

Industry Standards
No industry standards exist related to proper tree spacing and location, as much depends on the goals and management techniques.

Staking

Management challenge
Staking newly planted trees helps support them as they establish and develop anchoring roots and trunk taper. However, improper staking, tethering of the tree to a stake and failure to remove stakes in a timely manner can have long-lasting impacts on tree health, structure and stability (see **Note 2**. *Planting a Quality Tree*).

Management options
The two most common staking designs are the two-stake and three-stake options. For the two-stake option, 8' tall, 2" lodge poles are placed on either side of the tree, generally in-line with the direction of the prevailing wind (Figure 3, following page).

Stakes are placed outside the root ball of the tree and driven into the ground sufficiently to be well anchored. This is typically a minimum of 2' below ground, leaving 6' above. Tie the tree loosely to the stake using a non-abrasive rubber tie. It is the force of the wind acting on the trunk that promotes trunk strength and taper development. Leaving the stakes in place for too long can hinder this development.

I recommend the following:

- Remove the nursery stake, if present, at the time of planting.
- Use the two-stake method, both for cost savings and because the trees will likely not experience the kind of sustained winds that would warrant the three-stake approach.
- Check the stability of the tree after 1 growing season by rocking it back and forth gently prior to removing the stakes. The tree should have established sufficient anchoring roots by that time to stand-up on its own.
- If the tree is stable (roots are anchored and it stands up without the stakes), remove stakes and ties after first growing season. Stakes and rubber ties left in place too long can damage tree parts.

- Consider removing and replacing trees that fail to anchor after 2 growing seasons. This is usually the result of root defects present at the time of planting.

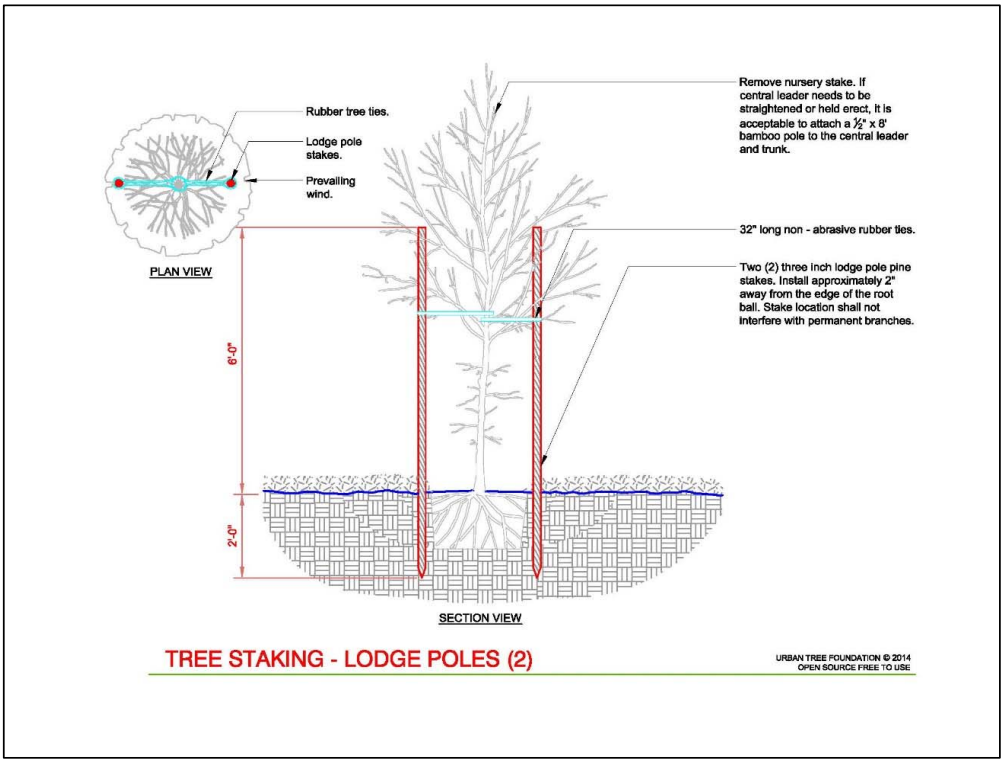


Figure 3: Shows the two-stake method for staking of newly planted trees (Courtesy of Urban Tree Foundation).

Timing
Check stakes for rubbing/contact with trunks and branches and for embedded ties at least bi-annually. If rubbing is observed, lower stakes (by removing upper portions causing damage) and adjust ties as needed.

Removal of stakes and ties should occur after 1 to 2 growing seasons.

Industry Standards
ANSI A300 Transplanting and Planting – Part 6:

- Staking is covered in Annex E of the ANSI standard, which represent the industry criteria for performing tree care operations.

ANSI A300 Support Systems Standards – Part 3:

- This standard covers cabling, bracing, guying, propping and installation of support systems for newly planted and mature trees.

Best Management Practices **-** Tree Support Systems

- The BMP describes proper installation and maintenance of cables, braces, guys, and props that can effectively limit the movement of branches, leaders, or entire trees. It is the companion document to the ANSI A300 part 3 document.

Irrigation

Management challenge
New plantings will require supplemental irrigation during the first 2-3 years of establishment for the dry months of the year (typically May-October). The questions are: how much water to apply, when to apply it and how best to apply it (see **Note 3**. *Irrigating Young Trees*).

Management options
Many options exist for getting water to the trees when they need it. In this case, there is no water supply on the east side of the road, so water will have to be brought to the site. Water truck, watering bags or drip irrigation (west side only) could be used to provide the new trees with water (Photos 4 and 5). Drip irrigation systems can be inexpensive and relatively simple to construct and install (see **Note 3**. *Irrigating Young Trees*).

In general, both the water truck and filling of watering bags requires City employee time at the site but provides each tree with a more uniform application of water. Drip irrigation does not require City employee time to apply the water but needs regular maintenance and tends to provide a less uniform water application.

Currently, the City has been watering the trees with a combination of water truck on the east side and quick coupler hose on the west side at a rate of 10 gallons per tree, per week. I consider this volume adequate for the all but the hottest months of the year (typically July-September) or during periods of extended drought.

Photo 4 (L) and **Photo 5** (R): Show examples of watering bags, including doughnut-shaped bag and upright bag, respectively. These, and similar products, provide young trees with a slow release of water, helping the trees survive hot summers and the City minimize time spent on irrigating trees.

I do not recommend use of upright bags as recent research has shown the product can trap moisture against the trunk of the tree, which may contribute to insect and disease problems.

American elm is native to the Eastern U.S. where average annual rainfall is 30 to 50 in. per year, most of which falls April – September. If it is to be successful in St. Helena, regular irrigation throughout the summer is required.

Our recommended irrigation approach is to use the water truck and watering bag (or similar) to providing irrigation to new plantings as follows (and described in **Note 3:** *Irrigating Young Trees*):

- In the first year after planting, irrigate at a volume of 5 gallons per application, ideally applied twice a week during the summer months (10 gallons/week total). If the City will not visit the tree twice a week, fill the watering bag to 1/3 capacity and replenish every week. Irrigation rates can be tapered in the spring and fall by 25 to 50% depending on temperature, day length, and rainfall.
- In the second year after planting, irrigations volumes should be increased to 10 gallons per application, but frequency should be decreased to once a week (again for the summer months). This can be achieved by filling the watering bag to 2/3 capacity every week.
- In the third year after planting, irrigate at a volume of 15 gallons every 10 days to 2 weeks (again, during the summer months). This can be achieved by filling the watering bag to capacity every two weeks.
- After 3 years, they should be fairly well established and irrigation can be on an "as needed" basis. For example, if we experience a drought after 3 years, continue with the third year regime.

For both the water truck and watering bags (which typically hold 15 gallons), the applicator will need to calibrate the filling to achieve 8 to 10-gallons. This can be done either by time (i.e. at full volume, the water truck requires 1 minute to produce 10 gallons) or by feel/appearance (i.e. when the watering bag is 50% full, it feels/looks like…). This does not need to be an exact measurement, as some additional water applied to the tree will not harm it.

The above assumes a sufficient soil quality such that roots can get established. If this does not happen, irrigation will be needed over a longer period of time. This is another reason to do as much soil cultivation as possible before planting and to use basins and mulch around each tree to concentrate and retain the water.

During periods of extreme heat, where average daily temperatures exceed 90°, increase the irrigation volume to 60 gallons per month or 15 gallons/week, per tree. This can be achieved by filling the water doughnut to full capacity every week.

For larger trees, where the roots have grown beyond the small area covered by the watering bag, consider using more than one bag on each tree. They should not be placed immediately around the trunk (as designed) but can be spread-out in the 5' immediately surrounding the base of the tree to provide better coverage for the larger root system.

I expect the application rate to drop to 10 gallons per tree every other week during the cooler months of May and November and cease during the typically cool, wet months of December through April.

Timing
There are several approaches for when to begin applying supplemental irrigation. For simplicity, I recommend the City begin watering the trees every year on April 15th and stop on September 31st. Although simple, this approach ignores annual fluctuations in rainfall.

During periods of drought, I recommend the City begin watering the trees when weekly rainfall total is below 0.5" and stop when winter rains begin in earnest (more than 1" of rainfall per month) or when tree goes dormant, whichever is first.

Industry Standards
No industry standards exist related to irrigation frequency, timing and volumes.

Mulching

Management challenge
Applying and maintaining a thick layer of course wood chips aids soil moisture retention and reduced competition from weeds and contributes to optimal and efficient care for the Elm Tunnel. Mulch acts as an insulator for the soil, reducing evaporation and helping to maintain a constant soil temperature. Retaining soil moisture and protecting roots from the drying effects of high summer temperatures are important aspects to creating the best environment for the growth and development of tree roots. In addition, a thick layer of wood chips can help reduce the growth and development of weeds by blocking sunlight and reducing the competition for the available soil moisture.

Finally, organic mulches often include leaves, twigs and humus, which beak-down over time. The break-down of these products releases small amounts of nutrients and can improve soil structure and biological activity over time.

Management options
Wood chips come in many forms, from 'gorilla hair' mulch to the course wood chips produced during normal tree care operations. However, not all are equally good at providing the desired benefits.

In general, I recommend using wood chips derived from woody plant debris (Photos 6 and 7). Ideally, this would come from tree care operations performed by the City as a way to reduce costs and reuse an existing resource. I do not recommend the use of most of the commercially available wood chips, as they often contain colors/dyes and may have been treated with chemicals, slowing or preventing their break-down over time.

Photo 6 (L) and **Photo 7** (R): Show examples of course wood chips and shredded wood chips, respectively. We recommend the use of course wood chips and discourage the use of shredded mulch (also known as Gorilla hair mulch).

There is no research investigating the potential for DED transmission from wood chips. However, we are advised that the risk is low since the two known infection pathways for DED are beetle vectors, and root grafts. Both of these pathways depend on fungal spores that are extremely small and unlikely to survive in wood chips or soil long enough to infect roots.

It is possible, if the chips are extremely coarse and big chunks still have bark attached, that beetles carrying spores could emerge, but this is unlikely. Even logs from infected trees with bark stripped off of them are considered 'safe' around healthy elms.

If the City wants to use wood chips form the maintenance activities on the Elm Tunnel, I recommend the wood chips be partially composted in a pile for a period of a month or more to generate enough heat to kill any spores or larvae if they actually survived the chipper.

Additional recommendations for applying and maintaining wood chips around the Elm Tunnel include:

- Replenish wood chips annually to maintain a 3-4" depth.
- Keep wood chips a minimum of 1-2' from the base of the trees to prevent the development root and crown diseases.
- Check irrigation systems and soil beneath the wood chips to confirm that irrigation system is functional, and water is reaching the root zone of the tree.

Timing
Mulch should be applied at the time of planting to at least cover a 5 ft. area around the tree.

Mulch replenishment to maintain 3-4" depth should occur in the late winter or early spring, prior to the germination of weed seeds and the beginning of irrigation.

Industry Standards
No industry standards exist related to Mulching.

Pruning Young Trees

Management challenge
Pruning, proper and improper, will have a lasting impact on tree health and structure. Proper pruning, of young trees in particular, can greatly reduce the need for future pruning, in turn reducing maintenance intensity and costs as the trees age, and reducing risk from tree failures due to structural defects.

Management options
Pruning of young trees requires some knowledge of tree biology and development. The City can either hire an outside contractor to prune the trees or train City employees to perform young tree pruning.

However, due to the delicate nature of pruning young trees and the potential consequences for improperly pruning them, I recommend the City train, or have employees trained, in the art of pruning of young trees. This will both reduce the costs and help City employees and volunteers (under supervision of trained City staff) responsible for the pruning connect with and take responsibility for the growth and development of the young elm trees.

Young trees should be trained to develop a sturdy, tapered trunk with well-spaced lateral branches proportional in size. The training process is accomplished by pruning the tree at the time of planting and then annually over a 5-10 year period until the desired branch structure is established. This does not mean every tree will require pruning every year and I expect the majority of the young tree pruning to occur in the first 5 years. However, given that the lowest permanent branch over the road will be at 14' and over the trail at 8' (Photos 8 and 9, following page), these branches may not have developed in the first 5 years of growth.

The following highlights the procedures and treatments that should be repeated annually until the permanent structure of the tree has been established. The expectation is that each pruning event will require 2 to 3 cuts per tree in the first 2-3 years and 1 to 2 cuts per tree in subsequent years. More detail is provided in **Appendix A** – *Specifications for Pruning Young Trees* and **Note 4**, *Pruning Young Trees* (see Exhibits).

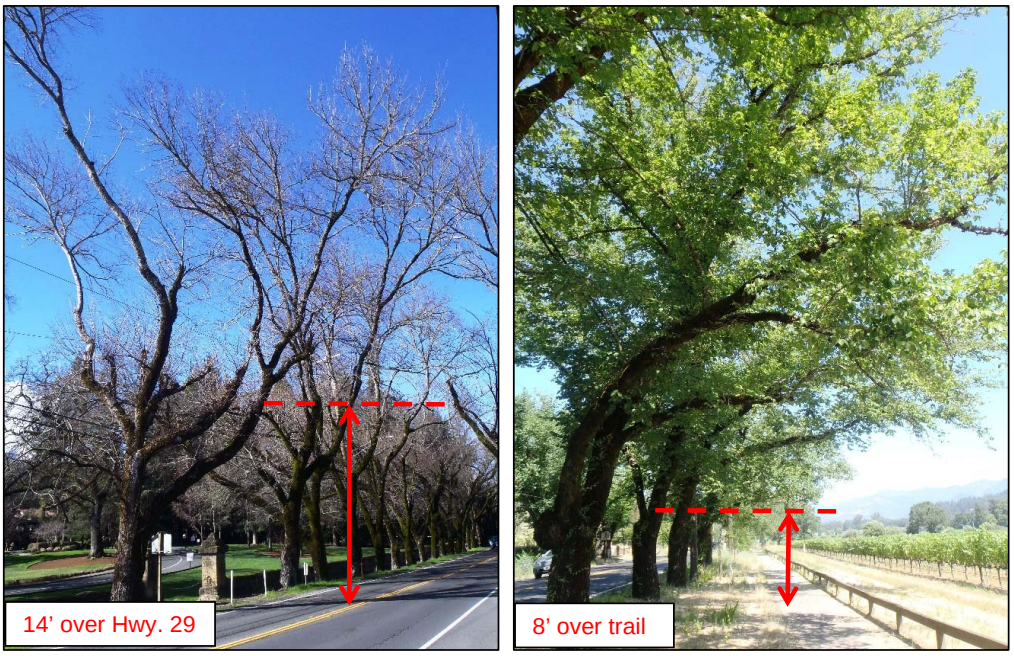


Photo 8 (L) and **Photo 9** (R): Show the approximate vertical clearance requirements over Highway 29 and the pedestrian trail, respectively. One goal of young tree pruning is to establish the lowest permanent branch, which would be at a minimum of 14' above Hwy. 29 and 8' above the pedestrian trail. These branches may not have formed in the first several years of the trees life.

At the time of planting (year 1), prune the tree to:

- Select a central leader and remove or subordinate competing leaders.
- Remove broken, diseased, dying or dead branches.

Annually for the following 2-3 years, prune the tree to:

- Select a central leader and remove or subordinate competing leaders.
- Select the lowest permanent branch.
- Select main scaffold branches above the lowest permanent branch and remove or reduce competing branches.
- Select and maintain temporary branches below the lowest permanent branch

In years 4-10, prune the tree to:

- Remove the largest, lowest temporary branches.

Sanitation of any equipment used to prune or treat trees is critical to not spreading the fungi responsible for DED. I recommend sterilization of hand saws, loppers and hand pruners with a 10% bleach solution, Lysol or other known sterilizing agent.

Future pruning of the elm trees (following the establishment period) should be directed at abating risk, primarily through reduction of branch length/end weight and removal of dead, broken or diseased tree parts. More information is provided on pruning of mature elms in the ***Pruning and Removal of Mature Elms*** section of this document (page 25).

Timing
Timing of pruning of young trees should be coordinated to avoid elm leaf beetle activity, which are known to vector the fungus responsible for DED. Pruning should generally occur during the cool winter months of December-March and prior to leaf emergence.

As described above, the first pruning of newly planted trees should occur at the time of planting. The more that can be done to correct defects in structure at this stage, the fewer and less intensive future pruning will need to be.

A well-structured tree from the nursery will typically only require one or two additional prunings to establish the form and structure that will last a lifetime.

Industry standards
ANSI Z133 Safety Standards

- This is an American National Standards Institute (ANSI) accredited standard which contains arboriculture safety requirements for pruning, repairing, maintaining, and removing trees; cutting brush; and for using equipment in such operations.
- Employers engaged in pruning, repairing, maintaining, and removing trees; cutting brush; or performing pest or soil management related to tree care who hire one or more persons to perform such work need this standard. Other stakeholders would include contractors of such services and manufacturers and suppliers of equipment used in the provision of those services.

ANSI A300 Pruning Standard – Part 1

- The ANSI pruning safety standards can be used for general familiarity with professional requirements, as well as for preparation of tree care contract specifications

Best Management Practices - Tree Pruning, 3rd Edition

- ISA has developed a series of Best Management Practices (BMPs) for the purpose of interpreting tree care standards and providing guidelines of practice for arborists, tree workers, and the people who employ their services. This BMP serves a as companion publication to ANSI A300 Part 1.

- This BMP, updated in 2019, provides reasons why pruning should be undertaken, explains pruning types, provides background on pruning cuts, reviews sample pruning specifications, and comments on the timing and necessity of these operations. Topics in this BMP include:
  - Pruning Systems
  - Pruning Objectives
  - Pruning Cuts
  - Pruning Practices
  - Poor Pruning Practices
  - Pruning Conifers, Palms, and Bamboo
  - Pruning Specifications

Disease Management

Management challenge
American elm is susceptible to Dutch elm disease (DED), a fungal pathogen that has been present in the Elm Tunnel and is partly responsible for the decline of individual trees and the integrity of the elm tunnel over time.

Dutch elm disease involves the fungi *Ophiostoma novoulmi* and *O. ulmi*, which are primarily vectored by two species of bark beetles. These beetles wound the trees as they feed on plant parts and breed under the bark, spreading fungal spores and infecting trees along the way. In addition, the disease can be spread from tree to tree through root grafts and un-sterilized equipment.

Management options
Management of DED infected trees must focus on 1) monitoring for and reducing beetle populations, and 2) monitoring for and treating trees showing signs of infection.

Many options exist for DED treatment. Some of these are proven methods, such as trunk injected systemic fungicides, but they can have negative impacts on trees such as repeated wounding. Other treatments are experimental and insufficient data exists on efficacy to be confident in recommending them at this time.

Based on communications with City staff, the current approach for managing DED in the mature Beringer elms involves the following:

- Perform a soil drench using Merit® (or similar as recommended by a qualified pesticide applicator) to the remaining mature elms to help suppress elm leaf beetle (Photos 10 and 11). Soil drench treatments have been applied in late winter/early spring, following leaf emergence.

- Perform a systemic root flare injection of Shepherd® (or similar as recommended by a qualified pesticide applicator) to the remaining mature elms to help suppress DED. Systemic treatments have been applied in late summer to help suppress DED.

Photo 10 (above) and **Photo 11** (R): Show examples of the systemic root flare injection and the soil drench process, respectively. In both cases, the top 6” of soil is pulled-back from around the base of the tree and the product is either pumped into the tree or poured into the trench and absorbed by the tree.

In general, the City is taking the appropriate actions to manage DED in the Elm Tunnel. There are always additional actions that can be taken to improve efficacy of existing treatments, and/or introduce new treatments to improve disease control. For example, use of degree day monitoring to identify beetle development and if/when treatments should be applied is the most effective approach. However, this approach requires regular monitoring of temperatures and beetle development, which may not be practical for City staff to perform.

I recommend the use of an integrated pest management (IPM) program that incorporates good cultural practices, conservation of natural enemies, regular monitoring, and the use of less-persistent insecticides, bark banding, or systemic insecticide. The City must recognize that bark beetle populations can fluctuate dramatically from year to year and all trees do not warrant treatment most years. When management is warranted, use a combination of methods, because no single action improves the health of the elm trees or kills 100% of the pests.

- Monitor diseased trees and immediately remove and destroy diseased wood to reduce inoculant in environment.
- Maintain tree health to promote resistance to damage/inoculation by vectors.
- Properly identify and control beetle vectors to reduce inoculant in environment.
- Apply preventive fungicides to healthy trees per label instructions to provide 1 to 3 years of systemic protection (depending on product used).
- Replace dead and infected trees with DED resistant American elm varieties.
- Sterilize all equipment used in the treatment of vectors and systemic fungicide applications. All tools and equipment must be sterilized between trees to prevent spread of the disease from infected trees to uninfected trees.

Other options for DED management include the use of mycoviruses called d-factors, which limit the reproductive ability of the fungi, or Verticillium based products, such as ‘Dutch-trig’, which can help induce the trees natural resistance to DED. New scientific and technological breakthroughs occur periodically. Working with a contractor educated about these breakthroughs can help the City use the latest and most effective approaches to managing DED.

Trenching between symptomatic elms and adjacent asymptomatic elms can be used to help prevent disease movement between trees through root grafts. While this method may be effective at limiting disease movement via roots, it also damages the trees by creating wounds and removing roots. In general, I do not recommend trenching between the mature elms as a means to limit disease movement as the risk associated with the damage is too great.

Timing

- Monitor trees for beetle activity should begin in early spring as leaves begin to emerge.
- Treating trees to control beetle populations should occur in early spring following leaf emergence.
- Monitor trees for evidence of an advancing infection, including flagging of small branches and death of larger branches should be performed formally at least twice a year and informally every time a City employee visits the Elm Tunnel (see section on Tree Monitoring and Record Keeping).
- DED treatments should be applied in late summer, unless treatment method/protocols change.

Industry standards

ANSI A300 Integrated Pest Management – Part 10

- The standards can be used to prepare tree care contract specifications. The A300 (Part 10) standard addresses the standards for practice and a specification writing guideline for implementing IPM programs.

Best Management Practices -- Integrated Pest Management, 2nd Ed.

- This BMP provides a succinct overview of the basic definitions, concepts, and practices that pertain to landscape Integrated Pest Management (IPM). This publication is intended to aid arborists and landscape professionals in designing, planning, and implementing an IPM program as part of a comprehensive Plant Health Care (PHC) management system. Topics in this BMP include:
  - IPM Concepts and Definitions
  - Action Thresholds
  - Monitoring Tools and Technique
  - Preventive Tactics
  - Control Tactics
  - Documentation and Record keeping

Best Management Practices - Tree Injection

- This BMP is intended to serve as a guide for arborists who use tree injection to systemically treat trees for pest problems, nutrient deficiencies, or growth regulation. Tree injection is the process of applying a treatment into the active xylem of a tree, where it is to be distributed throughout the tree.

Protection from Injury and Decay

Management challenge
A primary cause of failures among the Elm Tunnel trees is decay. Once established in the tree, decay cannot be treated and will reduce wood strength over time, predisposing the tree or tree part to failure.

Decay in the Elm Tunnel is the result of tree pruning, trunk injuries and branch/stem failures. Pruning of mature elms is done for both risk abatement and to provide clearance from the overhead utilities (west side only). While pruning is recommended and required, it must be undertaken with the knowledge that each wound is a potential entry point for decay. In addition, utility pruning performed in the heat of summer removes foliage in the upper crowns of trees, exposing the upper side of branches to sunscald. Injuries associated with sunscald are another entry point for decay.

Due to their proximity to Hwy. 29, several of the mature elm trees had decay in the lower trunks, some of which was the result of being struck by cars (Photo 12). A driver was also responsible for running over one of the young trees (#5) between our February and May 2019 site visits.

Photo 12: Shows the base of tree #8. The tree had been hit several times by vehicles, causing severe damage and resulting in decay development in the lower trunk.

Management Options
Pruning of trees is a normal and overall, beneficial treatment for trees. As discussed in the ***Pruning Young Trees*** sections of this report, the earlier in the trees life pruning can be done and the smaller the diameter of branches being pruned, the more likely the tree will heal over the wound before decay can become established.

Currently, utility pruning on the west side of Hwy. 29 is unavoidable and has lasting impacts on the trees that are pruned. Undergrounding of utilities is costly and has the potential to impact trees through root loss. However, if it could be undertaken following the removal and replacement of trees on the west side, it is unlikely to impact young trees. In addition, working with the utility to perform clearance pruning during the late fall, winter or spring would reduce the potential for sunscald and decay establishment on the upper side of branches exposed by the pruning.

Protecting trees from trunk injury with physical barriers (such as bollards or large, decorative stones) would help reduce the chances of trees being struck and eventually developing decay in the wounds.

Timing
Pruning for structure should be focused on young trees, ideally in the first 5 to 10 years following planting.

Focusing utility pruning during the cooler months of late fall, winter or spring can reduce the potential for injuries associated with sunscald.

Protection of trees should be initiated prior to or at the time of planting.

Industry Standards
No industry standards exist related to protecting trees from decay.

Sucker Management

Management challenge
American elms produce prolific suckers, or shoots, from roots. Managing these suckers so they don't form a dense hedge (Photo 13) and compete for resources with new plantings is a challenge.

Management options
Due to the potential for American elms to root graft, chemical treatment of root suckers can have detrimental effects on trees to be retained. As such, mechanical control of suckers is the preferred approach.

Currently, the City is managing suckers by mowing them in the spring/early summer. I consider this the most appropriate approach given the circumstances.

Photo 13: Shows the type of root sprouting typical of American elms. Anything that can be done to minimize root damage and sucker formation will help reduce competition for resources for new plantings.

One consideration is how to minimize damage to roots from the existing mature elms when excavating new planting areas. Since American elms respond to root damage by producing sucker growth, any effort to minimize root damage can help reduce this response. As recommended previously, excavating a trench and manually cutting roots 2" and larger at the limits of the planting area can help minimize damage to roots from excavations.

Timing
Late spring/early summer is the best time to manage root suckers. They will have not have grown too large to be successfully mowed by this time. This timing will also reduce the potential that they will need to be mowed more than once a year.

Industry Standards
No industry standards exist related to sucker management.

Tree Monitoring and Record Keeping

Management challenge
Trees are dynamic, biological entities that change over time. Monitoring trees for changes in health, structure, presence of insects and disease and to perform risk assessments is the only way to track these changes and know when to take corrective action (see **Note 5**. *Monitoring Tree Health and Structure*).

Management options
Monitoring must be performed by individuals familiar with the condition being monitored. Often, this will be most effective if the person has been involved with the trees over time. Having a form available for the individual performing the monitoring to fill out will help maintain consistency of information provided and continuity between inspectors.

Monitoring will be the primary activity the City undertakes that will inform all management actions. For instance, monitoring of tree condition will help identify trees experiencing rapid decline and if their removal priority should be revised. Periodic risk assessments will need to be performed to identify trees requiring pruning or removal to abate risk associated with tree parts failing onto the primary targets.

Monitoring of tree health and structure

- Designate an experienced staff member who is familiar with the trees, can observe subtle changes and who is responsible for regular monitoring of tree health and structure. This will reduce costs, avoid inter-rater inconsistency, and provide a more complete and reliable review of the trees over time. This person should have access and authority to reach-out to an outside contractor, such as HortScience | Bartlett Consulting, when questions or concerns arise that are outside their competency.

- Inspect trees to identify changes that warrant treatment or further investigation. The goal is to identify those trees whose health and structural condition has improved or declined since the previous inspection. These trees should be highlighted for the individual performing the risk assessment and may need to pruned or removed to address risk associated with dead or structurally compromised tree parts.

- Monitor health and structure at least twice a year. Inspecting trees in the spring following leaf emergence will allow for better identification of dead, broken and diseased tree parts (Photos 14 and 15, following page). The first inspection of the year could be performed at the same time as the monitoring of beetle activity for disease management. Inspecting the trees for health and structure in late summer/early fall will allow the inspector to see how the trees have tolerated the heat of summer and smoke of fire season, both of which may further compromise tree health, especially for marginal trees.

- Inspect the trees following severe storm events, where wind speeds reach or exceed 40 miles per hour. The goal of these inspections is to identify any dead or broken tree parts that pose an imminent threat to public safety and taking action to abate that risk.

Photo 14 (L): shows an example of flagging of branches on the lower trunk of tree #113. Flagging, or rapid dieback of branches where leaves are still attached, is indicative of DED.

Photo 15 (R): Shows dieback of branches in the crown of tree #17 with the potential to fail onto Hwy. 29 and the pedestrian trail, the two primary targets.

Tree risk assessment

- Tree risk assessment is the systematic process of evaluating the potential for a tree or one of its parts to fail and, in so doing, injure people or damage property. All trees have the potential to fail. Even a structurally sound tree can fail if exposed to unusually strong winds. Under normal climatic conditions however, most tree failures involve specific defects of structure such as the presence of decay or weak branch attachments. These defects become significant in situations with saturated soil, strong winds, snow/ice loads and other extremes of climate. The most likely failure situation involves a combination of structural defects and unusual or severe weather. By regularly and systematically examining trees for specific defects, evaluating their potential to fail, and applying appropriate treatments, safety can be enhanced.

- The standard of care for evaluating risk associated with tree failure is application of the arborist's experience and training to evaluate the structural condition of the tree, the site in which it grows, and weather conditions to which it is exposed in an objective manner. Those performing Tree Risk Assessments (TRA) must be familiar with and trained in the assessment of structural defects of trees. The current industry standard for performing TRA is the Tree Risk Assessment Qualification (TRAQ) program administered by the ISA.

- I recommend the City employ and outside contractor with TRAQ qualified personnel, such as HortScience | Bartlett Consulting, to perform periodic TRA on the Elm Tunnel. This type of assessment is typically performed every 4 to 5 years, or more frequently as needed. In the case of the mature Beringer elms, tree condition is changing rapidly and I would recommend a TRA every 2 to 3 years, or as needed based on the results of the more regular health and structure assessments.

HortScience | Bartlett Consulting performed a risk assessment on the Elm Tunnel in 2019 and advanced assessments for approximately 30 of the mature elms in 2020 to determine the extent of internal decay. Based on the results of the advanced assessment, I prepared an Updated Risk Assessment in October 2020, detailing recommended mitigation measures based on the results of the advanced assessments (**Appendix B:** *Updated Summary of Risk Ratings* and ***Tree Risk Rating Map*** – see Exhibits).

While I do not anticipate the need for ongoing advanced assessments, further investigation of individual trees, such as decay detection or aerial inspections, may be recommended based on the results of future monitoring and TRA.

Record Keeping
Observations, ratings and actions taken should be documented, as well as dates and names of assessors. This not only creates a record that demonstrates performance of duty of care, but it creates history that facilitates tree management, and provides a tool for analyzing and preparing budgets. Records also should be kept to document training activities for every person involved in tree care. Creating forms for record keeping and an identified location (i.e a binder) where blank and completed forms are kept will further facilitate record keeping and documenting of changes over time.

Thresholds for Action
If the inspector identifies a tree in imminent danger of failing, immediate action must be taken. Thresholds and actions should be defined as part of a Tree Risk Management Program (see below), and typically include informing appropriate personnel, restricting access to the target area, and implementing abatement treatments (pruning, removal, moving the target etc.) as soon as possible.

Tree Risk Management Program
A tree risk management program is a City developed policy document that provides the framework for how the City will perform TRA. This is the overarching plan that describes the 'who, what, where, when and why' of the City's TRA program.

Key components would include:

- Policy statement
- Goals of the program
- Standard of care statement
- Determination of acceptable risk
- Training and qualifications of risk assessors
- Rating system for assessing relative risk
- Risk assessment procedures
- Frequency of assessments
- Management options to mitigate risks
- Record keeping protocols
- How the program is funded
- Program assessment and reporting

The goal of a Tree Risk Management Program is to reduce the likelihood of personal injury and property damage posed by tree failures. This is accomplished by implementing a program of tree inspection and treatment that identifies the trees with the greatest potential to cause damage, and applies treatments to reduce their failure in a systematic way. It is recommended that the City develop such a program.

Timing

- **Tree health and structure assessments** should be performed a minimum of twice a year in the spring before leaf emergence and in the fall after the heat and smoke of summer.
- **Tree risk assessment** should be performed every 2 to 3 years or as needed based on the results of the more regular health and structure assessments.
- **Advanced assessments** should be performed as needed based on the results of health and structure monitoring and TRA.

Industry standards

ANSI A300 Tree Risk Assessment Standard a. Tree Failure – Part 9

- This standard is the first national standard to address risk assessment of trees. It sets the standards for tree risk assessment objectives, specifications and definitions. This is the standard the City of St. Helena should use in soliciting and evaluating proposals for tree risk assessments.

Best Management Practices – Tree Risk Assessment, 2nd Ed.

- This BMP is intended to serve as a guide for arborists to assess tree risk as accurately and consistently as possible, to evaluate that risk, and to recommend measures that achieve an acceptable level of risk. This is a companion document to the ANSI A300 Part 9.

Topics in this BMP include:

- Risk Assessment Basics
- Levels and Scope of Tree Risk Assessment
- Assessing Targets, Sites, and Trees
- Tree Risk Categorization
- Tree Risk Mitigation: Preventive and Remedial Actions
- Risk Reporting
- Tree Related Conflicts That Can Be a Source of Risk
- Loads on Trees
- Structural Defects and Conditions That Affect Likelihood of Failure
- Response Growth
- Description of Select Types of Advanced Tree Risk Assessments

Pruning and Removal of Mature Elms

Management challenge

The American elms that make up the Elm Tunnel are at or nearing the end of their life expectancy. The City, along with Caltrans and the Beringer Winery, must maintain the stand of trees to meet their commitment to the community and the requirements of their historic designation, while providing for public safety. A combination of tree pruning and removal to both abate risk in the short-term and provide the greatest opportunity for the success of the replacement elms, will be required.

Management options

Pruning of mature elms in the Elm Tunnel should focus on reducing risk associated with dead and over-extended tree parts (branches and stems) that pose a risk to Highway 29, the pedestrian path and Beringer Winery property. The expectation is that these trees will be removed over the course of the next several years and resources should be focused on risk abatement and tree replacement.

Using risk ratings and then health and structure assessments to prioritize removals is the preferred approach. However, trees with high risk or poor health and structure may be adjacent to trees with low risk or fair to good health and structure. Thus, using the high-risk trees as a starting point and then identifying adjacent trees with moderate risk and/or poor health and structure will allow for removal of small groups of trees. This creates gaps in the canopy that will provide the young trees with more light and resources, helping the new trees establish more quickly and with better form and structure.

Based on the results of the tree risk assessment and advanced assessment, I prioritized tree removals for all of the remaining mature American elms. Priorities were provided for the next 5, 10 and 15 years (Table 1).

Table 1: Tree Removal Priorities
Elm Tunnel, St. Helena

Priority 1 Removals (In order of priority)	**Priority 2 Removals** (Not in order of priority)	**Priority 3 Removals** (Not in order of priority)	**Priority 3 Removals** (Continued)
2	13	1	94
126	14	37	95
143	17	38	105
3	35	39	106
16	36	40	112
60	42	41	113
101	43	45	121
8	67	46	122
61	68	50	123
--	69	52	127
--	70	54	128
--	71	62	129
--	103	63	130
--	104	64	132
--	107	65	133
--	108	66	138
--	109	80	139
--	110	81	140
--	111	82	--
--	134	84	--
--	135	85	--
--	136	92	--
--	137	93	--

In addition, I identified groups of 2 to 4 trees that could be removed at one time, addressing risk and providing the new trees with better growing conditions. In order to create the groups, I focused first on trees adjacent to Priority 1 trees, trying to take into account the risk ratings, health and structure and proximity to existing groups of young trees. I then repeated the process for the Priority 2 and Priority 3 trees. As a result, in order to create a group around trees #2 and 3 (both Priority 1), I recommend removing trees #1 and 4 as well, both of which are Priority 3 trees.

Based on the groupings, 21 Priority 1 trees were identified, 23 Priority 2 trees and 40 Priority 3 trees (Table 2, following page). Groupings and priorities are also shown on the *Tree Removal Group Priority Map* (see Exhibits).

I recommend the Priority 1 trees be removed within the next 5 years, priority 2 trees within the next 10 years and Priority 3 trees within the next 15 years. Depending on how many trees are actually removed during any one year, the City may complete the Priority 1 and 2 trees ahead of the 10-year timeframe, in which case I recommend moving onto the Priority 3 trees.

Within the Priority 1 removals, I ordered the trees based on their risk and consequences, should they fail. Priority 2 and 3 removals were not put in any specific order, as I recommend they be reassessed in the coming years and their removal order is expected to change.

Table 2: Tree Removal Groups and Priorities
Elm Tunnel, St. Helena

Priority 1 Removal Groups (In order of priority)	Priority 2 Removal Groups (Not in order of priority)	Priority 3 Removal Groups (Not in order of priority)
1-4	13,14	37,38
124-126	35,36	39-41
141-144	42,43	45,46
99-101	67-71	50, 52, 54
16,17	103,104	62-64
7,8	110,111	65,66
59-61	107-109	80-82
--	134-137	84,85
--	--	92-95
--	--	105,106
--	--	112,113
--	--	121-123
--	--	127-129
--	--	130, 132, 133
--	--	138-140

In addition to the Priority 1 removals, there were 6 trees with a High risk for stem or branch failures that could contact Highway 29, including trees #94, 113, 133, 135, 138 and 144. These trees are also considered Priority 1 for abatement treatments. Management recommendations for abating risk associated with trees not scheduled for removal are provided in Appendix B (see attachments). These management actions should be carried out for all trees not scheduled for removal based on their risk ratings, starting with high risk trees and proceeding to moderate risk and then low risk trees.

Timing
Currently, I recommend the Priority 1 trees be removed in the next 5 years, or by 2025. As regular health and structure assessments and periodic risk assessments are performed, the results of these efforts should be used to prioritize what are currently Priority 2 and 3 trees.

Pruning and removal of mature trees should be performed in late fall or winter months when beetle and DED spore activity are low, leave are off the trees and temperatures are mild.

Industry standards (repeated from the ***Pruning Young Trees*** section of this report)
ANSI Z133 Safety Standards

- This is an American National Standards Institute (ANSI) accredited standard which contains arboriculture safety requirements for pruning, repairing, maintaining, and removing trees; cutting brush; and for using equipment in such operations.
- Employers engaged in pruning, repairing, maintaining, and removing trees; cutting brush; or performing pest or soil management related to tree care who hire one or more persons to perform such work need this standard. Other stakeholders would include contractors of such services and manufacturers and suppliers of equipment used in the provision of those services.

ANSI A300 Pruning Standard – Part 1

- The ANSI pruning safety standards can be used for general familiarity with professional requirements, as well as for preparation of tree care contract specifications

Best Management Practices - Tree Pruning, 3rd Edition

- ISA has developed a series of Best Management Practices (BMPs) for the purpose of interpreting tree care standards and providing guidelines of practice for arborists, tree workers, and the people who employ their services. This BMP serves a as companion publication to ANSI A300 Part 1.

- This BMP, updated in 2019, provides reasons why pruning should be undertaken, explains pruning types, provides background on pruning cuts, reviews sample pruning specifications, and comments on the timing and necessity of these operations. Topics in this BMP include:
  - Pruning Systems
  - Pruning Objectives
  - Pruning Cuts
  - Pruning Practices
  - Poor Pruning Practices
  - Pruning Conifers, Palms, and Bamboo
  - Pruning Specifications

ANSI A300 Integrated Vegetation Management – Part 7

- For the City of St. Helena, the ANSI Integrated Vegetation Management safety standards can be used for general familiarity with professional requirements of the utility pruning performed on the Beringer elms.

Wood Reuse

Management challenge
The removal of the historic Elm Tunnel trees will produce a lot of wood. While some of this wood will inevitably end up as greenwaste, planning ahead for the reuse of all or a portion of the wood can help save time and money, promote and celebrate the region's history and expand the experience of the Elm Tunnel for residents and visitors alike.

Management options
Any action that reduces the amount of wood going to landfills or greenwaste recycling centers should be considered. As described in the mulching section, one easy and obvious approach is to chip as much of the woody debris on-site and utilize it as mulch around the trees.

However, it is unlikely that all of the woody debris can be utilized for mulching. Given the historic nature of the trees and the interest of the community in that history, there are potential opportunities to create historic souvenirs or pieces of art/art installations from the trees or tree parts that could be used to further the experience of the Beringer elm tunnel. For example, local woodworkers may be interested in developing a program for the re-use of portions of the trees.

For example, if a tree with limited internal decay is removed, a round (or 'cookie') could be preserved and cross-dated using dendrochronology to highlight important dates in local or national history. The cookie could be displayed by the City or Beringer Winery as part of the celebration of local history.

Timing
The sooner planning can start for this kind of undertaking, the more likely the right sized, shape and quality of wood sections can be harvested.

Industry standards
No industry standards exist related to wood reuse.

Summary

The ***Beringer Elm Tunnel Management Plan*** provides the City of St. Helena with information, guidelines and industry standards and BMPs to help in the management of the historic Elm Tunnel. The goal is to have provided the City with information to facilitate proper management of the trees from 'cradle to grave'. In an effort to provide maintenance staff with handy and meaningful guidelines, I have also prepared the attached a maintenance schedule (See Appendix C – *Maintenance Schedule* – See Exhibits), which breaks down maintenance activities by seasons.

As with any management plan, this represents the best and most up-to-date information available at the time of writing. Industry standards and BMPs are updated regularly. The City should strive to stay informed as new information becomes available and new varieties of DED resistant American elms are introduced.

The Elm Tunnel is at a turning point. Many of the mature trees are showing the impacts of age, disease and decay. The immediate goals must be to minimize the risk to people and property from tree failures while sustaining and enhancing the Elm Tunnel experience into the future.

Based on my experience with the Elm Tunnel, I would highlight the following as the most critical aspects of the management plan, with a specific focus on new plantings as the way to address safety and provide continuity of the Elm Tunnel experience for future generations.

- The original elms are reaching the end of their lifespan. Removal of declining and hazardous trees and replacement with young healthy trees is a necessary strategy to continue the legacy of the Elm Tunnel.
- Engage the community and stakeholders early and often to educate on the need for tree removal and replacement and to gain their buy-in.
- Consider removing small groups of mature elms over several years, focusing on high-risk trees and those in poor health as first priority.
- Establish a relationship with a quality nursery to contract grow DED American elms having high-quality root and crown structure.
- Purchase and accept only high-quality trees.
- Evaluate if the National Historic Landmark designation of the Beringer Winery and the Elm Tunnel's contribution to it would allow for increased spacing between trees. This would result in trees with better form and structure, requiring less intense management as they mature.
- Provide new plantings with optimal conditions for growth and development, from preparing the planting area, to proper root ball preparation, to planting, staking, irrigating and mulching around them.
- Train personnel (or have them trained) in the art of pruning new trees. Pruning of young trees is one of the single most important management actions and will have lasting impacts on tree health, structure and future maintenance costs.
- Protect new trees from damage associated with car strikes and utility line clearance pruning.
- Conduct an on-going program to monitor tree health and structure routinely and maintain records regarding tree condition and treatment.
- Continue to monitor for and manage DED in the Elm Tunnel. Focus efforts on those trees showing the most significant damage with the goal of prolonging their life as long as is practical, knowing all the mature elms will be removed and replaced in the near future.
- Develop a Tree Risk Management Plan that outlines City policies, goals, standards, frequencies, thresholds, record keeping and reporting for tree risk assessments.

Please feel free to contact me with any questions regarding my observations or recommendations.

Sincerely,

John Leffingwell
Board Certified Master Arborist WE #3966B
Registered Consulting Arborist #442

Exhibits

Appendix A: ***Specifications for Pruning Young Trees***

Appendix B: ***Updated Summary of Risk Ratings***

Appendix C: ***Maintenance Schedule***

Tree Risk Rating Map

Tree Removal Group Priority Map

Note 1: ***Selecting a Quality Tree***

Note 2: ***Planting a Quality Tree***

Note 3: ***Irrigating Young Trees***

Note 4: ***Pruning Young Trees***

Note 5: ***Monitoring Tree Health and Structure***

Appendix A - *Specifications for Pruning Young Trees*

Young trees should be pruned to develop a single sturdy, tapered trunk with well-spaced lateral branches with strong branch attachments. This usually requires pruning every one or two years for the first five years or so. Proper training when trees are young will greatly reduce pruning frequency, intensity and costs as they age, reduce public risk from tree failures due to structural defects, and avoid conflicts with vehicles and infrastructure.

It is important to the overall health, vigor and stability of young trees to maintain low temporary branches, full canopies, and shaded trunks. Avoid thinning the canopies except as needed to create a good branch structure.

Pruning fundamentals

1. Pruning reduces tree growth because with less foliage, the tree produces less food. For young trees, it is important to remove no more than 20% of the foliage during one pruning treatment to avoid stunting the tree's growth. Therefore, only a few well-placed cuts are recommended.

2. The dwarfing effect of pruning can be used to our advantage. Subordination is a pruning method in which 50% or more of the foliage on a specific branch is removed to reduce its growth rate relative to other parts of the tree. Subordination is used to slow the growth of branches competing with the main trunk, reduce growth of a branch whose diameter is more than half that of the trunk, and slow the growth of temporary branches below the lowest permanent scaffold branch.

3. A strong tree structure is one in which five to nine well-attached scaffold branches are adequately spaced vertically and radially along a single trunk. Only one branch should arise at one point; remove or subordinate other branches at the same height. Strong scaffold branch attachments are one-half or less the diameter of the trunk and have no included bark.

4. Good trunk taper is necessary for a stable tree. Development of trunk taper requires foliage along the trunk. At a minimum, branches should be maintained along top two-thirds of the tree height.

5. The height of the first permanent scaffold branch is determined by the use under the tree. In general, the lowest permanent branch should be at least 14' over streets; 8' over sidewalks. Where no traffic will occur beneath the tree, the lowest branch is determined by clearance needed for maintenance and function of the tree (e.g. screening). Any branches below the permanent scaffold are temporary. For young trees, the lowest permanent branch may yet to have formed. In that case, all branches are temporary, and the focus in pruning is to maintain the central leader and reduce growth on the largest branches.

6. Temporary branches are branches below the lowest permanent branch. Most of the branches on young trees are temporary until the tree grows tall enough to select the main scaffold branches. Temporary branches provide carbohydrates for tree growth and development of trunk taper, and they shade the trunk to protect it from sun damage. As trees grow taller, permanent branches are formed and trunk taper is established, the temporary branches are pruned off over a period of several years, removing the largest ones first.

Steps for pruning young trees
Because pruning slows tree growth, pruning to establish a good branch structure for young trees should be planned over several years. The following procedures and treatments should be repeated annually until the permanent structure of the tree has been established, usually in the first 5 years following planting.

1. **Remove broken, diseased, dying or dead branches.**

2. **Select a central leader and remove competing leaders.**
   - Identify the most vigorous and upright stem as the main trunk.
   - Identify the branches that are competing with this main trunk.
   - Prune to subordinate competing branches by shortening or removing them (Figure 1, following page).

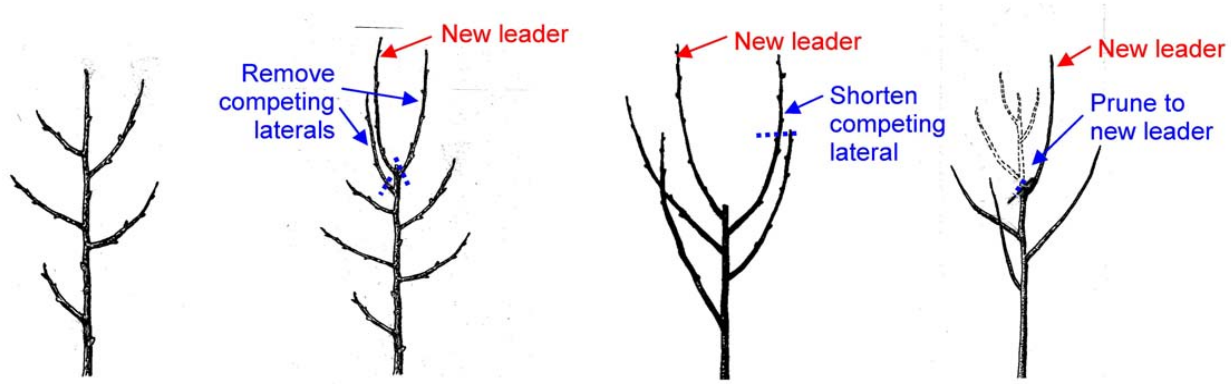
3. **Select the lowest permanent branch.**
   - The lowest permanent branch should be minimum of 14' over streets; 8' over sidewalks. For young trees, the lowest permanent branch may yet to have formed.
   - Select a branch that will not interfere with street lights, signs, or other features.

4. **Select main scaffold branches above the lowest permanent branch and remove or reduce competing branches.**
   Permanent scaffold branches should be:
   - Spaced vertically along trunk, with at least 18" between them for medium to large-growing species such as sycamore and oak; 12" for small species such as plum and crape myrtle.
   - Spaced radially around the trunk.
   - Branch diameter should be less than half the diameter of the trunk, and have no included bark. If a well-placed branch is larger than half the diameter of the trunk, prune to subordinate it to slow its growth relative to the trunk.

5. **Select and maintain temporary branches below the lowest permanent branch.**
   - Leave small, slow growing branches as temporary branches.
   - Remove or prune to subordinate large branches below the lowest permanent branch.
   - In subsequent years, prune to remove a few of the largest, lowest temporary branches.

General pruning guidelines
1. Trees shall not be routinely thinned.
2. Interior branches shall not be removed except as needed to train structure and direct growth.
3. Branch ends shall not be tipped or headed back to create a smooth shape.
4. Pruning cuts shall be made outside the branch collar and not leave stubs. Flush cuts are not permitted.
5. No more than 20% of live foliage shall be removed within the tree.
6. Appropriate tools and techniques shall be used to ensure that bark is not damaged during pruning operations. This may require shortening limbs prior to removal. Hand shear and saws shall be employed to prune young trees. Chainsaws are not permitted.
7. All pruning shall be in accordance with the Best Management Practices for Pruning (International Society of Arboriculture, 2002) and adhere to the most recent editions of the American National Standard for Tree Care Operations (Z133.1) and Pruning (A300).

Round-headed Trees



Original leader present; no pruning necessary.

Original leader replaced; remove competing laterals.

Original leader replaced; few lower branches; shorten competing lateral to reduce growth.

Original leader outgrown by vigorous lateral; prune to select lateral as new leader.

Conical Trees

Single trunk present; no pruning necessary.

More than one leader; remove all but most vigorous, upright stem.

Two or more trunks present; remove all but most upright stem.

Appendix B - Updated Summary of Tree Risk Ratings
Beringer Elms - St. Halena, CA

Tree #	Tree Condition			Defect 1 Risk Assessment				Defect 2 Risk Assessment				Defect 3 Risk Assessment				Management recommendation
	Species	Trunk diameter (inches)	Condition rating 1=poor; 5=excellent	Tree part likely to fail	Targets	Risk rating	Residual risk	Tree part likely to fail	Targets	Risk rating	Residual risk	Tree part likely to fail	Targets	Risk rating	Residual risk	
1	American elm	34	3	Stem	Trail	Moderate	Moderate	Scaffold branch	Trail	Moderate	Low	--	--	--	--	Prune to reduce weight/ext.
2	American elm	26	3	Whole tree	Hwy. 29	High	None	Stem	Hwy. 29	Moderate	Moderate	Scaffold branch	Trail	Low	Low	**Priority 1 removal**
3	American elm	28	2	Whole tree	Hwy. 29	Moderate	None	Scaffold branch	Hwy. 29	Moderate	Low	Scaffold branch	Trail	Moderate	None	**Priority 1 removal**
4	American elm	32	3	Stem	Hwy. 29	Moderate	Low	Stem	Trail	Moderate	Low	--	--	--	--	Prune to reduce weight/ext.
7	American elm	29	4	Stem	Hwy. 29	Moderate	Low	Stem	Trail	Moderate	Low	--	--	--	--	Prune to remove 16" stem
8	American elm	25	2	Whole tree	Trail	Moderate	None	Stem	Trail	Low	Low	--	--	--	--	**Priority 1 removal**
12	American elm	31	0									--	--	--	--	Removed as of 6/19
13	American elm	28	3	Whole tree	Trail	Low	Moderate	Stem	Trail	Low	Low	--	--	--	--	None currently, priority 2 removal
14	American elm	29	3	Whole tree	Trail	Low	Low	Stem	Trail	Low	Low	--	--	--	--	None currently, priority 2 removal
16	American elm	28	2	Whole tree	Hwy. 29	Moderate	None	Stem	Trail	Moderate	Low	--	--	--	--	**Priority 1 removal** (based on condition)
17	American elm	28	2	Stem	Hwy. 29	Moderate	None	Scaffold branch	Trail	Low	Low	--	--	--	--	None currently, priority 2 removal
33	American elm	21	0									--	--	--	--	Removed as of 6/19
34	American elm	24	0									--	--	--	--	Removed as of 6/19
35	American elm	24	2	Dead branch	Hwy. 29	Moderate	Low	Stem	Trail	Low	Low	--	--	--	--	Prune to crown clean, priority 2 removal
36	American elm	22	3	Scaffold branch	Hwy. 29	Moderate	Low	Stem	Trail	Low	Low	--	--	--	--	Prune to reduce weight/ext., priority 2 removal
37	American elm	24	3	Dead branch	Hwy 29	Moderate	Low	Stem	Trail	Low	Low	--	--	--	--	Prune to crown clean
38	American elm	24	3	Scaffold branch	Hwy. 29	Low	Low	Scaffold branch	Trail	Moderate	Low	--	--	--	--	None currently
39	American elm	23	3	Stem	Hwy. 29	Moderate	Low	Scaffold branch	Trail	Low	Low	--	--	--	--	Prune to reduce height/extension
40	American elm	26	4	Stem	Hwy. 29	Moderate	Low	Stem	Trail	Low	Low	--	--	--	--	Prune to reduce height/extension

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Beringer Elms - St. Halena, CA

Tree #	Tree Condition			Defect 1 Risk Assessment				Defect 2 Risk Assessment				Defect 3 Risk Assessment				Management recommendation
	Species	Trunk diameter (inches)	Condition rating 1=poor; 5=excellent	Tree part likely to fail	Targets	Risk rating	Residual risk	Tree part likely to fail	Targets	Risk rating	Residual risk	Tree part likely to fail	Targets	Risk rating	Residual risk	
41	American elm	27	3	Stem	Trail	Moderate	Moderate					--	--	--	--	Prune to reduce weight/ext.
42	American elm	27	2	Stem	Hwy. 29	Moderate	Low	Whole tree	Trail	Moderate	None	Scaffold branch	Trail	Low	Low	Prune to remove 8" stem
43	American elm	28	3	Scaffold branch	Hwy. 29	Moderate	Low	Stem	Trail	Moderate	Low	Whole tree	Trail	Moderate	None	Prune to reduce height/extension,
45	American elm	26	3	Stem	Trail	Moderate	Low					--	--	--	--	Prune to reduce weight/ext.
46	American elm	24	3	Stem	Hwy. 29	Moderate	Low	Scaffold branch	Trail	Low	Low	--	--	--	--	Prune to reduce weight/ext.
49	American elm	24	0									--	--	--	--	Removed as of 6/19
50	American elm	28	2	Scaffold branch	Hwy. 29	Low	Low	Scaffold branch	Trail	Moderate	Low	--	--	--	--	None currently
52	American elm	22	2	Dead branch	Hwy. 29	Moderate	Low	Stem	Trail	Moderate	Low	--	--	--	--	Prune to crown clean
54	American elm	27	2	Dead branch	Hwy. 29	Moderate	Low	Stem	Trail	Low	Low	--	--	--	--	Prune to crown clean
59	American elm	23	3	Dead branch	Trail	Moderate	Low	Whole tree	Hwy. 29	Moderate		--	--	--	--	Prune to crown clean & reduce weight/ext.
60	American elm	24	2	Stem	Trail	Low	Low	Whole tree	Hwy. 29	Moderate		--	--	--	--	**Priority 1 removal** (based on condition)
61	American elm	21	3	Scaffold branch	Hwy. 29	Low	Low	Stem	Trail	Low	Low	--	--	--	--	**Priority 1 removal** (based on condition)
62	American elm	25	3	Stem	Trail	Low	Low					--	--	--	--	None currently
63	American elm	23	3	Scaffold branch	Hwy. 29	Low	Low	Stem	Trail	Low	Low	--	--	--	--	None currently
64	American elm	25	3	Stem	Hwy. 29	Moderate	Low	Dead branch	Trail	Moderate	Low	Whole tree	Hwy. 29	Moderate	None	Prune to reduce height/extension
65	American elm	22	3	Scaffold branch	Hwy. 29	Moderate	Low	Stem	Trail	Low	Low	--	--	--	--	Prune to reduce height/extension
66	American elm	22	3	Dead branch	Hwy. 29	Moderate	Low	Scaffold branch	Trail	Low	Low	--	--	--	--	Prune to crown clean
67	American elm	22	2	Whole tree	Hwy. 29	Moderate	Moderate	Dead branch	Trail	Moderate	Low	--	--	--	--	Prune to crown clean, priority 2 removal
68	American elm	20	2	Whole tree	Hwy. 29	Moderate	Moderate	Scaffold branch	Trail	Low	Low	--	--	--	--	Prune to reduce weight/ext., priority 2 removal

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Beringer Elms - St. Halena, CA

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	Species	Trunk diameter (inches)	Condition rating 1=poor; 5=excellent	Tree part likely to fail	Targets	Risk rating	Residual risk	Tree part likely to fail	Targets	Risk rating	Residual risk	Tree part likely to fail	Targets	Risk rating	Residual risk	
69	American elm	24	2	Scaffold branch	Hwy. 29	Low	Low	Stem	Trail	Low	Low	Whole tree	Hwy. 29	Moderate	None	Prune to reduce weight/ext., priority 2 removal
70	American elm	21	2	Stem	Trail	Low	Low					--	--	--	--	None currently, priority 2 removal
71	American elm	22	2	Scaffold branch	Hwy. 29	Moderate	Low	Stem	Trail	Low	Low	--	--	--	--	Prune to reduce height/extension,
80	American elm	28	3	Stem	Hwy. 29	Moderate	Low					--	--	--	--	Prune to reduce height/extension
81	American elm	28	3	Scaffold branch	Hwy. 29	Moderate	Low	Scaffold branch	Orchard	Low	Low	--	--	--	--	Prune to reduce weight/ext.
82	American elm	27	3	Stem	Hwy. 29	Low	Low	Scaffold branch	Orchard	Low	Low	--	--	--	--	None currently, priority 2 removal
84	American elm	26	3	Stem	Hwy. 29	Low	Low	Scaffold branch	Orchard	Low	Low	--	--	--	--	None currently, priority 2 removal
85	American elm	28	2	Stem	Hwy. 29	Moderate	Low	Stem	Orchard	Low	Low	--	--	--	--	Prune to reduce height/extension,
92	American elm	31	3	Scaffold branch	Driveway	Moderate	Low	Stem	Hwy. 29	Moderate	Moderate	--	--	--	--	Prune to reduce weight/ext., priority 2
93	American elm	34	3	Stem	Hwy. 29	Moderate	Low	Stem	Landscape	Low	Low	--	--	--	--	Remove 10" stem, priority 2 removal
94	American elm	28	3	Scaffold branch	Hwy. 29	High	Low	Scaffold branch	Landscape	Low	Low	--	--	--	--	**Priority 1-**prune to reduce weight/ext.,
95	American elm	30	3	Scaffold branch	Hwy. 29	Moderate	Low	Stem	Parking	Low	Low	--	--	--	--	Prune to reduce weight/ext., priority 2
99	American elm	33	2	Stem	Hwy. 29	High	None	Scaffold branch	Landscape	Low	Low	--	--	--	--	None currently, priority 2 removal
100	American elm	32	3	Stem	Parking	Moderate	Low	Whole tree	Hwy. 29	Low	Low	--	--	--	--	Prune to reduce weight/ext., priority 2
101	American elm	30	3	Scaffold branch	Hwy. 29	Moderate	Low	Stem	Parking	Moderate	Low	--	--	--	--	**Priority 1 removal**
103	American elm	33	2	Stem	Hwy. 29	High	None	Scaffold branch	Parking	Low	Low	Whole tree	Hwy. 29	Moderate	None	Prune to reduce weight/ext., priority 2 removal
104	American elm	31	2	Stem	Hwy. 29	Moderate	Low	Stem	Parking	Moderate	Low	--	--	--	--	Prune to reduce weight/ext., priority 2 removal
105	American elm	31	3	Dead branch	Parking	Low	Low	Stem	Parking	Low	Low	--	--	--	--	None currently

Appendix B - Updated Summary of Tree Risk Ratings
Beringer Elms - St. Halena, CA

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	Species	Trunk diameter (inches)	Condition rating 1=poor; 5=excellent	Tree part likely to fail	Targets	Risk rating	Residual risk	Tree part likely to fail	Targets	Risk rating	Residual risk	Tree part likely to fail	Targets	Risk rating	Residual risk	
106	American elm	27	3	Stem	Hwy. 29	Moderate	Low	Dead branch	Parking	Moderate	Low	--	--	--	--	Prune to reduce weight/ext.
107	American elm	31	3	Stem	Hwy. 29	Moderate	Low	Stem	Parking	Moderate	Low	--	--	--	--	Prune to reduce weight/ext., priority 2 removal
108	American elm	34	3	Stem	Hwy. 29	Low	Low	Stem	Parking	Moderate	Low	--	--	--	--	None currently, priority 2 removal
109	American elm	26	2	Scaffold branch	Hwy. 29	Low	Low	Stem	Landscape	Low	Low	Whole tree	Hwy. 29	Moderate	None	None currently, priority 2 removal
110	American elm	33	3	Stem	Parking	Moderate	Low					--	--	--	--	Prune to reduce weight/ext., priority 2 removal
111	American elm	28	3	Stem	Hwy. 29	Moderate	Moderate	Stem	Landscape	Low	Low	--	--	--	--	None currently, priority 2 removal
112	American elm	30	2	Stem	Hwy. 29	Moderate	None	Stem	Parking	Low	None	--	--	--	--	Prune to crown clean
113	American elm	30	1	Dead branch	Hwy. 29	High	None					--	--	--	--	**Priority 1**-prune to crown clean
121	American elm	27	4	Scaffold branch	Hwy. 29	Moderate	Low	Scaffold branch	Landscape	Low	Low	--	--	--	--	Prune to reduce weight/ext.
122	American elm	23	3	Scaffold branch	Hwy. 29	Moderate	Low					--	--	--	--	Prune to reduce weight/ext.
123	American elm	20	3	Scaffold branch	Hwy. 29	Low	Low	Stem	Landscape	Low	Low	--	--	--	--	None currently
124	American elm	20	3	Stem	Hwy. 29	Moderate	Low	Scaffold branch	Landscape	Low	Low	--	--	--	--	Prune to reduce weight/ext.
125	American elm	22	3	Stem	Hwy. 29	Moderate	Low	Scaffold branch	Landscape	Low	Low	--	--	--	--	Prune to reduce weight/ext.
126	American elm	22	3	Stem	Hwy. 29	High	Low	Scaffold branch	Landscape	Low	Low	Whole tree	Hwy. 29	Moderate	None	**Priority 1 removal**
127	American elm	24	3	Scaffold branch	Hwy. 29	Moderate	Low	Stem	Landscape	Low	Low	--	--	--	--	Prune to reduce weight/ext.
128	American elm	24	3	Scaffold branch	Hwy. 29	Moderate	Low	Dead branch	Landscape	Low	Low	--	--	--	--	Prune to reduce weight/ext.
129	American elm	27	3	Scaffold branch	Hwy. 29	Moderate	Low	Scaffold branch	Landscape	Low	Low	--	--	--	--	Prune to reduce weight/ext.
130	American elm	31	3	Scaffold branch	Hwy. 29	Moderate	Low	--	--	--	--	--	--	--	--	Prune to reduce weight/ext.

Appendix B - Updated Summary of Tree Risk Ratings
Beringer Elms - St. Halena, CA

Tree #	Tree Condition			Defect 1 Risk Assessment				Defect 2 Risk Assessment				Defect 3 Risk Assessment				Management recommendation
	Species	Trunk diameter (inches)	Condition rating 1=poor; 5=excellent	Tree part likely to fail	Targets	Risk rating	Residual risk	Tree part likely to fail	Targets	Risk rating	Residual risk	Tree part likely to fail	Targets	Risk rating	Residual risk	
131	American elm	25	2	Scaffold branch	Hwy. 29	Moderate	Low	Whole tree	Hwy. 29	Extreme	None	--	--	--	--	Removed 8/2020
132	American elm	27	3	Scaffold branch	Hwy. 29	Moderate	Low	Scaffold branch	Lawn	Low	Low	--	--	--	--	Prune to reduce weight/ext.
133	American elm	26	3	Scaffold branch	Hwy. 29	High	Low	Scaffold branch	Lawn	Low	Low	--	--	--	--	Prune to reduce weight/ext.
134	American elm	29	3	Scaffold branch	Hwy. 29	Moderate	Low	Scaffold branch	Lawn	Low	Low	--	--	--	--	Prune to reduce weight/ext., priority 2 removal
135	American elm	26	3	Scaffold branch	Hwy. 29	High	Low	Whole tree	Lawn	Low	Low	--	--	--	--	**Priority 1**-prune to reduce weight/ext., priority 2 removal
136	American elm	25	3	Scaffold branch	Hwy. 29	Low	Low	Dead branch	Lawn	Moderate	Low	--	--	--	--	None currently, priority 2 removal
137	American elm	25	3	Scaffold branch	Hwy. 29	Low	Low	Stem	Lawn	Low	Low	--	--	--	--	None currently, priority 2 removal
138	American elm	33	3	Scaffold branch	Hwy. 29	High	Low	Scaffold branch	Lawn	Low	Low	--	--	--	--	**Priority 1**-prune to reduce weight/ext.
139	American elm	25	3	Stem	Lawn	Low	Low					--	--	--	--	None currently
140	American elm	28	3	Hanger/dead branch	Hwy. 29	Moderate	Low	Scaffold branch	Lawn	Low	Low	--	--	--	--	Prune to reduce weight/ext.
141	American elm	29	3	Scaffold branch	Hwy. 29	Low	Low	Stem	Lawn	Low	Low	--	--	--	--	None currently
142	American elm	34	3	Scaffold branch	Hwy. 29	Low	Low	Stem	ndary road/entry	Low	Low	--	--	--	--	None currently
143	American elm	35	2	Whole tree	Hwy. 29	High	None	Scaffold branch	Hwy. 29	Moderate	Low	--	--	--	--	**Priority 1 removal**
144	American elm	36	3	Scaffold branch	Hwy. 29	High	Low	Scaffold branch	Hwy. 29	Moderate	Low	Stem	Secondary road/entry drive	Low	Low	**Priority 1**-prune to reduce weight/ext.

Appendix C: Schedule of Maintenance Activities

Beringer Elm Tunnel, St. Helena CA

Season	Maintenance activity	Lead time	Considerations	Recommendations
Spring	Plant procurement	Up to 2 years ahead of delivery	Identify preferred cultivar for consistancy of form and appearance across the Elm Tunnel	Once the grower is under contrac t, check-in with them 6 mo. and 1 mo. ahead of delivery to confirm.
	Plant inspection	6 Mo. to 1 week ahead of delivery	Inspection at the nursery is recommended. If inspecting at the time of delivery, inspections may have to occur on the delivery truck.	Check 1) plant form, 2) health and vigor, 3) central leader and branch spacing, 4) root development. **See Note 1 - *Selecting a Quality Tree***
	Planting	Planting area may be prepared ahead of time	Prepare as large a planting area (min. 5'x5') around the actual planting hole as possible by loosening soil to 18" deep. Attempt to minimize damage to roots ≥2" from adjacent mature elms.	1) Excavate the planting hole 2X deeper and 3X wider than the root ball, 2) Ammend with 10% o rganic compost, 3) Expose the root collar by removing built up soil, 4) Plant so the top of root ball is flush with grade, 5) stake and irrigate. **See Note 2 - *Planting a Quality Tree***
	Stakes and ties	--	Check stakes and ties on every tree, twice a year for rubbing/contact/embedding. Lower stakes to reduce contact/rubbing	1) Check stability of trees after 1 growing season, 2) Remove stakes and ties as soon as the tree is well anchored (after a max. of 2 growing seasons), 3) Consider removing and replacing trees that fail to anchor after 2 growing seasons.
	Irrigation	Check equipment and procure supplies at the end of fall for the following spring	Monitor anticipated rainfall to identify when to begin/end irrigation. Or, except in drought years, begin irrigating every year on April 15th and end on September 31st. Some calibration of equipment may be required to achieve the desired volume per irrigation event.	During dry summer months: 1) Irrigate 10 gal./wk. (ideally in apps) for the first year, 2) Irrigate at 8 gal./wk. (one app.) for the second year, 3) Irrigate 10 gal./10 days-2 weeks for the third year, 4) Irrigate as needed after year 3 and during periods of extreme heat. **See Note 3 - *Irrigating Young Trees***
	Monitor tree health	--	Consider making one person responsible for monitoring tree health and structure and creating a form for consistancy.	Inspect trees: 1) In ealry spring following leaf emergence (to allow for better identification of dead, broken and diseased tree parts), 2) in late summer/early fall (to see how the trees have tolerated summer stresses), 3) Following storm events (wind speeds ≥40mph). Generally look for: 1) Overall changes in tree health, 2) Dead, broken diseased tree parts with the potential to strike a target. **See Note 5 -*Monitoring Tree health and Structure.***
Summer	Sucker management	--	Minimize damage to roots as a way to reduce sucker development.	Mow or otherwise mechanically treat root suckers in late spring/early summer, before they are too large. This timing will also reduce the potential that they will need to be mowed more than once a year.
	Tree Risk Assessments	Risk assessments may need to be coordinated with TRAQ qualified contractor several months in advance	TRA should be performed every 2 to 3 years, or as needed based on the results of the more regular health and structure assessments.	Have a TRAQ qualified risk assessor perform the TRA in spring or summer following leaf emergance to allow for better identification of dead, broken and diseased tree parts. Keep records of who the assessor was, when the assessment was performed, recommendations and nature and dates of actions taken.
	DED management	Pesticide applications may need to be coordinated with contractor several months in advance	Monitor for DED flagging in late summer/early fall when drought stress has peaked.	Initiate an IPM program, including: 1) Remove & destroy diseased wood as soon as possible, 2) Maintain tree health, 3) Perform systemic root flare injection of Shepherd® (or similar as recommended by a qualified pesticide applicator) on infected trees, 4) sterilize all equipment used in treatments between trees

Appendix C: Schedule of Maintenance Activities

Beringer Elm Tunnel, St. Helena CA

Season	Maintenance activity	Lead time	Considerations	Recommendations
Fall	Monitor tree health	--	Consider making one person responsible for monitoring tree health and structure and creating a form for consistancy.	Inspect trees: 1) In ealry spring following leaf emergence (to allow for better identification of dead, broken and diseased tree parts), 2) in late summer/early fall (to see how the trees have tolerated summer stresses), 3) Following storm events (wind speeds ≥40mph). Generally look for: 1) Overall changes in tree health, 2) Dead, broken diseased tree parts with the potential to strike a target. **See Note 5 -*Monitoring Tree health and Structure.***
	Stakes and ties	--	Check stakes and ties on every young tree, twice a year for rubbing/contact/embedding. Lower stakes to reduce contact/rubbing.	1) Check stability of trees after 1 growing season, 2) Remove stakes and ties as soon as the tree is well anchored (after a max. of 2 growing seasons), 3) Consider removing and replacing trees that fail to anchor after 2 growing seasons.
Winter	Prune and remove mature trees	Coordinate with Caltrans for Hwy 29 lane closures.	Focus pruning of mature elms on abating risk, primarily through the reduction of branch legth and end-weight. Removal of groups of 2-4 trees will provide a better growing environment for new elms.	Priorities for pruning and removal of mature elms should be based on the results of the regular health and structure assessments and periodic tree risk assessments.
	Pruning young trees	--	Prune young trees prior to April/leaf emergance to avoid elm leaf beetle activity. Sanitation of equipment must occur between trees to avoid spreading DED between trees.	Prune trees: 1) at the time of planting to select a central leader/subordinate competing leaders and remove dead/broken branches, 2) annually for 2-3 years to select a central leader/subordinate competing leaders, select the lowest permanenet branch, select main scaffold branches and temporary branches. **See Note 4 -*Pruning Young Trees.***
	Elm leaf beetle management	Pesticide applications may need to be coordinated with contractor several months in advance	Monitor for elm leaf beetle activity in late winter/early spring when leaves have emerged to know when to treat to suppress beetles.	Perform soil drench of Merit® (or similar as recommended by a qualified pesticide applicator) following leaf emergance to help suppress elm leaf beetle and reduce potential DED transmission.

Updated Risk Rating Map

Elm Alley
St. Helena, CA

Prepared for:
City of St. Helena
October 2020

Notes:
1. Tree locations are approximate.

2. Aerial photo provided by ESRI.

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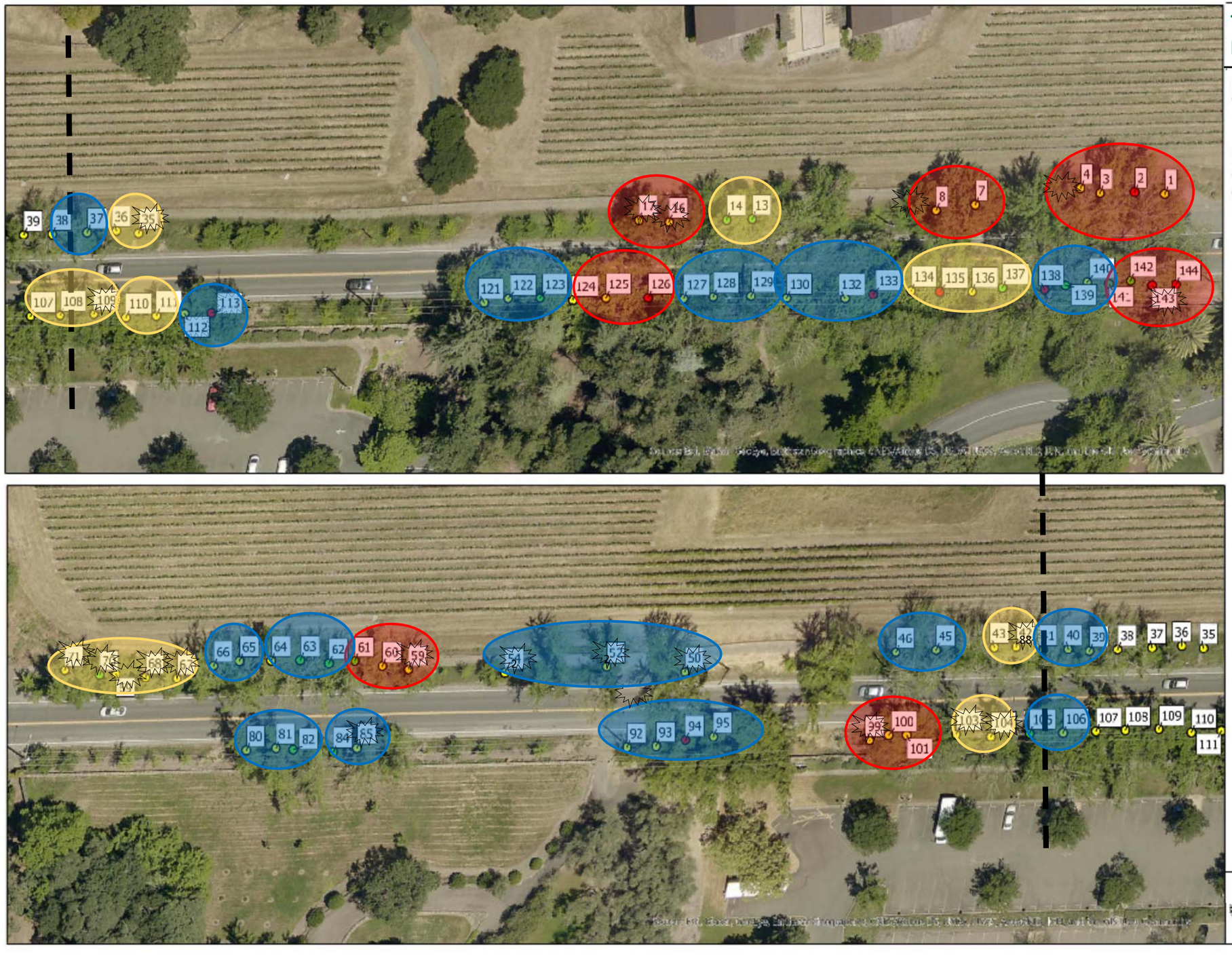
325 Ray Street
Pleasanton, CA 94566
925-484-0211

Tree Removal Group Priority Map

Elm Alley
St. Helena, CA

Prepared for:
City of St. Helena
October 2020



Priority rating for mature tree removals—5 years timeline

- Priority 1—19 trees, year 1-5, 2021-2025
- Priority 2—23 trees, year 6-10, 2026-2030
- Priority 3—40 trees, year 11-15, 2031-2035

Legend

RiskRating2020

- High
- Low
- Moderate

Poor condition

75 Feet

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Selecting a Quality Tree
Beringer Elm Tunnel

Note 1

The goal of tree inspection before acceptance is to identify trees with problems that cannot be corrected with standard planting techniques or treatments such as pruning. Key requirements are illustrated below. Tree quality is of paramount importance to future tree performance, to minimize future hazards, and reduce mature tree maintenence.

Look for	Acceptable	Unacceptable
• Single, straight trunk with good taper. • Uniform branch spacing around central trunk. • Trunk diameter at least one-third larger than branches.	• More than one leader that can be pruned to reestablish a central trunk. • Trunk diameter similar to branch diameter (requires subordination pruning).	• Tree with no lateral branches suitable to be trained into a central trunk. • Trunk diameter smaller than branches.
• Leaves deep green and creating a full canopy. • No leaf damage from pests, desiccation or mechanical injury. • No pests or diseases present.	• Less than 5% of foliage discolored or damaged.	• Foliage chlorotic (yellow) and/or thin. • More than 5% of foliage dead, dying, discolored or damaged. • Pests or diseases present.
• Trunk and branches free of wounds and deviations (e.g. crooks, bows). • Slight deviation at bud union is normal.	• Wounds less than 50% of trunk or branch circumference. • Small broken or wounded branches that can be pruned off without disfiguring the plant.	• Wounds greater than 50% of trunk or branch circumference or present at more than one level. • Trunk girdled by staking tie. • Crook or bow in trunk.
• Root ball with small diameter roots to edge of container that holds together when removed from container. • Light-colored, healthy root tips.	• Healthy roots up to pencil-size at edge of root ball (must be cut before planting). • Circling/kinked roots smaller than 20% of trunk diameter (must be cut before planting).	• Circling/kinked roots >20% of trunk diameter that cannot be cut without damaging tree health. • Dead/diseased dark colored and decaying roots. • Root ball falls apart when removed from container.
• Root collar visible at soil line. • Soil within 2 in. of the top of the container to allow for adequate space for root development	• Root collar within 1 in. of soil surface. • Expose root collar prior to planting.	• Root collar deeper than 1 in. below soil surface.

Planting a Quality Tree
Beringer Elm Tunnel

Note 2

Planting is the first step in providing the tree and root system with what it needs for a long, healthy and stable life. There are seven steps for ***quality*** planting that will promote tree establishment, long-term success and reduced maintenance costs in the future.

1 *Select a quality tree.*

- A quality tree has good trunk development, well-spaced branches, a root system free of kinked and circling roots, and is free of pests and diseases. See Note 1 - *Selecting a Quality Tree*.

2 *Prepare a quality planting area*.

- Identify tree planting location as far from the edge of the road as possible and ideally 25 feet from adjacent trees.
- Cultivate the soil in a minimum 5 ft x 5 ft area around the planting location to a depth of 18".
- Remove any existing roots in the planting area less than 2 in. in diameter.
- Level the soil, irrigate and allow to settle.

3 *Excavate a quality the planting hole.*

- Dig the hole a minimum of 2 times the depth of the tree's root ball and three times wider.
- Amend backfill with no more than 10% organic compost and add to bottom of hole.

4 *Prepare a quality root ball.*

- Remove the tree from the container and rough up the outside edge of the root ball. Sever any circling roots. If roots form a tight mat at the edge of the root ball, shave off the outside 1-2 in. of the root ball.

5 *Complete a quality tree installation*.

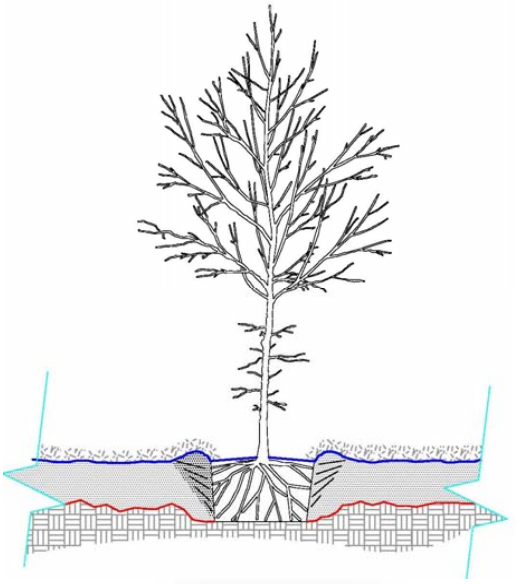
- Place the rootball in the planting hole and backfill with the excavated soil. Pack soil around the rootball as you backfill.
- Do not place soil over the top of the rootball. The top of the root ball should be slightly higher than the surrounding soil.
- Construct a 4 – 5" high soil berm or basin around the tree at the edge of the root ball.
- Spread 3 - 4" coarse wood chip mulch in the basin, keeping mulch a minimum of 1 foot away from trunk.

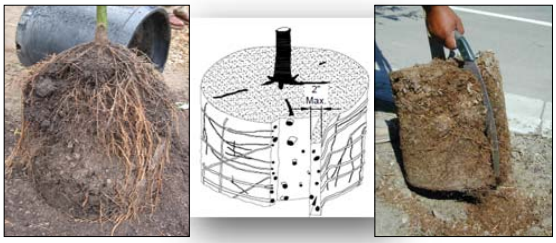
6 *Install a quality temporary stake system.*

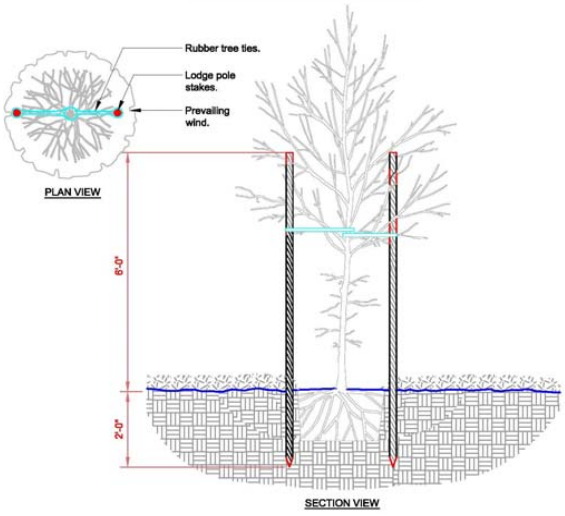
- Install 2 lodge poles 2 ft-deep and a few inches outside the root ball. Orient stakes parallel with the prevailing wind.
- Remove the nursery stake.
- Secure one flat woven 3/4 in.-wide polypropylene material to each stake and loop around trunk.
- Remove nursery stake.

7 *Provide quality initial care.*

- Prune any broken or damaged branches and correct any structural issues (see Note 3 - Training Young Trees).
- Irrigate tree thoroughly by filling the basin with water two to three times (approximately 5 gal. water).







Details and Specifications at
https://www.isa-arbor.com/education/onlineresources/

Irrigating Young Trees
Beringer Elm Tunnel

Note 3

American elm is native to the Eastern U.S. where regular rainfall throughout the growing season is common. In our climate, summer rainfall is unusual. To help young elms establish and grow, we need to irrigate them.

Irrigation should be applied at least during the first 2-3 years of establishment for the dry months of the year (typically May-October). During drought years, older trees benefit from irrigation as well. In general, the elms will grow faster and be healthier if they are irrigated as needed.

The challenge at the Elm Tunnel is getting water to the trees. There is no water supply on the east side of the road, so water must be brought to the site via water truck. On the west side, water can be accessed via quick couplers.

There are three options for how to irrigate these trees:

1 *Individual tree water reservoirs*

Water from a truck (east side) or quick coupler with hose (west side) can be used to fill watering bags at each tree (photo at right). The water leaks slowly out of the bag into the root zone. In the 3rd year, placing two bags, one on each side of the trunk, will distribute water in a wider area and expand root development.

2 *Temporary drip irrigation system*

Water from water trucks operating from the east side and existing water lines on the west side could be connected to a temporary drip irrigation system. Emitters/laser tubing should be distributed within the tree basin and beneath mulch, so water is applied on top of the root ball (photo at right). Expand the system in the 3rd year.

3 *Hand application from hose*

A hose connected to a water truck (east side) or quick coupler (west side) could be used to fill the basin around each tree with water. This requires a substantial berm to hold water until it can percolate into the soil. Water pressure and volume needs to be regulated to avoid blasting soil away. Enlarge the basin in the 3rd year.

How much and when to irrigate

The timing and volume of water needed to establish young trees varies with time of year and variables of rainfall, temperature, and humidity. To help plan for irrigation, however, a general schedule is provided below.

Time after planting	Start irrigating	End irrigating	Volume to apply
1st year	When rainfall < 0.5/ week (April/May)	When rainfall > 0.5/week or tree loses leaves (Oct./Nov)	5 gal. 2x per week
2nd year	When rainfall < 0.5/ week (April/May)	When rainfall > 0.5/week or tree loses leaves (Oct./Nov)	10 gal. 1x per week
3rd year	When rainfall < 0.5/ week (April/May)	When rainfall > 0.5/week or tree loses leaves (Oct./Nov)	15 gal. every 2 weeks
4+ years	April, if rainfall 75% or less than normal	September	20-30 gal. monthly

Pruning Young Trees
Beringer Elm Tunnel

Note 4

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Prune young trees annually for the first 5-10 years to develop a single, sturdy, tapered trunk and well-spaced lateral branches with strong branch attachments. Proper training when trees are young will reduce pruning frequency, intensity and costs as trees mature, reduce public risk from tree failures and avoid conflicts with vehicles and infrastructure.

Because pruning slows tree growth, pruning to establish a good branch structure for young trees should be planned over several years. Repeat these five steps annually until the permanent branch structure of the tree has been established.

A Key Concept

Pruning removes foliage that produces carbohydrates for tree growth.

Growth of a branch can be reduced by pruning off a third to a half of the branch's foliage.

Pruning to intentionally reduce branch growth is called **subordination**. This technique can be used to slow the growth of a branch that is competing with the trunk.

1. Remove broken, diseased, dying, crossing and dead branches.

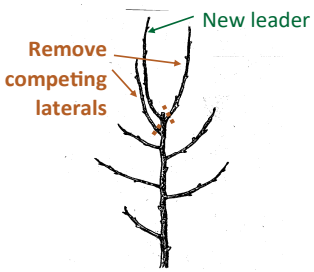
2. Select the central leader (trunk) and remove competing leaders.

- Identify the most vigorous and upright stem as the main trunk.
- Identify the branches (laterals) that are competing with this main trunk.
- Prune to subordinate competing branches by shortening or removing them.

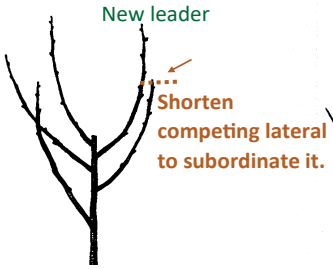
3. Select the lowest permanent branch.

- The lowest permanent branch should be minimum of 14' over streets and 8' over paths. For young trees, the lowest permanent branch may not have formed at planting.
- Select a branch that will not interfere with street lights, signs, or other features as it grows.

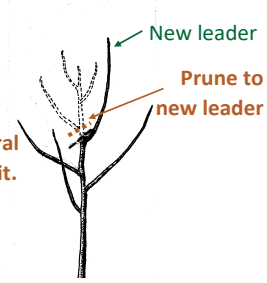
Original leader present; no pruning necessary.



Original leader replaced; select best new leader and remove competing laterals.



Original leader replaced; few lower branches; shorten competing branches to reduce growth.



Original leader outgrown by vigorous lateral branch; prune to select lateral as new leader.

4. Select main scaffold branches above the lowest permanent branch and remove or reduce (subordinate) competing branches.

Permanent scaffold branches should be:

- Spaced vertically along trunk, with at least 18" between them.
- Spaced radially around the trunk.
- Branch diameter should be less than half the diameter of the trunk and have no included bark. If a well-placed branch is larger than half the diameter of the trunk, prune to subordinate it to slow its growth relative to the trunk.

5. Select and maintain temporary branches below the lowest permanent branch.

- Leave small, slow growing branches as temporary branches.
- Remove or prune to subordinate large, vigorous branches below the lowest permanent branch.
- In subsequent years, prune to remove a few of the largest, lowest temporary branches.

A Couple of Tips

To avoid reducing the growth of a young tree too much, avoid removing more than 20% of its foliage in one year.

Temporary branches provide carbohydrates for trunk growth that is needed for development of taper.

Monitoring Tree Health and Structure
Beringer Elm Tunnel

Note 5

Trees and their environment change over time. Monitoring trees for changes in health, structure and presence of insects and disease regularly is critical, so that treatments can be applied early before too much damage is done.

When changes are noticed, investigate further to identify the cause of the symptoms or characteristic, and to determine if treatment or corrective action is needed.

When monitoring tree health look for...

⇒***Changes in leaf color***

Non-seasonal yellowing of leaves is an early warning of physiological stress such as water stress, root disease, or nutritional problems.

⇒***Unusual leaf loss***

Noticing sparse crowns or a lot of leaves on the ground? The most common causes are water stress and elm leaf beetle infestation.

⇒***Dieback***

Progressive death of twigs and stems of elms is typically caused by drought, Dutch elm disease, verticillium wilt, or stem girdling by squirrels. If leaves are still attached, DED and squirrel damage are the most likely causes.

⇒***Presence of pests, diseases***

Chewing damage (skeletonizing) of leaves is the most common damage associated with elm leaf beetle.

When monitoring tree structure look for...

⇒***Dead and broken branches***

Branches larger than 2" and with the potential to strike a target.

⇒***Cracks in branches, at branch or codominant stem attachments and in main stems***

Can be associated with areas of decay

⇒***Changes in lean***

⇒***Uplifted and/or broken roots***

⇒***Presence conks, mushrooms associated with wood decay***

⇒***Injuries to trunk or low branches (e.g. from vehicles)***

When should we monitor?

While monitoring can take place any time you are at the site, the most important times to take note of changes in tree structure are:

⇒***In the fall, when damage from drought stress is visible.***

⇒***Following storms with strong winds (≥40mph).***

⇒***In the spring after trees are in leaf and following storm season.***

Keep records of observations and treatments

⇒***Document who, what, when and where….***

Name of inspector
Date
Symptom or condition noted by tree tag #
Diagnosis/cause of problem
Action recommended
Date action taken

October 8, 2020

Carlos Uribe
City of St. Helena
Public Works Department
1480 Main St.
St. Helena CA 94575

Subject **Updated Risk Assessment**
Beringer Elm Tunnel, St. Helena

Dear Mr. Uribe,

HortScience | Bartlett Consulting (HBC), Divisions of the F. A. Bartlett Tree expert Co. prepared an **Tree risk Assessment Report** for the Beringer elm tunnel dated November 2019. As part of that work, I recommended an advanced assessment of 30 trees where decay was visible or suspected. The City of St. Helena asked HBC to perform the advanced assessment and provide an updated risk assessment and removal priorities. This letter responds to that request.

I visited the site on June 18 and August 14, 2020 to perform the advanced assessments. On June 18 we had a bucket truck on hand and performed the aerial inspections and some decay testing. Due to an equipment failure, I returned on August 14 to complete the decay testing.

We performed the following during the June and August site visits:

- Aerial inspection and probing on trees #3, 41, 95, 99 and 101.
- Aerial inspection and decay detection on trees #1, 100 and 135.
- Decay detection on the lower trunks of trees #2, 8, 13, 14, 42, 43, 59-61, 64, 67-69, 92, 103, 104, 109, 111, 126 and 143.

No advanced assessment was performed on trees #16 or 131. Tree #16 had declined in condition and was put on the priority 1 removal list. A crack was identified in the main stem of tree #131 on August 14, indicating an imminent failure. I contacted the City who immediately coordinated the removal of tree #131. Tree #131 was removed in August of 2020 and tree #16 is scheduled for removal in Spring of 2021.

Decay Detection

The goal of the aerial inspection was to identify any defects not visible from the ground and perform decay testing on several trees. All probing was performed with either an 18” metal screwdriver or an approximately 32” long metal rod. All decay detection was performed with the Rinntech Resistograph® drill, which was used to assess the proportion of decayed wood to sound wood. The goal of the decay testing was to identify the presence and extent of decay in the areas being tested.

Sound wood is wood that has not been colonized by decay organisms. Decay organisms degrade the cellular structure of the wood, compromising wood strength and increasing the likelihood of failure. However, wood decay is a normal process as trees age. It is the proportion of decayed wood to sound wood that is used to help determine the likelihood of failure.

The Resistograph®, is a device that pushes a 20” long by 1.5mm diameter bit through wood and records the resistance to torque on a graph. When the wood is sound, the graph will gradually rise, proceeding from left to right (**Image 1**). A drop in the line or a flat line usually indicates that decay, a crack or other internal defect, is present.

An image of the Resistograph® drill output is shown below. This test represents the typical reading for a hard wood species such as American elm, where no decay was detected, and is referred to as the **standard profile**. The scan is read from left to right and the depth of the measurement was 20".

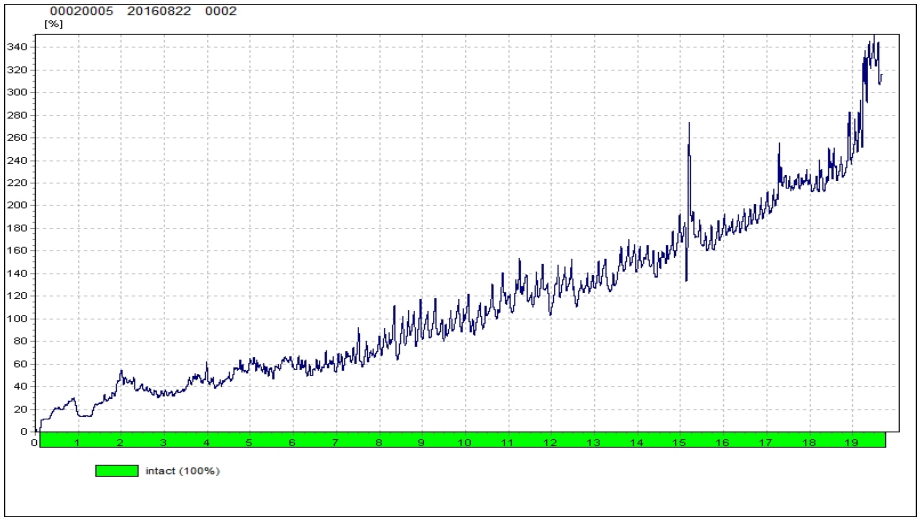


Image 1: An 'ideal' Resistograph® reading, representing a typical reading for a hardwood species with no internal decay.

Results of decay assessments are provided in the attached **Appendix A – Resistograph® Readings** and updated risk ratings for individual trees are found in the attached **Appendix B – *Summary of Tree Risk Ratings***. Risk assessment methods, standards and occupancy rates are described in detail in the November 2019 **Tree risk Assessment Report**.

Recommendations

Based on the results of the advanced assessment, the risk rating for 11 trees changed since we prepared the November 2019 **Tree risk Assessment Report.** The changes were as follows:

- Tree #131 went from High risk for a branch failure to Extreme risk for whole tree failure.
- Trees #2 and 143 went from Moderate risk of whole tree failure to High risk for whole tree failure.
- Trees #8, 42, 60, 69, 109 and 126 went from Low risk (various failure modes) to Moderate risk for whole tree failure.
- Trees #99 and 103 went from High risk of stem failure to Moderate risk for stem failure.

There was no change in the overall risk ratings for 18 trees, including #1, 3, 13, 14, 16, 41, 43, 59, 61, 64, 67, 68, 95, 100, 101, 111, 126 and 135.

Removals were categorized as Priority 1, Priority 2 and Priority 3. Among the trees where advanced assessments were performed, I identified 9 Priority 1 trees, 9 Priority 2 trees and 11 Priority 3 trees, including:

- Priority 1 trees: 2, 3, 8, 16, 60, 61, 101, 126 and 143.
- Priority 2 trees: 13, 42, 67, 68, 69, 99, 109, 111 and 135.
- Priority 3 trees: 1, 14, 41, 43, 59, 64, 92, 95, 100, 103 and 104.

Within the Priority 1 removals, I ordered the trees based on their risk and consequences, should they fail (**Table 1, following page**). Priority 2 and 3 removals were not put in any specific order, as we recommend they be reassessed in the coming years and their removal order may change.

As part of the November 2019 **Tree risk Assessment Report**, I recommended the City consider the removal of small groups of the highest risk trees and/or those in poor condition to create gaps in the canopy that will provide the young trees with more light and resources. This in turn will help the young trees establish more quickly and with better form and structure.

So, one of the goals of the advanced assessment was to refine the management recommendations for the 30 trees where advanced assessments were performed and prioritize tree removals for all of the remaining mature American elms, identifying groups of 2 to 4 trees that could be removed at one time, addressing risk and providing the new trees with better growing condition. **Table 2** (page 5) provides the tree removal groups and priorities for Group 1.

In order to create the groups, I focused first on trees adjacent to Priority 1 trees, trying to take into account the risk ratings, health and proximity to existing groups of young trees. I then repeated the process for the Priority 2 and Priority 3 trees. As a result, in order to create a group around trees #2 and 3 (both Priority 1), I recommend removing trees #1 and 4 as well, both of which are Priority 3 trees.

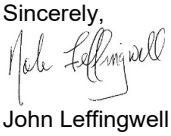
Based on the groupings, 21 Priority 1 trees were identified, 23 Priority 2 trees and 40 Priority 3 trees. I recommend the Priority 1 trees be removed within the next 5 years, priority 2 trees within the next 10 years and Priority 3 trees within the next 15 years. Depending on how many trees are actually removed during any one year, the City may complete the Priority 1 and 2 trees ahead of the 10 year timeframe, in which case we recommend moving onto the Priority 3 trees.

In addition to the Priority 1 removals, there were 6 trees with a High risk for stem or branch failures that could contact Highway 29, including trees #94, 113, 133, 135, 138 and 144. These trees are also considered Priority 1 for abatement treatments. Management recommendations for abating risk associated with trees not scheduled for removal are provided in **Table 3** (page 6) and in Appendix B. These management actions should be carried out for all trees not scheduled for removal based on their risk ratings, starting with high risk trees and proceeding to moderate risk and then low risk trees.

In addition, and as outlined in the forthcoming **Elm Tunnel Management Plan**, annual tree assessments to identify changes in health and structure and periodic risk assessments should be performed as the trees continue to change over time. As we have seen with several of the trees recently, these changes can be rapid and dramatic.

Please contact me if you have any questions regarding my observations or recommendations.

Sincerely,



John Leffingwell
Board Certified Master Arborist #3966B
Registered Consulting Arborist #442

Appendix A – *Resistograph® Readings*
Appendix B – *Summary of Tree Risk Ratings*
Tree Risk Rating Map

Table 1: Tree Removal Priorities
Beringer Elms, St. Helena

Priority 1 Removals (In order of priority)	**Priority 2 Removals** (Not in order of priority)	**Priority 3 Removals** (Not in order of priority)	**Priority 3 Removals** (Continued)
2	13	1	94
126	14	37	95
143	17	38	105
3	35	39	106
16	36	40	112
60	42	41	113
101	43	45	121
8	67	46	122
61	68	50	123
	69	52	127
	70	54	128
	71	62	129
	103	63	130
	104	64	132
	107	65	133
	108	66	138
	109	80	139
	110	81	140
	111	82	
	134	84	
	135	85	
	136	92	
	137	93	

Table 2: Tree Removal Groups and Priorities
Beringer Elms, St. Helena

Priority 1 Removal Groups (In order of priority)	**Priority 2 Removal Groups** (Not in order of priority)	**Priority 3 Removal Groups** (Not in order of priority)
1-4	13,14,17	37,38
124-126	35,36	39-41
141-144	42,43	45,46
99-101	67-71	50, 52, 54
16,17	103,104	62-64
7,8	110,111	65,66
59-61	107-109	80-82
	134-137	84,85
		92-95
		105,106
		112,113
		121-123
		127-129
		130, 132, 133
		138-140

Table 3: Management recommendations
Beringer Elms, St. Helena, CA

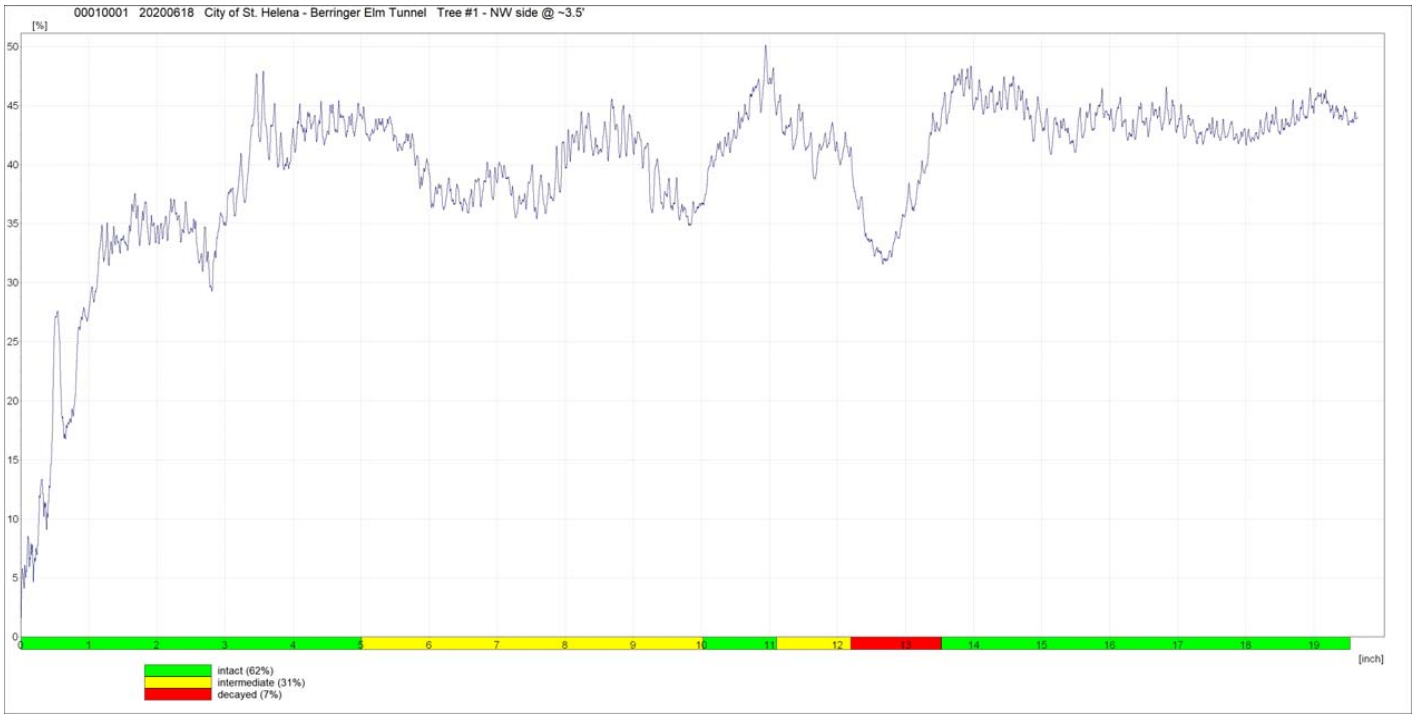
Tag #	Species	Diameter	Condition	Risk rating	Management recommendation
1	American elm	34	3	Moderate	Prune to reduce weight/ext.
2	American elm	26	3	**High**	**Priority 1 removal**
3	American elm	28	2	Moderate	**Priority 1 removal**
4	American elm	32	3	Moderate	Prune to reduce weight/ext.
7	American elm	29	4	Moderate	Prune to remove 16” stem
8	American elm	25	2	Moderate	**Priority 1 removal**
12	American elm	31	0	Removed	Removed as of 6/19
13	American elm	28	3	Low	None currently, priority 2 removal
14	American elm	29	3	Low	None currently, priority 2 removal
16	American elm	28	1	Moderate	**Priority 1 removal** (based on condition)
17	American elm	28	2	Moderate	None currently, priority 2 removal
33	American elm	21	0	Removed	Removed as of 6/19
34	American elm	24	0	Removed	Removed as of 6/19
35	American elm	24	2	Moderate	Prune to crown clean, priority 2 removal
36	American elm	22	3	Moderate	Prune to reduce weight/ext., priority 2 removal
37	American elm	24	3	Moderate	Prune to crown clean
38	American elm	24	3	Moderate	None currently
39	American elm	23	3	Moderate	Prune to reduce height/extension
40	American elm	26	4	Moderate	Prune to reduce height/extension
41	American elm	27	3	Moderate	Prune to reduce weight/ext.
42	American elm	27	2	Moderate	Prune to remove 8” stem
43	American elm	28	3	Moderate	Prune to reduce height/extension, priority 2 removal
45	American elm	26	3	Moderate	Prune to reduce weight/ext.
46	American elm	24	3	Moderate	Prune to reduce weight/ext.
49	American elm	24	0	--	Removed as of 6/19
50	American elm	28	2	Moderate	None currently
52	American elm	22	2	Moderate	Prune to crown clean
54	American elm	27	2	Moderate	Prune to crown clean
59	American elm	23	3	Moderate	Prune to crown clean & reduce weight/ext.
60	American elm	24	2	Moderate	**Priority 1 removal** (based on condition)
61	American elm	21	3	Low	**Priority 1 removal** (based on condition)
62	American elm	25	3	Low	None currently
63	American elm	23	3	Low	None currently
64	American elm	25	3	Moderate	Prune to reduce height/extension
65	American elm	22	3	Moderate	Prune to reduce height/extension
66	American elm	22	3	Moderate	Prune to crown clean
67	American elm	22	2	Moderate	Prune to crown clean, priority 2 removal
68	American elm	20	2	Moderate	Prune to reduce weight/ext., priority 2 removal
69	American elm	24	2	Moderate	Prune to reduce weight/ext., priority 2 removal
70	American elm	21	2	Low	None currently, priority 2 removal
71	American elm	22	2	Moderate	Prune to reduce height/extension, priority 2 removal
80	American elm	28	3	Moderate	Prune to reduce height/extension
81	American elm	28	3	Moderate	Prune to reduce weight/ext.
82	American elm	27	3	Low	None currently, priority 2 removal
84	American elm	26	3	Low	None currently, priority 2 removal

Table 3: Management recommendations, continued
Beringer Elms, St. Helena, CA

Tag #	Species	Diameter	Condition	Risk rating	Management recommendation
85	American elm	28	3	Moderate	Prune to reduce height/extension, priority 2 removal
92	American elm	31	3	Moderate	Prune to reduce weight/ext., priority 2 removal
93	American elm	34	2	Moderate	Remove 10" stem, priority 2 removal
94	American elm	28	3	**High**	**Priority 1** prune to reduce weight/ext., priority 2 removal
95	American elm	30	4	Moderate	Prune to reduce weight/ext., priority 2 removal
99	American elm	33	2	Moderate	None currently, priority 2 removal
100	American elm	32	0	Moderate	Prune to reduce weight/ext., priority 2 removal
101	American elm	30	3	Moderate	**Priority 1 removal**
103	American elm	33	3	Moderate	Prune to reduce weight/ext., priority 2 removal
104	American elm	31	2	Moderate	Prune to reduce weight/ext., priority 2 removal
105	American elm	31	2	Low	None currently
106	American elm	27	0	Moderate	Prune to reduce weight/ext.
107	American elm	31	0	Moderate	Prune to reduce weight/ext., priority 2 removal
108	American elm	34	2	Moderate	None currently, priority 2 removal
109	American elm	26	3	Moderate	None currently, priority 2 removal
110	American elm	33	3	Moderate	Prune to reduce weight/ext., priority 2 removal
111	American elm	28	3	Moderate	None currently, priority 2 removal
112	American elm	30	3	Moderate	Prune to crown clean
113	American elm	30	4	**High**	**Priority 1** prune to crown clean
121	American elm	27	3	Moderate	Prune to reduce weight/ext.
122	American elm	23	2	Moderate	Prune to reduce weight/ext.
123	American elm	20	3	Low	None currently
124	American elm	20	3	Moderate	Prune to reduce weight/ext.
125	American elm	22	3	Moderate	Prune to reduce weight/ext.
126	American elm	22	0	High	**Priority 1 removal**
127	American elm	24	2	Moderate	Prune to reduce weight/ext.
128	American elm	24	2	Moderate	Prune to reduce weight/ext.
129	American elm	27	2	Moderate	Prune to reduce weight/ext.
130	American elm	31	3	Moderate	Prune to reduce weight/ext.
131	American elm	25	2	Removed	Removed 8/2020
132	American elm	27	3	Moderate	Prune to reduce weight/ext.
133	American elm	26	3	**High**	Prune to reduce weight/ext.
134	American elm	29	3	Moderate	Prune to reduce weight/ext., priority 2 removal
135	American elm	26	3	**High**	**Priority 1-**prune to reduce weight/ext., priority 2 removal
136	American elm	25	3	Moderate	None currently, priority 2 removal
137	American elm	25	3	Low	None currently, priority 2 removal
138	American elm	33	2	**High**	**Priority 1**-prune to reduce weight/ext.
139	American elm	25	2	Low	None currently
140	American elm	28	2	Moderate	Prune to reduce weight/ext.
141	American elm	29	2	Low	None currently
142	American elm	34	2	Low	None currently
143	American elm	35	3	**High**	**Priority 1 removal**
144	American elm	36	3	**High**	**Priority** 1-prune to reduce weight/ext.

Appendix A—Advanced Assessment

City of St. Helena—Beringer Elm Tunnel



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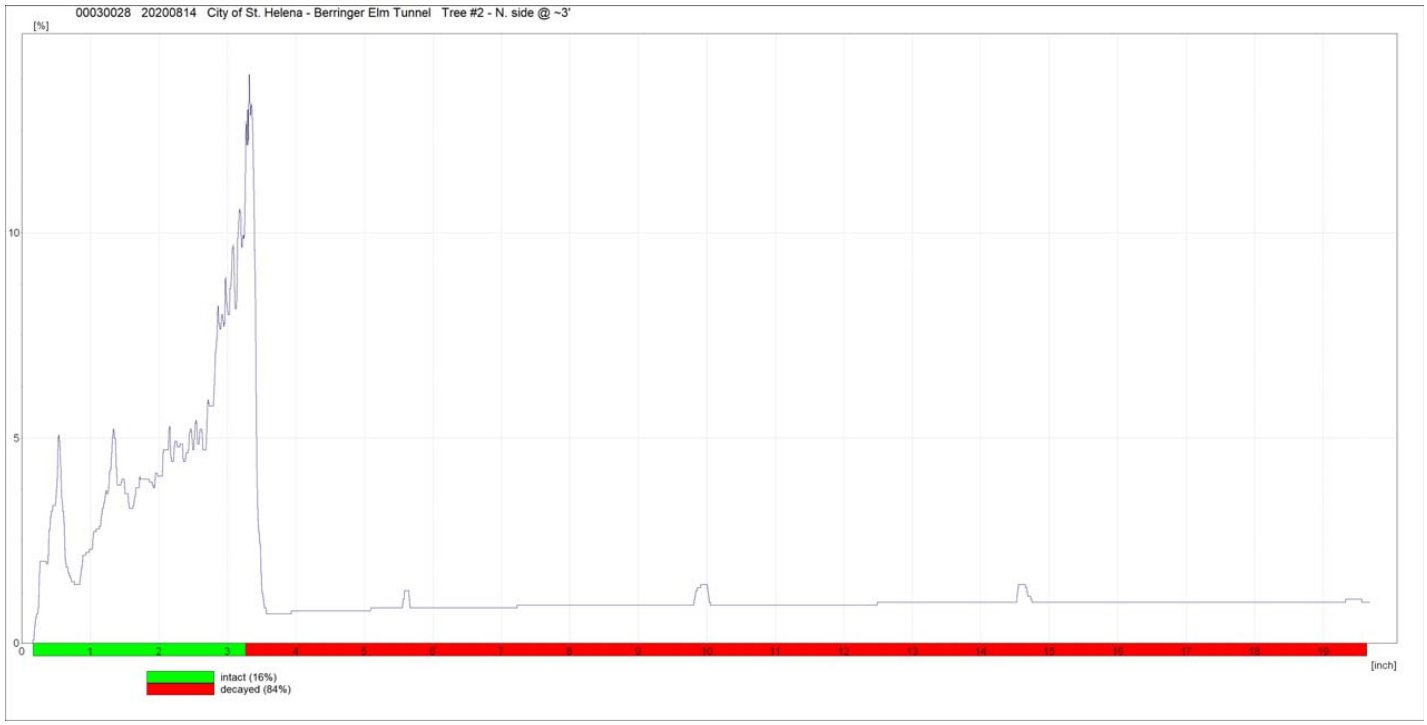

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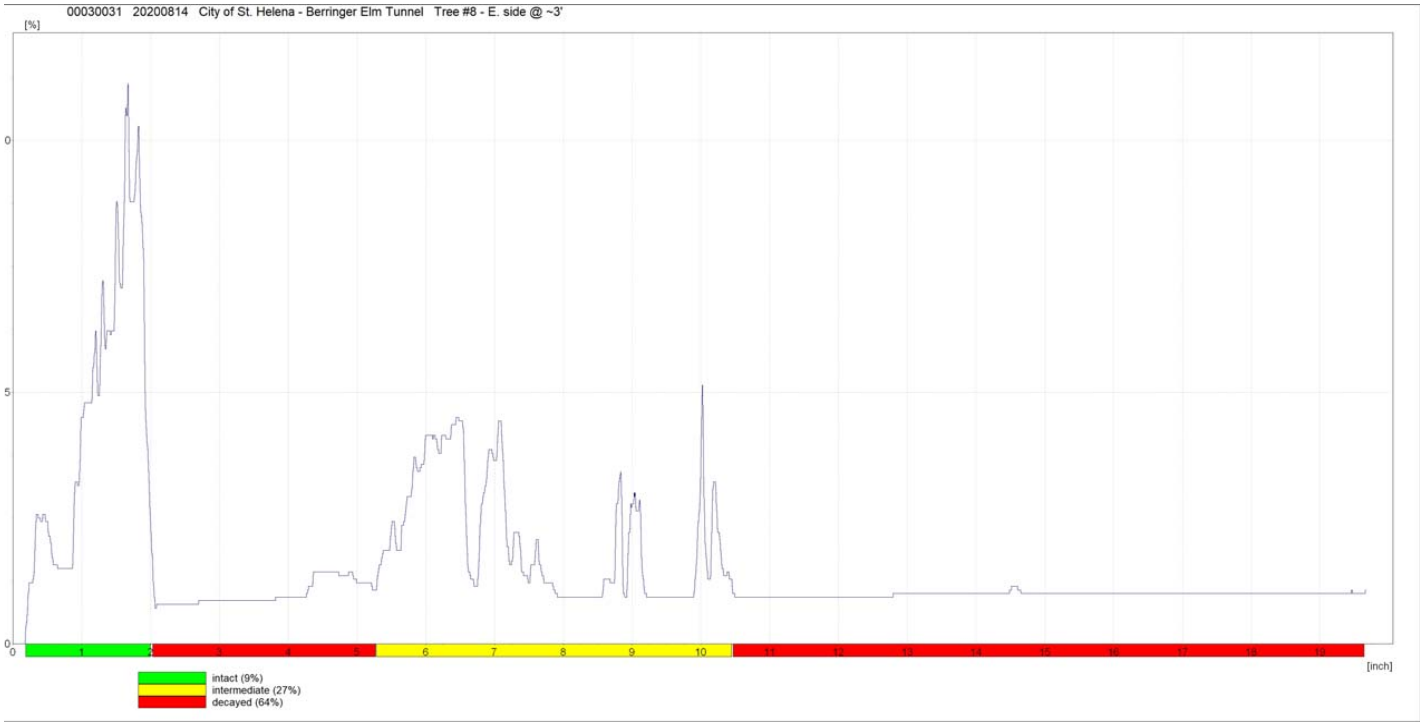

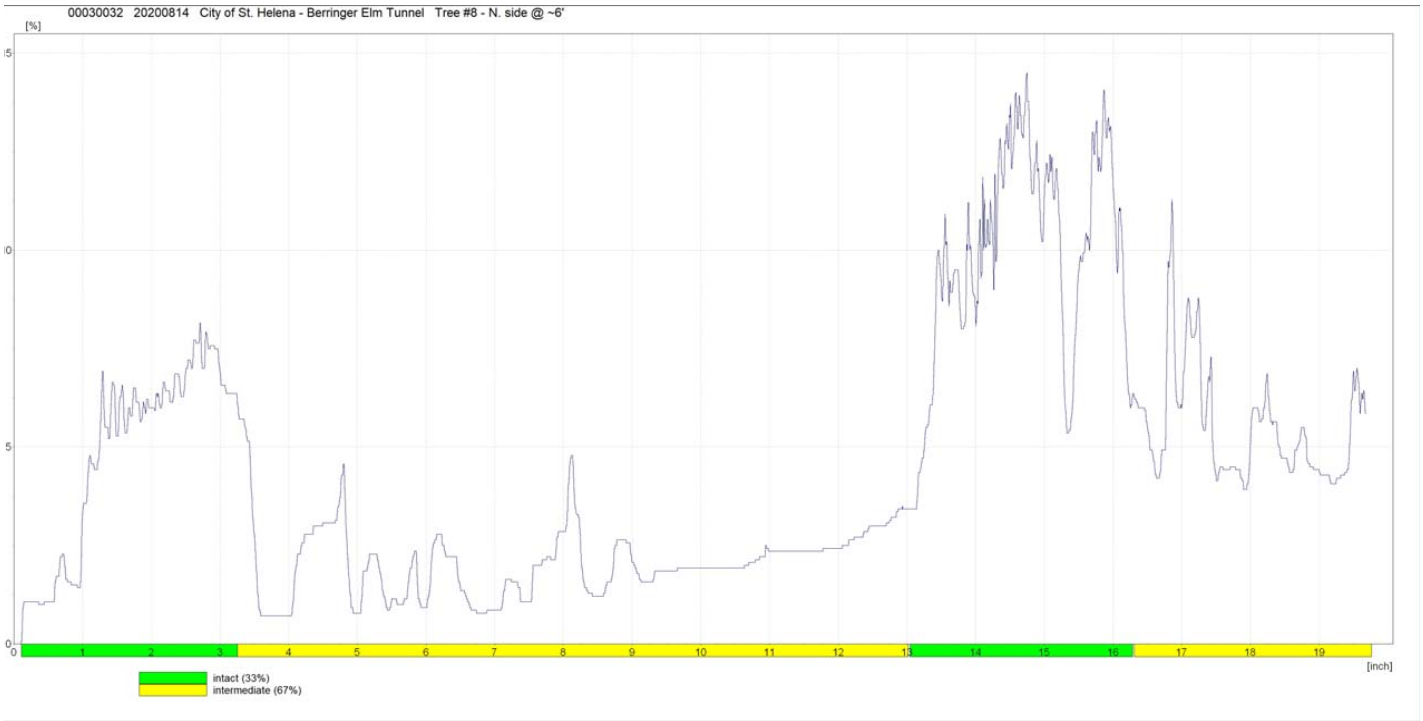

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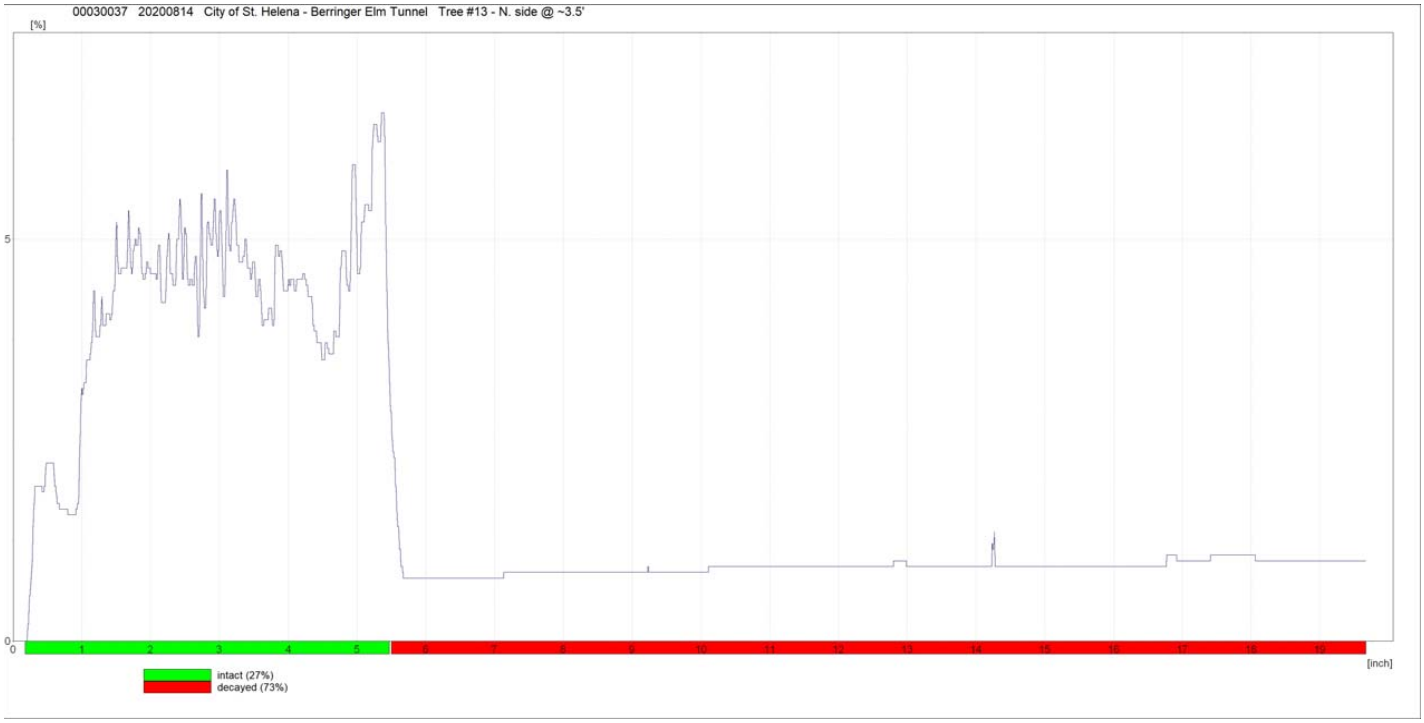

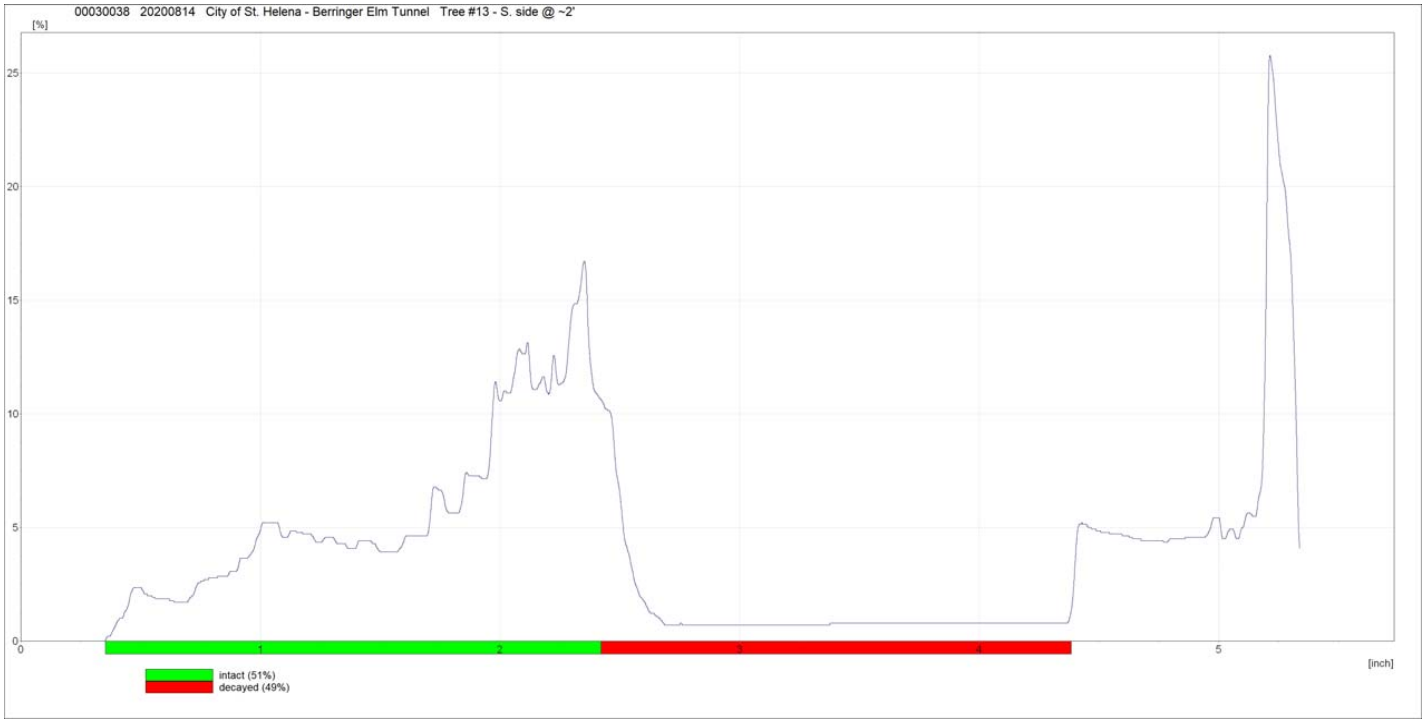

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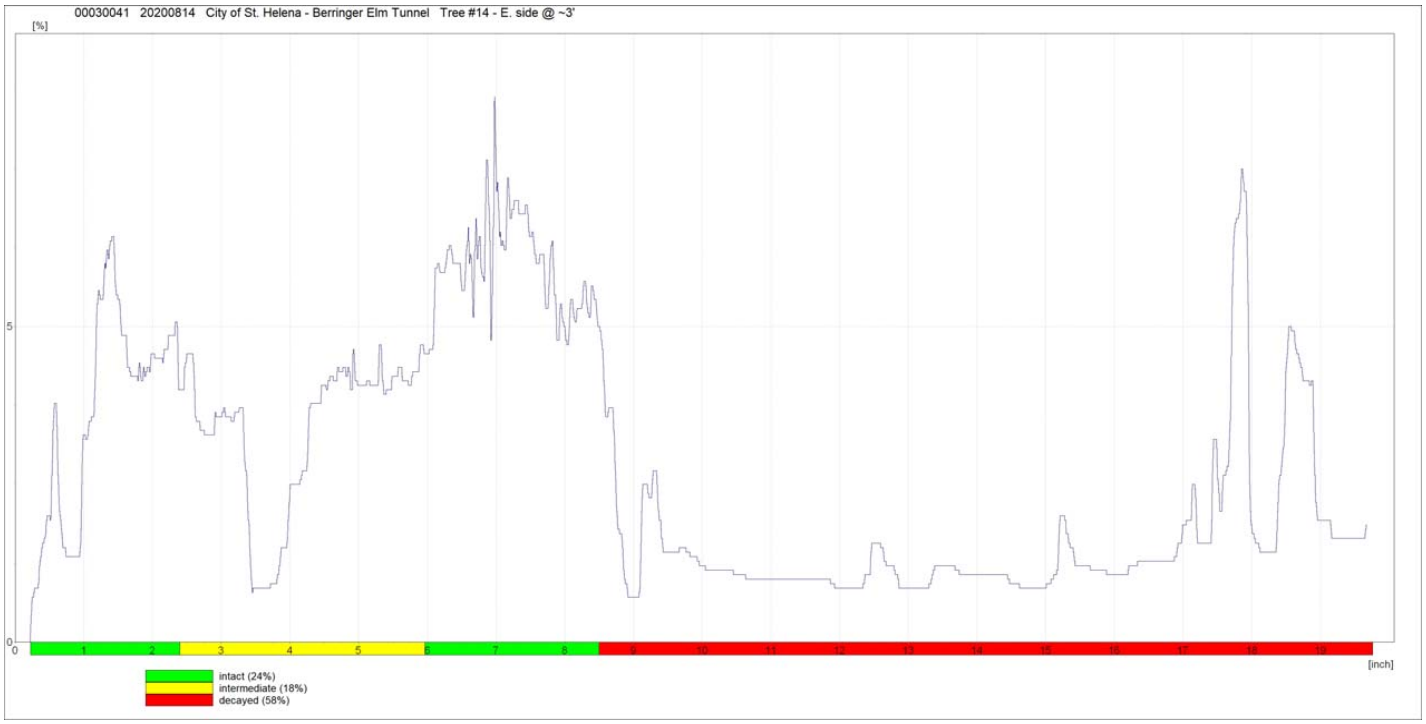

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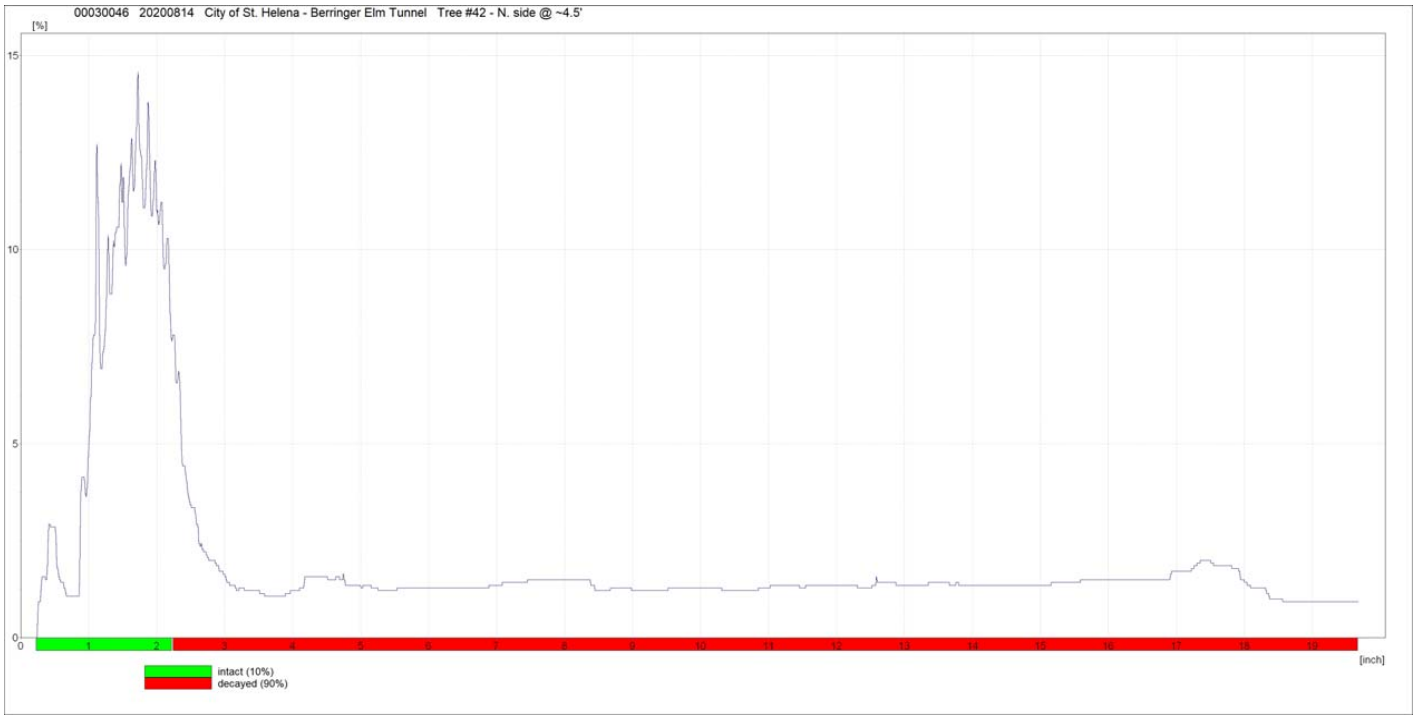

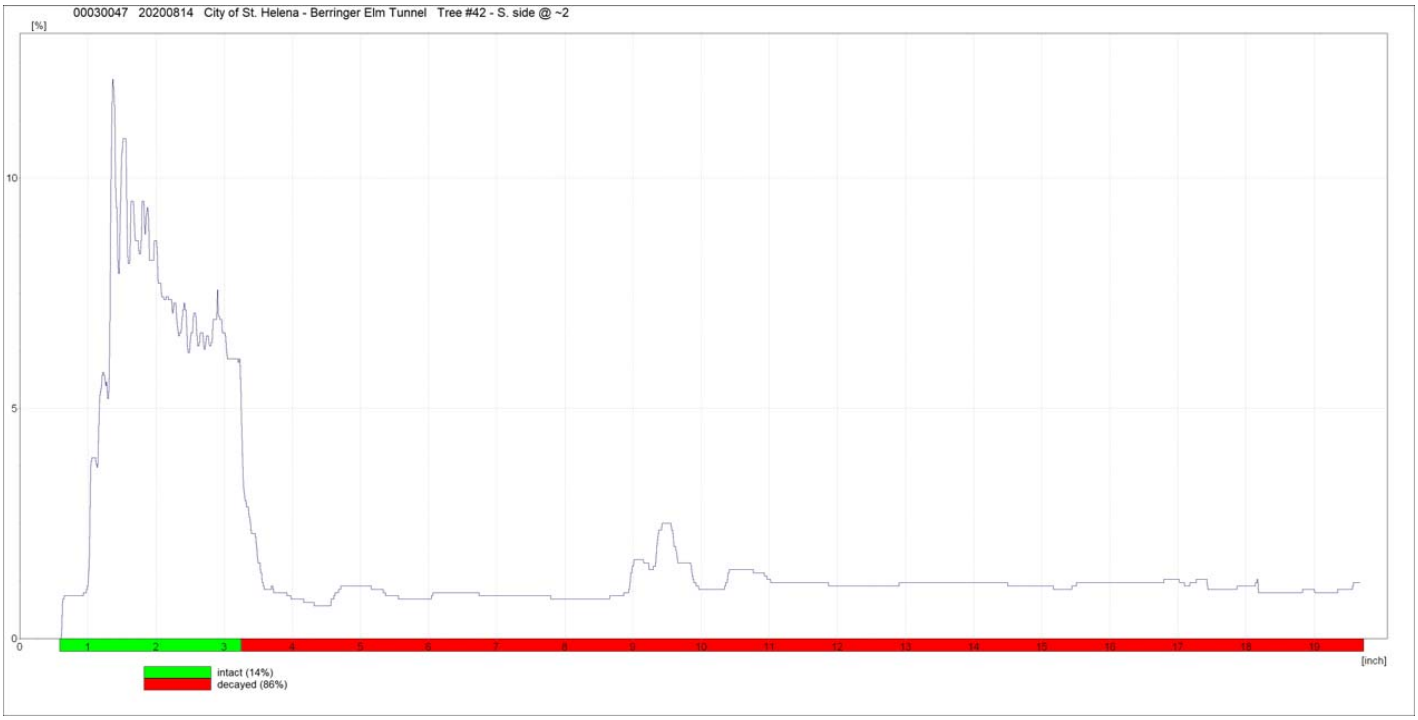

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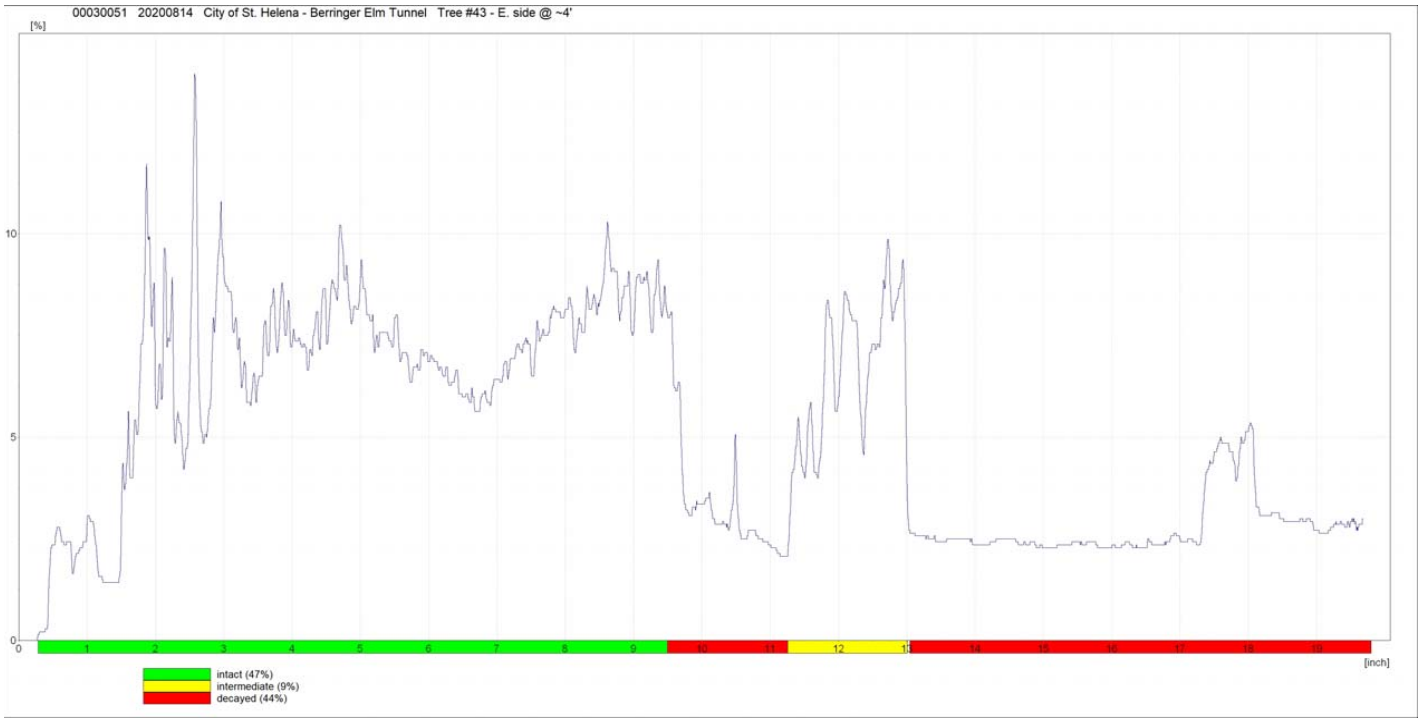

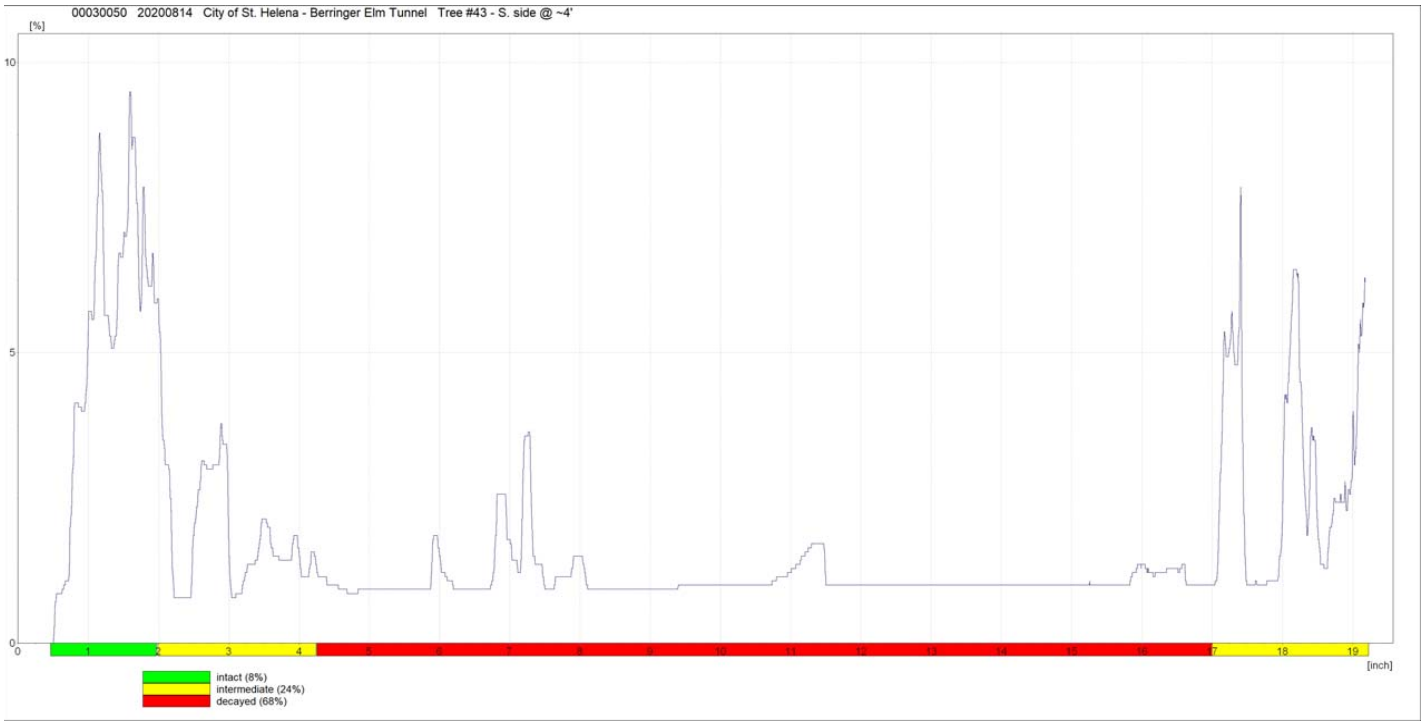

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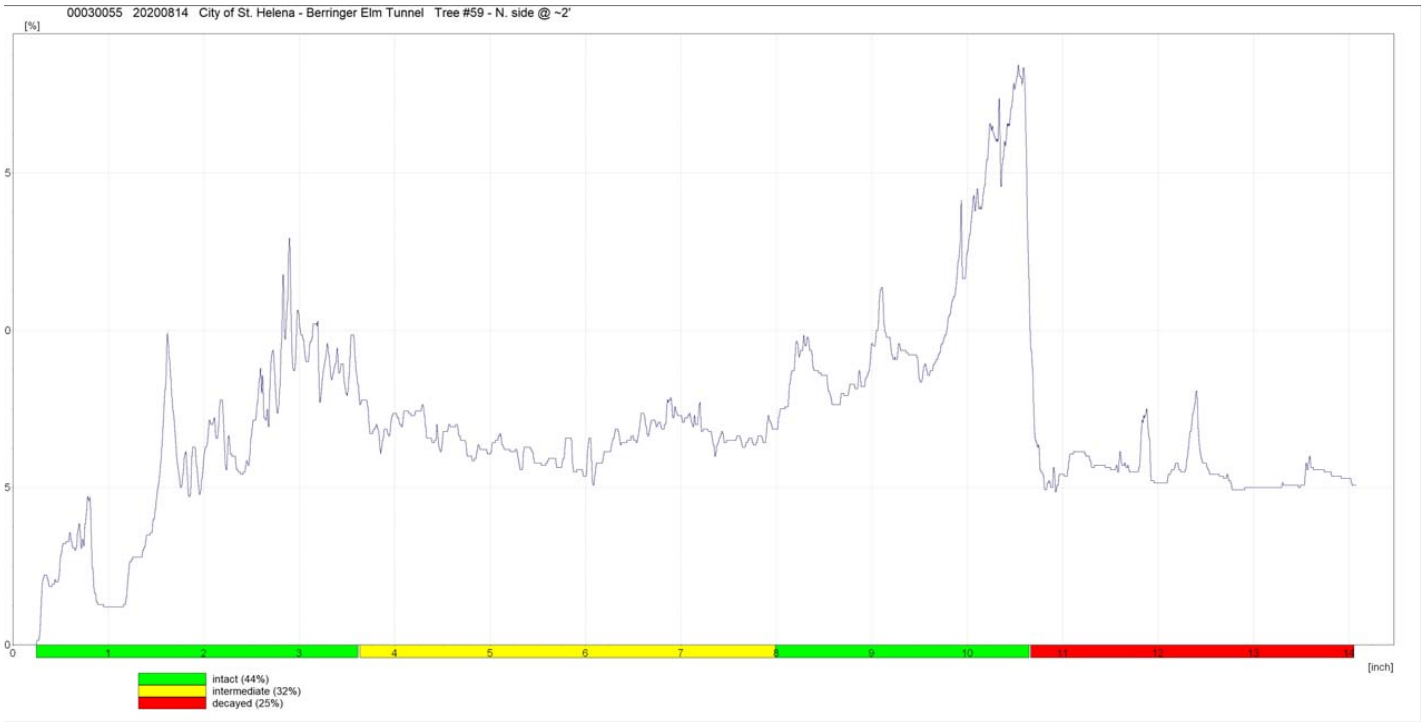

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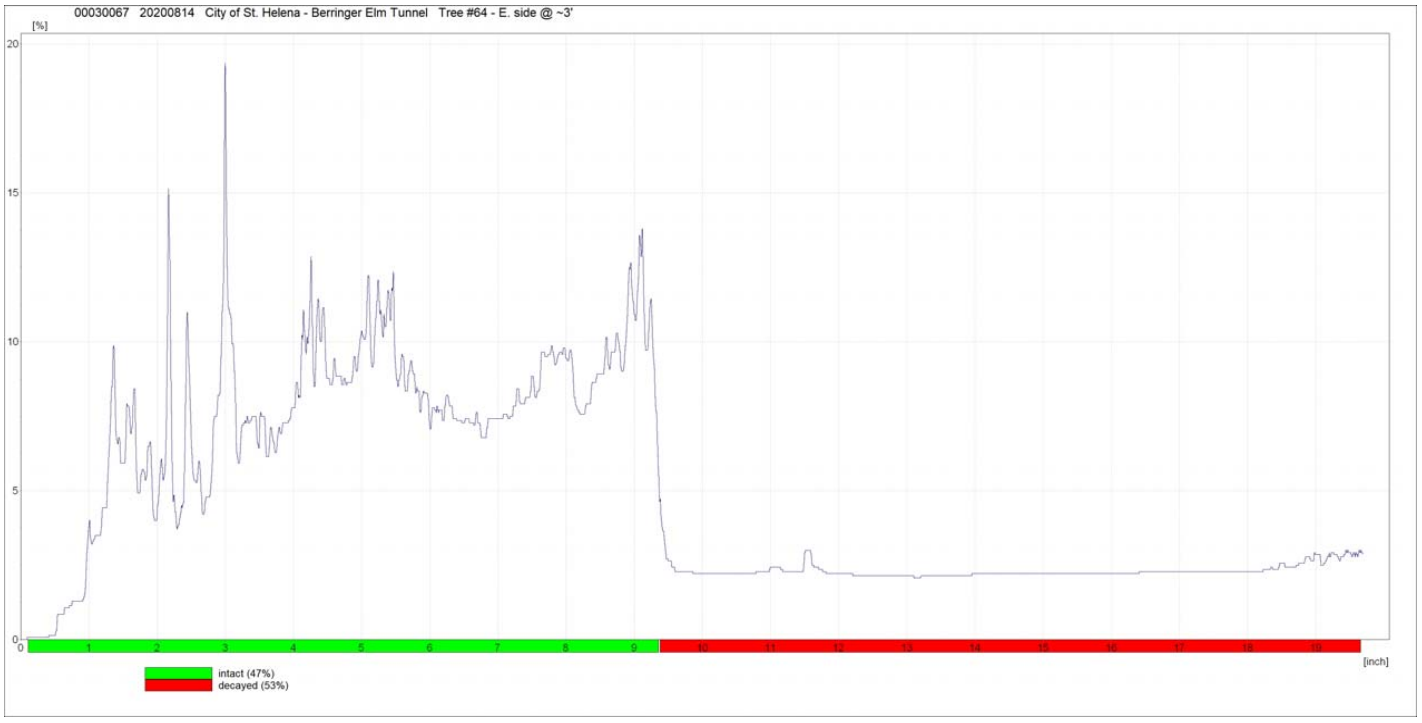

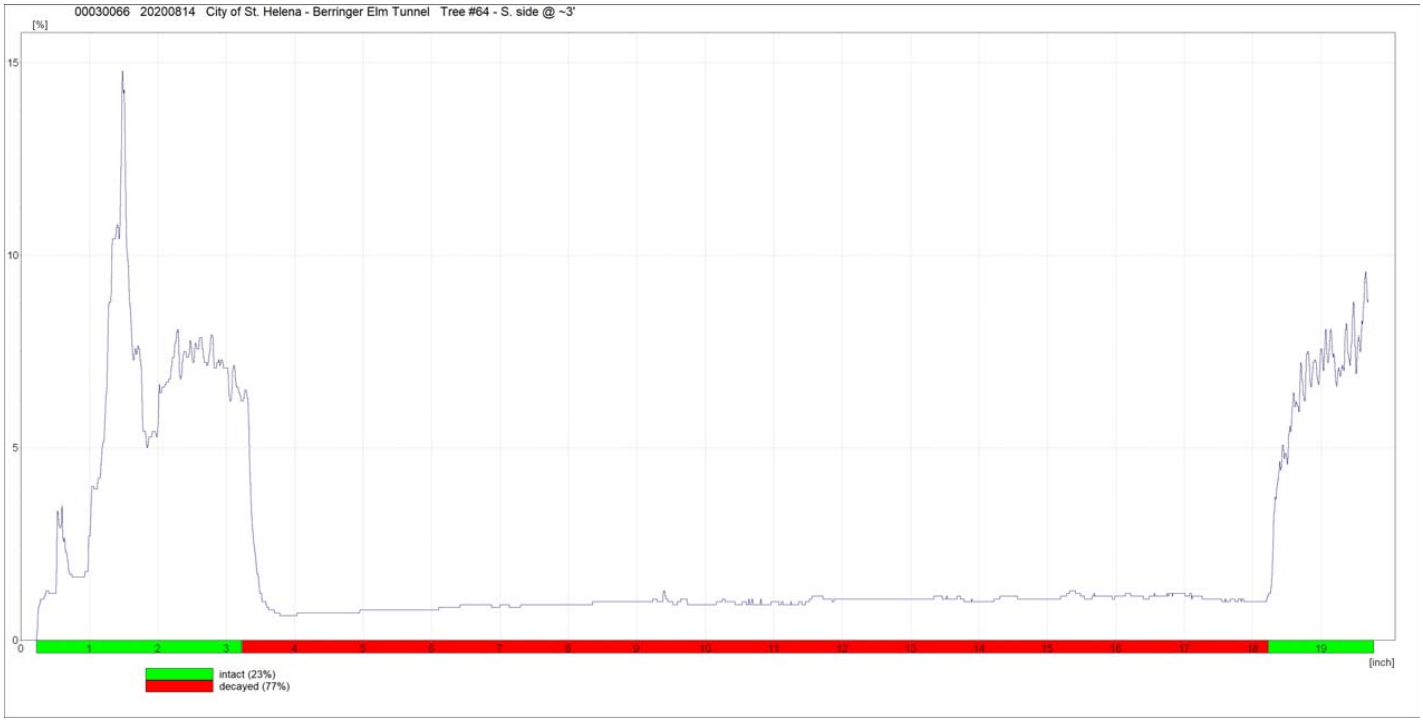

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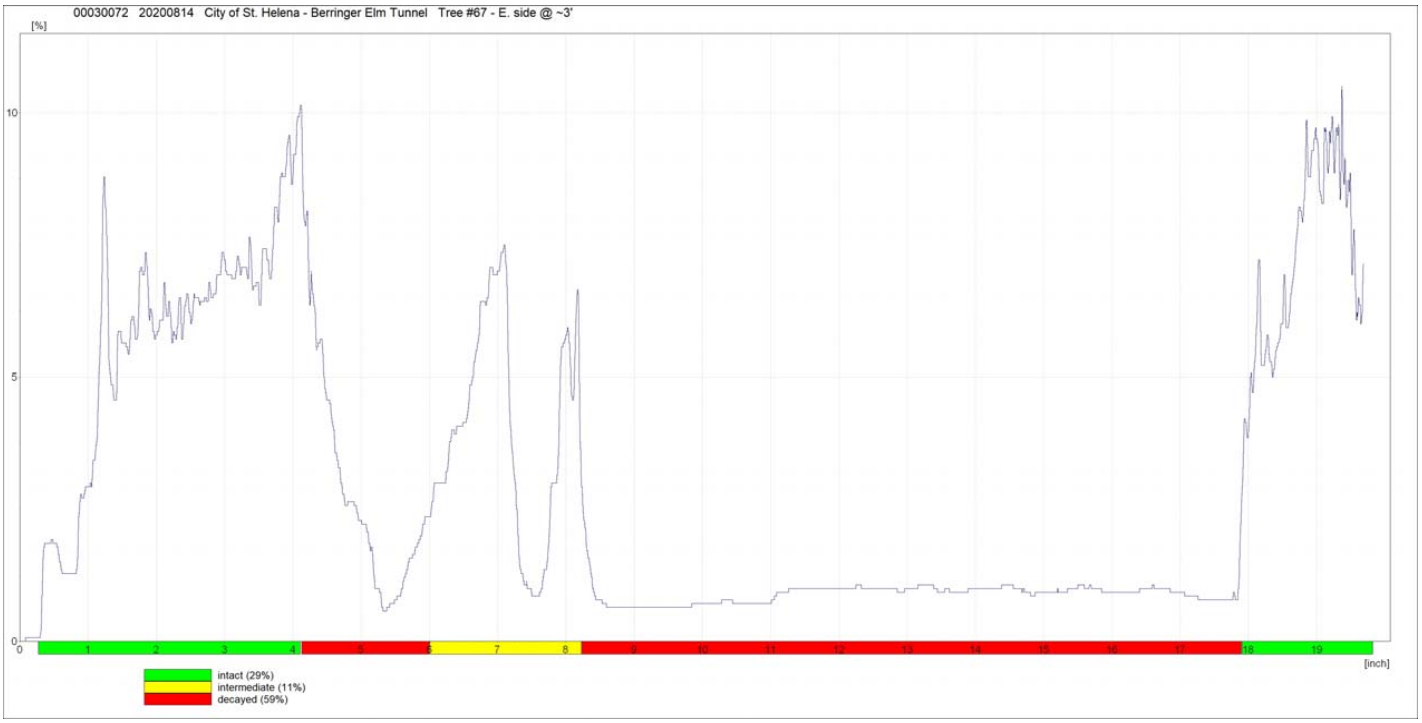

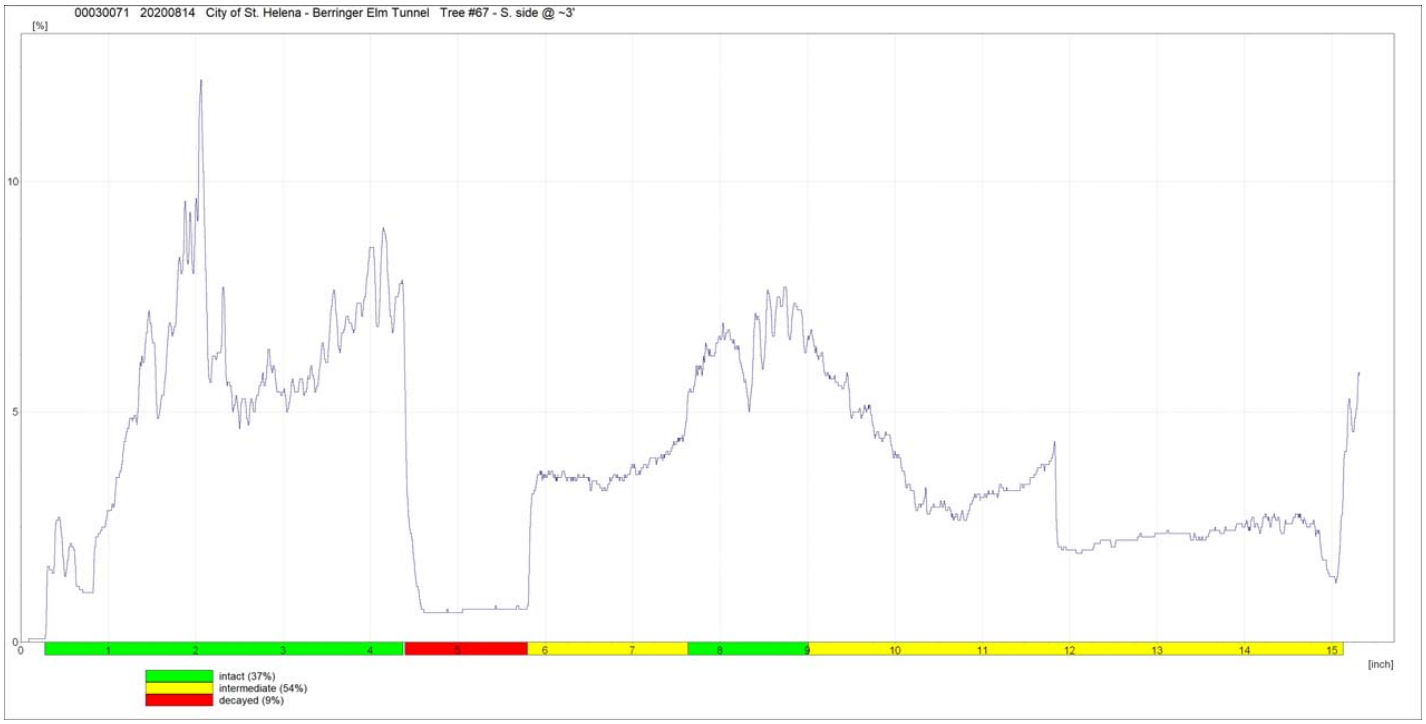

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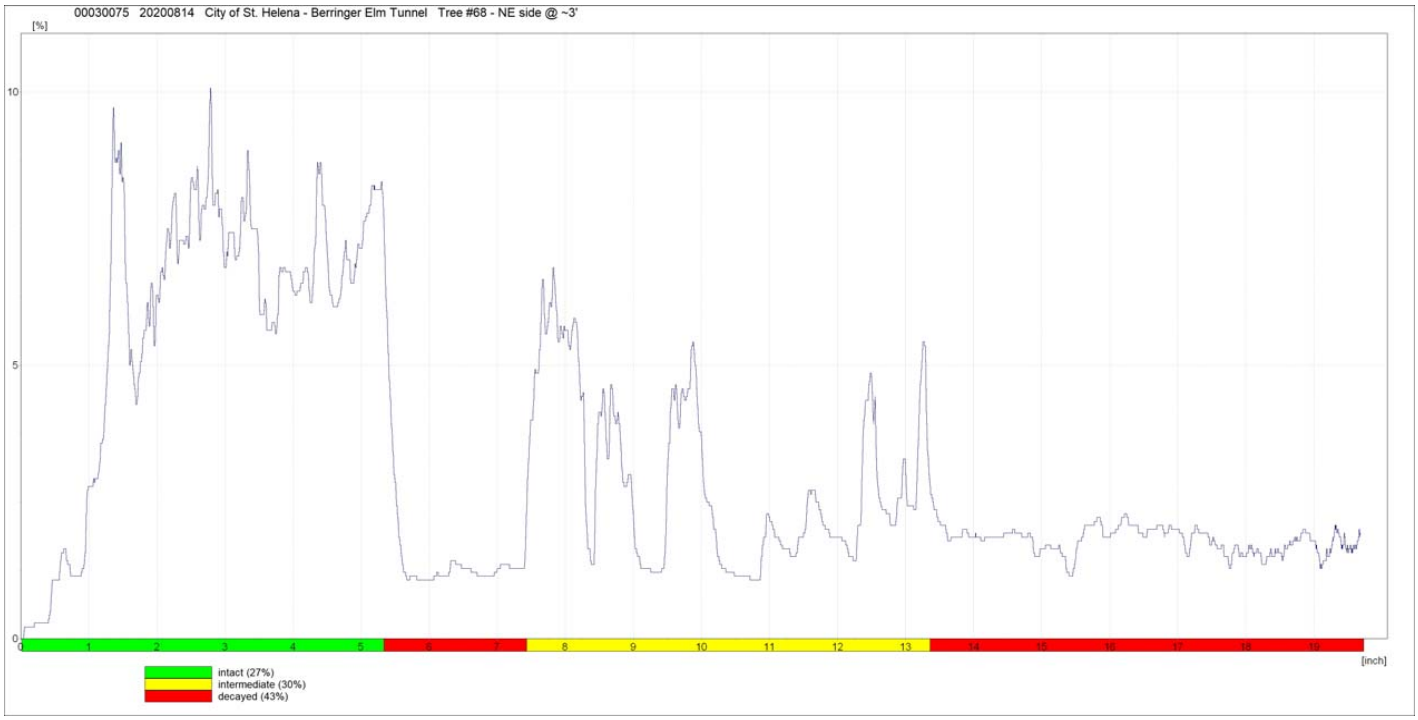

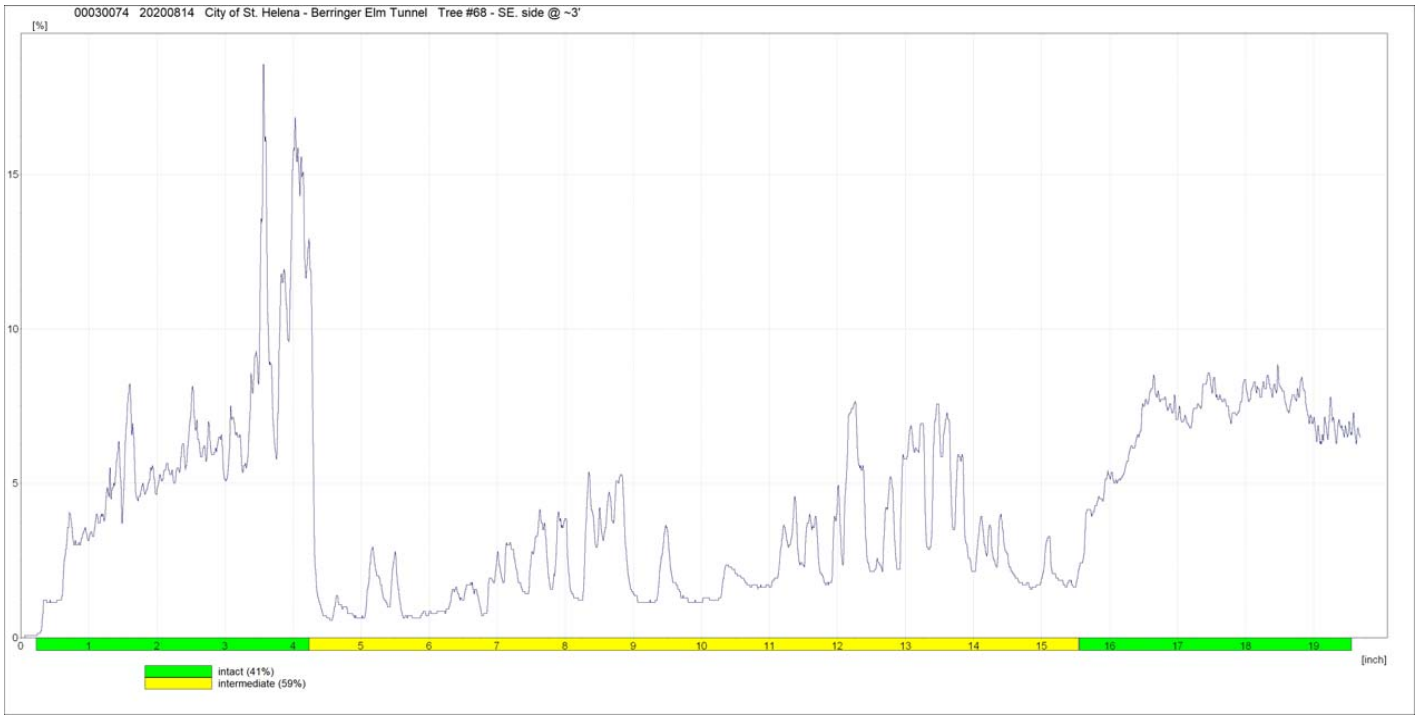

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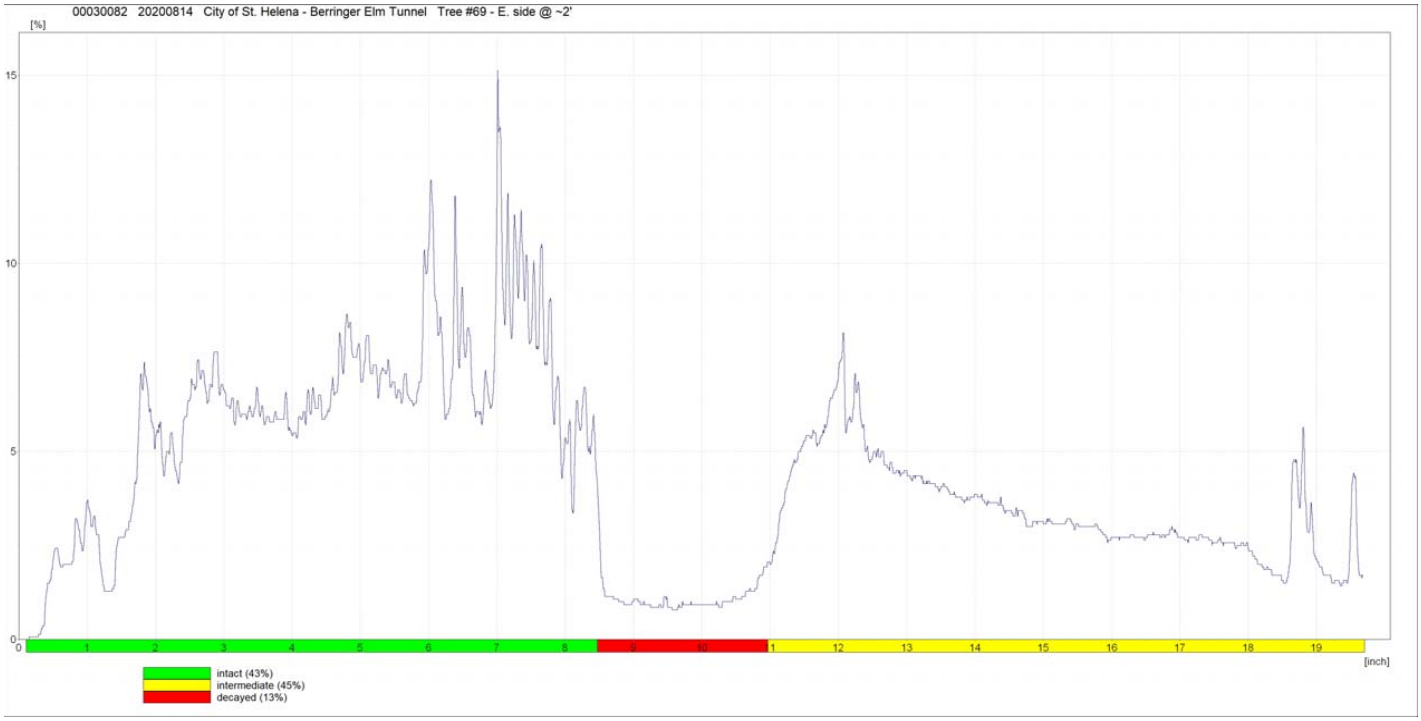

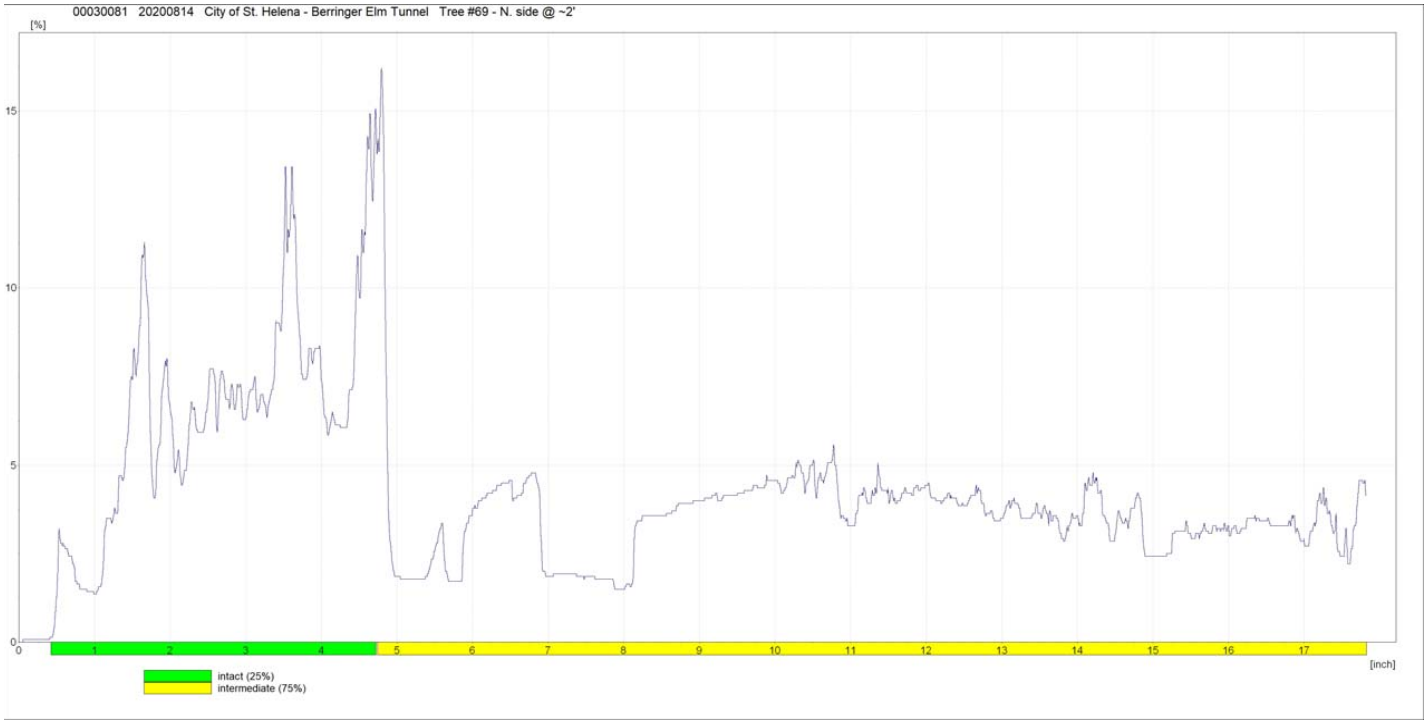

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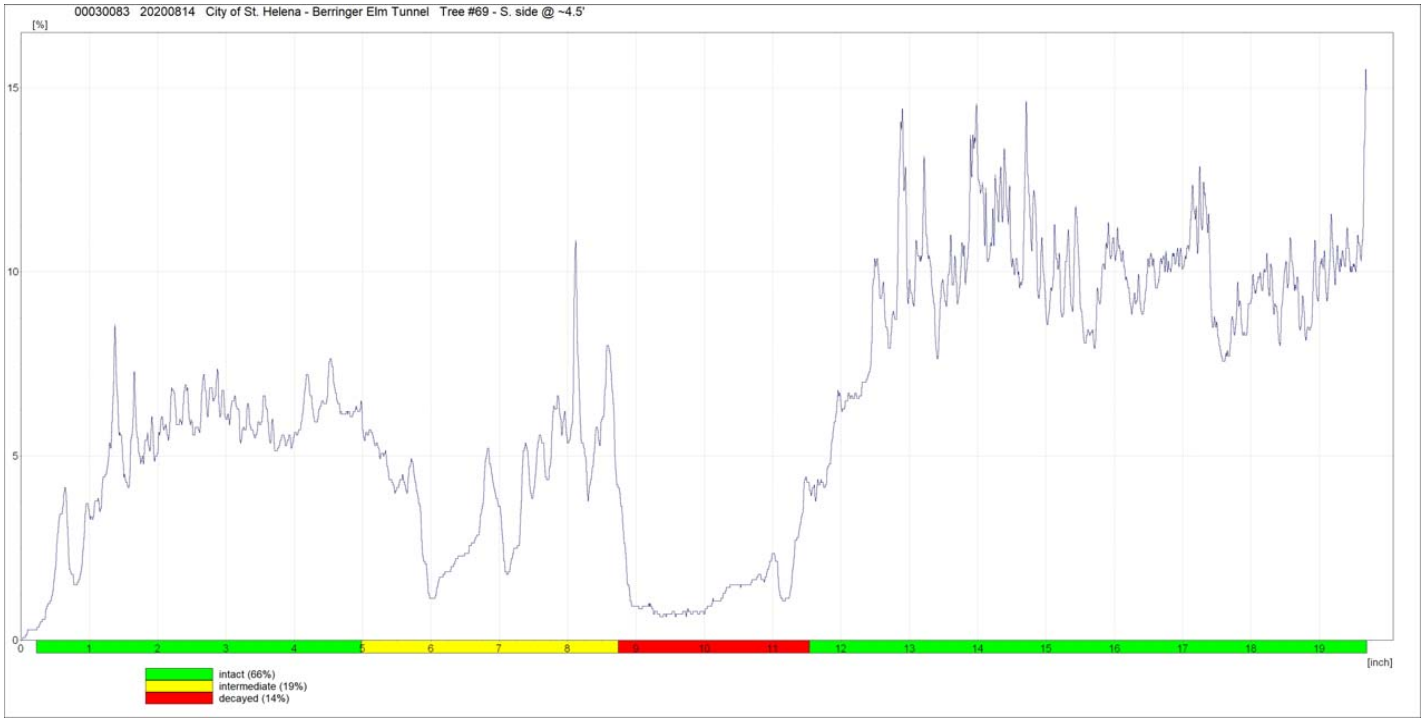
City of St. Helena—Beringer Elm Tunnel



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City of St. Helena—Beringer Elm Tunnel

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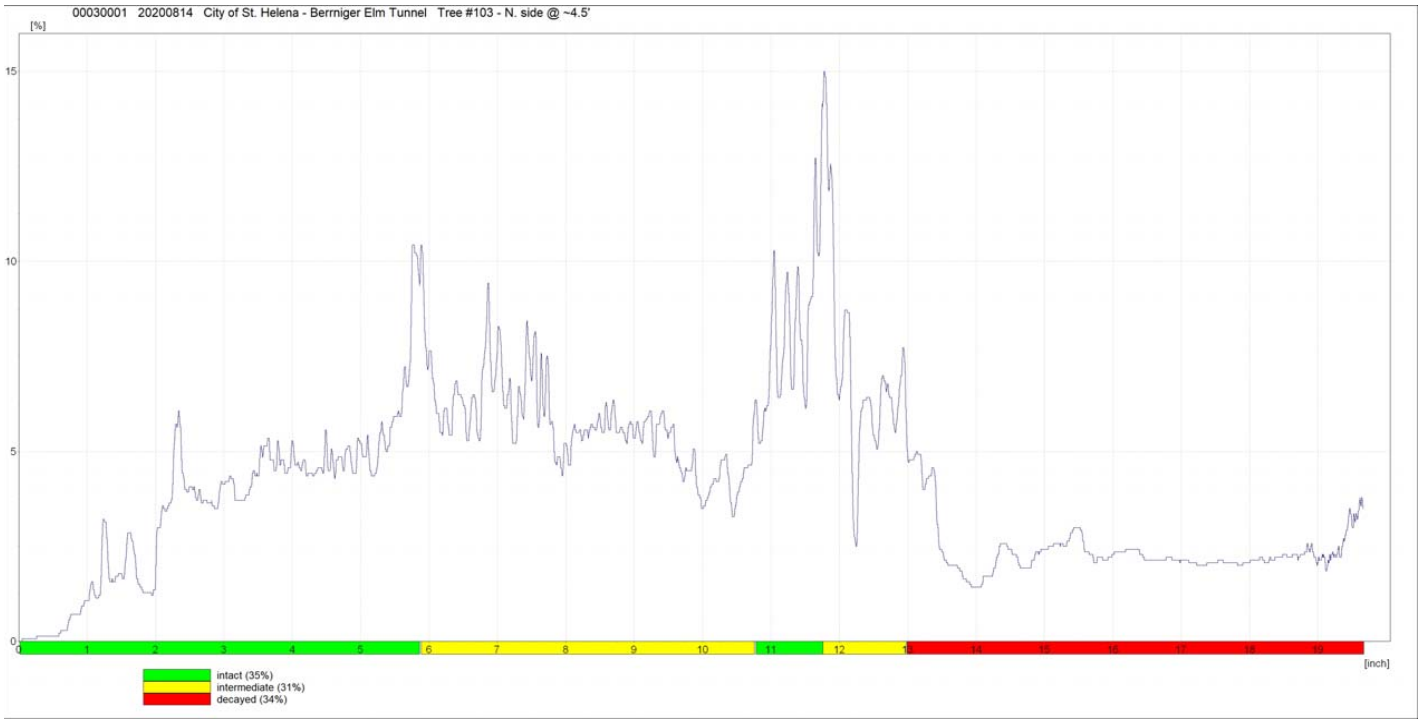

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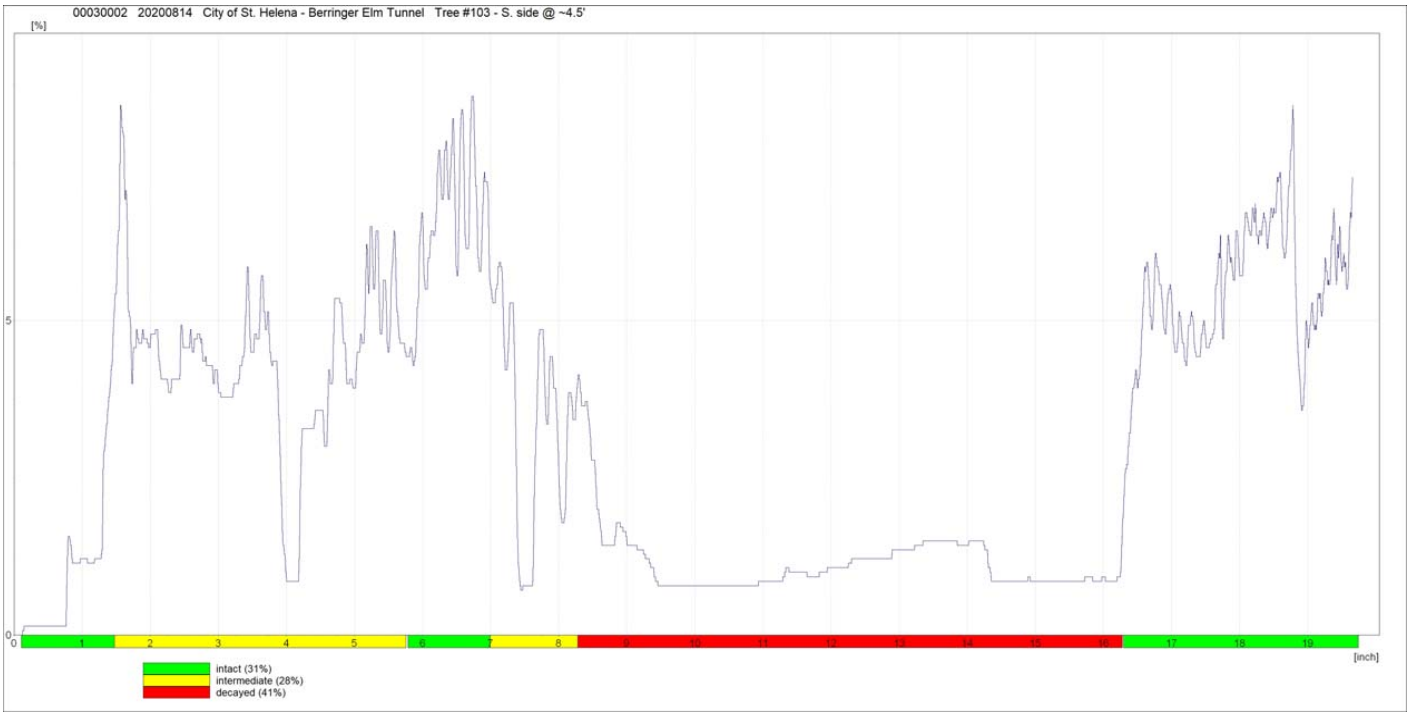

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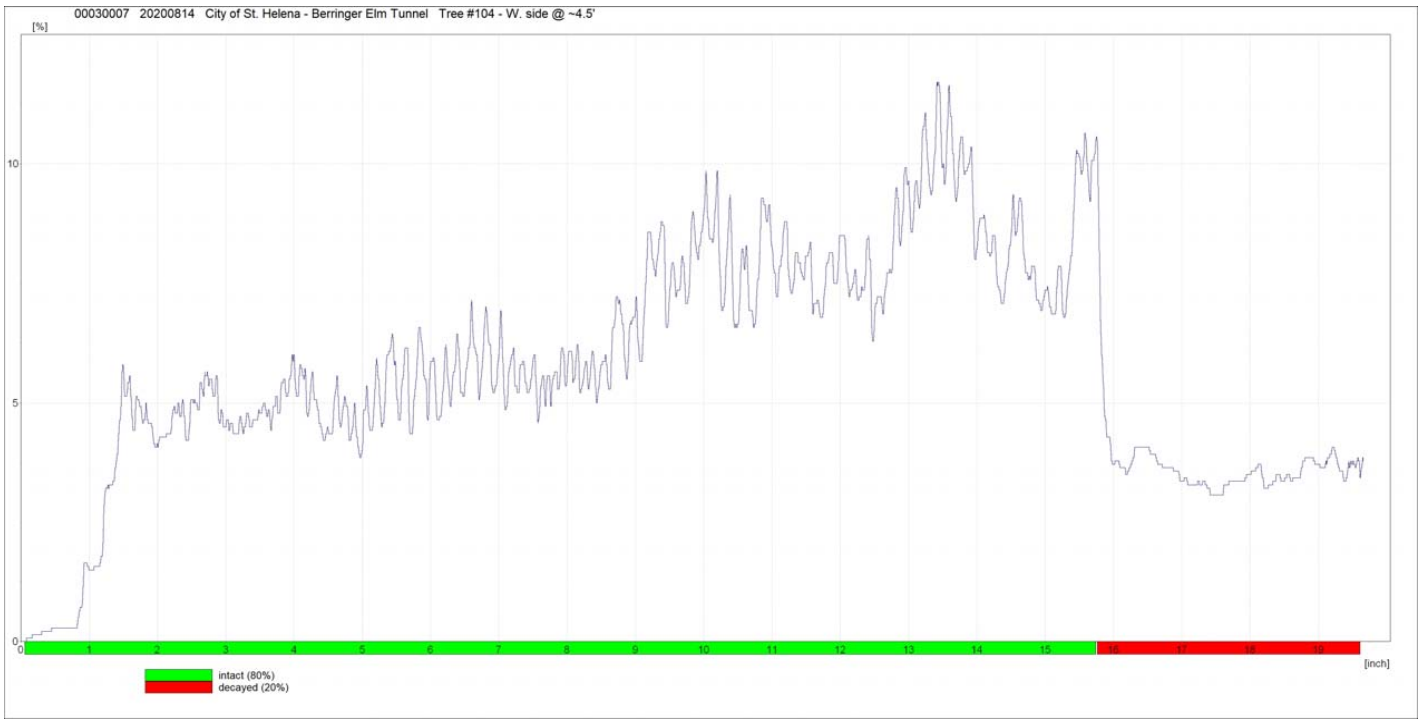

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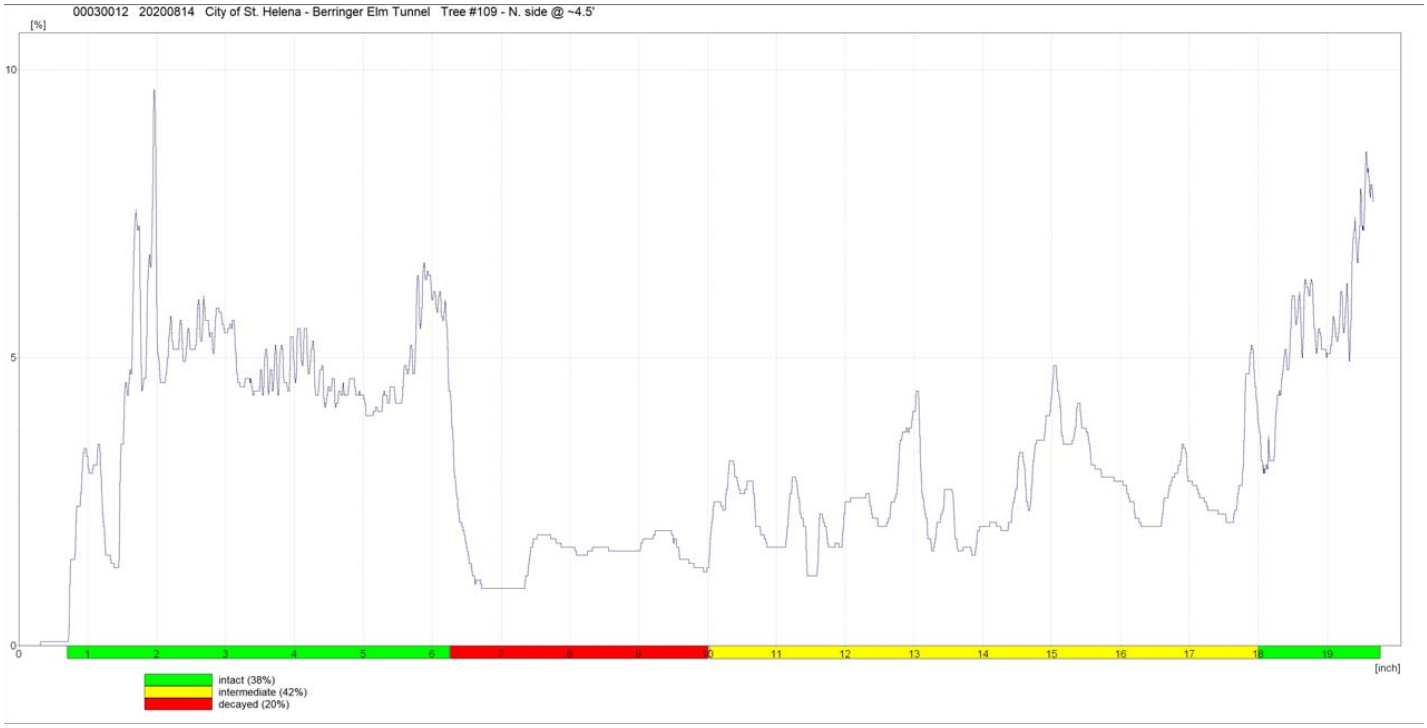
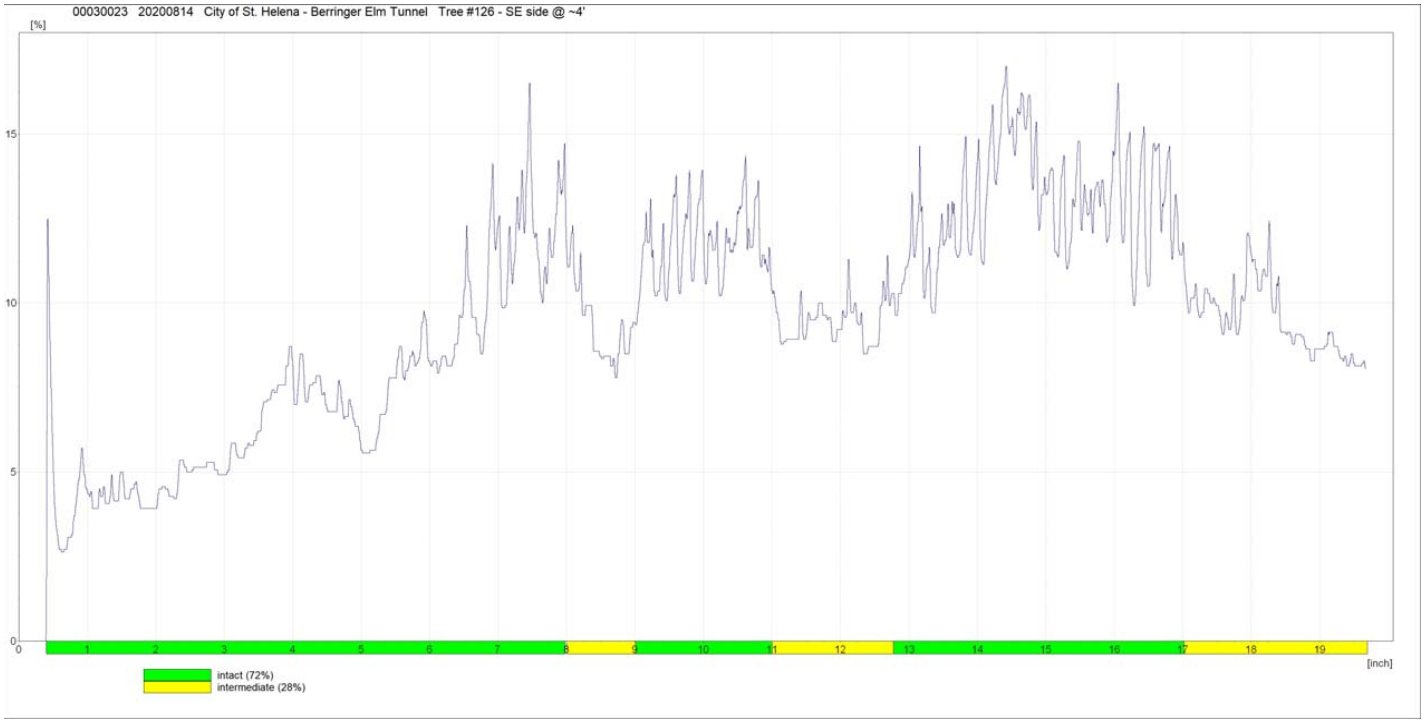


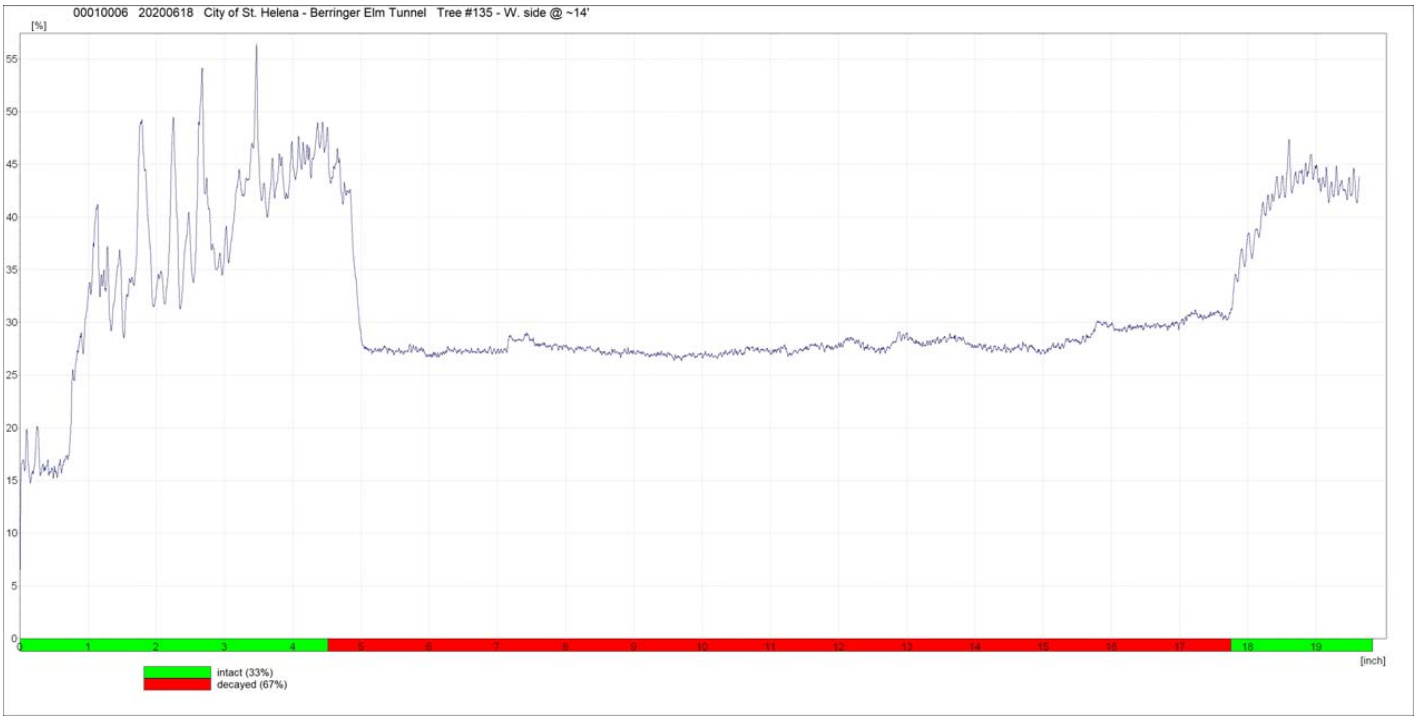
Appendix A—Advanced Assessment

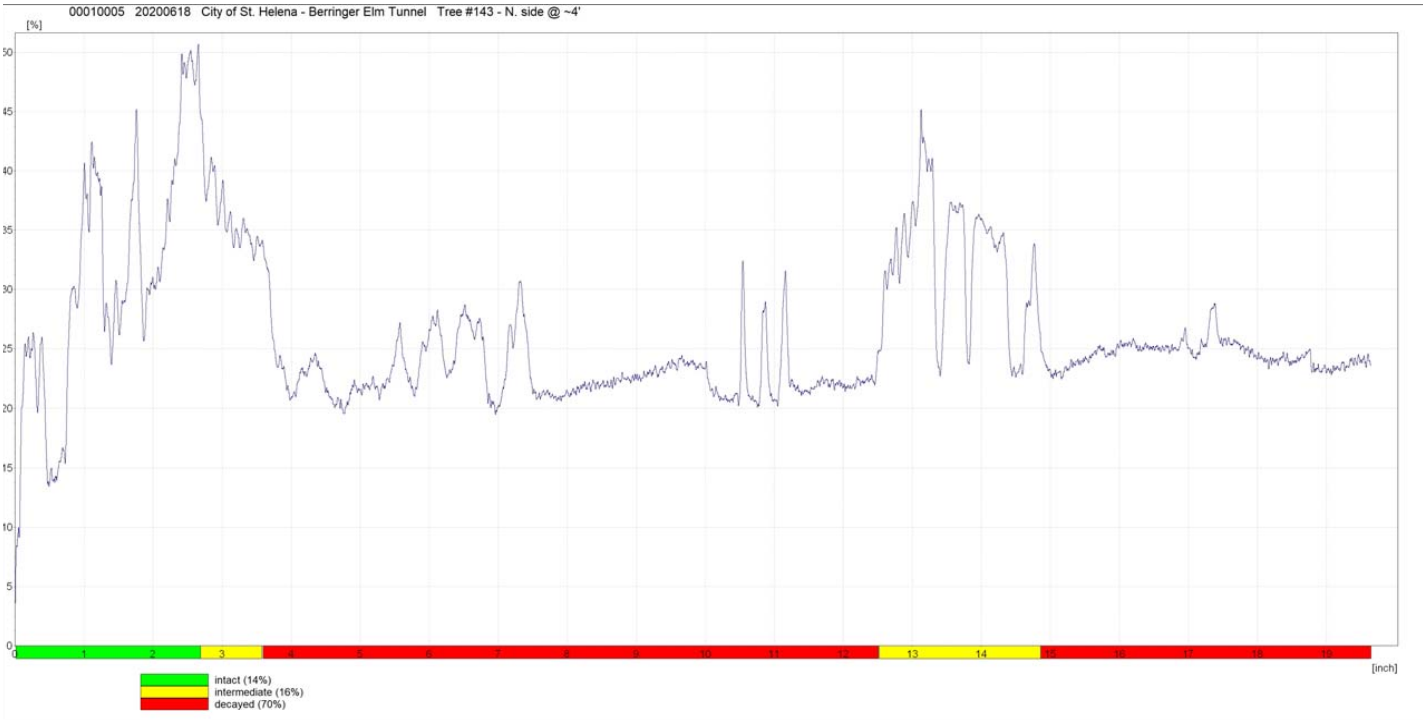
City of St. Helena—Beringer Elm Tunnel



Appendix A—Advanced Assessment

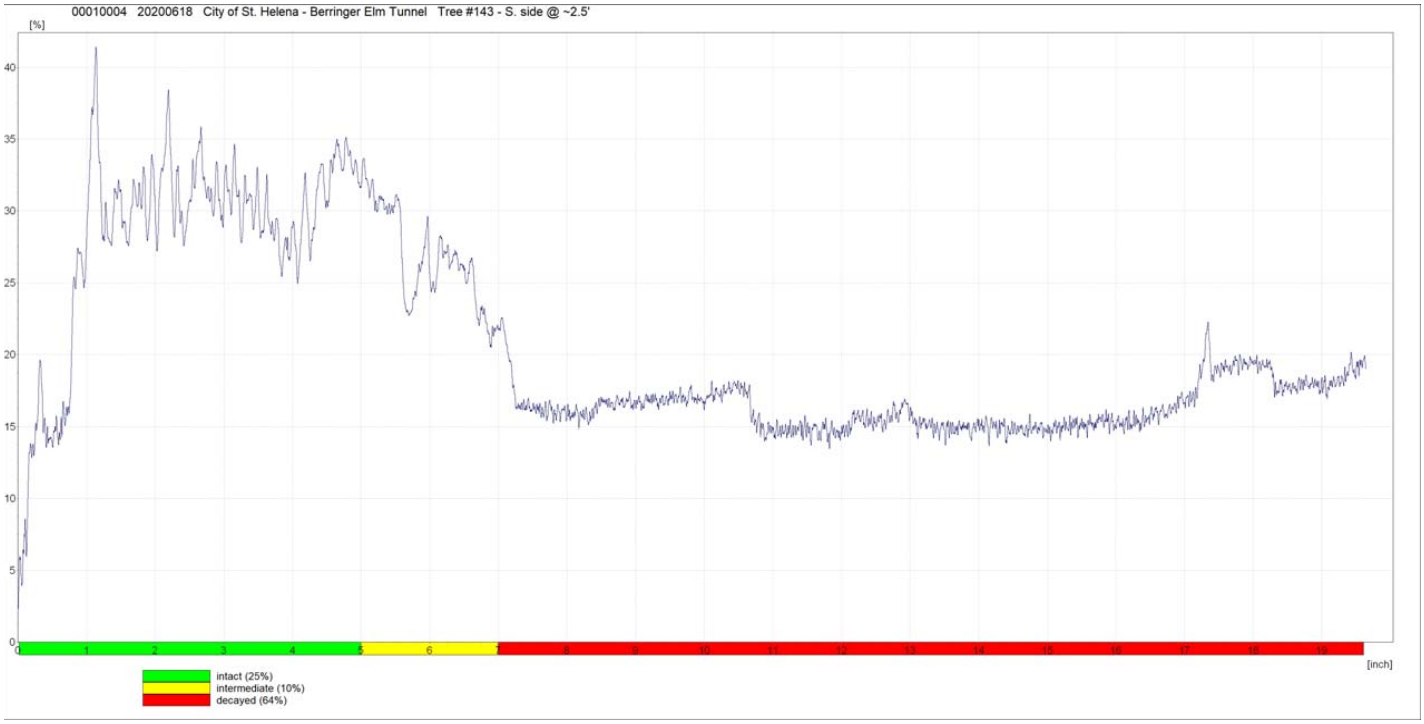
City of St. Helena—Beringer Elm Tunnel





Appendix A—Advanced Assessment

City of St. Helena—Beringer Elm Tunnel



Appendix B - Updated Summary of Tree Risk Ratings
Beringer Elms - St. Halena, CA

Tree #	Tree Condition			Defect 1 Risk Assessment				Defect 2 Risk Assessment				Defect 3 Risk Assessment				Management recommendation
	Species	Trunk diameter (inches)	Condition rating 1=poor; 5=excellent	Tree part likely to fail	Targets	Risk rating	Residual risk	Tree part likely to fail	Targets	Risk rating	Residual risk	Tree part likely to fail	Targets	Risk rating	Residual risk	
1	American elm	34	3	Stem	Trail	Moderate	Moderate	Scaffold branch	Trail	Moderate	Low	--	--	--	--	Prune to reduce weight/ext.
2	American elm	26	3	Whole tree	Hwy. 29	High	None	Stem	Hwy. 29	Moderate	Moderate	Scaffold branch	Trail	Low	Low	**Priority 1 removal**
3	American elm	28	2	Whole tree	Hwy. 29	Moderate	None	Scaffold branch	Hwy. 29	Moderate	Low	Scaffold branch	Trail	Moderate	None	**Priority 1 removal**
4	American elm	32	3	Stem	Hwy. 29	Moderate	Low	Stem	Trail	Moderate	Low	--	--	--	--	Prune to reduce weight/ext.
7	American elm	29	4	Stem	Hwy. 29	Moderate	Low	Stem	Trail	Moderate	Low	--	--	--	--	Prune to remove 16" stem
8	American elm	25	2	Whole tree	Trail	Moderate	None	Stem	Trail	Low	Low	--	--	--	--	**Priority 1 removal**
12	American elm	31	0									--	--	--	--	Removed as of 6/19
13	American elm	28	3	Whole tree	Trail	Low	Moderate	Stem	Trail	Low	Low	--	--	--	--	None currently, priority 2 removal
14	American elm	29	3	Whole tree	Trail	Low	Low	Stem	Trail	Low	Low	--	--	--	--	None currently, priority 2 removal
16	American elm	28	2	Whole tree	Hwy. 29	Moderate	None	Stem	Trail	Moderate	Low	--	--	--	--	**Priority 1 removal** (based on condition)
17	American elm	28	2	Stem	Hwy. 29	Moderate	None	Scaffold branch	Trail	Low	Low	--	--	--	--	None currently, priority 2 removal
33	American elm	21	0									--	--	--	--	Removed as of 6/19
34	American elm	24	0									--	--	--	--	Removed as of 6/19
35	American elm	24	2	Dead branch	Hwy. 29	Moderate	Low	Stem	Trail	Low	Low	--	--	--	--	Prune to crown clean, priority 2 removal
36	American elm	22	3	Scaffold branch	Hwy. 29	Moderate	Low	Stem	Trail	Low	Low	--	--	--	--	Prune to reduce weight/ext., priority 2 removal
37	American elm	24	3	Dead branch	Hwy 29	Moderate	Low	Stem	Trail	Low	Low	--	--	--	--	Prune to crown clean
38	American elm	24	3	Scaffold branch	Hwy. 29	Low	Low	Scaffold branch	Trail	Moderate	Low	--	--	--	--	None currently
39	American elm	23	3	Stem	Hwy. 29	Moderate	Low	Scaffold branch	Trail	Low	Low	--	--	--	--	Prune to reduce height/extension
40	American elm	26	4	Stem	Hwy. 29	Moderate	Low	Stem	Trail	Low	Low	--	--	--	--	Prune to reduce height/extension

Appendix B - Updated Summary of Tree Risk Ratings
Beringer Elms - St. Halena, CA

Tree #	Tree Condition			Defect 1 Risk Assessment				Defect 2 Risk Assessment				Defect 3 Risk Assessment				Management recommendation
	Species	Trunk diameter (inches)	Condition rating 1=poor; 5=excellent	Tree part likely to fail	Targets	Risk rating	Residual risk	Tree part likely to fail	Targets	Risk rating	Residual risk	Tree part likely to fail	Targets	Risk rating	Residual risk	
41	American elm	27	3	Stem	Trail	Moderate	Moderate					--	--	--	--	Prune to reduce weight/ext.
42	American elm	27	2	Stem	Hwy. 29	Moderate	Low	Whole tree	Trail	Moderate	None	Scaffold branch	Trail	Low	Low	Prune to remove 8" stem
43	American elm	28	3	Scaffold branch	Hwy. 29	Moderate	Low	Stem	Trail	Moderate	Low	Whole tree	Trail	Moderate	None	Prune to reduce height/extension,
45	American elm	26	3	Stem	Trail	Moderate	Low					--	--	--	--	Prune to reduce weight/ext.
46	American elm	24	3	Stem	Hwy. 29	Moderate	Low	Scaffold branch	Trail	Low	Low	--	--	--	--	Prune to reduce weight/ext.
49	American elm	24	0									--	--	--	--	Removed as of 6/19
50	American elm	28	2	Scaffold branch	Hwy. 29	Low	Low	Scaffold branch	Trail	Moderate	Low	--	--	--	--	None currently
52	American elm	22	2	Dead branch	Hwy. 29	Moderate	Low	Stem	Trail	Moderate	Low	--	--	--	--	Prune to crown clean
54	American elm	27	2	Dead branch	Hwy. 29	Moderate	Low	Stem	Trail	Low	Low	--	--	--	--	Prune to crown clean
59	American elm	23	3	Dead branch	Trail	Moderate	Low	Whole tree	Hwy. 29	Moderate		--	--	--	--	Prune to crown clean & reduce weight/ext.
60	American elm	24	2	Stem	Trail	Low	Low	Whole tree	Hwy. 29	Moderate		--	--	--	--	**Priority 1 removal** (based on condition)
61	American elm	21	3	Scaffold branch	Hwy. 29	Low	Low	Stem	Trail	Low	Low	--	--	--	--	**Priority 1 removal** (based on condition)
62	American elm	25	3	Stem	Trail	Low	Low					--	--	--	--	None currently
63	American elm	23	3	Scaffold branch	Hwy. 29	Low	Low	Stem	Trail	Low	Low	--	--	--	--	None currently
64	American elm	25	3	Stem	Hwy. 29	Moderate	Low	Dead branch	Trail	Moderate	Low	Whole tree	Hwy. 29	Moderate	None	Prune to reduce height/extension
65	American elm	22	3	Scaffold branch	Hwy. 29	Moderate	Low	Stem	Trail	Low	Low	--	--	--	--	Prune to reduce height/extension
66	American elm	22	3	Dead branch	Hwy. 29	Moderate	Low	Scaffold branch	Trail	Low	Low	--	--	--	--	Prune to crown clean
67	American elm	22	2	Whole tree	Hwy. 29	Moderate	Moderate	Dead branch	Trail	Moderate	Low	--	--	--	--	Prune to crown clean, priority 2 removal
68	American elm	20	2	Whole tree	Hwy. 29	Moderate	Moderate	Scaffold branch	Trail	Low	Low	--	--	--	--	Prune to reduce weight/ext., priority 2 removal

Appendix B - Updated Summary of Tree Risk Ratings
Beringer Elms - St. Halena, CA

Tree #	Tree Condition			Defect 1 Risk Assessment				Defect 2 Risk Assessment				Defect 3 Risk Assessment				Management recommendation
	Species	Trunk diameter (inches)	Condition rating 1=poor; 5=excellent	Tree part likely to fail	Targets	Risk rating	Residual risk	Tree part likely to fail	Targets	Risk rating	Residual risk	Tree part likely to fail	Targets	Risk rating	Residual risk	
69	American elm	24	2	Scaffold branch	Hwy. 29	Low	Low	Stem	Trail	Low	Low	Whole tree	Hwy. 29	Moderate	None	Prune to reduce weight/ext., priority 2 removal
70	American elm	21	2	Stem	Trail	Low	Low					--	--	--	--	None currently, priority 2 removal
71	American elm	22	2	Scaffold branch	Hwy. 29	Moderate	Low	Stem	Trail	Low	Low	--	--	--	--	Prune to reduce height/extension,
80	American elm	28	3	Stem	Hwy. 29	Moderate	Low					--	--	--	--	Prune to reduce height/extension
81	American elm	28	3	Scaffold branch	Hwy. 29	Moderate	Low	Scaffold branch	Orchard	Low	Low	--	--	--	--	Prune to reduce weight/ext.
82	American elm	27	3	Stem	Hwy. 29	Low	Low	Scaffold branch	Orchard	Low	Low	--	--	--	--	None currently, priority 2 removal
84	American elm	26	3	Stem	Hwy. 29	Low	Low	Scaffold branch	Orchard	Low	Low	--	--	--	--	None currently, priority 2 removal
85	American elm	28	2	Stem	Hwy. 29	Moderate	Low	Stem	Orchard	Low	Low	--	--	--	--	Prune to reduce height/extension,
92	American elm	31	3	Scaffold branch	Driveway	Moderate	Low	Stem	Hwy. 29	Moderate	Moderate	--	--	--	--	Prune to reduce weight/ext., priority 2
93	American elm	34	3	Stem	Hwy. 29	Moderate	Low	Stem	Landscape	Low	Low	--	--	--	--	Remove 10" stem, priority 2 removal
94	American elm	28	3	Scaffold branch	Hwy. 29	High	Low	Scaffold branch	Landscape	Low	Low	--	--	--	--	**Priority 1-**prune to reduce weight/ext.,
95	American elm	30	3	Scaffold branch	Hwy. 29	Moderate	Low	Stem	Parking	Low	Low	--	--	--	--	Prune to reduce weight/ext., priority 2
99	American elm	33	2	Stem	Hwy. 29	High	None	Scaffold branch	Landscape	Low	Low	--	--	--	--	None currently, priority 2 removal
100	American elm	32	3	Stem	Parking	Moderate	Low	Whole tree	Hwy. 29	Low	Low	--	--	--	--	Prune to reduce weight/ext., priority 2
101	American elm	30	3	Scaffold branch	Hwy. 29	Moderate	Low	Stem	Parking	Moderate	Low	--	--	--	--	**Priority 1 removal**
103	American elm	33	2	Stem	Hwy. 29	High	None	Scaffold branch	Parking	Low	Low	Whole tree	Hwy. 29	Moderate	None	Prune to reduce weight/ext., priority 2 removal
104	American elm	31	2	Stem	Hwy. 29	Moderate	Low	Stem	Parking	Moderate	Low	--	--	--	--	Prune to reduce weight/ext., priority 2 removal
105	American elm	31	3	Dead branch	Parking	Low	Low	Stem	Parking	Low	Low	--	--	--	--	None currently

Appendix B - Updated Summary of Tree Risk Ratings
Beringer Elms - St. Halena, CA

Tree #	Tree Condition			Defect 1 Risk Assessment				Defect 2 Risk Assessment				Defect 3 Risk Assessment				Management recommendation
	Species	Trunk diameter (inches)	Condition rating 1=poor; 5=excellent	Tree part likely to fail	Targets	Risk rating	Residual risk	Tree part likely to fail	Targets	Risk rating	Residual risk	Tree part likely to fail	Targets	Risk rating	Residual risk	
106	American elm	27	3	Stem	Hwy. 29	Moderate	Low	Dead branch	Parking	Moderate	Low	--	--	--	--	Prune to reduce weight/ext.
107	American elm	31	3	Stem	Hwy. 29	Moderate	Low	Stem	Parking	Moderate	Low	--	--	--	--	Prune to reduce weight/ext., priority 2 removal
108	American elm	34	3	Stem	Hwy. 29	Low	Low	Stem	Parking	Moderate	Low	--	--	--	--	None currently, priority 2 removal
109	American elm	26	2	Scaffold branch	Hwy. 29	Low	Low	Stem	Landscape	Low	Low	Whole tree	Hwy. 29	Moderate	None	None currently, priority 2 removal
110	American elm	33	3	Stem	Parking	Moderate	Low					--	--	--	--	Prune to reduce weight/ext., priority 2 removal
111	American elm	28	3	Stem	Hwy. 29	Moderate	Moderate	Stem	Landscape	Low	Low	--	--	--	--	None currently, priority 2 removal
112	American elm	30	2	Stem	Hwy. 29	Moderate	None	Stem	Parking	Low	None	--	--	--	--	Prune to crown clean
113	American elm	30	1	Dead branch	Hwy. 29	High	None					--	--	--	--	**Priority 1**-prune to crown clean
121	American elm	27	4	Scaffold branch	Hwy. 29	Moderate	Low	Scaffold branch	Landscape	Low	Low	--	--	--	--	Prune to reduce weight/ext.
122	American elm	23	3	Scaffold branch	Hwy. 29	Moderate	Low					--	--	--	--	Prune to reduce weight/ext.
123	American elm	20	3	Scaffold branch	Hwy. 29	Low	Low	Stem	Landscape	Low	Low	--	--	--	--	None currently
124	American elm	20	3	Stem	Hwy. 29	Moderate	Low	Scaffold branch	Landscape	Low	Low	--	--	--	--	Prune to reduce weight/ext.
125	American elm	22	3	Stem	Hwy. 29	Moderate	Low	Scaffold branch	Landscape	Low	Low	--	--	--	--	Prune to reduce weight/ext.
126	American elm	22	3	Stem	Hwy. 29	High	Low	Scaffold branch	Landscape	Low	Low	Whole tree	Hwy. 29	Moderate	None	**Priority 1 removal**
127	American elm	24	3	Scaffold branch	Hwy. 29	Moderate	Low	Stem	Landscape	Low	Low	--	--	--	--	Prune to reduce weight/ext.
128	American elm	24	3	Scaffold branch	Hwy. 29	Moderate	Low	Dead branch	Landscape	Low	Low	--	--	--	--	Prune to reduce weight/ext.
129	American elm	27	3	Scaffold branch	Hwy. 29	Moderate	Low	Scaffold branch	Landscape	Low	Low	--	--	--	--	Prune to reduce weight/ext.
130	American elm	31	3	Scaffold branch	Hwy. 29	Moderate	Low	--	--	--	--	--	--	--	--	Prune to reduce weight/ext.

Appendix B - Updated Summary of Tree Risk Ratings
Beringer Elms - St. Halena, CA

Tree #	Tree Condition			Defect 1 Risk Assessment				Defect 2 Risk Assessment				Defect 3 Risk Assessment				Management recommendation
	Species	Trunk diameter (inches)	Condition rating 1=poor; 5=excellent	Tree part likely to fail	Targets	Risk rating	Residual risk	Tree part likely to fail	Targets	Risk rating	Residual risk	Tree part likely to fail	Targets	Risk rating	Residual risk	
131	American elm	25	2	Scaffold branch	Hwy. 29	Moderate	Low	Whole tree	Hwy. 29	Extreme	None	--	--	--	--	Removed 8/2020
132	American elm	27	3	Scaffold branch	Hwy. 29	Moderate	Low	Scaffold branch	Lawn	Low	Low	--	--	--	--	Prune to reduce weight/ext.
133	American elm	26	3	Scaffold branch	Hwy. 29	High	Low	Scaffold branch	Lawn	Low	Low	--	--	--	--	Prune to reduce weight/ext.
134	American elm	29	3	Scaffold branch	Hwy. 29	Moderate	Low	Scaffold branch	Lawn	Low	Low	--	--	--	--	Prune to reduce weight/ext., priority 2 removal
135	American elm	26	3	Scaffold branch	Hwy. 29	High	Low	Whole tree	Lawn	Low	Low	--	--	--	--	**Priority 1**-prune to reduce weight/ext., priority 2 removal
136	American elm	25	3	Scaffold branch	Hwy. 29	Low	Low	Dead branch	Lawn	Moderate	Low	--	--	--	--	None currently, priority 2 removal
137	American elm	25	3	Scaffold branch	Hwy. 29	Low	Low	Stem	Lawn	Low	Low	--	--	--	--	None currently, priority 2 removal
138	American elm	33	3	Scaffold branch	Hwy. 29	High	Low	Scaffold branch	Lawn	Low	Low	--	--	--	--	**Priority 1**-prune to reduce weight/ext.
139	American elm	25	3	Stem	Lawn	Low	Low					--	--	--	--	None currently
140	American elm	28	3	Hanger/dead branch	Hwy. 29	Moderate	Low	Scaffold branch	Lawn	Low	Low	--	--	--	--	Prune to reduce weight/ext.
141	American elm	29	3	Scaffold branch	Hwy. 29	Low	Low	Stem	Lawn	Low	Low	--	--	--	--	None currently
142	American elm	34	3	Scaffold branch	Hwy. 29	Low	Low	Stem	ndary road/entry	Low	Low	--	--	--	--	None currently
143	American elm	35	2	Whole tree	Hwy. 29	High	None	Scaffold branch	Hwy. 29	Moderate	Low	--	--	--	--	**Priority 1 removal**
144	American elm	36	3	Scaffold branch	Hwy. 29	High	Low	Scaffold branch	Hwy. 29	Moderate	Low	Stem	Secondary road/entry drive	Low	Low	**Priority 1**-prune to reduce weight/ext.

Updated Risk Rating Map

Elm Alley
St. Helena, CA

Prepared for:
City of St. Helena
October 2020

Notes:
1. Tree locations are approximate.

2. Aerial photo provided by ESRI.

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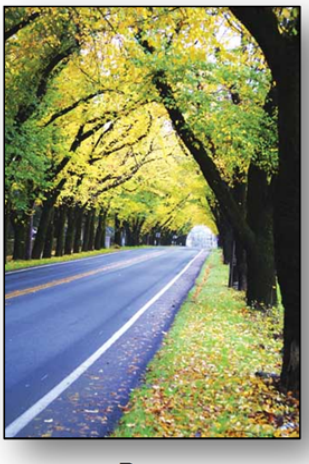
2019 Tree Risk Assessment

Beringer Elm Tunnel
Saint Helena, CA



PREPARED FOR:
City of St. Helena
Public Works Department
1480 Main St.
St. Helena CA 94575

PREPARED BY:
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Pleasanton, CA 94566

August 2019

HORT SCIENCE
BARTLETT CONSULTING
A Division of The I.A. Bartlett Tree Expert Company

DRAFT Tree Risk Assessment
Beringer Elm Tunnel
Saint Helena, CA

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DRAFT Tree Risk Assessment
Beringer Elm Tunnel
Saint Helena, CA

Introduction and Overview

The City of St. Helena manages a stand of mature elm trees. Over the years, trees in the stand have died due to Dutch elm disease (DED). The disease has been actively managed through removal of diseased trees and treatment of others to increase resistance to the disease. HortScience | Bartlett Consulting, Divisions of The F. A. Bartlett Tree Expert Company (H|BC) was asked to prepare a **Tree Risk Assessment Report** to help guide tree management. In addition, HBC was asked to comment on the existing management plan, maintenance practices employed on the young trees and options for DED management.

This report provides the following information:

1. Results of the visual assessment of the health and structural condition of the trees.
2. Risk rating for each of the mature trees, using the techniques and methodology described in *Tree Risk Assessment* Best Management Practices (International Society of Arboriculture, 2nd edition, 2017).
3. Management recommendations to minimize risks associated with trees.
4. A review of the current Elm Tunnel Management Plan provided by the City.
5. A review of the current maintenance practices for young trees.
6. A review of the current DED management and options for future management.
7. A discussion of long-range management considerations, including plant procurement and successional planning.

Background

This group of American elms (*Ulmus americana*) was planted by the Beringer Brothers in 1885 and originally contained approximately 75 trees on either side of Highway 29 in front of their winery, located just north of downtown St. Helena.

The two rows of elms create a tunnel of canopy over Highway 29 and are recognized components of the Beringer Winery Historic District. They contribute to the National Historic Landmark designation of the site. As such, any replacement trees must reach a similar mature height, provide a similar leaf size and branching pattern, and have similar form, scale, color and texture as the original American elms.

In addition, the trees are growing on California Department of Transportation (Caltrans) property but located within the City of St. Helena. The Beringer Winery and local community also have a clear interest in maintaining the trees and perpetuating the elm tunnel experience. Maintenance responsibilities for pruning, DED treatments and planting of new trees are shared by the State and City. This unique dynamic requires a partnership between all of the vested parties to develop and implement a strategic plan for preserving the functional and aesthetic beauty of the trees into the future.

Tree Assessment Methods

Trees were assessed in February, May and June of 2019. The assessment included all of the elm trees within the elm tunnel. The assessment procedure consisted of the following steps:

1. Tagging each tree with an identifying number and recording its location on a map;
2. Measuring the trunk diameter at a point 54" above grade;
3. Evaluating the health and structural condition using a scale of 0 – 5:
   - ***5*** - A healthy, vigorous tree, reasonably free of signs and symptoms of disease, with good structure and form typical of the species.
   - ***4*** - Tree with slight decline in vigor, small amount of twig dieback, minor structural defects that could be corrected.
   - ***3*** - Tree with moderate vigor, moderate twig and small branch dieback, thinning of crown, poor leaf color, moderate structural defects that might be mitigated with regular care.
   - ***2*** - Tree in decline, epicormic growth, extensive dieback of medium to large branches, significant structural defects that cannot be abated.
   - ***1*** - Tree in severe decline, dieback of scaffold branches and/or trunk; most of foliage from epicormics; extensive structural defects that cannot be abated.
   - ***0*** – Dead.
4. Rating the amount of flagging present in the crown as "significant", "moderate" or "minor". Flagging, or dieback of branches in the crown, is a visual indicator of the presence of Dutch elm disease.
6. Sounding the lower trunk (below ~7') of the mature elms with a rubber mallet to identify areas of decay, especially for those trees with visible cavities and/or trunk wounds. Where possible, open cavities were probed with a 36" long metal rod to try to determine the extent of the cavity.
7. Assign a risk rating to each tree, using the techniques and methodology described in *Tree Risk Assessment* Best Management Practices (International Society of Arboriculture, 2011). Components of the risk rating are described in detail below.
8. Prepare ***Tree Assessment Maps*** showing location of tree tag numbers, tree condition and management recommendation.

Evaluating structural condition

Examination of the entire tree structure for weaknesses or possible points of failure begins with an assessment of overall vigor and health, then focuses on an examination of root crown, trunk, scaffold limbs and branches. The entire inspection was performed visually from the ground.

The following are examples of structural defects we looked for:

History of failure - Trees that have failed in the past tend to do so again. This is true for individual trees, as well as for trees within a stand. We inspected for broken stubs, split out limbs; in stands, look for fallen trees.

Recent exposure - Trees that used to be protected by other vegetation or structures are more likely to fail if their neighbors are removed, leaving the tree more exposed to wind.

Root injury - Trees with root decay or severed roots (construction, sidewalk repair) may be more likely to fail.

Lack of basal flare - Lack of flare may indicate fill soil has been placed around the trunk. The tree should be checked further for decay in the buttress roots.

Cracks - Cracks in branches and trunks indicate areas of weakness.

Bark - Loss of bark, especially in non-uniform patterns; buckled bark, horizontal cracks and "popping off" of pieces may indicate wood under tension or compression. Internal cracks may be indicated by bulges and ridges in the bark.

Decay - Decayed wood is weak and more likely to fail.

Trunk/branch wounds - Bark loss and tissue damage can lead to development of decay over time.

Crooks - Crooks are formed primarily as a result of pruning. Branches with crooks tend to break.

Seams - A seam is a line formed by included bark at branch and stem junctions, or when two edges of woundwood meet at the center of a wound (behind which there may be decay). They indicate areas of weakness.

Narrow branch attachments with included bark - Branches with narrow angles of attachment do not form connective tissue between the branch and trunk. As tree size increases, the branches tend to split out.

Clustered scaffold branches (poor vertical distribution) - Where several scaffold branches of similar size arise from one level, weakness occurs.

Dead branches - Dead branches quickly decay, making them more likely to break out of the tree.

Limbs with poor taper and end weight - These limbs tend to break.

Topping - Branches in topped trees are likely to fail because of weak attachment of the regrowth, dense regrowth limiting taper formation, and decay in the headed branch.

Tree risk evaluation procedures

The goal of the risk assessment process is to enhance public safety. This is accomplished by assessing the risk of damage to people or property if a tree or one of its parts fails and taking action to reduce that risk. The risk rating considers the likelihood of the tree or one of its parts failing within the following one (1) year, the frequency of use and occupancy below it and the consequences should the target be struck.

To assess and rank the risk associated with each tree, I employed the terminology and methods described in *Best Management Practices: Tree Risk Assessment* (E. T. Smiley, N. Matheny and S. Lilly. 2017. Companion publication to the American National Standards Institute A300 Part 9. International Society of Arboriculture. Champaign IL).

Risk is described in the *Best Management Practices* publication as the combination of likelihood of a tree failure striking people or property, and the consequences of that failure. Those assessments are then combined into a risk rating. For each of the mature elm trees we performed the following:

1. **Identify possible targets.**
2. **Identify tree part(s) that could strike one or more target(s).**
3. **Evaluate the likelihood for each part to fail.**

Rate Likelihood for Failure

Improbable	the tree is **not** likely to fail even in severe weather conditions
Possible	failure could occur, but it is unlikely during normal weather
Probable	failure is expected under normal weather conditions
Imminent	failure has started or is most likely to occur in the near future, even if there is no wind or increased load

4. **Evaluate the likelihood of tree or tree part impacting the target(s).**

Rate Likelihood of Impact

Very Low	the chance of impacting a target is remote
Low	it is not likely that the target will be impacted
Medium	the target may or may not be impacted.
High	the target is likely to be impacted

5. For each failure mode (stem, branch or whole tree), identify likelihood for a failure to impact a specified target (Table 1).

Table 1. The matrix used to estimate the likelihood of a tree failure impacting a specified target.

Likelihood of Failure	**Likelihood of Impacting Target**			
	Very Low	*Low*	*Medium*	*High*
Imminent	Unlikely	Somewhat likely	Likely	Very likely
Probable	Unlikely	Unlikely	Somewhat likely	Likely
Possible	Unlikely	Unlikely	Unlikely	Somewhat likely
Improbable	Unlikely	Unlikely	Unlikely	Unlikely

6. For each failure mode (stem, branch or whole tree), estimate consequences of the failure.

Rate Consequences

Negligible – low value property damage; Personal injury is unlikely
Minor – low to moderate value property damage; Personal injury is unlikely
Significant – moderate to high value property damage; people could be injured
Severe – high value property damage; one or more people could be injured or killed

7. For each failure mode (stem, branch or whole tree), designate the risk (Table 2).

Table 2. Risk rating matrix.

Likelihood of Failure and Impact	**Consequences**			
	Negligible	*Minor*	*Significant*	*Severe*
Very likely	Low	Moderate	High	Extreme
Likely	Low	Moderate	High	High
Somewhat likely	Low	Low	Moderate	Moderate
Unlikely	Low	Low	Low	Low

Results of Tree Assessment

Results of the assessment are divided into two sections: tree condition and tree risk assessment.

Tree Condition

Descriptions of each tree are provided in the ***Tree Assessment Form*** and locations are shown on the ***Tree Inventory Map***.

A total of 144 trees were assessed, including 88 mature trees and 56 young trees. Mature trees were part of the original Beringer Brother plantings and young trees included 3 generations of replacement trees planted by the City between 2011 and 2019.

Seventy (71) of the trees were on the east side of Highway 29 and the remaining 73 were on the west side. Those growing on the west side were beneath overhead utility lines and all of the mature trees on that side of the road had been topped for utility line clearance.

In addition, trees on the east side of Highway 29 were adjacent to an improved pedestrian/bike path located immediately east of the trees, with vineyards beyond. Trees on the west side of Highway 29 were located between the road and the retaining wall that is the limit of the Beringer Winery, with roads, parking lots and landscaping beyond.

Mature trees

All of the mature trees were American elms. Four of the mature elms that were tagged and measured on our first field day in February had been removed by the time we visited the site again in May, including #12, 33, 34 and 49. Thus, 84 mature American elm trees remain and are the subject of the following discussion.

Trunk diameters ranged from 20” to 36”, with an average of 27”, surprisingly low for trees of their age. Fifty-seven (57) trees were in fair condition (65%), 24 (27%) were in poor, 3 were in good and 4 were dead (see ***Tree Condition Map***).

The trees had originally been planted at approximately 18’ on center, which is relatively close spacing for the species, especially for a species known to achieve a mature height of 60 to 80’ and a canopy spread of 40’ to 70’. The close proximity of the trees resulted in most having an asymmetric form, with the majority of branches extending to the east and west. While this does help create the tunnel effect, it also concentrated branches over Highway 29.

In addition to the close spacing between trees, they were all located from 4.5’ to 9.5’ from the edge of Highway 29. With no protection between the trees and the road, many had been struck by cars over the years, producing large trunk wounds (Photo 1). Fifteen of the trees had trunk wounds (Table 3, following page).

Photo 1: Showing the base of American elm #7. The tree had been struck by a car at some point, producing a large trunk wound near the base. In this case, the exposed wood had not yet decayed.

Over time, some of the trees have developed cavities of various sizes as the result of the degradation of wood by decay organisms. Twenty-nine (29) of the trees had visible cavities present (Table 3). Where large cavities were present on the lower trunk, I probed them with a 36" long metal rod. Five (5) of the trees had cavities that I was able to probe to a depth of 20" and 36".

Decay had developed in several of the cavities, as well as in wounds created by pruning for overhead utility lines or where branches had failed (Photo 2). Nine (9) of the trees had decay present in the upper crowns and 8 had decay present on the lower trunk (Table 3).

Where cavities were present but probing was not an option or where decay was suspected but not visible, sounding with a rubber mallet can help identify the presence of decay and the approximate extent of the decay. Ten (10) of the trees had hollow sounding areas on the lower trunks (Table 3).

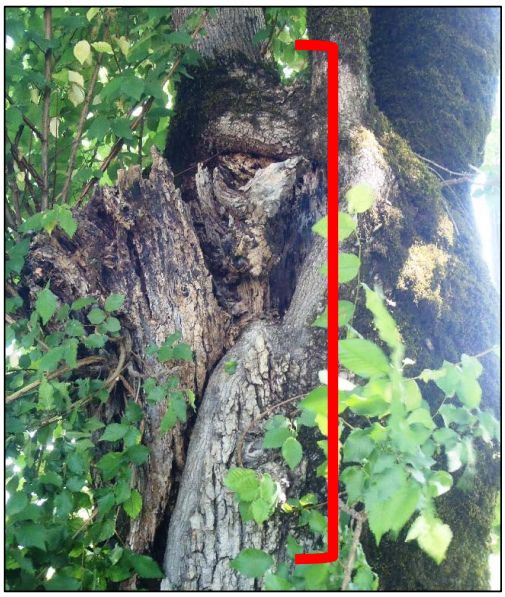


Photo 2: The upper trunk of American elm #99. A large decay column had developed on the west side of the tree, just below the attachment point of the main stems at 10'.

Table 3. Trees with specific visible structural concerns.
Beringer Elms, St. Helena, CA

Condition	Tree Tag Number
Trunk wounds present:	#2, 4, 7, 50, 54, 64, 67, 68, 70, 105, 107, 110, 112, 141 and 143
Cavities present:	#1, 3, 8, 13, 14, 16, 35, 36, 37, 39, 42, 43, 45, 54, 60, 61, 63, 64, 66, 69, 92, 93, 104, 106, 109, 111, 126, 131, 141 and 143
Decay visible in upper crown	: #3, 4, 7, 41, 95, 100, 111 and 134
Decay visible on lower trunk:	#93, 99, 100, 103, 104, 109, 112 and 131
Sounded hollow when struck with mallet:	#3, 13, 16, 37, 43, 54, 60, 61, 64 and 69

Trees growing on the west side of Highway 29 were beneath the overhead utility lines. All of the mature trees on that side of the road had been topped for utility line clearance. As a result of the repeated toppings, tree form and structure had been compromised. Topping had produced wounds where branches/stems had been remove, some of which had been colonized by decay organisms. In addition, topping removed upright branches, promoting the growth and development of lateral branches. As lateral branches get larger in diameter and longer in extension, they are more prone to failure. This is especially true where decay is present in the main stem, weakening the wood the lateral branches are attached to.

Finally, I rated the amount of flagging present in the crown of the mature elms. Flagging, or dieback of branches in the crown, is a visual indicator of the presence and development of Dutch elm disease. Sixty-one (61) of the trees had minor branch dieback consistent with DED, 18 had moderate flagging and 5 trees had significant flagging, including elms #16, 17, 35, 112 and 113.

Overall, 24 mature elms were in poor condition (rated a 1 or 2 on a scale of 0-5, where 0 is dead and 5 is excellent condition). Fifty-seven (57) were in fair condition and 3 were in good.

Young trees
A total of 56 young trees were assessed within the elm tunnel. Tree #5, one of the young trees that was tagged and measured on our first field day in February had been hit by a car and snapped off at the base when we visited the site again in May. Thus, 55 young American elm trees remain and are the subject of the following discussion.

Young trees had been planted in 2 phases, with the first generation planted in 2011 and the second and third generations planted between 2016 and 2019. Thirteen (13) of the first generation trees remained, 19 of the second generation and 24 third generation. Based on discussions with City staff, all of the first and second generation trees were the Accolade variety and all of the third generation trees were the Frontier variety.

First generation trees had trunk diameters between 2" and 5", with second generation trees having trunk diameters between 1" and 3" and all of the third generation trees measured 1" or less in diameter.

Fifty (50) of the young trees were in excellent condition (rated a 5), with 4 in good condition (rated a 4) and #56 in fair condition (see ***Tree Condition Map***). For the most part, all of the young trees had good form and structure. However, several had multiple stems arising from one point on the trunk, had branches emerging low on the trunk and/or had close vertical spacing between branches (photos 3 and 4). These are common growth patterns for young trees that should be managed at the time of planting and during the first years of establishment in order to promote development of good form and structure.

Photo 3 (L): Showing the base of tree #22, which had several branches emerging low on the stem. This is a candidate for pruning to remove low branches to improve vertical spacing.
Photo 4 (R): Showing the codominant trunks emerging from the base (red lines). This tree is a candidate for pruning to select a central leader by removing the less vigorous and upright stem.

Although few defects were noted on the young trees, #28 and 29 both had portions of old stake ties embedded between stems. Five of the third generation trees had been planted in wire baskets, which have the potential to girdle roots as they grow in diameter. Finally, 11 of the trees from both the second and third generations, were still staked.

Risk Assessment

Tree risk assessment is the systematic process of evaluating the potential for a tree or one of its parts to fail and, in so doing, injure people or damage property. All trees have the potential to fail. The degree of risk will vary with the size of the tree, type and location of the defect, tree species and the occupancy rate and nature of the target. HortScience | Bartlett Consulting used the terminology found in the 2017 *Best Management Practices: Tree Risk Assessment*.

Risk is an assessment of the combination of likelihood of a tree failure striking people or property, and the consequences of that failure. Risk is categorized in four ways: low, moderate, high and extreme. Trees rated as low may still benefit from mitigation and monitoring, especially for trees in poor health. Immediate action is not normally required for trees with low risk. In contrast, a rating of extreme involves a tree in imminent danger of failing, where the likelihood of impacting a target is high and the consequences would be severe. In general, the rating defines a priority for action.

Working with City of St. Helena staff, target occupancy was defined as follows:

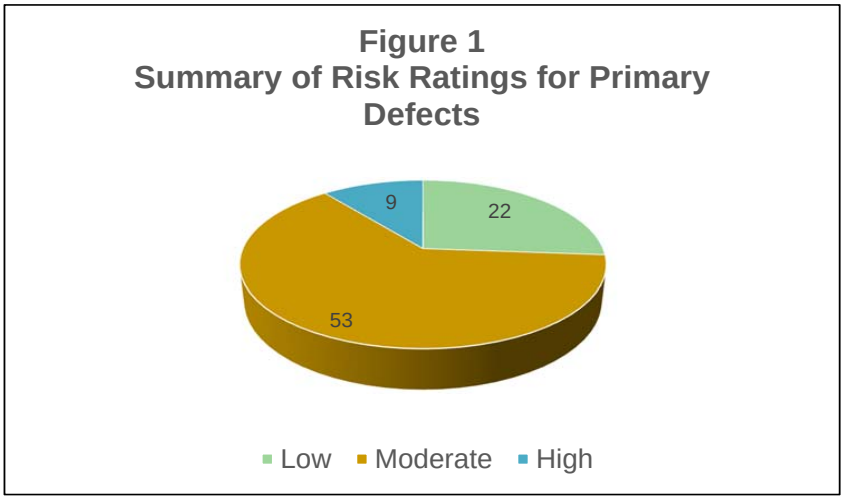
- Highway 29 Constant
- High voltage power lines Constant
- Primary road/driveway (Beringer Winery) Constant
- Pedestrian/bike trail Frequent
- Parking (Beringer Winery) Frequent
- Secondary road/driveway (Beringer Winery) Intermittent
- Landscape/lawn (Berniger Winery) Occasional
- Orchard (Beringer Winery) Occasional

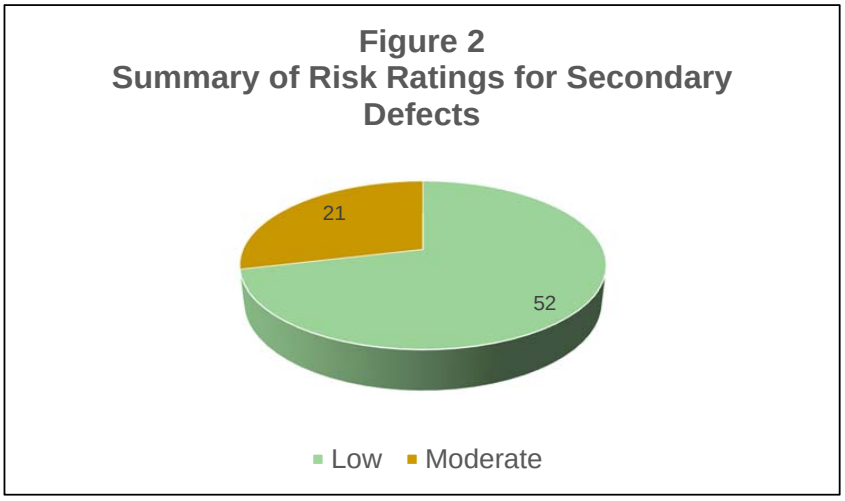
Where appropriate, the risk associated with more than one failure mode (branch, stem or whole tree) for each tree was rated. All 84 of the mature elm trees were rated for a primary defect and 73 were rated for secondary defects. **Figure 1** and **Figure 2** (following page) provide a summary of the risk ratings for each of the defects identified. Risk ratings for individual trees are found in the attached **Appendix A –Summary of *Tree Risk Ratings***.

Primary defects included 38 stems, 33 scaffold branches, 9 dead branches/hangers and 9 whole trees. Risk ratings for the primary defects identified were low for 22 trees, moderate for 53 trees and high for 9 trees. The 9 trees rated as high included 5 scaffold branch failures (trees #84, 133, 136, 138 and 144), 3 stem failure (#99, 103 and 126), and a dead branch in tree #113.

Secondary defects included 55 stems, 28 scaffold branches, 5 whole trees and 5 dead branches. Risk ratings for the secondary defects identified were low for 52 trees and moderate for 21 trees. The 21 trees rated as moderate included 10 stem failures (trees #2, 4, 7, 16, 43, 52, 92, 104, 107 and 108), 5 scaffold branches (#1, 38, 50, 143 and 144), 4 dead branches (#64, 67, 106 and 136) and 2 whole tree failures (#59 and 131).

Once management recommendations are carried out (pruning, removal, etc.) residual risk would be low for 67 of the primary defects and moderate for 7 of the primary defects (9 trees would be removed and have no residual risk). Residual risk would be low for 67 of the secondary defects and moderate for 3 of the secondary defects (3 trees would be removed and have no residual risk).





In some cases, residual risk would remain moderate despite action being taken to reduce risk associated with specific defects identified. This is a reflection of both the constant occupancy rate of Highway 29, the primary target, and the fact that management actions short of tree removal will not mitigate the risk associated with the specific defect.

The majority of trees posed a low or moderate risk of injury or damage, should they fail, which can be further reduced through pruning. Trees that posed a high risk involved an elevated likelihood of failure, a high-occupancy target and significant or severe consequences should they fail.

Two trees, #140 and 144 were identified as having imminent likelihood of failure associated with a broken branch/hanger in the crown which would strike Highway 29. I called the City during the June 2019 field work to alert them to the risk associated with these trees and recommended immediate action be taken to prune the branches in question.

Management Recommendations

As requested, management recommendations are provided for the following:

- Risk abatement treatments
- Maintenance practices for young trees
- Elm Tunnel Management Plan recommendations
- Dutch elm disease management

Risk Abatement Recommendations

Abatement treatments to reduce risk associated with trees need to be specific to the particular defects in the tree. Risk which results from dead branches, heavy branches, or branches growing on wood weakened by decay can in many cases be abated by crown cleaning (removal of dead and weak branches), end weight reduction and crown reduction pruning (small branch removal and reduction cuts to reduce height and weight). Reduction pruning can be applied to horizontally oriented branches (end weight reduction) or vertically oriented branches (height reduction). Where tree lean, cracked stems or decay cannot be abated through pruning or cabling/bracing, tree removal may be the only option to minimize risk.

The primary use of risk ratings is to help prioritize abatement treatments. In general, trees with high risk ratings should be treated before trees with lower ratings. However, risk ratings cannot strictly define a threshold for action, between either removal and retention, or treatment and no treatment. Risk ratings do not define "danger". A tree does not become dangerous at a given rating.

Rather, use of the rating is framed by the goals of the tree manager, maintenance program and policy of acceptable risk. The line for action, between either removal and retention or treatment and no treatment, is one set by City of St. Helena staff. Budgets, labor force, time and other considerations such as historical, biological and ecological impacts affect those decisions.

Recommendations to abate risk for the mature elm trees included primary and secondary management actions, as well as advanced assessments. Primary management recommendations will have the greatest impact on reducing risk and are the starting point for the City's management of the mature Beringer elms. Since primary recommendations include the suggestion that the City 'consider the removal' of 20 trees, secondary recommendations and recommendations for advanced assessments for some of those trees are provided, in case these trees are not removed.

Primary recommendations included the following and are listed in Table 4 and in **Appendix A – Summary of *Tree Risk Ratings***. Management recommendations are also provided on the attached ***Mature Tree Management Map***.

- Prune 29 trees to reduce branch weight and extension, primarily over Highway 29.
- Prune 7 trees to reduce tree height and branch extension.
- Prune 3 trees to clean the crowns of dead, broken and diseased branches.
- Remove 7 trees, primarily due to poor health, although 3 were rated as having high risk.
- Remove stems in 4 trees.
- Have decay detection performed at the stem attachments in tree #41.
- Consider removal for 20 trees. These were primarily in poor condition or where form and structure had been compromised due to close spacing between trees and/or topping for overhead utility lines.
- 16 trees had no action recommended and trees #41 and 59 had more than one management recommendation.

Table 4: Primary management recommendations
Beringer Elms, St. Helena, CA

Tag #	Species	Diameter	Condition	Primary Management recommendation
1	American elm	34	3	Prune to reduce weight/ext.
2	American elm	26	3	Consider for removal
3	American elm	28	2	Consider for removal
4	American elm	32	3	Prune to reduce weight/ext.
7	American elm	29	4	Prune to remove 16” stem
8	American elm	25	2	Consider for removal
12	American elm	31	0	Removed as of 6/19
13	American elm	28	3	None
14	American elm	29	3	None
16	American elm	28	2	**Remove tree**
17	American elm	28	2	**Remove tree**
33	American elm	21	0	Removed as of 6/19
34	American elm	24	0	Removed as of 6/19
35	American elm	24	2	Consider for removal
36	American elm	22	3	Prune to reduce weight/ext.
37	American elm	24	3	Prune to crown clean
38	American elm	24	3	None
39	American elm	23	3	Prune to reduce height/extension
40	American elm	26	4	Prune to reduce height/extension
41	American elm	27	3	Test decay in attachment & prune to reduce weight/ext.
42	American elm	27	2	Prune to remove 8” stem
43	American elm	28	3	Prune to reduce height/extension
45	American elm	26	3	Prune to reduce weight/ext.
46	American elm	24	3	Prune to reduce weight/ext.
49	American elm	24	0	Removed as of 6/19
50	American elm	28	2	Consider for removal
52	American elm	22	2	Consider for removal
54	American elm	27	2	Consider for removal
59	American elm	23	3	Prune to crown clean & reduce weight/ext.
60	American elm	24	2	None
61	American elm	21	3	None
62	American elm	25	3	None
63	American elm	23	3	None
64	American elm	25	3	Prune to reduce height/extension
65	American elm	22	3	Prune to reduce height/extension
66	American elm	22	3	Prune to crown clean
67	American elm	22	2	Consider for removal
68	American elm	20	2	Consider for removal
69	American elm	24	2	Consider for removal
70	American elm	21	2	Consider for removal
71	American elm	22	2	Consider for removal
80	American elm	28	3	Prune to reduce height/extension
81	American elm	28	3	Prune to reduce weight/ext.
82	American elm	27	3	None
84	American elm	26	3	None
85	American elm	28	2	Consider for removal
92	American elm	31	3	Prune to reduce weight/ext.
93	American elm	34	3	Remove 10" stem
94	American elm	28	3	Prune to reduce weight/ext.
95	American elm	30	3	Prune to reduce weight/ext.
99	American elm	33	2	**Remove tree**
100	American elm	32	3	Consider for removal

Table 4: Primary management recommendations
Beringer Elms, St. Helena, CA, continued

Tag #	Species	Diameter	Condition	Primary Management recommendation
101	American elm	30	3	Prune to reduce weight/ext.
103	American elm	33	2	**Remove tree**
104	American elm	31	2	Consider for removal
105	American elm	31	3	None
106	American elm	27	3	Prune to reduce weight/ext.
107	American elm	31	3	Prune to reduce weight/ext.
108	American elm	34	3	None
109	American elm	26	2	Consider for removal
110	American elm	33	3	Prune to reduce weight/ext.
111	American elm	28	3	None
112	American elm	30	2	**Remove tree**
113	American elm	30	1	**Remove tree**
121	American elm	27	4	Prune to reduce weight/ext.
122	American elm	23	3	Prune to reduce weight/ext.
123	American elm	20	3	None
124	American elm	20	3	Prune to reduce weight/ext.
125	American elm	22	3	Prune to reduce weight/ext.
126	American elm	22	3	Remove 10" stem
127	American elm	24	3	Prune to reduce weight/ext.
128	American elm	24	3	Prune to reduce weight/ext.
129	American elm	27	3	Prune to reduce weight/ext.
130	American elm	31	3	Prune to reduce weight/ext.
131	American elm	25	2	Consider for removal
132	American elm	27	3	Prune to reduce weight/ext.
133	American elm	26	3	Prune to reduce weight/ext.
134	American elm	29	3	Prune to reduce weight/ext.
135	American elm	26	3	Consider for removal
136	American elm	25	3	None
137	American elm	25	3	None
138	American elm	33	3	Prune to reduce weight/ext.
139	American elm	25	3	Consider for removal
140	American elm	28	3	Prune to reduce weight/ext.
141	American elm	29	3	Consider for removal
142	American elm	34	3	None
143	American elm	35	2	**Remove tree**
144	American elm	36	3	Prune to reduce weight/ext.

Secondary management recommendation are provided for 9 of the trees listed in Table 4 for the City to 'consider for removal', in case these trees are not removed.

Secondary management recommendations included the following and are listed in Table 5:

- Prune 4 trees to reduce branch weight and extension, primarily over Highway 29.
- Prune 3 trees to clean the crowns of dead, broken and diseased branches.
- Prune 2 trees to reduce tree height and branch extension.

Table 5: Secondary management recommendations
Beringer Elms, St. Helena, CA

Tag #	Species	Diameter	Condition	Primary Management recommendation
35	American elm	24	2	Prune to crown clean
52	American elm	22	2	Prune to crown clean
54	American elm	27	2	Prune to crown clean
71	American elm	22	2	Prune to reduce height/extension
85	American elm	28	2	Prune to reduce height/extension
100	American elm	32	3	Prune to reduce weight/ext.
104	American elm	31	2	Prune to reduce weight/ext.
131	American elm	25	2	Prune to reduce weight/ext.
135	American elm	26	3	Prune to reduce weight/ext.

Advanced assessments were recommended for those trees where defects were identified that could not be adequately assessed either from the ground or from an examination of the external condition of the trees. These were primarily trees where decay was identified through sounding with the mallet and/or probing with the metal rod. Recommendations for advanced assessments are provided in Table 6 (following page) and on the attached ***Advanced Assessment Recommendations Map***.

Advanced assessments were recommended for 30 trees as follows:

- The City should consider having decay detection performed on 10 trees that are recommended for preservation. These were trees where decay was identified through sounding the trunk with the mallet and/or probing open cavities with the metal rod.

- Perform an aerial inspection and possible decay detection on 5 trees where decay was visible in the main trunk, stems and/or stem attachments above where we could probe with the metal rod and/or sound with the mallet.

An addition 15 trees were recommended for decay detection if the City chooses not to remove them. These were trees with a primary management recommendation for removal, however, they may not be removed all at once for a variety of reasons, in which case we recommend decay detection be performed.

Table 6: Recommendations for advanced assessments
Beringer Elms, St. Helena, CA

Tag #	Species	Diameter	Condition	Primary Management recommendation
1	American elm	34	3	Aerial insp. & decay detect.
1	American elm	34	3	Aerial insp. & decay detect.
2	American elm	26	3	Decay detect. If not removed
3	American elm	28	2	Aerial insp. & decay detect. If not removed
3	American elm	28	2	Aerial insp. & decay detect. If not removed
8	American elm	25	2	Decay detect. If not removed
13	American elm	28	3	Consider decay detection
14	American elm	29	3	Consider decay detection
16	American elm	28	2	Decay detect. If not removed
41	American elm	27	3	Aerial insp. & decay detect.
41	American elm	27	3	Aerial insp. & decay detect.
42	American elm	27	2	Consider decay detection
43	American elm	28	3	Consider decay detection
59	American elm	23	3	Consider decay detection
60	American elm	24	2	Consider decay detection
61	American elm	21	3	Consider decay detection

Tag #	Species	Diameter	Condition	Primary Management recommendation
64	American elm	25	3	Consider decay detection
67	American elm	22	2	Decay detect. If not removed
68	American elm	20	2	Decay detect. If not removed
69	American elm	24	2	Decay detect. If not removed
92	American elm	31	3	Consider decay detection
95	American elm	30	3	Aerial insp. & decay detect.
99	American elm	33	2	Decay detect. If not removed
100	American elm	32	3	Decay detect. If not removed
101	American elm	30	3	Aerial insp. & decay detect.
101	American elm	30	3	Aerial insp. & decay detect.
103	American elm	33	2	Decay detect. If not removed
104	American elm	31	2	Decay detect. If not removed
109	American elm	26	2	Decay detect. If not removed
111	American elm	28	3	Aerial insp. & decay detect.
111	American elm	28	3	Aerial insp. & decay detect.
126	American elm	22	3	Consider decay detection
131	American elm	25	2	Decay detect. If not removed
135	American elm	26	3	Aerial insp. & decay detect. If not removed
135	American elm	26	3	Aerial insp. & decay detect. If not removed
143	American elm	35	2	Decay detect. If not removed

Our risk assessment procedures focused on trees with observable defects. This is not to say that trees without significant defects will not fail. Failure of apparently defect-free trees does occur, especially during storm events. Wind forces, for example, can exceed the strength of defect-free wood causing branches and trunks to break. Wind forces coupled with rain can saturate soils, reducing their ability to hold roots, and blow over defect-free trees. Although we cannot predict all failures, identifying those trees with observable defects is a critical component of enhancing public safety.

Furthermore, trees change over time. Our inspections represent the condition of the tree at the time of inspection. Annual tree inspections are recommended to identify changes to tree health and structure. In addition, trees should be inspected after storms of unusual severity to evaluate damage and structural changes. Initiating these inspections is the responsibility of the City and/or tree owner.

Maintenance practices for young trees

We were asked to review and comment on the current maintenance practices employed by the City for the young elm trees. We based our recommendations on our field investigation as well as communications with the City.

Planting

Although not technically maintenance, planting sets the stage for tree establishment and growth. We recommend the following when planting new elm trees:

- Excavate a planting pit 2 to 3 times the width and twice the depth of the container size to be planted.
- Amend the backfill with 1/3 to 1/2 (by volume) high organic matter compost.
- Create a temporary earthen berm around each tree to retain and concentrate as much of the supplemental irrigation water at the base of the tree as possible.
- Stake young trees with 3 lodge poles (or similar) placed in a triangular formation and attached loosely to the tree trunk.

Several of the young trees we assessed in the field had been planted in wire baskets. We strongly recommend the City avoid the use of wire baskets. While the wire will break-down in time, wire baskets have the potential to girdle roots and slow tree growth, establishment and anchoring.

Irrigation

We expect supplemental irrigation to be required during the first 2-3 years of establishment for the dry months of the year (typically May-October). The City has been watering the trees with a combination of watering trailer on the east side and quick coupler hose on the west side at a rate of 10 gallons per tree, per week. We consider this volume adequate for the all but the hottest months of the year (typically July-September) or during periods of extended drought.

Our recommended irrigation approach would be as follows:

- In the first year after planting, irrigate at a volume of 5 gallons per application, ideally applied twice a week during the summer months. Irrigation rates can be tapered in the spring and fall by 25 to 50% depending on temperature, day length, and rainfall.

- In the second year after planting, irrigations volumes should be increased to 8 gallons per application, but frequency should be decreased to once a week (again for the summer months).

- In the third year after planting, irrigation at a volume of 10 gallons every 10 days to 2 weeks (again, during the summer months).

- After 3 years, they should be fairly well established and irrigation can be on an "as needed" basis. For example, if we experience a drought after 3 years, continue with the third year regime.

The above assumes a sufficient soil quality such that roots can get established. If this does not happen, irrigation will be needed over a longer period of time. This is another reason to do as much soil cultivation as possible before planting and to use basins and mulch around each tree.

One alternative irrigation practice for the City to consider would be the use of Gator bags® or doughnuts. These systems allow the City to fill it with water, which is applied slowly over a period of time.

During periods of extreme heat, where average daily temperatures exceed 90°, we would recommend increasing the irrigation volume to 60 gallons per month or 15 gallons/week, per tree. We would also expect the application rate to drop to 10 gallons per tree every other week during the cooler months of May and November and cease during the typically cool, wet months of December through April.

Pruning

Young trees should be trained to develop sturdy, tapered trunk with well-spaced lateral branches proportional in size. Proper training when trees are young will greatly reduce pruning frequency, intensity and costs as they age, and reduce public risk from tree failures due to structural defects. The training process is accomplished by pruning the tree at the time of planting and then annually over a 3-5 year period until the desired branch structure is established.

The following highlights the procedures and treatments that should be repeated annually until the permanent structure of the tree has been established. More detail is provided in Appendix B – *Young Tree Management Recommendations* (see Exhibits).

At the time of planting (year 1), prune the tree to:

- Select a central leader and remove or subordinate competing leaders.
- Remove broken, diseased, dying or dead branches.

Annually for the following 2-3 years, prune the tree to:

- Select a central leader and remove or subordinate competing leaders.
- Select the lowest permanent branch.
- Select main scaffold branches above the lowest permanent branch and remove or reduce competing branches.
- Select and maintain temporary branches below the lowest permanent branch

In years 4-5, prune the tree to:

- Remove the largest, lowest temporary branches.

Timing of pruning of young trees should be coordinated to correspond with the activity of elm beetles, which are known to vector the fungus responsible for DED. Pruning should generally occur during the cool winter months of December-March and prior to leaf emergence. Sanitation of any equipment used to prune or treat trees is critical to not spreading the fungi responsible for DED. We recommend sterilization of hand saws, loppers and hand pruners with 10% bleach solution, Lysol or other known sterilizing agent.

Staking

Staking young trees helps support them as they establish and develop anchoring roots and trunk taper. It is equally important to remove stakes after 2 to 3 growing seasons. The tree should have established sufficient anchoring roots by that time to stand-up on its own.

Check the stability of the tree after 2 growing seasons by rocking it back and forth gently prior to removing the stakes. It is the force of the wind acting on the trunk that promotes trunk strength and taper development. Leaving the stakes in place for too long can hinder this development.

Recommendations

When we inspected the young trees in February 2019, the City was preparing to prune them and asked that we provide recommendations to help guide that process. The following recommendations were provided and appeared to have been carried out when we visited the site in June of 2019. **Appendix B -*Young Tree Management Recommendations*** provides recommendations for each of the young trees. Management recommendations are also provided on the attached ***Young Tree Management Map***.

- All 55 of the young trees received primary recommendations; including 29 identified for pruning to improve vertical branch spacing, 26 identified for pruning to select a central leader/subordinate competing leaders and #56 was recommended for removal.
- Thirty-six (36) received secondary recommendations, including 26 identified for pruning to improve vertical branch spacing, 6 that should have the stakes removed and 4 identified to remove temporary/low branches.
- Fourteen (14) received tertiary recommendations, including 8 identified for pruning to improve vertical branch spacing and 6 that should have the stakes removed.
- Three (3) trees received quaternary recommendations, including attempting to remove the embedded stake tie from #28, pruning to remove crossing branches on #29 and pruning to clean the crown of dead/broken branches on #30.

Elm Tunnel Management Plan

We were asked to review and comment on the draft St. Helena Elm Tunnel Management Plan (ETMP) provided to us by the City (no date or author). The ETMP provides guidelines for managing the trees within the context of their contribution to the National Historic Landmark designation of the Beringer Winery. It focuses more on the relationship, communication and responsibilities of the vested parties than it does on specific arboricultural treatments for the trees.

There are three categories of urban forest plans: master plans, management plans, and action plans. For the ETMP we recommend combining the components of these three documents into one. First, the ETMP should identify specific goals for the Elm Tunnel, then it should identify specific actions to accomplish the goals. The plan identifies the tasks, sets priorities, and identifies who will do the work, how the work will be done, and sets a deadline for completion. A well-defined plan should facilitate review to gauge and evaluate success or failure in accomplishing the goals. Best management practices for specific tasks, standards, and specifications, budget and staffing analyses should be included.

An ETMP ideally contains the framework for managing the trees from cradle to grave. It is designed to accomplish specific goals and identify who is responsible for each. Subjects the plan would cover typically include:

- near-term and long-term management goals;
- plant procurement, contract growing, nursery specifications;
- plant inspections and standards for accepting plant material;
- planting methods and standards;
- irrigation methods/volumes/timing;
- pruning methods/timing and standards;
- disease management methods/timing and standards;
- tree risk assessment, management and thresholds for action;
- wood disposal;
- shoot/sucker management;
- tree monitoring frequency, timing, procedures and record-keeping.

We recommend incorporating the following Standards (American National Standard Institute) and Best Management Practices (International Society of Arboriculture).

ANSI Z133 Safety Standards
ANSI A300 Integrated Pest Management
ANSI A300 Support Systems Standard – Part 3
ANSI A300 Tree Risk Assessment Standard a. Tree Failure – Part 9
ANSI A300 Pruning Standard – Part 1
Best Management Practices - Tree Pruning, 3rd Edition
Best Management Practices - Tree Injection
Best Management Practices – Tree Support Systems, 3rd Ed.
Best Management Practices – Tree Planting, 2nd Ed.
Best Management Practices – Tree Risk Assessment, 2nd Ed.
Best Management Practices – Tree and Shrub Fertilization, 3rd Ed.
Best Management Practices – Utility Pruning of Trees
Best Management Practices - - Integrated Pest Management, 2nd Ed.

Dutch Elm Disease Management

Dutch elm disease involves the fungi *Ophiostoma novoulmi* and *O. ulmi*, which are primarily vectored by two species of bark beetles. These beetles wound the trees as they feed on plant parts and breed under the bark, spreading fungal spores and infecting trees along the way. In addition, the disease can be spread from tree to tree through root grafts and un-sterilized equipment.

Based on communications with City staff, the current approach for managing the Dutch elm disease in the mature Beringer elms involves the following:

- Perform a foliar treatment using Xytect 2F (or similar as recommended by contractor) to the approximately 90 mature elms to help suppress elm leaf beetle. Foliar treatments have been applied in the spring, following leaf emergence.

- Perform a systemic root flare injection of Propizol® or Arbotect 20-S® (or similar as recommended by contractor) to the approximately 90 mature elms to help suppress Dutch elm disease. Systemic treatments have been applied in the spring, following leaf emergence.

In general, the City is taking the appropriate actions to manage DED in the mature Beringer elms. There are always additional actions that can be taken to improve efficacy of existing treatments, and/or introduce new treatments in an effort to improve disease control. For example, use of degree day monitoring to identify beetle development and if/when foliar treatments should be applied is the most effective approach. However, this approach requires regular monitoring of temperatures and beetle development, which may not be practical for City staff to perform.

We recommend the use of an integrated pest management (IPM) program that incorporates good cultural practices, conservation of natural enemies, regular monitoring, and the use of less-persistent insecticides, bark banding, or systemic insecticide. The City must recognize that bark beetle populations can fluctuate dramatically from year to year and all trees do not warrant treatment most years. When management is warranted, use a combination of methods, because no single action improves the health of elm trees or kills 100% of the pests.

- Monitor diseased trees and immediately remove and destroy diseased wood to reduce inoculant in environment.
- Maintain tree health to promote resistance to damage/inoculation by vectors.
- Control beetle vectors to reduce inoculant in environment.
- Apply preventive fungicides to healthy trees per label instructions to provide 1 to 3 years of systemic protection (depending on product used).
- Replace dead and infected treed with DED resistant American elm varieties.
- Sterilize all equipment used in the treatment of vectors and systemic fungicide applications. All tools and equipment must be sterilized between trees to prevent spread of the disease from infected trees to uninfected trees.

Other options for DED management include the use of mycoviruses called d-factors, which limit the reproductive ability of the fungi, or Verticillium based products, such as ‘Dutch-trig’, which can help induce the trees natural resistance to DED.

Trenching between symptomatic elms and adjacent asymptomatic elms is used to help prevent disease movement between trees through root grafts. While this method may be effective at limiting disease movement via roots, it also damages the trees by creating wounds and removing roots. In general, we do not recommend trenching between the Beringer elms as a means to limit disease movement as the risk associated with the damage is too great.

Long-Range Planning

Plant Procurement

The City has struggled to procure DED resistant cultivars of American elm to use as replacements within the Berniger elm tunnel. One alternative for the City to consider would be to have the replacement trees contract grown. This is an attractive option that would provide the City with a reliable source of high-quality plant material and greater control over the process.

Contract growing involves establishing a relationship with a grower and getting a contract in place with sufficient lead time for the grower to procure, plant and grow the trees to the desired size. In researching the possibility of contract growing the trees, we contacted Dr. Larry Costello. Dr. Costello previously worked with the City on the Beringer elms and is now operating the Oracle Oak Nursery in Hopland California.

Based on discussions with Dr. Costello, he indicated he does grow DED-resistant elms, which he purchase as bareroot stock from Oregon. Depending on the cultivar and size at planting, it will take 1-2 years for the new trees to be ready for sale. He indicated he currently has the 'Emerald Sunshine' (*U. propinqua*) cultivar available at a unit cost of $185 for a 24-inch box, plus delivery.

Dr. Costello said he would need the following information to provide a quote:

- Species and cultivar
- Stock size (15 gallon or 24" box)
- Delivery date and location

Successional Planning

In thinking about how to best manage the mature trees to reduce risk and provide the best growing conditions for the young trees, it behooves the City to consider the removal of small groups of the highest risk trees and/or those in poor condition to create gaps in the canopy that will provide the young trees with more light and resources. This in turn will help the young trees establish more quickly and with better form and structure.

For example, removal of groups such as #3 and 4, 16 and 17, 50 and 52, 67-71, 99-101, 103 and 104, and 109-113 would all create opportunities for planting new trees as well as improve growing conditions for the adjacent young trees.

Summary

A total of 144 trees were assessed, including 88 mature trees and 56 young trees. Mature trees were part of the original Beringer Brother plantings and young trees included 3 generations of replacement trees planted by the City between 2012 and 2016.

Eighty-four (84) of the mature American elm trees remain. Fifty-seven (57) of the mature elms were in fair condition (65%), 24 (27%) were in poor, 3 were in good and 4 were dead (see ***Tree Condition Map***). Common defects seen in the mature elms included trunk wounds, cavities, wood decay and hollow sounding trunks when struck with a mallet (**Table 3**, page 3).

In addition, 61 of the mature elms had minor branch dieback consistent with DED, 18 had moderate flagging and 5 trees had significant flagging, including elms #16, 17, 35, 112 and 113. Flagging, or dieback of branches in the crown, is a visual indicator of the presence and development of Dutch elm disease.

Fifty-five (55) of the young American elm trees remain. Fifty (50) of the young trees were in excellent condition (rated a 5), 4 were in good condition (rated a 4) and #56 was in fair condition (see ***Tree Condition Map***). Common defects seen in the young trees included multiple stems arising from one point on the trunk, branches emerging low on the trunk and/or close vertical spacing between branches.
In addition, a couple of the young trees had portions of old stake ties embedded between stems, several had been planted in wire baskets and 11 second and third generation trees, were still staked.

All 84 of the mature elm trees were rated for risk associated with a primary defect and 73 were rated for risk associated with a secondary defect (see **Appendix A –Summary of *Tree Risk Ratings***).

Risk ratings for primary defects identified were low for 22 trees, moderate for 53 trees and high for 9 trees. Risk ratings for the secondary defects identified were low for 52 trees and moderate for 21 trees (**Figures 1 and 2**, pages 9 and 10).

Risk abatement recommendations included primary and secondary management actions, as well as advanced assessments. Primary management recommendations are the starting point for the City's management of the mature Beringer elms. Secondary management recommendations and recommendations for advanced assessments were provided for some of the trees we recommended the City 'consider the removal', in case these trees are not removed.

Primary recommendations included pruning for 29 trees to reduce branch weight and extension, 7 trees to reduce tree height and branch extension, and 3 trees to clean the crowns of dead, broken and diseased branches (**Table 4**, page 11). Removal was recommended for 7 trees, stem removal for 4 trees and decay detection for tree #41. We recommended the City 'consider removal' for 20 trees. These were primarily in poor condition or with poor form and structure.

Secondary management recommendation were provided for 9 of the trees we recommended the City to 'consider for removal'. Secondary management recommendations included pruning for 4 trees to reduce branch weight and extension, 3 trees to clean the crowns of dead, broken and diseased branches and 2 trees to reduce tree height and branch extension (**Table 5**, page 13).

Advanced assessments were recommended for those trees where defects were identified that could not be adequately assessed and were primarily for trees where decay was identified through sounding with the mallet and/or probing with the metal rod. Advanced assessments were recommended for 30 trees and included decay detection for 10 trees, aerial inspection and possible decay detection for 5 trees and decay detection for 15 of the trees recommended to 'consider for removal', in case the City chooses not to remove them (**Table 6**, page 14).

We reviewed and commented on the maintenance practices for the young trees, including planting, irrigation, pruning and staking. In addition we provided pruning recommendations for the 55 young trees based on our February 2019 inspection, which appeared to have been carried out when we visited the site in June (**Appendix B -*Young Tree Management*** Recommendations). Management recommendations including pruning to improve vertical branch spacing, select a central leader/subordinate competing leaders, remove temporary/low branches and remove crossing branches, to remove stakes, to remove embedded stake ties and for tree removal.

We also provided a review and comments on the draft St. Helena Elm Tunnel Management Plan (page 17) and Dutch elm disease management (page 18). In general, the ETMP provides the historic context for the trees and their contribution to the National Historic Landmark designation of the Beringer Winery. Ideally, an ETMP ideally contains the framework for managing the trees from cradle to grave, including specific goals, priorities, actions, thresholds, best management practices and industry standards.

In general, the City is taking the appropriate actions to manage DED in the mature Beringer elms. New or additional actions that may improve control must be weighed against the time, money and effort to implement. We recommend the use of an integrated pest management (IPM) program, incorporating good cultural practices, conservation of natural enemies, regular monitoring, and the use of less-persistent insecticides, bark banding, or systemic insecticide.
Other options for DED management include the use of mycoviruses or Verticillium based products, such as 'Dutch-trig'. We do not recommend trenching between symptomatic elms and adjacent asymptomatic elms as a means to limit disease movement as the risk associated with the root loss and damage is too great.

Contract growing of DED resistant cultivars of American elm is an attractive option that would provide the City with a reliable source for replacement trees and greater control over the process. Based on discussions with a local nursery, DED-resistant elms can be grown with a 1-2 year lead-time. One suggested alternative to the 'Accolad' and 'Frontier' varieties the City has planted in the past is the 'Emerald Sunshine' (*U. propinqua*) cultivar.

Finally, we recommend the City consider the removal of small groups of the highest risk trees and/or those in poor condition to create gaps in the canopy that will provide young trees with more light and resources, help them establish more quickly and with better form and structure.

Please feel free to contact me with any questions regarding my observations or recommendations.

Sincerely,

John Leffingwell
Board Certified Master Arborist WE #3966B
Registered Consulting Arborist #442

Exhibits

Tree Assessment Forms

Tree Inventory Map

Tree Condition Map

Mature Tree Management Map

Advanced Assessment Recommendations Map

Young Tree Management Map

Appendix A: Summary of Risk Ratings

Appendix B: Young Tree Management Recommendations

Tree Assessment

Berringer Brother Elm Tunnel
Saint Helena, California
May and June 2019

HORT SCIENCE
BARTLETT CONSULTING

TREE No.	SPECIES	GENERATION	SIZE DIAMETER (in inches)	CONDITION 1=POOR 5=EXCELLENT	FLAGGING	COMMENTS
1	American elm	Original	34	3	Minor	Multiple attachments at 15'; cavity at 5' & 15'; proved lower cavity to 20"; one sided NE. to trail; heavy /low laterals NE.
2	American elm	Original	26	3	Minor	Codominant trunks at 7'; 22" stem upright, 26" stem bowed over Hwy. 29 reduced; basal wpunds; lower trunk sounds hollow; heavy lateral NE.
3	American elm	Original	28	2	Moderate	Codominant trunks at 15'; 14" stem upright with decay at attachment; 8" dead stem extends over Hwy. 29 but reduced; cavities @ 8' SW.; lower trunk sounds hollow.
4	American elm	Original	32	3	Moderate	Codominant trunks at 5' & 15'; 16" stems upright with decay;
5	American elm	Second	1	0	--	Hit by car as of 6/19.
6	American elm	Second	1	5	--	Good form; low branch E.
7	American elm	Original	29	4	Minor	Codominant trunks at 6' & 10'; 10" & 18" stems upright with decay; 16" stem extends over Hwy. 29 but reduced; large basal wound S.
8	American elm	Original	25	2	Moderate	Codominant trunks at 7' & 10'; 18" stem upright and topped at 16'; small branches extend over Hwy. 29; basal cavity SW. probed to 2'; lower trunk sounds hollow.
9	American elm	First	2	5	--	Multiple attachments in upper crown: upright form.
10	American elm	First	2	5	--	Good, uupright form.
11	American elm	Second	2	5	--	Good, uupright form; still staked.
12	American elm	Original	31	0	--	Removed.
13	American elm	Original	28	3	Moderate	Codominant trunks at 6'; 18" stem upright; 12" stem extends over trail but reduced; old cavity @ 4' E.; lower trunk sounds hollow.
14	American elm	Original	29	3	Minor	Codominant trunks at 5'; 18" stem upright; 15" stem extends
15	American elm	Third	1	5	--	Good form; planted in basket.

Tree Assessment

Berringer Brother Elm Tunnel
Saint Helena, California
May and June 2019

HORT SCIENCE
BARTLETT CONSULTING

TREE No.	SPECIES	GENERATION	SIZE DIAMETER (in inches)	CONDITION 1=POOR 5=EXCELLENT	FLAGGING	COMMENTS
16	American elm	Original	28	2	Sinificant	Codominant trunks at 7'; 16" stem w/slight lean to Hwy. 29 bit topped at 30'; 12" stem extends over trail; cavity @ 6' E. w/ hollow sounds below; dieback/flagging.
17	American elm	Original	28	2	Sinificant	Codominant trunks at 7'; 12" stem extends to Hwy. 29 but
18	American elm	Second	1	5	--	Good form; low branches.
19	American elm	First	2	5	--	Multiple attachments in upper crown: upright form.
20	American elm	First	3	5	--	Multiple attachments at 10': upright form; low branches.
21	American elm	First	3	5	--	Codominant trunks at 7': upright form; twig dieback.
22	American elm	First	4	5	--	Low branches; upright form; twig dieback.
23	American elm	Second	3	5	--	Upright form.
24	American elm	Second	3	5	--	Upright form; low branches.
25	American elm	Third	1	5	--	Upright form.
26	American elm	First	5	5	--	Codominant trunks at 8'; low branches.
27	American elm	Third	1	5	--	Upright form.
28	American elm	First	3	5	--	Codominant trunks at 10'; low branches; embedded stake tie.
29	American elm	First	5	4	--	Multiple attachments at 6'; low branches; trunk wound; crossing branches; embedded stake tie.
30	American elm	First	4	4	--	Multiple attachments at 5'; low branches; trunk wound; dieback in upper crown.
31	American elm	Third	1	5	--	Upright form.
32	American elm	Third	1	5	--	Upright form.
33	American elm	Original	21	0	--	Removed.
34	American elm	Original	24	0	--	Removed.

Tree Assessment

Berringer Brother Elm Tunnel
Saint Helena, California
May and June 2019

HORT SCIENCE
BARTLETT CONSULTING

TREE No.	SPECIES	GENERATION	SIZE DIAMETER (in inches)	CONDITION 1=POOR 5=EXCELLENT	FLAGGING	COMMENTS
35	American elm	Original	24	2	Sinificant	Codominant trunks at 7' & 15'; 16" stem w/slight lean to Hwy. 29; 8" & 12" stems extends over trail; basal cavity E.; dieback/flagging.
36	American elm	Original	22	3	Minor	Multiple attachments at 7'; 6" branch extends slightly over Hwy. 29; 18' stem upright; smaller stems extend over trail; basal cavity SW.. w/ hollow sounds around; dieback.
37	American elm	Original	24	3	Minor	Multiple attachments at 8'; small dead branches extend over Hwy. 29; 15' stem upright; smaller stems extend over trail but reduced; basal cavity SW.. w/ hollow sounds around; dieback.
38	American elm	Original	24	3	Minor	Codominant trunks at 7'; 6" branch extends slightly over Hwy. 29; 16' stem upright; 14" stem extends over trail; dieback.
39	American elm	Original	23	3	Minor	Codominant trunks at 7'; 14" stem extends slightly over Hwy. 29; 14' stem & 6" branch extend over trail; basal cavity SW.; dieback.
40	American elm	Original	26	4	Minor	Codminant trunks at 15'; upright, narrow form; small branches extend over Hwy. 29; 10" stem extends to trail; dieback.
41	American elm	Original	27	3	Minor	Codominant trunks at 7'; one sided NE. to trail; wounds & decay in attachment; dieback.
42	American elm	Original	27	2	Moderate	Multiple attachments at 8'; 8" stem extends over Hwy. 29 reduced; 18" & 10" stems upright; smaller stems extend over trail; basal cavity N.; lower trunk sounds hollow; dieback.

TREE No.	SPECIES	GENERATION	SIZE DIAMETER (in inches)	CONDITION 1=POOR 5=EXCELLENT	FLAGGING	COMMENTS
43	American elm	Original	28	3	Minor	Codominant trunks at 7'; 18" stem upright w/ 8" branch over Hwy. 29; 18' stem bowed over trail; basal cavity W.. probed to 18"; hollow sounds around cavity; dieback.
44	American elm	Third	1	5	--	Upright form.
45	American elm	Original	26	3	Minor	One sided NE. to trail; 8" branch extends slightly to Hwy. 29; 14" & 8" stems extend over trail; epicormics & dieback.
46	American elm	Original	24	3	Minor	Multiple attachments at 8'; 12" & 10" stems extend over Hwy. 29 but reduced; 16" stem upright; dieback.
47	American elm	Second	2	5	--	Multiple attachments at 10'; upright form; low branch S.
48	American elm	Third	1	5	--	Upright form.
49	American elm	Original	24	0	--	Removed.
50	American elm	Original	28	2	Minor	Codominant trunks at 7'; 18" stem upright; 20" stem bowed NE. over trail; basal wound SW.; mostly epicormics.
51	American elm	Third	1	5	--	Upright form; planted in wire basket.
52	American elm	Original	22	2	Moderate	Multiple attachments at 10'; dead top over Hwy. 29; 3 stems 8-12" extend over trail.
53	American elm	Third	1	5	--	Upright form; planted in wire basket.
54	American elm	Original	27	2	Moderate	Multiple attachments at 10'; dead top over Hwy. 29; 14" stem extends over trail; trunk wounds.
55	American elm	Third	1	5	--	Multiple attachments at 10'; upright form; planted in wire basket; still staked.
56	American elm	First	3,2,2,2	3	--	Multiple attachments at base; central leader dead.
57	American elm	Third	2	5	--	Upright form; planted in wire basket.
58	American elm	Third	1	5	--	Upright form; planted in wire basket.

TREE No.	SPECIES	GENERATION	SIZE DIAMETER (in inches)	CONDITION 1=POOR 5=EXCELLENT	FLAGGING	COMMENTS
59	American elm	Original	23	3	Minor	Multiple attachments at 18'; stems over Hwy. 29 topped; small dead branches extend over trail; basal cavity SW.; lower trunk sounds hollow around cavity.
60	American elm	Original	24	2	Moderate	Multiple attachments at 10'; stems over Hwy. 29 topped; 10" & 12" stems extend over trail; old basal cavity SW.; lower trunk sounds hollow around cavity.
61	American elm	Original	21	3	Minor	Codominant trunks at 8'; 18" stem leans slightly over Hwy. 29; 10"'stem & small branches extend over trail; old basal cavity SW.; lower trunk sounds hollow around cavity.
62	American elm	Original	25	3	Minor	Multiple attachments at 8'; one sided NE.; small branches over Hwy. 29; 3 stems 10"-14" extend over trail; dieback.
63	American elm	Original	23	3	Minor	Codominant trunks at 8'; small branches extend over Hwy. 29; 8" & 12" stems extend over trail; old basal cavity W.
64	American elm	Original	25	3	Minor	Multiple attachments at 10'; 12" stem over Hwy. 29; 10" & 20" stems & dead branches extend over trail; trunk wound & basal cavity SW.; lower trunk sounds hollow around cavity.
65	American elm	Original	22	3	Minor	Multiple attachments at 18'; stems over Hwy. 29 reduced; 3 8" stems & small dead branches extend over trail; dieback.
66	American elm	Original	22	3	Minor	Multiple attachments at 18'; stems over Hwy. 29 topped; small stems & branches extend over trail; old basal cavity SW.
67	American elm	Original	22	2	Minor	Topped at 25'-30'; small crown; basal wound SW.; lower trunk sounds hollow; little extends over Hwy. 29 or trail.

TREE No.	SPECIES	GENERATION	SIZE DIAMETER (in inches)	CONDITION 1=POOR 5=EXCELLENT	FLAGGING	COMMENTS
68	American elm	Original	20	2	Minor	Topped at 25'-30'; small crown; basal wound SW.; lower trunk sounds hollow; little extends over Hwy. 29 or trail.
69	American elm	Original	24	2	Minor	Topped at 30'; 8" branch over Hwy. 29; 6"-10" branches over trail reduced; basal cavity SW.; lower trunk sounds hollow around cavity.
70	American elm	Original	21	2	Minor	Topped at 20'; small branches over Hwy. 29; 10" stem over trail reduced; large trunk wound W.
71	American elm	Original	22	2	Minor	Codominant trunks at 8'; crown reduced; little over Hwy. 29; 2 7" stems over trail; dead branches.
72	American elm	Second	3	5	--	Multiple attachments at 10'; upright form.
73	American elm	First	4,4	4	--	Codominant trunks at base; narrow attachment; upright form.
74	American elm	Second	2,1	5	--	Multiple attachments at base/low branching; upright form.
75	American elm	Third	1	5	--	Upright form.
76	American elm	Second	3	5	--	Multiple attachments at 7'; upright form.
77	American elm	Second	2	5	--	Upright form.
78	American elm	Second	2	5	--	Upright form.
79	American elm	Third	1	5	--	Multiple attachments in upper crown; upright form; still staked.
80	American elm	Original	28	3	Minor	Multiple attachments at 10'; topped for overhead utilities; 14" stem extends over Hwy. 29.
81	American elm	Original	28	3	Minor	Codominant trunks at 10'; topped for overhead utilities; 84" stem extends over Hwy. 29; 18" stem forms heavy lateral SW. over orchard.

TREE No.	SPECIES	GENERATION	SIZE DIAMETER (in inches)	CONDITION 1=POOR 5=EXCELLENT	FLAGGING	COMMENTS
82	American elm	Original	27	3	Minor	Multiple attachments at 10'; topped for overhead utilities; 8" stem extends over Hwy. 29 but reduced; 2 12" stems form heavy laterals SW. over orchard; trunk wound NE.
83	American elm	Third	1	5	--	Upright form.
84	American elm	Original	26	3	Minor	Multiple attachments at 8'; topped for overhead utilities; 10" stem extends over Hwy. 29 but reduced 18" stem extends SW. over orchard.
85	American elm	Original	28	2	Moderate	Multiple attachments at 12'; topped for overhead utilities; 2 12" stems extendsover Hwy. 29 but reduced; 12" stem extends SW. over orchard.
86	American elm	Third	1	5	--	Upright form; still staked.
87	American elm	Second	3	4	--	Codominant trunks at 4'. .
88	American elm	Second	2	5	--	Codominant trunks at 8'; upright form.
89	American elm	Second	2	5	--	Multiple attachments at 10'; upright form.
90	American elm	Third	1	5	--	Upright form; still staked.
91	American elm	Second	3	5	--	Multiple attachments at 6'; upright form; basal swelling.
92	American elm	Original	31	3	Minor	Multiple attachments w10'; topped for overhead utilities; heavy laterals NW. & W.; trunk wound & small cavity N.; dieback.
93	American elm	Original	34	3	Minor	Multiple attachments at 10'; topped for overhead utilities; heavy lateral SW.; stem over Hwy. 29 reduced; basal cavity w/ decay NW.
94	American elm	Original	28	3	Minor	Multiple attachments at 10'; narrow form; topped for overhead utilities; heavy lateral SW.

TREE No.	SPECIES	GENERATION	SIZE DIAMETER (in inches)	CONDITION 1=POOR 5=EXCELLENT	FLAGGING	COMMENTS
95	American elm	Original	30	3	Minor	Multiple attachments at 8'; topped for overhead utilities; heavy lateral SW.; lower stem SW. reduced but has wound & decay in upper side.
96	American elm	Third	1	5	--	Multiple attachments at 10'; upright form; still staked.
97	American elm	Third	1	5	--	Multiple attachments in upper crown; upright form; still staked.
98	American elm	Third	1	5	--	Upright form; still staked.
99	American elm	Original	33	2	Minor	Multiple attachments at 10'; decay column W. just below attachments; topped for overhead utilities; majority of crown NE. over Hwy. 29.
100	American elm	Original	32	3	Minor	Multiple attachments at 10'; basal wound & decay NE.; topped for overhead utilities; lateral SW. wounded & decayed on upper side; dieback.
101	American elm	Original	30	3	Minor	Codominant trunks at 8'; upper portion of W. stem dead & decayed ; wound & decay at attachment of W. stem; topped for overhead utilities.
102	American elm	Third	1	5	--	Multiple attachments in upper crown; tpright form; still staked.
103	American elm	Original	33	2	Minor	Decay column E. from ground to 7'; topped for overhead utilities; one stem SW reduced, other not reduced.
104	American elm	Original	31	2	Minor	Large decay column N. from ground to 30' on central leader; topped for overhead utilities; cavities at 7' E. & S.
105	American elm	Original	31	3	Moderate	I'll be sided W.; large basal wound E.; topped for overhead utilities; moderate dieback to 8" E.

Tree Assessment

Berringer Brother Elm Tunnel
Saint Helena, California
May and June 2019

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TREE No.	SPECIES	GENERATION	SIZE DIAMETER (in inches)	CONDITION 1=POOR 5=EXCELLENT	FLAGGING	COMMENTS
106	American elm	Original	27	3	Moderate	Codominant trunks at 8'; small cavity E. below attachments; topped for overhead utilities; W. stem mostly dead.
107	American elm	Original	31	3	Minor	Codominant trunks at 8' & 12'; basal wound E.; W. stem forms heavy lateral; topped for overhead utilities; dieback in upper crown.
108	American elm	Original	34	3	Minor	Multiple attachments at 10'; one sided w/ heavy lateral W.; stems E. reduced; topped for overhead utilities; moderate dieback.
109	American elm	Original	26	2	Moderate	Codominant trunks at 15'; one sided W./stems E. removed; cavities @ base & 7' form decay column E.; topped for overhead utilities; moderate dieback.
110	American elm	Original	33	3	Minor	One sided W.; stems removed E.; large basal wound E.; two stems W. form heavy laterals; topped for overhead utilities; moderate dieback.
111	American elm	Original	28	3	Moderate	Multiple attachments at 10'; one sided W. but reduced; cavity & decay in attachment; topped for overhead utilities; moderate dieback in upper crown.
112	American elm	Original	30	2	Sinificant	Multiple attachments at 8'; centeal leader dead; large basal wound & decay E.; topped for overhead utilities; moderate flagging throughout crown.
113	American elm	Original	30	1	Sinificant	Multiple attachments at 8'; one dead 8" branch E.; crown mostly small epicormics; topped for overhead utilities; extensive dieback.
114	American elm	Third	1	5	--	Upright form; still staked.
115	American elm	Second	2,2	5	--	Codominant trunks at base; upright form.

TREE No.	SPECIES	GENERATION	SIZE DIAMETER (in inches)	CONDITION 1=POOR 5=EXCELLENT	FLAGGING	COMMENTS
116	American elm	Second	3	5	--	Codominant trunks at 8'; upright form.
117	American elm	Second	3	5	--	Codominant trunks at 5'; upright form; low branching.
118	American elm	First	5	5	--	Multiple attachments at 10'; upright form; low branching.
119	American elm	Third	1	5	--	Codominant trunks at 10'; upright form.
120	American elm	Third	1	5	--	Slight lean W.; still staked.
121	American elm	Original	27	4	Minor	Multiple attachments at 12'; topped for overhead utilities; laterals E. & W.
122	American elm	Original	23	3	Minor	Codominant trunks at 10'; one sided E.; topped for overhead utilities.
123	American elm	Original	20	3	Minor	Small crown; topped for overhead utilities; laterals E. & W. reduced.
124	American elm	Original	20	3	Minor	Codominant trunks at 15'; one sided E.; stem E. reduced; topped for overhead utilities.
125	American elm	Original	22	3	Minor	Codominant trunks at 12'; one sided E.; stem E. reduced; topped for overhead utilities.
126	American elm	Original	22	3	Minor	Codominant trunk at 10' forms heavy lateral E,; cavity at 6' probed to 2' above & 1' below; topped for overhead utilities.
127	American elm	Original	24	3	Minor	Codominant trunks at 15'; stems W. reduced; topped for overhead utilities.
128	American elm	Original	24	3	Minor	Codominant trunks at 12'; topped for overhead utilities.; long lateral E. over Hwy. 29.
129	American elm	Original	27	3	Minor	Slight lean E.; topped for overhead utilities; laterals E. over Hwy. 29.
130	American elm	Original	31	3	Moderate	Codominant trunks at 10'; topped for overhead utilities; long lateral E. over Hwy. 29.

TREE No.	SPECIES	GENERATION	SIZE DIAMETER (in inches)	CONDITION 1=POOR 5=EXCELLENT	FLAGGING	COMMENTS
131	American elm	Original	25	2	Minor	Codominant trunks at 18'; cavity & decay at 3' W. probed 3' above & below; topped for overhead utilities; laterals E. over Hwy. 29.
132	American elm	Original	27	3	Minor	Codominant trunks at 7'; topped for overhead utilities; one stem forms long lateral E. over Hwy. 29; recent branch failure W.
133	American elm	Original	26	3	Minor	Codominant trunks at 15'; slight lean E.; topped for overhead utilities; one stem forms long lateral E. over Hwy. 29.
134	American elm	Original	29	3	Minor	Multiple attachments at 20'; topped for overhead utilities; history of branch failures; decay in wounds from failures.
135	American elm	Original	26	3	Minor	Cavity & decay at 15' W.; majority of weight W.; topped for overhead utilities; lateral E. over Hwy. 29.
136	American elm	Original	25	3	Moderate	Codominant trunks at 12' & 15'; hanger & cracked branch W.; topped for overhead utilities; burl at 15' E.
137	American elm	Original	25	3	Minor	Codominant trunks at 8'; majority of weight SW.; topped for overhead utilities; branch tear out W. @ 15'.
138	American elm	Original	33	3	Minor	Multiple attachments at 12'; stem/branch failures & wounds E.; majority of weight W.; topped for overhead utilities.
139	American elm	Original	25	3	Minor	Very one sided w/ heavy laterals W.; topped for overhead utilities.
140	American elm	Original	28	3	Minor	Codominant trunks at 10'; small hanger & dead wood E.; topped for overhead utilities.

TREE No.	SPECIES	GENERATION	SIZE DIAMETER (in inches)	CONDITION 1=POOR 5=EXCELLENT	FLAGGING	COMMENTS
141	American elm	Original	29	3	Moderate	Codominant trunks at 18'; cavity at 20' W.; history of branch failures at 30' W.; topped for overhead utilities; large trunk wound S.
142	American elm	Original	34	3	Moderate	Codominant trunks at 10'; one stem forms heavy lateral W../one sided W.; topped for overhead utilities.
143	American elm	Original	35	2	Minor	One sided E.; topped for overhead utilities; large basal wound/cavity SE.; smaller cavities at 5' & 10' S.; lower trunk sounds hollow.
144	American elm	Original	36	3	Moderate	Codominant trunks at 12'; topped for overhead utilities; broken branch E.; hard to see structure through epicormics.

Tree Inventory Map

Beringer Elm Tunnel
St. Helena, CA

Prepared for:
City of St. Helena
September 2019

Notes:
1. Tree locations are approximate.

2. Aerial photo provided by ESRI.

Legend
Trees

N

80
Feet

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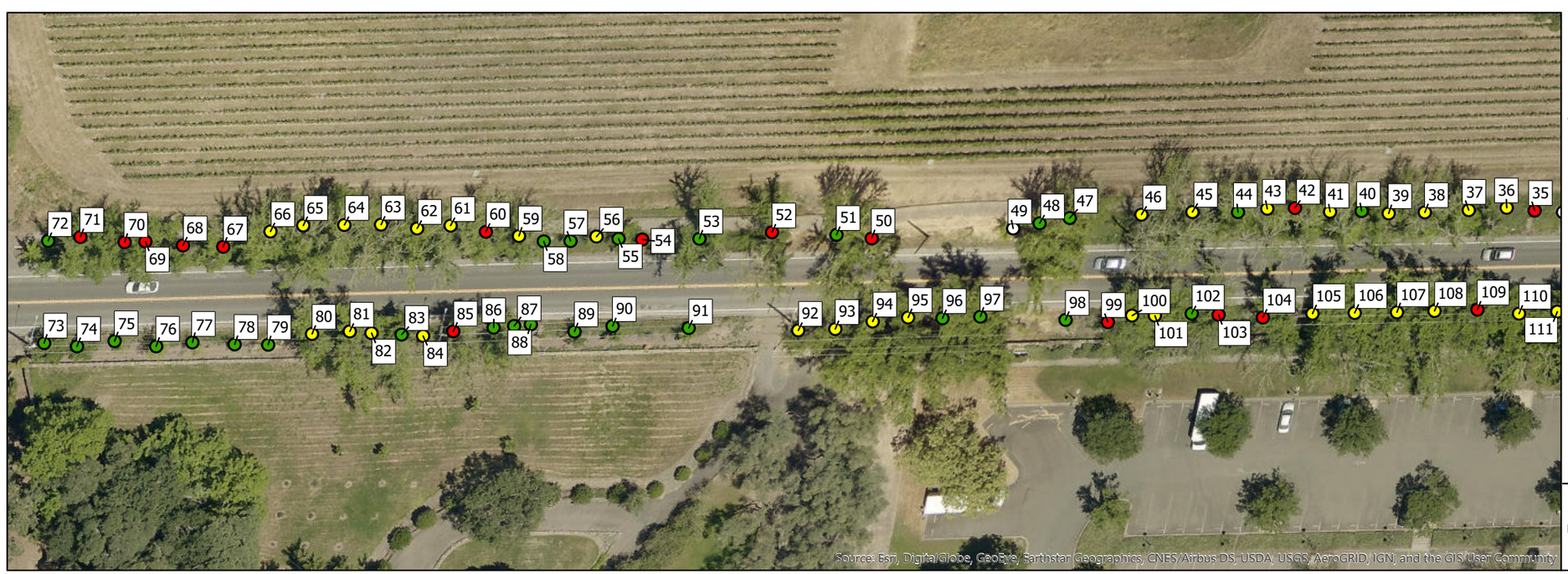
Tree Condition Map

Beringer Elm Tunnel
St. Helena, CA

Prepared for:
City of St. Helena
September 2019



Notes:
1. Tree locations are approximate.

2. Aerial photo provided by ESRI.

3. Color represents tree condition.

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Mature Tree Management

Beringer Elm Tunnel
St. Helena, CA

Prepared for:
City of St. Helena
September 2019

Notes:
1. Tree locations are approximate.

2. Aerial photo provided by ESRI.

3. Color represents management recommendations for mature trees.

Primary Management Recommendations
- Consider for removal
- Remove
- Prune

N

80 Feet

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Advanced Tree Assessment

Beringer Elm Tunnel
St. Helena, CA

Prepared for:
City of St. Helena
September 2019

Notes:
1. Tree locations are approximate.

2. Aerial photo provided by ESRI.

3. Color represents management recommendations for advanced assessment.

Advanced Assessment
- Aerial Inspect and Decay Detection
- Decay Detection

N

80 Feet

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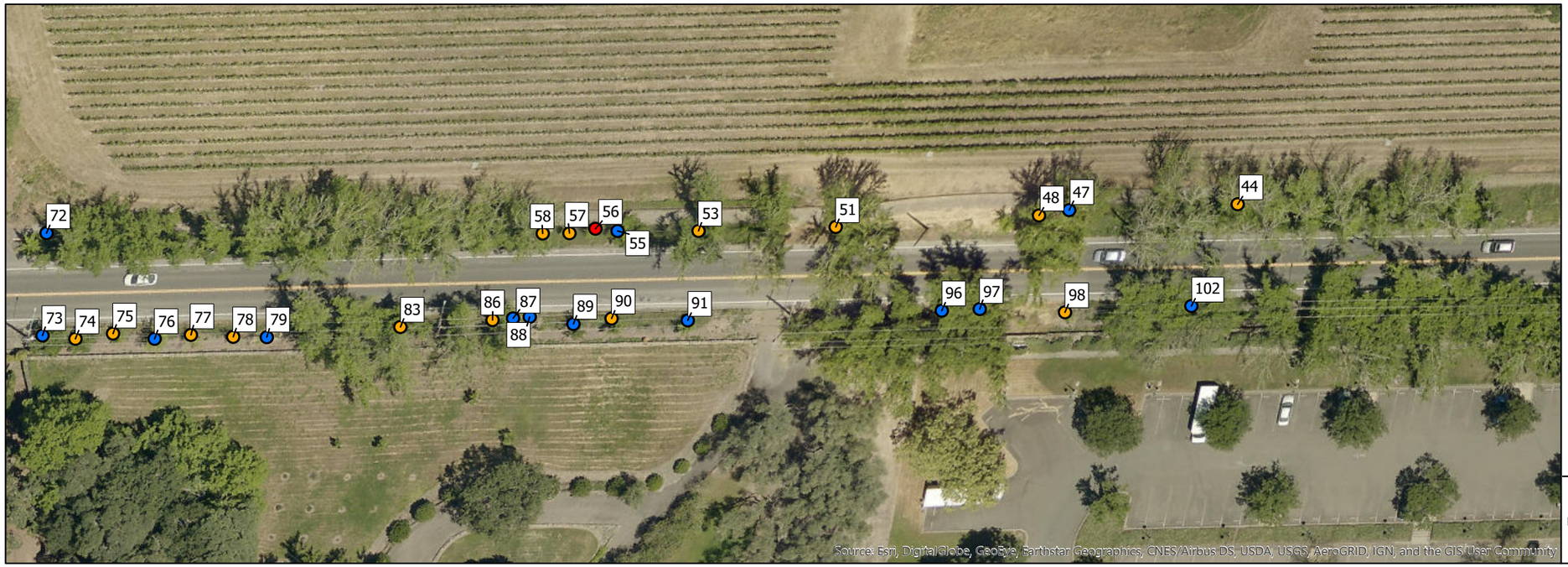
Young Tree Management

Beringer Elm Tunnel
St. Helena, CA

Prepared for:
City of St. Helena
September 2019



Primary Management Recommendations
- Prune for branch spacing
- Remove
- Prune for central leader

N

80 Feet

Notes:
1. Tree locations are approximate.

2. Aerial photo provided by ESRI.

3. Color represents management recommendations for recently planted trees.

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Appendix A - Summary of Tree Risk Ratings
Beringer Elms - St. Halena, CA

Tree #	Tree Condition			Defect 1 Risk Assessment					Defect 2 Risk Assessment					Advanced assessment recs	Management comments
	Species	Trunk diameter (inches)	Condition rating 1=poor; 5=excellent	Tree part likely to fail	Targets	Risk rating	Mitigation option	Residual risk	Tree part likely to fail	Targets	Risk rating	Mitigation option	Residual risk		
1	American elm	34	3	Stem	Trail	Moderate	Aerial inspect cavity @ 15'	Moderate	Scaffold branch	Trail	Moderate	Prune to reduce weight/ext.	Low	Aerial insp. & decay detect.	Prune to reduce weight/ext.
2	American elm	26	3	Whole tree	Primary road	Moderate	Test lower trunk for decay	Moderate	Stem	Hwy. 29	Moderate	None	Moderate	Decay detect. If not removed	Consider for removal
3	American elm	28	2	Whole tree	Hwy. 29	Moderate	Test lower trunk for decay or remove tree	None	Scaffold branch	Hwy. 29	Low	Prune to remove dead 8" stem	Low	Aerial insp. & decay detect. If not removed	Consider for removal
4	American elm	32	3	Stem	Hwy. 29	Moderate	Prune to reduce weight/ext.	Low	Stem	Trail	Moderate	Prune to reduce weight/ext./inspect decay	Low	--	Prune to reduce weight/ext.
7	American elm	29	4	Stem	Hwy. 29	Moderate	Prune to remove 16" stem	Low	Stem	Trail	Moderate	Prune to reduce weight/ext./inspect decay	Low	--	Prune to remove 16" stem
8	American elm	25	2	Whole tree	Trail	Low	Remove tree	None	Stem	Trail	Low	Prune to reduce weight/ext.	Low	Decay detect. If not removed	Consider for removal
12	American elm	31	0											--	Removed as of 6/19
13	American elm	28	3	Whole tree	Trail	Low	Test lower trunk for decay	Moderate	Stem	Trail	Low	Prune to remove part	Low	Consider decay detection	None
14	American elm	29	3	Whole tree	Trail	Low	None	Low	Stem	Trail	Low	None	Low	Consider decay detection	None
16	American elm	28	2	Whole tree	Hwy. 29	Moderate	Remove tree	None	Stem	Trail	Moderate	Prune to reduce weight/ext.	Low	Decay detect. If not removed	**Remove tree**
17	American elm	28	2	Stem	Hwy. 29	Moderate	Remove tree	None	Scaffold branch	Trail	Low	None	Low	--	**Remove tree**
33	American elm	21	0											--	Removed as of 6/19
34	American elm	24	0											--	Removed as of 6/19
35	American elm	24	2	Dead branch	Hwy. 29	Moderate	Prune to crown clean	Low	Stem	Trail	Low	Prune to reduce weight/ext. & crown clean	Low	--	Consider for removal
36	American elm	22	3	Scaffold branch	Hwy. 29	Moderate	Prune to reduce weight/ext.	Low	Stem	Trail	Low	None	Low	--	Prune to reduce weight/ext.
37	American elm	24	3	Dead branch	Hwy 29	Moderate	Prune to crown clean	Low	Stem	Trail	Low	None	Low	--	Prune to crown clean
38	American elm	24	3	Scaffold branch	Hwy. 29	Low	None	Low	Scaffold branch	Trail	Moderate	Prune to reduce weight/ext.	Low	--	None
39	American elm	23	3	Stem	Hwy. 29	Moderate	Prune to reduce height/extension	Low	Scaffold branch	Trail	Low	None	Low	--	Prune to reduce height/extens

Appendix A - Summary of Tree Risk Ratings
Beringer Elms - St. Halena, CA

Tree #	Tree Condition			Defect 1 Risk Assessment					Defect 2 Risk Assessment					Advanced assessment recs	Management comments
	Species	Trunk diameter (inches)	Condition rating 1=poor; 5=excellent	Tree part likely to fail	Targets	Risk rating	Mitigation option	Residual risk	Tree part likely to fail	Targets	Risk rating	Mitigation option	Residual risk		
40	American elm	26	4	Stem	Hwy. 29	Moderate	Prune to reduce height/extension	Low	Stem	Trail	Low	None	Low	--	Prune to reduce height/extens
41	American elm	27	3	Stem	Trail	Moderate	Test decay in attachment & prune to reduce weight/ext.	Moderate	--	--	--	--	--	Aerial insp. & decay detect.	Test decay in attachment & pr
42	American elm	27	2	Stem	Hwy. 29	Moderate	Prune to remove part	Low	Whole tree	Trail	Low	None	Low	Consider decay detection	Prune to remove 8” stem
43	American elm	28	3	Scaffold branch	Hwy. 29	Moderate	Prune to reduce height/extension	Low	Stem	Trail	Moderate	Prune to reduce weight/ext.	Low	Consider decay detection	Prune to reduce height/extens
45	American elm	26	3	Stem	Trail	Moderate	Prune to reduce weight/ext.	Low						--	Prune to reduce weight/ext.
46	American elm	24	3	Stem	Hwy. 29	Moderate	Prune to reduce weight/ext.	Low	Scaffold branch	Trail	Low	None	Low	--	Prune to reduce weight/ext.
49	American elm	24	0											--	Removed as of 6/19
50	American elm	28	2	Scaffold branch	Hwy. 29	Low	None	Low	Scaffold branch	Trail	Moderate	Prune to reduce weight/ext.	Low	--	Consider for removal
52	American elm	22	2	Dead branch	Hwy. 29	Moderate	Prune to crown clean	Low	Stem	Trail	Moderate	Prune to reduce weight/ext.	Low	--	Consider for removal
54	American elm	27	2	Dead branch	Hwy. 29	Moderate	Prune to crown clean	Low	Stem	Trail	Low	Prune to reduce weight/ext.	Low	--	Consider for removal
59	American elm	23	3	Dead branch	Trail	Moderate	Prune to crown clean & reduce weight/ext.	Low	Whole tree	Hwy. 29	Moderate	Decay detection or remove tree	Moderate	Consider decay detection	Prune to crown clean & reduc
60	American elm	24	2	Stem	Trail	Low	Prune to reduce weight/ext.	Low	--	--	--	--	--	Consider decay detection	None
61	American elm	21	3	Scaffold branch	Hwy. 29	Low	None	Low	Stem	Trail	Low	None	Low	Consider decay detection	None
62	American elm	25	3	Stem	Trail	Low	Prune to reduce weight/ext.	Low	--	--	--	--	--	--	None
63	American elm	23	3	Scaffold branch	Hwy. 29	Low	None	Low	Stem	Trail	Low	Prune to reduce weight/ext.	Low	--	None
64	American elm	25	3	Stem	Hwy. 29	Moderate	Prune to reduce height/extension	Low	Dead branch	Trail	Moderate	Prune to reduce weight/ext. & crown clean	Low	Consider decay detection	Prune to reduce height/extens

Appendix A - Summary of Tree Risk Ratings
Beringer Elms - St. Halena, CA

Tree #	Tree Condition			Defect 1 Risk Assessment					Defect 2 Risk Assessment					Advanced assessment recs	Management comments
	Species	Trunk diameter (inches)	Condition rating 1=poor; 5=excellent	Tree part likely to fail	Targets	Risk rating	Mitigation option	Residual risk	Tree part likely to fail	Targets	Risk rating	Mitigation option	Residual risk		
65	American elm	22	3	Scaffold branch	Hwy. 29	Moderate	Prune to reduce height/extension	Low	Stem	Trail	Low	Prune to reduce weight/ext.	Low	--	Prune to reduce height/extens
66	American elm	22	3	Dead branch	Hwy. 29	Moderate	Prune to crown clean	Low	Scaffold branch	Trail	Low	None	Low	--	Prune to crown clean
67	American elm	22	2	Whole tree	Hwy. 29	Moderate	Decay detection or remove tree	Moderate	Dead branch	Trail	Moderate	Prune to crown clean	Low	Decay detect. If not removed	Consider for removal
68	American elm	20	2	Whole tree	Hwy. 29	Moderate	Decay detection or remove tree	Moderate	Scaffold branch	Trail	Low	Prune to reduce weight/ext.	Low	Decay detect. If not removed	Consider for removal
69	American elm	24	2	Scaffold branch	Hwy. 29	Low	None	Low	Stem	Trail	Low	Prune to reduce weight/ext.	Low	Decay detect. If not removed	Consider for removal
70	American elm	21	2	Stem	Trail	Low	Prune to reduce weight/ext.	Low	--	--	--	--	--	--	Consider for removal
71	American elm	22	2	Scaffold branch	Hwy. 29	Moderate	Prune to reduce height/extension	Low	Stem	Trail	Low	Prune to reduce weight/ext.	Low	--	Consider for removal
80	American elm	28	3	Stem	Hwy. 29	Moderate	Prune to reduce height/extension	Low	--	--	--	--	--	--	Prune to reduce height/extens
81	American elm	28	3	Scaffold branch	Hwy. 29	Moderate	Prune to reduce weight/ext.	Low	Scaffold branch	Orchard	Low	Prune to reduce weight/ext.	Low	--	Prune to reduce weight/ext.
82	American elm	27	3	Stem	Hwy. 29	Low	None	Low	Scaffold branch	Orchard	Low	Prune to reduce weight/ext.	Low	--	None
84	American elm	26	3	Stem	Hwy. 29	Low	None	Low	Scaffold branch	Orchard	Low	None	Low	--	None
85	American elm	28	2	Stem	Hwy. 29	Moderate	Prune to reduce height/extension	Low	Stem	Orchard	Low	None	Low	--	Consider for removal
92	American elm	31	3	Scaffold branch	Driveway	Moderate	Prune to reduce weight/ext.	Low	Stem	Hwy. 29	Moderate	None	Moderate	Consider decay detection	Prune to reduce weight/ext.
93	American elm	34	3	Stem	Hwy. 29	Moderate	Remove stem	Low	Stem	Landscape	Low	Prune to reduce weight/ext.	Low	--	Remove 10" stem
94	American elm	28	3	Scaffold branch	Hwy. 29	High	Prune to reduce weight/ext.	Low	Scaffold branch	Landscape	Low	None	Low	--	Prune to reduce weight/ext.
95	American elm	30	3	Scaffold branch	Hwy. 29	Moderate	Prune to reduce weight/ext.	Low	Stem	Parking	Low	Prune to reduce weight/ext.	Low	Aerial insp. & decay detect.	Prune to reduce weight/ext.
99	American elm	33	2	Stem	Hwy. 29	High	Remove tree	None	Scaffold branch	Landscape	Low	None	Low	Decay detect. If not removed	**Remove tree**

Appendix A - Summary of Tree Risk Ratings
Beringer Elms - St. Halena, CA

Tree #	Tree Condition			Defect 1 Risk Assessment					Defect 2 Risk Assessment					Advanced assessment recs	Management comments
	Species	Trunk diameter (inches)	Condition rating 1=poor; 5=excellent	Tree part likely to fail	Targets	Risk rating	Mitigation option	Residual risk	Tree part likely to fail	Targets	Risk rating	Mitigation option	Residual risk		
100	American elm	32	3	Stem	Parking	Moderate	Prune to reduce weight/ext.	Low	Whole tree	Hwy. 29	Low	None	Low	Decay detect. If not removed	Consider for removal
101	American elm	30	3	Scaffold branch	Hwy. 29	Moderate	Prune to reduce weight/ext.	Low	Scaffold branch	Landscape	Low	None	Low	Aerial insp. & decay detect.	Prune to reduce weight/ext.
103	American elm	33	2	Stem	Hwy. 29	High	Remove tree	None	Scaffold branch	Parking	Low	Prune to reduce weight/ext.	Low	Decay detect. If not removed	**Remove tree**
104	American elm	31	2	Stem	Hwy. 29	Moderate	Prune to reduce weight/ext.	Low	Stem	Parking	Moderate	Prune to reduce weight/ext.	Low	Decay detect. If not removed	Consider for removal
105	American elm	31	3	Dead branch	Parking	Low	Prune to crown clean	Low	Stem	Parking	Low	Prune to reduce weight/ext.	Low	--	None
106	American elm	27	3	Stem	Hwy. 29	Moderate	Prune to reduce weight/ext.	Low	Dead branch	Parking	Moderate	Prune to crown clean	Low	--	Prune to reduce weight/ext.
107	American elm	31	3	Stem	Hwy. 29	Moderate	Prune to reduce weight/ext.	Low	Stem	Parking	Moderate	Prune to reduce weight/ext.	Low	--	Prune to reduce weight/ext.
108	American elm	34	3	Stem	Hwy. 29	Low	None	Low	Stem	Parking	Moderate	Prune to reduce weight/ext.	Low	--	None
109	American elm	26	2	Scaffold branch	Hwy. 29	Low	None	Low	Stem	Landscape	Low	None	Low	Decay detect. If not removed	Consider for removal
110	American elm	33	3	Stem	Parking	Moderate	Prune to reduce weight/ext.	Low	--	--	--	--	--	--	Prune to reduce weight/ext.
111	American elm	28	3	Stem	Hwy. 29	Moderate	None	Moderate	Stem	Landscape	Low	None	Low	Aerial insp. & decay detect.	None
112	American elm	30	2	Stem	Hwy. 29	Moderate	Remove tree	None	Stem	Parking	Low	Remove tree	None	--	**Remove tree**
113	American elm	30	1	Dead branch	Hwy. 29	High	Remove tree	None	--	--	--	--	--	--	**Remove tree**
121	American elm	27	4	Scaffold branch	Hwy. 29	Moderate	Prune to reduce weight/ext.	Low	Scaffold branch	Landscape	Low	None	Low	--	Prune to reduce weight/ext.
122	American elm	23	3	Scaffold branch	Hwy. 29	Moderate	Prune to reduce weight/ext.	Low	--	--	--	--	--	--	Prune to reduce weight/ext.
123	American elm	20	3	Scaffold branch	Hwy. 29	Low	None	Low	Stem	Landscape	Low	None	Low	--	None
124	American elm	20	3	Stem	Hwy. 29	Moderate	Prune to reduce weight/ext.	Low	Scaffold branch	Landscape	Low	None	Low	--	Prune to reduce weight/ext.
125	American elm	22	3	Stem	Hwy. 29	Moderate	Prune to reduce weight/ext.	Low	Scaffold branch	Landscape	Low	None	Low	--	Prune to reduce weight/ext.
126	American elm	22	3	Stem	Hwy. 29	High	Remove stem	Low	Scaffold branch	Landscape	Low	None	Low	Consider decay detection	Remove 10" stem
127	American elm	24	3	Scaffold branch	Hwy. 29	Moderate	Prune to reduce weight/ext.	Low	Stem	Landscape	Low	None	Low	--	Prune to reduce weight/ext.
128	American elm	24	3	Scaffold branch	Hwy. 29	Moderate	Prune to reduce weight/ext.	Low	Dead branch	Landscape	Low	None	Low	--	Prune to reduce weight/ext.

Appendix A - Summary of Tree Risk Ratings
Beringer Elms - St. Halena, CA

Tree #	Tree Condition			Defect 1 Risk Assessment					Defect 2 Risk Assessment					Advanced assessment recs	Management comments
	Species	Trunk diameter (inches)	Condition rating 1=poor; 5=excellent	Tree part likely to fail	Targets	Risk rating	Mitigation option	Residual risk	Tree part likely to fail	Targets	Risk rating	Mitigation option	Residual risk		
129	American elm	27	3	Scaffold branch	Hwy. 29	Moderate	Prune to reduce weight/ext.	Low	Scaffold branch	Landscape	Low	None	Low	--	Prune to reduce weight/ext.
130	American elm	31	3	Scaffold branch	Hwy. 29	Moderate	Prune to reduce weight/ext.	Low	--	--	--	--	--	--	Prune to reduce weight/ext.
131	American elm	25	2	Scaffold branch	Hwy. 29	Moderate	Prune to reduce weight/ext.	Low	Whole tree	Hwy. 29	Moderate	Remove tree	None	Decay detect. If not removed	Consider for removal
132	American elm	27	3	Scaffold branch	Hwy. 29	Moderate	Prune to reduce weight/ext.	Low	Scaffold branch	Lawn	Low	None	Low	--	Prune to reduce weight/ext.
133	American elm	26	3	Scaffold branch	Hwy. 29	High	Prune to reduce weight/ext.	Low	Scaffold branch	Lawn	Low	None	Low	--	Prune to reduce weight/ext.
134	American elm	29	3	Scaffold branch	Hwy. 29	Moderate	Prune to reduce weight/ext.	Low	Scaffold branch	Lawn	Low	None	Low	--	Prune to reduce weight/ext.
135	American elm	26	3	Scaffold branch	Hwy. 29	High	Prune to reduce weight/ext.	Low	Whole tree	Lawn	Low	Aerial inspection & decay detection	Low	Aerial insp. & decay detect. If not removed	Consider for removal
136	American elm	25	3	Scaffold branch	Hwy. 29	Low	None	Low	Dead branch	Lawn	Moderate	Prune to remove parts	Low	--	None
137	American elm	25	3	Scaffold branch	Hwy. 29	Low	None	Low	Stem	Lawn	Low	None	Low	--	None
138	American elm	33	3	Scaffold branch	Hwy. 29	High	Prune to reduce weight/ext.	Low	Scaffold branch	Lawn	Low	None	Low	--	Prune to reduce weight/ext.
139	American elm	25	3	Stem	Lawn	Low	Prune to reduce weight/ext.	Low	--	--	--	--	--	--	Consider for removal
140	American elm	28	3	Hanger/dead branch	Hwy. 29	Moderate	Prune to remove part & reduce	Called City	Scaffold branch	Lawn	Low	None	Low	--	Prune to reduce weight/ext.
141	American elm	29	3	Scaffold branch	Hwy. 29	Low	None	Low	Stem	Lawn	Low	Prune to reduce weight/ext.	Low	--	Consider for removal
142	American elm	34	3	Scaffold branch	Hwy. 29	Low	None	Low	Stem	ndary road/entry	Low	Prune to reduce weight/ext.	Low	--	None
143	American elm	35	2	Whole tree	Hwy. 29	Moderate	Remove tree	None	Scaffold branch	Hwy. 29	Moderate	Prune to reduce weight/ext.	None	Decay detect. If not removed	**Remove tree**
144	American elm	36	3	Scaffold branch	Hwy. 29	High	Prune to remove part	Low	Scaffold branch	Hwy. 29	Moderate	Prune to reduce weight/ext.	Low	--	Prune to reduce weight/ext.

Appendix B: Young Tree Management Recommendations

Beringer Elms, St. Halena

Tree #	Trunk diameter	Primary recommendations	Secondary recommendations	Tertiary recommendations	Quaternary recommendations
5	1	(Hit by car 6/19)	--	--	--
6	1	Prune to improve branch spacing	--	--	--
9	2	Select central leader	Prune to improve branch spacing	--	--
10	2	Prune to improve branch spacing	--	--	--
11	2	Prune to improve branch spacing	Remove stakes	--	--
15	1	Prune to improve branch spacing	--	--	--
18	1	Prune to improve branch spacing	Prune to remove low branches	--	--
19	2	Select central leader	Prune to improve branch spacing	--	--
20	3	Select central leader	Prune to improve branch spacing	Prune to remove low branches	--
21	3	Select central leader	Prune to improve branch spacing	--	--
22	4	Prune to improve branch spacing	Prune to remove low branches	--	--
23	3	Prune to improve branch spacing	--	--	--
24	3	Prune to improve branch spacing	Prune to remove low branches	--	--
25	1	Prune to improve branch spacing	--	--	--
26	5	Select central leader	Prune to improve branch spacing	Prune to remove low branches	--
27	1	Prune to improve branch spacing	--	--	--
28	3	Select central leader	Prune to improve branch spacing	Prune to remove low branches	Remove embedded stake tie
29	5	Select central leader	Prune to improve branch spacing	Prune to remove low branches	Prune to remove crossing branches
30	4	Select central leader	Prune to improve branch spacing	Prune to remove low branches	Prune tp crown clean
31	1	Prune to improve branch spacing	--	--	--
32	1	Prune to improve branch spacing	--	--	--
44	1	Prune to improve branch spacing	--	--	--
47	2	Select central leader	Prune to improve branch spacing	Prune to remove low branches	--
48	1	Prune to improve branch spacing	--	--	--
51	1	Prune to improve branch spacing	--	--	--
53	1	Prune to improve branch spacing	--	--	--
55	1	Select central leader	Prune to improve branch spacing	Remove stakes	--
56	3,2,2,2	**Remove tree**	--	--	--
57	2	Prune to improve branch spacing	--	--	--
58	1	Prune to improve branch spacing	--	--	--
72	3	Select central leader	Prune to improve branch spacing	--	--
73	4,4	Select central leader	Prune to improve branch spacing	--	--
74	2,1	Prune to improve branch spacing	Prune to remove low branches	--	--
75	1	Prune to improve branch spacing	--	--	--

Appendix B: Young Tree Management Recommendations

Beringer Elms, St. Halena

Tree #	Trunk diameter	Primary recommendations	Secondary recommendations	Tertiary recommendations	Quaternary recommendations
76	3	Select central leader	Prune to improve branch spacing	--	--
77	2	Prune to improve branch spacing	--	--	--
78	2	Prune to improve branch spacing	--	--	--
79	1	Select central leader	Prune to improve branch spacing	Remove stakes	--
83	1	Prune to improve branch spacing	--	--	--
86	1	Prune to improve branch spacing	Remove stakes	--	--
87	3	Select central leader	Prune to improve branch spacing	--	--
88	2	Select central leader	Prune to improve branch spacing	--	--
89	2	Select central leader	Prune to improve branch spacing	--	--
90	1	Prune to improve branch spacing	Remove stakes	--	--
91	3	Select central leader	Prune to improve branch spacing	--	--
96	1	Select central leader	Prune to improve branch spacing	Remove stakes	--
97	1	Select central leader	Prune to improve branch spacing	Remove stakes	--
98	1	Prune to improve branch spacing	Remove stakes	--	--
102	1	Select central leader	Prune to improve branch spacing	Remove stakes	--
114	1	Prune to improve branch spacing	Remove stakes	--	--
115	2,2	Select central leader	Prune to improve branch spacing	--	--
116	3	Select central leader	Prune to improve branch spacing	--	--
117	3	Select central leader	Prune to improve branch spacing	Prune to remove low branches	--
118	5	Select central leader	Prune to improve branch spacing	Prune to remove low branches	--
119	1	Select central leader	Prune to improve branch spacing	Remove stakes	--
120	1	Prune to improve branch spacing	Remove stakes	--	--

ST. HELENA ELM TUNNEL MANAGEMENT PLAN

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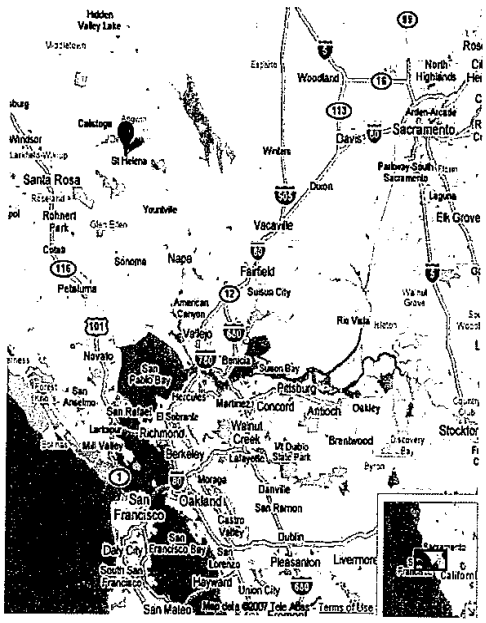
INTRODUCTION



In 1885, the Beringer brothers planted approximately 75 elm trees on each side of the highway fronting their Saint Helena winery property. The Saint Helena Elm Tunnel is now a historic resource for the purposes of the California Environmental Quality Act as well as a contributor to the Beringer Winery Historic District, which was listed on the National Register of Historic Places in 2001. The two rows of American elm trees that compose the "tunnel" of tree canopy over State Highway 29 on the northwest boundary of the district are owned by the State of California, Department of Transportation (State). Located within the limits of the City of Saint Helena in Napa County, California, the Elm Tunnel is of great interest to the local community.

The Elm Tunnel has been affected by age, Dutch elm disease, and an infestation of bark beetle. At an age of nearly 130 years, the Elm Tunnel now flanks a busy two-lane state highway. It is the goal of the State to partner with the City of St. Helena (City) to provide maintenance of the historic elms to preserve the Elm Tunnel experience for future generations.

This Management Plan is intended to facilitate communication and partnership between the State and City to provide maintenance, preservation and restoration of the historic elms in a way that meets current safety requirements. The Management Plan consists of a set of coordinated protocols with identified functional areas within the State and the City to address short-term as well as longer-term work on the Elm Tunnel as the original trees near the end of their natural lifespan.

MAINTENANCE

Caltrans Maintenance currently performs routine trimming and pruning for safety and winter preparation. Typically, this involves trimming off any dead limbs in order to provide horizontal and vertical clearances for vehicular traffic. In addition to the normal maintenance work, stumps from diseased trees that were previously removed have been ground to prevent sucker growth and to provide a place to plant replacement trees. During these maintenance activities, the Caltrans Maintenance Tree Crews and the City Arborist complete an inspection of all the trees.

Continued Elm Tunnel maintenance will focus on sustaining the health of the existing two tree rows for as long as possible. Partnership in the maintenance of the Elm Tunnel has been on-going between the City and State for years. Currently, the State reimburses the City to perform routine maintenance involving litter, drainage and electrical. This continued partnership is integral to Elm Tunnel longevity. The City crews have been essential to a quick response to remove unexpected limb drop to protect the safety of the traveling public.

Annual fungicide injections and spraying of insecticides have been implemented over the past several years to control the bark beetle population and hedge back the damaging effects of the fungi *Ophiostoma novoulmi* and *O. ulmi* pathogen vectored by the bark beetles. This effort has been a partnership between the State and City. The State has purchased fungicide. The City has performed the inoculation with the fungicide as well as purchased and applied insecticide. This continued partnership, subject to the allocation of resources from the legislature and the City, is essential to the preservation of the elm trees. Continued regular communication about the health, vigor and routine maintenance of the tunnel is needed to preserve this living resource (see Communication Plan below).

Maintenance Task	Schedule	Responsibility
Routine Pruning	Annual, Jan. – Feb.	Caltrans
Tree Removal	Annual, as needed	Caltrans
Emergency Pruning or Removal	Variable; Emergency Response	Caltrans/City
Insecticide application	Annual	City
Preventive inoculation	Annual	City/Caltrans

TREATMENT/PLANTING

St. Helena community members have proposed that elm trees be planted in order to rehabilitate the Elm Tunnel for future generations. The primary goal of this rehabilitation treatment is the replacement of an extensively deteriorated historic feature with compatible material that conveys the appearance of the original. The City of St. Helena is partnering with the State in this effort.

According to State policies, new planting along conventional highways such as Route 29 is typically the responsibility of local entities through encroachment permit and maintenance agreement. It should be noted that the location of the historic Elm Tunnel is not suitable, pursuant to current policy, for new planting because of the close proximity to the traveled way. An advisory standard exception for nearby planting thus will have to be prepared and approved. The advisory exception would be for planting new trees at 8' from the edge of traveled way to the expected face of the mature tree.

In this case, the offset to the new trees would be approximately 9'6" to the young tree. This allows the mature tree caliper to achieve up to 36" caliper. Although the existing trees lend the appearance of symmetry about the roadway, they vary in offset from 4'6" to 8'6" when measured from the edge of traveled way. It is expected that the visual change from the offset would be minimal when the trees mature. Over the years, as more trees are replaced, the variance would decrease.

It is anticipated that planting and establishment of new trees will be conducted by the City utilizing their own forces or a community work day. The State will participate through the purchase of plant material, with a $2,000 maximum investment (see Appendix D). The State's participation is anticipated for the fall of 2011. Future planting efforts are subject to further discussion.

Replacement trees are intended to reach a similar mature height, provide a similar leaf size and branching pattern, and similar form, scale, color and texture. Two elm tree cultivars have been selected for replacement planting within the Elm Tunnel. Both trees are elm hybrids that have shown tolerance for resistance to Dutch elm disease when tested in Northern California in high stress disease conditions. All elm trees are susceptible to disease. Several cultivars have shown higher tolerance and are considered more likely to be successful. The selection team included Jim Haller, City of St. Helena Arborist, Jeanne Gorham, Caltrans District Landscape Architect and Don Rivers, Caltrans Regional Maintenance Manager. Dr. Larry Costello, from the UC Davis Department of Plant Sciences, was consulted as a technical expert in elm tree research. Dr. Costello has been studying and conducting research on Dutch elm resistance in California for over 20 years. Dr. Costello shared his research findings through correspondence and a phone

conference. A field meeting with Dr. Costello at a test plot in Atherton, CA was held to visually confirm desired habit and branching structure.

Fiscal considerations limit the State's ability to currently commit to a planting plan beyond the above proposal. The historic Elm Tunnel is approximately 1400 feet long currently consisting of approximately 120 trees. Originally, there were approximately 75 trees reportedly planted on each side of the highway for a total of 150 trees. There are presently 51 blank spots where trees were removed over the years, but some of these locations are where trees may not have been planted. Seven of these blank spots are the location of tree removal operations necessary for the protection of the health and safety of the public and conducted in consultation with the State Historic Preservation Officer (SHPO) and the City in recent years. The present proposal is for the City and the State to select locations within the blank spots to re-plant 35 to 40 new trees. The implementation of the proposed plantings will afford the City, the State and the SHPO an opportunity to assess the success of restoration efforts through this partnership and enable a dialogue among the parties to discuss criteria for further plantings and parameters for integrity of this contributor to the National Register-listed Beringer Historic District.

COMMUNICATION PLAN AND DOCUMENTATION

The State and City are the primary parties involved in preserving, maintaining, and potentially rehabilitating the Elm Tunnel. The State and the City will continue to partner in this effort as resources allow. Other stakeholders, such as the Tree Committee and the St. Helena Beautification Foundation will be essential to supporting this effort.

COMMUNICATION PLAN FOR MAINTENANCE

Caltrans Responsibilities:

Caltrans Maintenance Tree Crews will inspect the trees on an annual and as-needed or emergency basis in consultation with the City Arborist, Jim Haller. Caltrans Maintenance will continue to coordinate with the City on the inoculation/fungicide treatments. If it is determined that tree removal or trimming is required, the Caltrans Maintenance Supervisor will notify the following parties by email:

Caltrans Maintenance Region Manager: Don Rivers

Caltrans Project Management: Doanh Nguyen, Ahmad Rahimi, Kelly Hirschberg

Caltrans Landscape Architect: Jeanne Gorham

Caltrans Office of Cultural Resource Studies: Jennifer Darcangelo

Caltrans Public Information Office: RocQuel Johnson

Caltrans Office or Permits: Michael Condie

City of St. Helena Arborist: Jim Haller

City of St. Helena Public Works Director: John Ferons

City of St. Helena City Manager: Mary Neilan

City Responsibilities:

When it is determined that routine maintenance, trimming, or tree removal will be required, the City will notify the following parties of the planned work and communicate with Caltrans on any questions or concerns that come up:

St. Helena Beautification Foundation: Ms. Beatty

City of St. Helena Tree Committee

Senator Noreen Evans representative:

Congressman Mike Thompson representative: Brad Onorato

After the initial contacts listed above are made in response to the planned or emergency work, additional communications will be made as necessary:

Caltrans Office of Cultural Resource Studies: State Historic Preservation Officer

Caltrans Public Information Office: St. Helena Star and other media releases

City of St. Helena Public Works Director: City Council or other City communications

COMMUNICATION PLAN FOR TREATMENT/PLANTING

It is anticipated that planting and establishment of new trees will be conducted by the City utilizing their own forces or a community work day. The State will participate through the purchase of plant material, with a $2,000 maximum investment. The target for planting the trees is fall of 2011. The plant establishment period will be defined by the ability of the trees to sustain without supplemental water. The City will provide supplemental water for plant establishment and pruning for training until the trees are able to self-sustain.

Caltrans Responsibilities:

Utility Location Verification: Caltrans Maintenance Supervisor

Proposed Planting Locations: Don Rivers

Encroachment Permit: Michael Condie

Provide Selected Trees (not to exceed $2,000): Caltrans Maintenance Supervisor

Monitoring Plant Establishment: Maintenance Supervisor, Tree Crew, Landscape Architect

City Responsibilities:

Proposed Planting Locations: Jim Haller

Encroachment Permit Application: John Ferons, Jim Haller

Tree Planting: Jim Haller

Supplemental Tree Watering: Jim Haller

Monitoring Plant Establishment: Jim Haller

DOCUMENTATION

Caltrans Office of Cultural Resource Studies (OCRS) will document current conditions of the Elm Tunnel, noting further removals and replanting efforts for reporting to the SHPO. Thereafter, OCRS will document and report on an annual basis to SHPO and the City.

REGULATORY COMPLIANCE

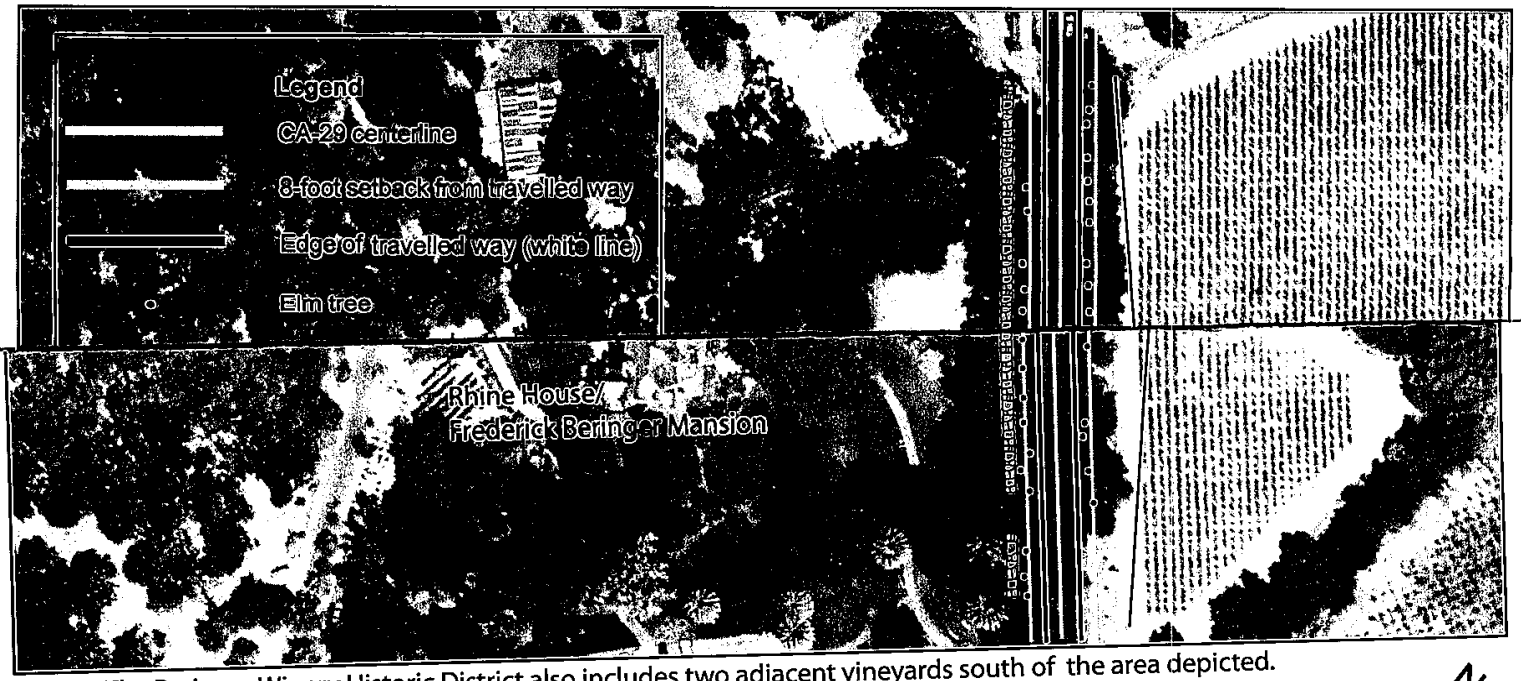
All work planned for the Elm Tunnel will require consultation with the State Historic Preservation Officer. The Elm Tunnel is a character-defining feature of the Beringer Winery Historic District, which was listed on the National Register of Historic Places in 2001. In this context, the winery as a whole property is considered a cultural landscape (See Appendix A). Altering character-defining features of the cultural landscape constitutes an effect to the historical integrity of the whole property. As the owner of the Elm Tunnel, Caltrans is subject to CEQA (Public Resources Code §21000 et seq.) as well as other sections of the Public Resources Code. These codes establish the California Register of Historical Resources, a state listing of significant historical resources (PRC §5024.1), require state agencies to inventory state-owned resources and to formulate policies to preserve and maintain state-owned historical resources under their jurisdiction (PRC §5024) and require state agencies to consult with SHPO on projects affecting state-owned historical resources (PRC §5024(f) and §5024.5). The CEQA Guidelines (14 CCR §15000 et seq) provide guidance on implementing CEQA and the California Register regulations (14 CCR §4850 et seq.) provide further guidance on using the California Register

eligibility and integrity criteria and special considerations. Executive Order W-26-92 reinforces the requirements of PRC §5024 and §5024.5.

This Management Plan is intended to facilitate communication and partnership between the State and City to provide maintenance, preservation and restoration of the historic elms in a way that meets current safety requirements. In addition, this document serves to document the commitment of Caltrans and the City to comply with PRC § 5024 in preserving and maintaining this significant historical resource to the extent possible given that trees are a living resource, subject to disease and the natural aging process.

Elm Tunnel Map

Beringer Winery Historic District



Note: The Beringer Winery Historic District also includes two adjacent vineyards south of the area depicted.
Post mile marker numbers 29.3 through 29.6

0 50 100 200 300 400 Feet

N

Tremaine, Kim J. "Rock Fences of Napa County: A Pilot Study." Prepared for Napa County, Conservation, Development, and Planning Department, August 1998.

Webber, Lin. *Old Napa Valley: The History to 1900.* St. Helena, California: Wine Ventures Publishing, 1998.

APPENDIX B:
ARBORIST REPORT

ARBORIST REPORT

For:

Elm Tunnel
St. Helena CA 94574

Prepared for

City of St. Helena
Mr. Jim Haller
1480 Main Street
St. Helena CA 94574

Prepared by

Joseph T. Borden
Certified Arborist WC# 0227

BRITTON
TREE SERVICES, INC.

P.O. Box 424
St. Helena, CA 94574
(707) 963-7578
(707) 963-7599 FAX

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ARBORIST REPORT

SUMMARY

There are 123 elms remaining in the Elm Tunnel, all are included in this report. As a forest these trees are in relatively good condition.

Only three trees are recommended for removal, one due to the severity of decay in the trunk the other two from probable Dutch Elm Disease.

Nine of the trees were found to have structural weaknesses significant enough to warrant the installation of cable systems to reduce the failure potential.

Costs are not quoted in this report, nor are priorities assigned for the work.
I estimate, approximately four to six man hours will be needed per tree to carry out the recommended work. This does not include road control.

For budgetary reasons, obviously those trees recommended for removal, for cabling and as having been noted to have large dead branches over the highway or the pathway would be of greater priority than those that just need routine maintenance.

In today's dollars, I estimate the cost of doing all the recommended work would be between $39,360.00 to $59,040.00.
These costs do not include road control, or the soil injection and trunk injections that are ongoing.

The trees were examined to existing map, tree #1 being at the Beringer entrance on the west side of Highway 29 and ending with tree #67. Tree #68 is located across the street from tree #1. on the east side of Highway 29 going north and ending with tree#123

All trees have root collars that are buried. These should be excavated back to natural grade.

SCOPE OF WORK AND LIMITATIONS

All observations were made visually, by me from the ground. No samples were taken for lab analysis. Conclusions are based upon personal knowledge of the species, and over 22 years experience in the field of commercial arboriculture.

SUMMARY OF RECOMMENDED WORK

Tree#	Species	Recommendation
1.	American Elm	Prune to clean, thin, elevate
2.	American Elm	Prune to clean, thin
3.	American Elm	Prune to clean, thin
4.	American Elm	Prune to clean, thin; Cable
5.	American Elm	Prune to clean, thin
6.	American Elm	Prune to clean, thin
7.	American Elm	Prune to clean, thin
8.	American Elm	Prune to clean, thin
9.	American Elm	Prune to clean, thin
10.	American Elm	Prune to clean, thin
11.	American Elm	Prune to clean, thin
12.	American Elm	Prune to clean, thin
13.	American Elm	Prune to clean, thin
14.	American Elm	Prune to clean, thin
15.	American Elm	Prune to clean, thin
16.	American Elm	Prune to clean
17.	American Elm	Prune to clean
18.	American Elm	Prune to clean, thin
19.	American Elm	Prune to clean
20.	American Elm	Prune to clean
21.	American Elm	Prune to clean
22.	American Elm	Prune to clean

23.	American Elm	Prune to clean
24.	American Elm	Prune to clean
25.	American Elm	Prune to clean
26.	American Elm	Prune to reduce crown
27.	American Elm	Prune to clean
28.	American Elm	Prune to clean, thin; Cable
29.	American Elm	Prune to reduce crown
30.	American Elm	Prune to clean, thin
31.	American Elm	Prune to clean
32.	American Elm	Prune to clean, restoration
33.	American Elm	Prune to clean, thin
34.	American Elm	Prune to clean, thin; Cable
35.	American Elm	Prune to clean
36.	American Elm	Prune to clean
37.	American Elm	Prune to clean
38.	American Elm	Prune to clean; Cable
39.	American Elm	Prune to clean
40.	American Elm	Prune to clean, thin
41.	American Elm	Prune to clean
42.	American Elm	Prune to clean, thin
43.	American Elm	Prune to clean, thin; Cable
44.	American Elm	Prune to clean, restoration
45.	American Elm	Prune to clean, thin; Cable
46.	American Elm	Prune to clean, restoration
47.	American Elm	Prune to clean, restoration

48.	American Elm	Prune to clean
49.	American Elm	Prune to clean, thin
50.	American Elm	Prune to clean, thin
51.	American Elm	Prune to clean, thin
52.	American Elm	Prune to clean, thin
53.	American Elm	Prune to clean
54.	American Elm	Prune to clean
55.	American Elm	Prune to clean
56.	American Elm	Prune to clean
57.	American Elm	Prune to clean
58.	American Elm	Prune to clean
59.	American Elm	Prune to clean
60.	American Elm	Prune to clean
61.	American Elm	Prune to clean
62.	American Elm	Prune to clean
63.	American Elm	Prune to clean
64.	American Elm	Prune to clean
65.	American Elm	Prune to clean
66.	American Elm	Take down suspected Dutch Elm Disease
67.	American Elm	Take down suspected Dutch Elm Disease
68.	American Elm	Prune to clean
69.	American Elm	Prune to clean
70.	American Elm	Prune to clean
71.	American Elm	Prune to clean
72.	American Elm	Prune to clean
73.	American Elm	Prune to clean

74.	American Elm	Prune to clean
75.	American Elm	Prune to clean, thin
76.	American Elm	Prune to clean
77.	American Elm	Prune to clean
78.	American Elm	Prune to clean
79.	American Elm	Prune to clean
80.	American Elm	Prune to clean
81.	American Elm	Prune to clean
82.	American Elm	Prune to clean
83.	American Elm	Prune to clean, thin; Cable
84.	American Elm	Prune to clean
85.	American Elm	Prune to clean
86.	American Elm	Prune to clean
87.	American Elm	Prune to clean
88.	American Elm	Prune to clean
89.	American Elm	Prune to clean
90	American Elm	Prune to clean
91.	American Elm	Prune to clean
92.	American Elm	Prune to clean
93.	American Elm	Prune to clean
94.	American Elm	Prune to clean
95.	American Elm	Prune to clean, thin
96.	American Elm	Prune to clean, thin
97.	American Elm	Prune to clean, thin; Cable
98.	American Elm	Take down severe decay

99.	American Elm	Prune to clean
100.	American Elm	Prune to clean
101.	American Elm	Prune to clean
102.	American Elm	Prune to clean
103.	American Elm	Prune to clean
104.	American Elm	Prune to clean
105.	American Elm	Prune to clean
106.	American Elm	Prune to clean, thin
107.	American Elm	Prune to clean
108.	American Elm	Prune to clean
109.	American Elm	Prune to clean
110.	American Elm	Prune to clean
111.	American Elm	Prune to clean
112.	American Elm	Prune to clean
113.	American Elm	Prune to clean
114.	American Elm	Prune to clean
115.	American Elm	Prune to clean, thin
116.	American Elm	Prune to clean
117.	American Elm	Prune to clean
118.	American Elm	Prune to clean
119.	American Elm	Prune to clean
120.	American Elm	Prune to clean
121.	American Elm	Prune to clean, thin, restoration
122.	American Elm	Prune to clean
123.	American Elm	Prune to clean, thin

OBSERVATIONS

1. 28" DBH American elm showing good vigor. The tree has multiple vehicle injuries at the base of the tree showing good callus with no decay.
Recommendation: Prune for crown cleaning and crown thinning. Prune to elevate over the winery entrance.

2. 31" DBH American elm showing good vigor. There is a vehicle injury at the base with moderate decay. There is a pruning wound on the east side of the trunk with moderate decay.
Recommendation: Prune for crown cleaning and crown thinning

3. 33" DBH American elm showing good vigor. There is a vehicle injury on at the base with significant decay. There is a history of limb failure probably due to excess weight.
Recommendation: Prune for crown cleaning and crown thinning by removing branches up to 6" in diameter to reduce strain at the decayed area of the trunk.

4. 35" DBH American elm showing good vigor. There are scattered dead branches. Decay exists on the second limb up to the north, which may leave it susceptible to failure.
Recommendation: Prune for crown cleaning and crown thinning. Install one cable to reduce the failure potential.

5. 32" DBH American elm showing good vigor. There is a vehicle injury at the base with moderate decay. There are large dead branches over the highway. Decay exists in the south side of the trunk at approximately 10'. It is not significant in terms of failure potential.
Recommendation: Prune for crown cleaning and crown thinning

6. 31" DBH American elm showing good vigor. There are large dead branches.
Recommendation: Prune for crown cleaning and crown thinning.

7. 27" DBH American elm showing good vigor. There are scattered dead branches. Significant decay exists on the west side of the main stem, it is on the non-tension side of the limb and does not appear significant in terms of failure potential.

Recommendation: Prune for crown cleaning and crown thinning.
8. 26" DBH American elm showing good vigor. There are scattered dead branches.
Recommendation: Prune for crown cleaning and crown thinning.

9. 24" DBH American elm showing good vigor.
Recommendation: Prune for crown cleaning and crown thinning

10. 31" DBH American elm showing good vigor. There is a large wound on the north side of the trunk that is showing good callus and not yet decaying.
Recommendation: Prune for crown cleaning and crown thinning

11. 24" DBH American elm showing good vigor. There is a large wound on the west side of the trunk from a limb failure. Decay in the wound is minor.
Recommendation: Prune for crown cleaning and crown thinning.

12. 23" DBH American elm showing good vigor. There is a stem gall on the east side of the trunk. It is not a factor in structural strength.
Recommendation: Prune for crown cleaning and crown thinning

13. 23" DBH American elm showing good vigor. There is a wound approximately 15' up the trunk from an old limb failure. It shows moderate decay with good callus.
Recommendation: Prune for crown cleaning and crown thinning.

14. 27" DBH American elm showing good vigor. This tree has a history of limb failure.
Recommendation: Prune for crown cleaning and crown thinning
15. 24" DBH American elm showing good vigor. A target canker is evident on the site of an old pruning wound.
Recommendation: Prune for crown cleaning and crown thinning.

16. 25" DBH American elm showing good vigor. There is a small area of fluxing evident on the north side of the trunk at the base. This would indicate some sort of wound, probably the result of a vehicle. There are scattered dead branches. Branches to the southwest are heavy with foliage and wood weight.
Recommendation: Prune for crown cleaning.

17. 24" DBH American elm showing good vigor. Significant decay exists in the trunk. There is a large dead branch over the highway.
Recommendation: Prune for crown cleaning. Prune to remove dead limb over the highway back to upright limb to reduce the strain on the trunk.

18. 29" DBH American elm showing good vigor. There are scattered dead branches. There has been recent limb failure, probably due to excess weight.
Recommendation: Prune for crown cleaning and crown thinning.

19. 25" DBH American elm showing good vigor. There are scattered dead branches.
Recommendation: Prune for crown cleaning.

20. 22" DBH American elm showing good vigor.
Recommendation: Prune for crown cleaning.

21. 23" DBH American elm showing good vigor. There are scattered dead branches.
Recommendation: Prune for crown cleaning.

22. 21" DBH American elm showing good vigor. There is significant decay on the west side of the trunk. The failure potential is low due to the severity of pruning for line clearance that has been done.
Recommendation: Prune for crown cleaning.

23. 21" DBH American elm showing good to fair vigor.
Recommendation: Prune for crown cleaning

24. 19" DBH American elm showing good to fair vigor. There are scattered dead branches.
Recommendation: Prune for crown cleaning.

25. 19" DBH American elm showing good vigor.
Recommendation: Prune for crown cleaning

26. 22" DBH American elm showing good to fair vigor. Significant decay exists in the trunk on the west side.

Recommendation: Prune for crown reduction by cutting back limbs up to 8" diameter wood to reduce the failure potential.
27. 25" DBH American elm showing good vigor.

Recommendation: Prune for crown cleaning
28. 32" DBH American elm showing good vigor. There are scattered dead branches. Decay exists in a scaffold limb over the highway where the tree has been cut severely for high voltage clearance. There is one 6" diameter broken limb hanging in the canopy.
Recommendation: Prune for crown cleaning and crown thinning. Install two cables to reduce the decayed limb to reduce the failure potential.

29. 33" DBH American elm showing good vigor. There is severe decay in the trunk.
Recommendation: Prune for crown reduction by pruning back into 8"-10" diameter wood to reduce the failure potential.

30. 31" DBH American elm showing good to fair vigor. There is moderate to severe decay in the trunk with a moderate failure potential.
Recommendation: Prune for crown cleaning. Prune for crown thinning to reduce strain on the trunk.

31. 28" DBH American elm showing fair vigor. There is a vehicle injury on the trunk with moderate decay. There is large branch dieback.
Recommendation: Prune for crown cleaning. Prune to remove the low horizontal limb to the southwest and another above it to achieve a more upright growth habit and reduce the failure potential.

32. 29" DBH American elm showing good to fair vigor. It has been topped severely for high voltage clearance.
Recommendation: Prune for crown cleaning and to begin crown restoration

33. 29" DBH American elm showing good to fair vigor. The main center stem has died, probably due to repeated topping. There is a vehicle injury at the base of the tree with moderate decay. Decay from an old pruning wound, southwest of the center stem, appears to be moderate.
Recommendation: Prune for crown cleaning. Prune for crown thinning to reduce the failure potential.

34. 27" DBH American elm showing good vigor. There is an area of decay on the south side of the trunk at the base of the branch attachment. There are scattered dead branches.
Recommendation: Prune for crown cleaning and crown thinning. Install two cables to reduce the failure potential.

35. 31" DBH American elm showing good vigor. There are scattered dead branches.
Recommendation: Prune for crown cleaning.
36. 25" DBH American elm showing good vigor. There is moderate to severe decay in the trunk.

Recommendation: Prune for crown cleaning. Prune to remove 12" diameter limb to the southwest to reduce the failure potential.

37. 32" DBH American elm showing good vigor. There are scattered dead branches.
Recommendation: Prune for crown cleaning.

38. 30" DBH American elm showing good to fair vigor. Decay exists on the tension side of a low limb to the west. The failure potential is high. There are scattered dead branches.
Recommendation: Prune for crown cleaning. Install a single cable to reduce the failure potential of the decayed low limb to the west.

39. 26" DBH American elm showing good vigor. Minor decay exists at the base of an east limb.
Recommendation: Prune for crown cleaning

40. 30" DBH American elm showing good to fair vigor. Moderate decay exists in the main stem. There is small branch dieback.
Recommendation: Prune for crown cleaning. Prune for crown thinning to reduce strain on decayed area of trunk

41. 30" DBH American elm showing good to fair vigor. There is moderate decay in the trunk. There is small branch dieback.
Recommendation: Prune for crown cleaning.

42. 31" DBH American elm showing good vigor. There is a vehicle injury at the base with minor to moderate decay. There is an area of moderate decay on the east side of the trunk.
Recommendation: Prune for crown cleaning and crown thinning to reduce strain on decayed trunk.

43. 30" DBH American elm showing good vigor. There is a vehicle injury at the base of the tree with moderate decay and good callus growth. There is a large target canker on the north side of the trunk. It is not significant in terms of structural weakness. There is significant weakness in a limb over the highway where another limb has been broken off by a vehicle. The injury entered all the way into the branch trace. There is an area of dead bark on tension side of the center limb growing to the west. The failure potential of this limb is low.
Recommendation: Prune for crown cleaning and crown thinning. Install two cables to reduce the failure potential of weak limb over highway.

44. 29" DBH American elm showing good vigor. This tree has been topped, resulting in sunburn on the main upright limb. There is some decay in the trunk on the south side.
Recommendation: Prune for crown cleaning and crown restoration

45. 30" DBH American elm showing good vigor. Significant decay exists in a low limb to the west with the failure potential high.
Recommendation: Prune for crown cleaning and crown thinning. Install a three piece box cable system to reduce the failure potential

46. 31' DBH American elm showing good vigor. Decay exists in the trunk but does not appear extensive at this time. This tree has been topped severely for high voltage clearance. The resultant sprouts are crowded and weakly attached.
Recommendation: Prune for crown cleaning and crown restoration.

47. 27" DBH American elm showing good vigor. There is significant decay in the trunk with the failure potential high.

Recommendation: Prune for crown cleaning and crown thinning. Install a single cable to reduce the failure potential.

48. 32" DBH American elm showing good vigor. There is a vehicle injury on the trunk. Significant decay exists in a limb to the west. This limb has been headed back so failure potential is low.
Recommendation: Prune for crown cleaning

49. 26" DBH American elm showing good to fair vigor. There is significant decay in the trunk. There are large dead branches.
Recommendation: Prune for crown cleaning and crown thinning

50. 29" American elm showing good vigor. One main limb has failed presumably due to excess weight.
Recommendation: Prune for crown cleaning. Prune for crown thinning to reduce weight on heavy branches.

51. 26" DBH American elm showing good vigor. Decay exists on the tension side of the main limb to the west. There are scattered dead branches.
Recommendation: Prune for crown cleaning. Prune decayed main limb to the west for crown thinning to reduce the failure potential.

52. 33" DBH American elm showing good vigor. There are scattered dead branches. Decay is entering the tension side of the main limb to the west.
Recommendation: Prune for crown cleaning. Prune limb to the west for crown thinning to reduce the failure potential.

53. 30" DBH American elm showing good to fair vigor. A vehicle injury on the trunk shows good callus. There are scattered dead branches.
Recommendation: Prune for crown cleaning

54. 33" DBH American elm showing good to fair vigor. An old vehicle injury on the trunk shows significant decay. A more recent vehicle injury shows good callus. There is a column of decay exists in the main upright limb on the non-tension side. It is not significant in terms of failure potential.
Recommendation: Prune for crown cleaning.

55. 18" DBH American elm showing fair vigor. There is a vehicle injury on the trunk that shows good callus. There is small branch dieback.
Recommendation: Prune for crown cleaning

56. 25" DBH American elm showing fair vigor. There is a vehicle injury at the base on the north side. This injury shows good callus.
Recommendation: Prune for crown cleaning

57. 26" DBH American elm showing poor to fair vigor. The lack of vigor is probably a result of an infection of Dutch Elm Disease.
Recommendation: Prune for crown cleaning.

58. 24" DBH American elm showing good to fair vigor. There are scattered dead branches.
Recommendation: Prune for crown cleaning.

59. 26" DBH American elm showing fair vigor. There is small branch tip dieback.
Recommendation: Prune for crown cleaning.

60. 25" DBH American elm showing good to fair vigor. There are scattered dead branches.
Recommendation: Prune for crown cleaning.

61. 23" DBH American elm showing good vigor. This tree has been severely topped.
Recommendation: Prune for crown cleaning.

62. 25" DBH American elm showing fair to good vigor. There are scattered dead branches.
Recommendation: Prune for crown cleaning.

63. 25" DBH American elm showing fair to good vigor. There are scattered dead branches.
Recommendation: Prune for crown cleaning
64. 26" DBH American elm showing fair to good vigor. There are scattered dead branches.
Recommendation: Prune for crown cleaning.

65. 26" DBH American elm showing fair vigor. There is small branch dieback.
Recommendation: Prune for crown cleaning.

66. 24" DBH American elm showing poor vigor. The lack of vigor is most likely due to an infection of Dutch Elm Disease.
Recommendation: Take down to the ground

67. 28" DBH American elm showing poor vigor. The lack of vigor is most likely due to an infection of Dutch Elm Disease.
Recommendation: Take down to the ground.

68. 32" D**65.** 26" DBH American elm showing fair vigor. There is small branch dieback.
Recommendation: Prune for crown cleaning.
BH[1] American elm *(Ulmus americana)*. This tree shows good vigor[2]. There are accumulated dead branches up to 6" in diameter. A 10" diameter branch over the highway is severely decayed. Decay also exists in the trunk.
Recommendation: Prune for crown cleaning: the removal of dead branches ½" in diameter and larger. Prune for crown thinning to reduce weight, wind sail, and improve overall structure. Remove 10" diameter limb over the highway back to the trunk.

69. 25.5" DBH American elm showing good vigor. There are scattered dead branches.
Recommendation: Prune for crown cleaning.

70. 25" DBH American elm showing good to fair vigor. Decay exists in the trunk and in a main limb to the north.

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[1] DBH, Diameter at Breast Height – 4.5' above ground level or below first main branch attachment.

[2] Vigor is a measure of a tree's overall growth rate and its inherent ability to withstand insect and disease infestations. It is not a measure of structural strength or stability. Vigor ranges from Excellent to Good, Fair, Poor to Dying and Dead.

Recommendation: Prune for crown cleaning.

71. 30.5" DBH American elm showing good to fair vigor. There are scattered dead branches. A large area of bark was removed in a vehicle accident. Approximately ¼ of the trunk circumference has been killed. There is some decay in the lower trunk however it is not extensive. Extensive decay exists in the main branch to the north.
Recommendation: Prune for crown cleaning.

72. 26.5" DBH American elm showing fair vigor. A large area of bark has been removed by a vehicle accident, approximately ½ of the tree's circumference.
Recommendation: Prune for crown cleaning.

73. 22" DBH American elm showing fair vigor. Two large limbs have died. The death was probably not cause from Dutch Elm Disease. The trunk has approximately 20% of the bark killed by a vehicular accident.
Recommendation: Prune for crown cleaning.

74. 22.5" DBH American elm showing good to fair vigor. Significant decay exists in the lower trunk however failure is unlikely because the tree has been topped severely.
Recommendation: Prune for crown cleaning.

75. 28" DBH American elm showing fair to good vigor. There is one large dead branch over the walking path. Significant decay exists in the trunk.
Recommendation: Prune for crown cleaning. Prune for crown thinning to achieve a more upright growth habit to reduce the failure potential by removing horizontal limb to the northeast back to the parent limb.

76. 28.5" DBH American elm showing fair vigor. There are large dead branches up to 6" in diameter over the walking path. A small area of bark was removed due to a vehicular accident, less than 5% of the trunk circumference.
Recommendation: Prune for crown cleaning.

77. 27" DBH American elm showing good to fair vigor. A beehive exists in the trunk of this tree. There are scattered dead branches.
Recommendation: Prune for crown cleaning.

78. 27" DBH American elm showing good vigor. Significant decay exists in the trunk however failure potential is low because the tree has been topped severely.
Recommendation: Prune for crown cleaning.

79. 26.5" DBH American elm showing fair vigor. Extensive decay exists in the trunk however the failure potential is low because the tree has been topped severely.
Recommendation: Prune for crown cleaning.

80. 26.5" DBH American elm showing good vigor. Decay exists in the main trunk at the first branch attachment in a limb over the walking path and another limb over the highway. Failure potential is low for both branches as the limbs have been headed back severely.
Recommendation: Prune for crown cleaning.

81. 25.5" DBH American elm showing good vigor. Decay exists at the root collar on the west side. It does not appear extensive at this time.

Recommendation: Prune for crown cleaning.

82. 21" DBH American elm showing good vigor. There are scattered dead branches.
Recommendation: Prune for crown cleaning.

83. 27" DBH American elm showing good vigor. There are scattered dead branches. Decay exists in the main stem at the first branch attachment. The decay appears to be extensive. Decay also exists in the tension side of a limb over the highway.
Recommendation: Prune for crown cleaning and crown thinning. Install two cables to reduce the failure potential of the decayed limb.

84. 19.5" DBH American elm showing good to fair vigor. There is evidence of Dutch Elm Disease in sprouts along the trunk, less that 1% of the foliage.
Recommendation: Prune for crown cleaning.

85. 20" DBH American elm showing good vigor. There is evidence of Dutch Elm Disease in sprouts along the trunk, less than 5% of the foliage.
Recommendation: Prune for crown cleaning.

86. 24" DBH American elm showing good vigor.
Recommendation: Prune for crown cleaning.

87. 21" DBH American elm showing good vigor. There is an area of decay on the root collar, east side. It does not appear to be extensive.
Recommendation: Prune for crown cleaning.

88. 19" DBH American elm showing good vigor.
Recommendation: Prune for crown cleaning.

89. 22" DBH American elm showing good to fair vigor. There are scattered dead branches over the walking path. An old vehicle injury on the lower trunk shows good callus growth.
Recommendation: Prune for crown cleaning.

90. 21" DBH American elm showing good vigor. A vehicle injury on the lower trunk is almost sealed with wound wood.
Recommendation: Prune for crown cleaning.

91. 21" DBH American elm showing fair to good vigor. Decay exists at the main branch attachment and appears extensive. The failure potential is moderate due to the fact that the branches are not heavy.
Recommendation: Prune for crown cleaning.

92. 22" DBH American elm showing good to fair vigor.
Recommendation: Prune for crown cleaning.

93. 23" DBH American elm showing good vigor. There are small dead branches.
Recommendation: Prune for crown cleaning.

94. 21" DBH American elm showing fair to good vigor. There are small dead branches.
Recommendation: Prune for crown cleaning.

95. 24" DBH American elm showing good to fair vigor. A bacterial gall is growing on the south side of the trunk. This gall should not affect health or structural strength of the tree. Decay exists at the base of both main branch attachments. It is most extensive in the north limb.
Recommendation: Prune for crown cleaning. Prune for crown thinning to reduce strain on decayed areas by removing live branches up to 3" in diameter.

96. 24" DBH American elm showing good to fair vigor. Decay exists at the root collar on the north side. It does not appear extensive. Decay exists in the trunk below the main branch attachment. It does appear to be extensive.
Recommendation: Prune for crown cleaning. Prune for crown thinning to reduce strain on decayed trunk by removing branches up to 6" in diameter.

97. 25.5" DBH American elm showing good to fair vigor. There are scattered dead branches. There is an area of decay in the lower trunk. It is moderate to severe. Decay exists at the base of the main limb to the east and is moderate to severe.
Recommendation: Prune for crown cleaning. Prune for crown thinning to reduce strain on main stem by removing branches up to 4" in diameter. Install a cable to reduce the failure potential of the main limb to the east.

98. 25" DBH American elm showing good vigor. Decay exists in the lower trunk. The failure potential is high.
Recommendation: Take down to the ground.

99. 23" DBH American elm showing good vigor. There are small dead branches.
Recommendation: Prune for crown cleaning.

100. 22.5" DBH American elm showing good vigor. There is one large dead branch over the walking path.
Recommendation: Prune for crown cleaning.

101. 24" DBH American elm showing good to fair vigor. There is moderate decay in the trunk. A wound on the trunk shows good callus.
Recommendation: Prune for crown cleaning.

102. 25" DBH American elm showing fair vigor. There are large dead branches over the highway up to 8" in diameter. There are accumulated dead branches over the walking path up to 4" in diameter. Decay exists in the lower trunk on the east side and in the main stem on the west side. Neither area appears to be extensive at this time.
Recommendation: Prune for crown cleaning.

103. 21.5" DBH American elm showing good to fair vigor. Decay exists in the lower trunk and appears to be moderate with good callus development around the wound. There is decay at the base of a 10" diameter limb to the west over the highway.
Recommendation: Prune for crown cleaning. Prune to remove 10" diameter limb over the highway back to the trunk.

104. 23" DBH American elm showing good to fair vigor. There are scattered dead branches. There is a vehicle injury on the trunk which occupies approximately 10% of the circumference.
Recommendation: Prune for crown cleaning.

105. 26" DBH American elm showing good vigor. There is a small vehicle injury on the trunk. There are scattered dead branches.
Recommendation: Prune for crown cleaning.

106. 23.5" DBH American elm showing good vigor. There is moderate decay in the trunk.
Recommendation: Prune for crown cleaning. Prune for crown thinning to achieve a more upright growth habit to reduce strain on trunk.

107. 20.5" DBH American elm showing good vigor. There is a small vehicle injury on the trunk. It shows good callus. One 8" diameter limb failed recently, within the last two years, presumably due to weight and wind.
Recommendation: Prune for crown cleaning. Prune to remove broken branch stub back to tight cambium to promote re-sprouting.

108. 25" DBH American elm showing fair vigor. There is a small vehicle injury on the trunk.
Recommendation: Prune for crown cleaning.

109. 21.5" DBH American elm showing fair vigor. There is a large injury on the south side of the trunk. It appears to have happened decades ago. The trunk is probably hollow with a column of sound wood up to 10" in thickness. The failure probability is low.
Recommendation: Prune for crown cleaning.

110. 21.5" DBH American elm showing fair vigor. Decay exists in the trunk and is moderate to severe. The failure potential is low.
Recommendation: Prune for crown cleaning.

111. 22.5" DBH American elm showing fair vigor. There are large dead branches over the highway. A significant injury on the trunk is almost completely sealed. The failure potential is low.
Recommendation: Prune for crown cleaning.

112. 20" DBH American elm showing fair to good vigor. There is a significant injury on the trunk that is completely sealed. There are scattered dead branches.
Recommendation: Prune for crown cleaning.

113. 23" DBH American elm showing good vigor. There is a small injury on the trunk that is completely sealed. There are scattered dead branches.
Recommendation: Prune for crown cleaning.

114. 21.5" DBH American elm showing good to fair vigor. There is a significant injury on the trunk that has completely sealed. There are scattered dead branches.
Recommendation: Prune for crown cleaning.

115. 23" DBH American elm showing good vigor. There are scattered dead branches. A low limb over the walking path is heavy with foliage and wood weight. There is a vehicle injury on the trunk that has almost completely sealed.
Recommendation: Prune for crown cleaning and crown thinning.

116. 20.5" DBH American elm showing good vigor. There are scattered dead branches.
Recommendation: Prune for crown cleaning.

117. 20" DBH American elm showing good vigor. There are scattered dead branches.
Recommendation: Prune for crown cleaning.

118. 21" DBH American elm showing good to fair vigor. There is a significant injury to the trunk that has almost completely sealed. The failure potential is low.
Recommendation: Prune for crown cleaning.

119. 19.5" DBH American elm showing good to fair vigor. There is a large injury on the trunk that has almost completely sealed. The failure potential is low.
Recommendation: Prune for crown cleaning.

120. 22.5" DBH American elm showing good vigor. There is an old injury on the trunk that has almost completely sealed. The failure potential is low. There is a newer injury on the trunk that shows good callus and has not developed any decay.
Recommendation: Prune for crown cleaning.

121. 19" DBH American elm showing good vigor. The top has been removed.
Recommendation: Prune for crown cleaning and crown thinning to begin crown restoration.

122. 19.5" DBH American elm showing good vigor. Moderate decay exists in the trunk. There are scattered dead branches.
Recommendation: Prune for crown cleaning.

123. 29" DBH American elm showing good to fair vigor. There is significant decay below the main branch attachment. There are scattered dead branches and indications of Dutch Elm Disease in one small limb over the highway.
Recommendation: Prune for crown cleaning. Prune for crown thinning to reduce strain on the decayed trunk.

GLOSSARY OF TERMS

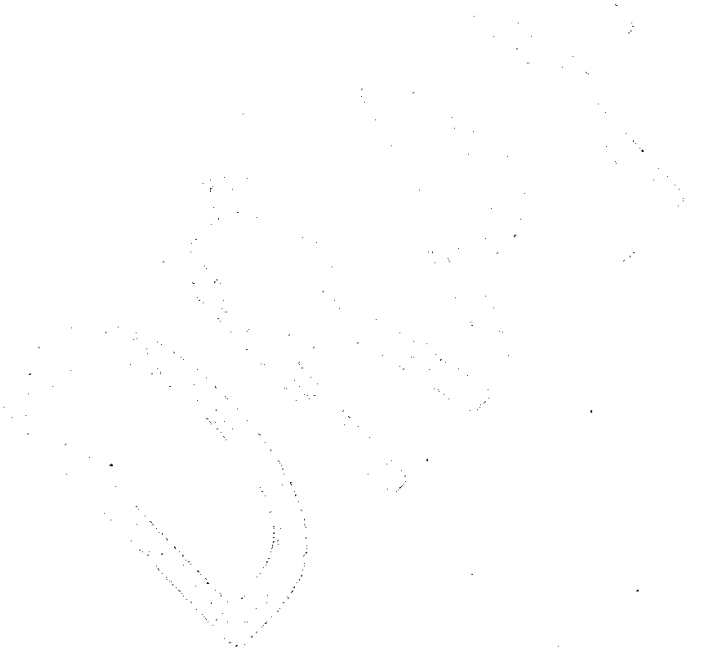
Crown cleaning – The removal of dead, dying, diseased, weakly attached and low vigor branches from the canopy or crown of a tree.

Crown restoration or restructuring – A pruning process whereby selected sprouts are removed leaving the more dominant, strongly attached sprouts to remaining and become permanent branches. This process generally takes several prunings over a period of up to 10 years.

Crown thinning – A pruning process whereby live foliage is removed from the tree. ANSI A-300 Standards call for crown thinning when limbs are heavy, dense or crowded.

DBH – A standard measurement of the Diameter of the trunk measured at Breast Height (an old forestry term), or 54" above the ground. Multiple trunked trees are usually measured below the first main crotch.

Vigor – Based on the recent growth rate of the tree, vigor is an indicator of the tree's inherent ability to withstand disease and insect attack.



BRITTON TREE SERVICES, INC. CONDITIONS

Britton Tree Services, Inc. is an established tree care company serving the Napa Valley and surrounding areas since 1976. All crew leaders are experienced climbers who are ISA Certified Arborists and/or Tree Workers. No hooks, or gaffs, are used in climbing trees to be saved. Work is performed to current American National Standards Institute pruning standards (ANSI A-300). Britton Tree Services guarantees customer satisfaction with our work. However, because trees are biological organisms that are subject to environmental forces beyond our control, we cannot predict with absolute certainty the safety or structural integrity of any tree, nor can we guarantee it.

All tree work described herein includes chipping of brush and debris, unless otherwise specified. Wood is left stacked in fireplace lengths on site, near the tree. Payment for extra labor required to move wood to another site on the property, which has not been previously agreed to and written on the work order, will be the responsibility of the client. Any and all dump fees for removing wood or debris from the site shall be charged to the client. Local fees for encroachment and other permits required for the work are charged to the client. Prices quoted for tree work are valid for 6 months from the date of the report or work order.

Extra labor or material costs resulting from unforeseeable circumstances, such as metal or concrete embedded in a tree or underground pipes or irrigation lines that have not been disclosed by the client, shall be charged to the client.

Estimates for root collar examinations include a complete excavation and examination of the tissue for disease or decay. If extensive surgery is required, costs may exceed the estimate given. Expected additional costs will be discussed with the client prior to proceeding with the additional work.

Britton Tree Services, Inc. is fully insured for $2,000,000 General Liability, Auto and Property Damage, and Worker's Compensation for all employees. Britton Tree Services, Inc. General Liability carrier is Hartford Insurance Company, they can be reached at 800-447-7649. A certificate of insurance will be supplied upon request. Britton Tree Services, Inc. is a licensed contractor, with a C61/D49 Specialty License for Tree Services, #693647.

Any questions concerning a Contractor may be referred to the Registrar of the Board, whose address is: Contractors' State License Board
P.O. Box 26000
Sacramento, CA 95826

Local references available upon request.

Arborist Disclosure Statement

Arborists are tree specialists who use their education, knowledge, training and experience to examine trees, recommend measures to enhance the beauty and health of trees, and attempt to reduce the risk of living near trees. Clients may choose to accept or disregard the recommendations of the arborist, or to seek additional advice.

Arborists cannot detect every condition that could possibly lead to the structural failure of a tree. Trees are living organisms that fail in ways we do not fully understand. Conditions are often hidden within trees and below ground. Arborists cannot guarantee that a tree will be healthy or safe under all circumstances, or for a specified period of time. Likewise, remedial treatments, like any medicine, cannot be guaranteed.

Treatment, pruning and removal of trees may involve considerations beyond the scope of the arborist's services such as property boundaries, property ownership, site lines, disputes between neighbors, and other issues. Arborists cannot take such considerations into account unless complete and accurate information is disclosed to the arborist. An arborist should then be expected to reasonably rely upon the completeness and accuracy of the information you provide.

Trees can be managed, but they cannot be controlled. To live near trees is to accept some degree of risk. The only way to eliminate all risk associated with trees is to eliminate all trees.

Name of client: City of St. Helena

Address: _____

Telephone number: _____

City of St. Helena accepts the proposal and have received and read a copy of this Disclosure Statement:

Client Signature: _____

Date: _____

APPENDIX C:

THE SECRETARY OF THE INTERIOR'S STANDARDS FOR THE TREATMENT OF HISTORIC PROPERTIES

Stemming from over 100 years of preservation ethics in both the United States and Europe, The Secretary of the Interior's Standards for the Treatment of Historic Properties are easily understood principles developed to aid in the protection of our nation's irreplaceable cultural resources. These standards may be applied to buildings, sites, structures, and objects.

These Standards provide concepts about maintaining, repairing, and replacing historic materials, as well as designing new additions or making alterations, but cannot be used solely to make essential decisions about which features of a historic property should be saved and those that might be changed. Once an appropriate treatment is selected, however, the Standards can provide a philosophical consistency to the work.

The Standards consist of four distinct but interrelated approaches to the treatment of historic properties – Preservation, Restoration, Rehabilitation, and Reconstruction. Choosing the appropriate treatment for a historic building or landscape is critical. This choice will always depend on multiple factors, including historical significance, physical condition, proposed use, and intended interpretation. However, since Sheldon Jackson College is a significant resource in American history and has been designated as a National Historic Landmark, the approaches of Preservation or Restoration will most likely be called for. Buildings that contribute to the significance of a collection of historic resources, but are not individually listed in the National Register or as a National Historic Landmark, more frequently will undergo Rehabilitation for a compatible new use. The Reconstruction approach is not a recommended treatment unless there are no other viable options available, and even in this case, great care should be taken when reconstructing a resource.

Regardless of the treatment, code requirements will need to be taken into consideration, but if hastily or poorly designed, code-required work may jeopardize a building's materials as well as its historic character. Therefore, if a building needs to undergo a seismic retrofit for example, modifications to the historic appearance should be minimal. Abatement of lead paint and asbestos within historic buildings requires particular care in order to keep important historic finishes from being adversely affected. Additionally, alterations and new construction needed to meet accessibility requirements under the Americans with Disabilities Act of 1990 should be designed to minimize material loss and visual change to a historic building.

The approaches of Preservation and Rehabilitation, as defined by the Secretary of the Interior, are described below:

Preservation

Preservation is defined as the act or process of applying measures necessary to sustain the existing form, integrity, and materials of a historic property. Work, including preliminary measures to protect and stabilize the property, generally focuses upon the ongoing maintenance and repair of historic materials and features rather than extensive replacement and new construction. New exterior additions are not within the scope of this treatment; however, the limited and sensitive upgrading of mechanical, electrical, plumbing systems, and other code-required work to make properties functional is appropriate within a preservation project.

1. A property will be used as it was historically, or be given a new use that maximizes the retention of distinctive materials, features, spaces, and spatial relationships. Where treatment and use have not been identified, a property will be protected and, if necessary, stabilized until additional work may be undertaken.
2. The historic character of a property will be retained and preserved. The replacement of intact or repairable historic materials or alteration of features, spaces, and spatial relationships that characterize a property will be avoided.
3. Each property will be recognized as a physical record of its time, place, and use. Work needed to stabilize, consolidate, and conserve existing historic materials and features will be physically and visually compatible, identifiable upon close inspection, and properly documented for future research.
4. Changes to a property that have acquired historic significance in their own right will be retained and preserved.
5. Distinctive materials, features, finishes, and construction techniques or examples of craftsmanship that characterize a property will be preserved.
6. The existing condition of historic features will be evaluated to determine the appropriate level of intervention needed. Where the severity of deterioration requires repair or limited replacement of a distinctive feature, the new material will match the old in composition, design, color, and texture.
7. Chemical or physical treatments, if appropriate, will be undertaken using the gentlest means possible. Treatments that cause damage to historic materials will not be used.
8. Archeological resources will be protected and preserved in place. If such resources must be disturbed, mitigation measures will be undertaken.

When to use Preservation as an approach:

When the property's distinctive materials, features, and spaces are essentially intact and thus convey the historic significance without extensive repair or replacement; when depiction at a particular period of time is not appropriate; and when a continuing or new use does not require additions or extensive alterations, Preservation may be considered as a treatment.

Rehabilitation
Rehabilitation is defined as the act or process of making possible a compatible use for a property through repair, alterations, and additions while preserving those portions or features that convey its historical, cultural, or architectural values.

1. A property will be used as it was historically or be given a new use that requires minimal change to its distinctive materials, features, spaces, and spatial relationships.
2. The historic character of a property will be retained and preserved. The removal of distinctive materials or alteration of features, spaces, and spatial relationships that characterize a property will be avoided.
3. Each property will be recognized as a physical record of its time, place, and use. Changes that create a false sense of historical development, such as adding conjectural features or elements from other historic properties, will not be undertaken.
4. Changes to a property that have acquired historic significance in their own right will be retained and preserved.
5. Distinctive materials, features, finishes, and construction techniques or examples of craftsmanship that characterize a property will be preserved.
6. Deteriorated historic features will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature will match the

old in design, color, texture, and, where possible, materials. Replacement of missing features will be substantiated by documentary and physical evidence.

7. Chemical or physical treatments, if appropriate, will be undertaken using the gentlest means possible. Treatments that cause damage to historic materials will not be used.
8. Archeological resources will be protected and preserved in place. If such resources must be disturbed, mitigation measures will be undertaken.
9. New additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize the property. The new work will be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and its environment.
10. New additions and adjacent or related new construction will be undertaken in such a manner that, if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.

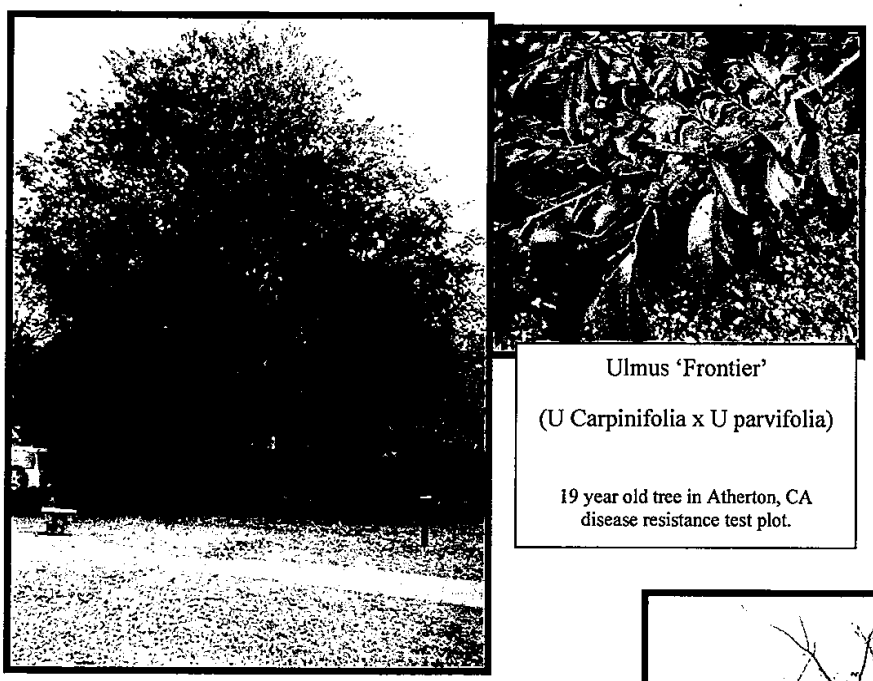
When to use Rehabilitation as an approach:

When repair and replacement of deteriorated features are necessary; when alterations or additions to the property are planned for a new or continued use; and when depiction at a particular period of time is not appropriate, Rehabilitation may be considered as a treatment.

APPENDIX D:
ELM TREE SELECTION

ST. HELENA ELM TUNNEL TREE SELECTION

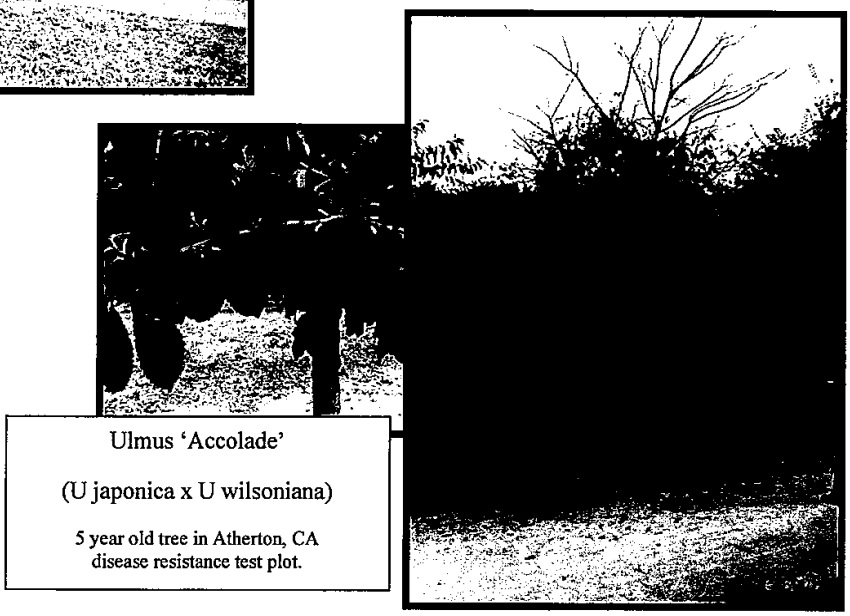
Two elm tree cultivars have been selected for replacement planting within the elm tunnel. Both trees are elm hybrids that have shown tolerance for resistance to Dutch elm disease when tested in Northern California in high stress disease conditions. All elm trees are susceptible to disease. Several cultivars have shown higher tolerance and are considered more likely to be successful. The selection team included Jim Haller, City of St. Helena Arborist, Jeanne Gorham, Caltrans District Landscape Architect and Don Rivers, Caltrans Regional Maintenance Manager. Dr. Larry Costello, UC Davis was consulted as a technical expert in elm tree research. Dr. Costello has been studying and conducting research on Dutch elm resistance in California for over 20 years. Dr. Costello shared his research findings through correspondence and a phone conference. A field meeting with Dr. Costello at a test plot in Atherton, CA was held to visually confirm desired habit and branching structure.



Ulmus 'Frontier'

(U Carpinifolia x U parvifolia)

19 year old tree in Atherton, CA
disease resistance test plot.



Ulmus 'Accolade'

(U japonica x U wilsoniana)

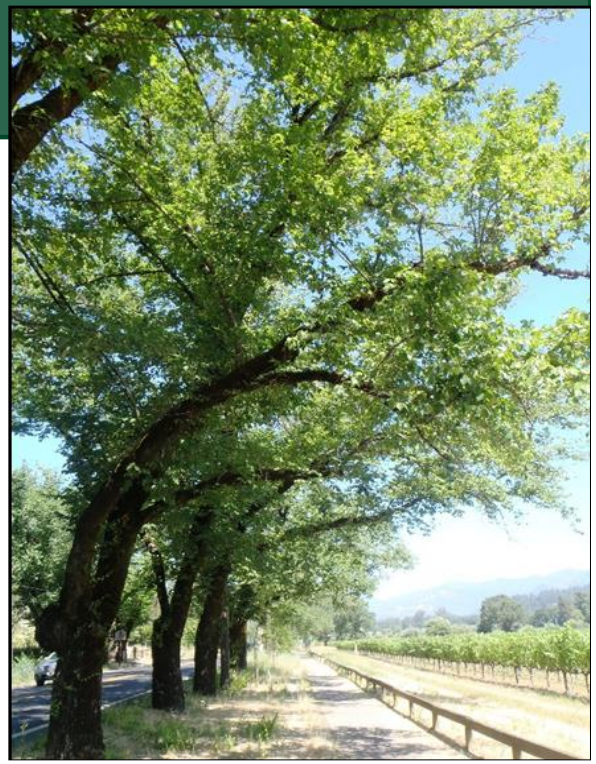
5 year old tree in Atherton, CA
disease resistance test plot.

Elm Tunnel Management Plan
Beringer Elm Tunnel

John Leffingwell

City of St. Helena
January 26, 2021

HORT SCIENCE
BARTLETT CONSULTING
A Division of The F.A. Bartlett Tree Expert Company



Background

- In 2019, HBC prepared a Tree Risk Assessment for the remaining mature American elms (*Ulmus americana*) originally planted by the Beringer Brothers in 1885.

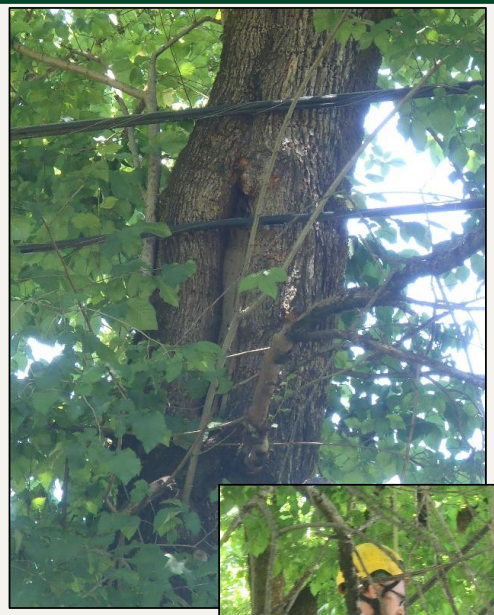
- I presented the results of the risk assessment to the City Council in Nov. 2019, which included recommendations for the City to consider having HBC:
  - Perform an advanced assessment of approx. 30 of the trees,
  - Prepare updated risk ratings for the 30 trees and a 5/10/15 year removal prioritization for the remaining mature elms,
  - Prepare a 'cradle to grave' management plan for all the trees.

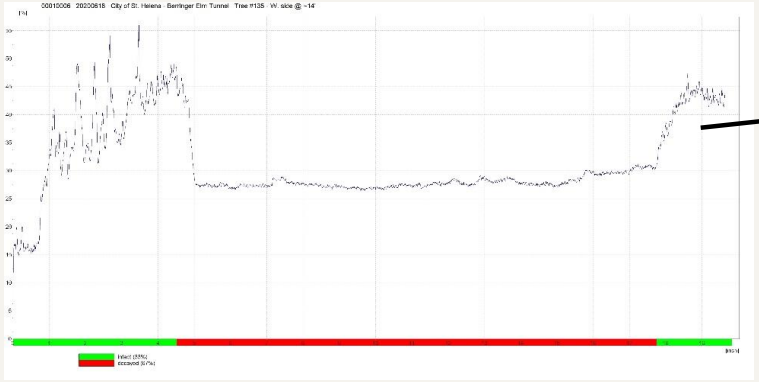
- The advanced assessments were performed in the summer of 2020 and the Updated Risk Assessment was provided to the City in Oct. 2020.

- The Elm Tunnel Management Plan (ETMP) was recently submitted to the City, reviewed and finalized.

Advanced Assessments

- Advanced assessments were performed on those trees where internal decay was identified or where defects were present but could not be inspected from the ground.
- Adv. assessments included aerial inspections, probing of cavities and use of the Rinntech Resistograph® drill.
- The goal was to identify the proportion of decayed wood to sound wood to help determine the likelihood of failure.





Results – Advanced Assessment

- Based on the results of the advanced assessments, risk ratings for 11 trees changed.
- I identified 9 Priority 1 removals, 9 Priority 2 removals and 11 Priority 3 removals.
- Priority 1 removals were put in order based on their risk rating and consequences, should they fail.
- Priority 2 and 3 removals were not put in any specific order, as we expect their removal order to change over time.

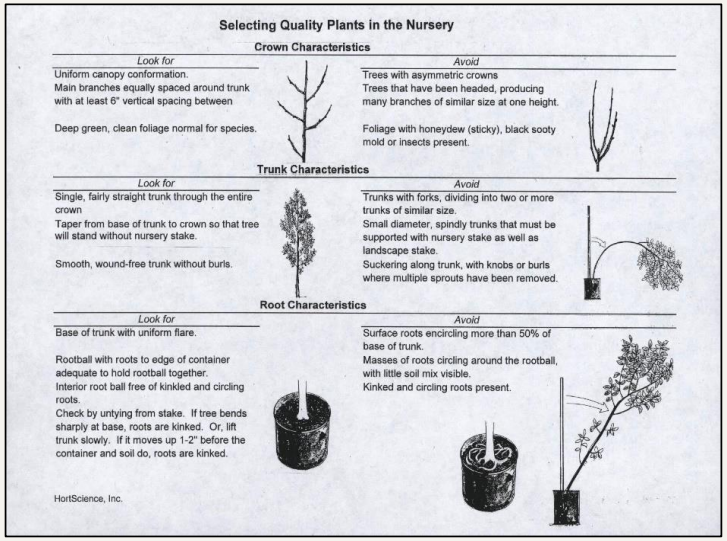
- A goal of the work was to identify groups of 2-4 trees that could be removed at one time to help provide better growing conditions for the replacement elms.
- In order to create groups around Priority 1 trees, Priority 2 and Priority 3 trees would also be removed.

Tree Removal Group Priority Map

Elm Tunnel Management Plan Recommendations

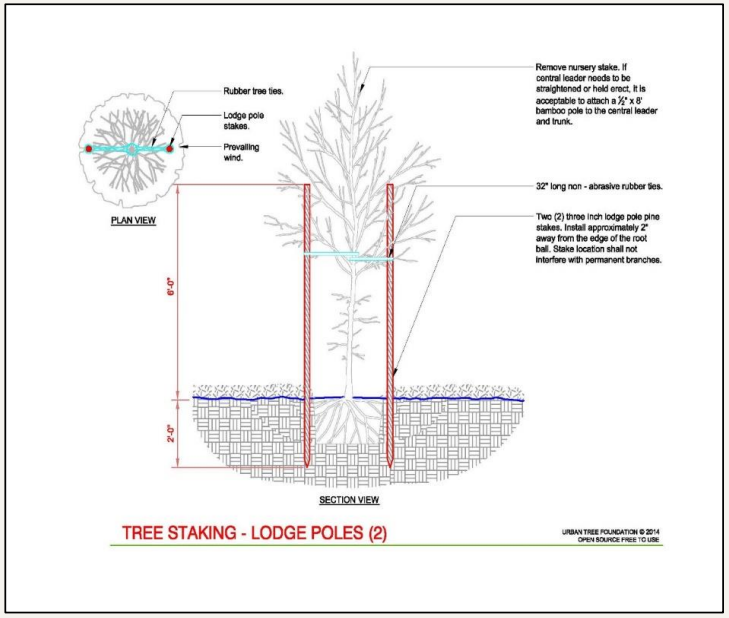
- Vision
  - Sustain the integrity of the Elm Tunnel for future generations,
  - Manage the trees to minimize risk of damage to people and property,
  - Foster tree health and structural stability to prolong the life of individual trees,
  - Engage with the community.

- Plant procurement, inspections and acceptance
  - Have DED resistant trees contract grown
  - Select one cultivar for consistency of form and appearance
  - Inspect trees prior to acceptance, looking at: Vigor, form and structure, root health and architecture



Elm Tunnel Management Plan Recommendations

- Planting
  - Prepare the site
  - Excavate the planting hole,
  - Expose the root flare,
  - Amend backfill soil and plant,
  - Build a soil berm and irrigate,
  - Stake tree and apply course wood chip mulch



- Tree spacing and location
  - Current spacing has produced trees with asymmetric forms,
  - Current proximity to Hwy. 29 has resulted in many trees being struck by cars, resulting in decay.
  - Recommend increasing spacing between trees and distance from Hwy. 29 (if allowed).

Elm Tunnel Management Plan Recommendations

- Irrigation
  - City is currently using a combination of water truck and irrigation bags, providing 10 gal./week
- I recommend:
  - In the first year apply 5 gal., 2 times/week,
  - In the second year, apply 10 gal., 1 time/week,
  - In the third year, apply 15 gal. every 2 weeks,
  - In years 4+, apply 20-30 gal. per month,
  - Start and stop irrigating based on rainfall totals

Irrigating Young Trees
Beringer Elm Tunnel
Note 3

American elm is native to the Eastern U.S. where regular rainfall throughout the growing season is common. In our climate, summer rainfall is unusual. To help young elms establish and grow, we need to irrigate them.

Irrigation should be applied at least during the first 2-3 years of establishment for the dry months of the year (typically May-October). During drought years, older trees benefit from irrigation as well. In general, the elms will grow faster and be healthier if they are irrigated as needed.

The challenge at the Elm Tunnel is getting water to the trees. There is no water supply on the east side of the road, so water must be brought to the site via water truck. On the west side, water can be accessed via quick couplers.

There are three options for how to irrigate these trees:

1 *Individual tree water reservoirs*

Water from a truck (east side) or quick coupler with hose (west side) can be used to fill watering bags at each tree (photo at right). The water leaks slowly out of the bag into the root zone. In the 3rd year, placing two bags, one on each side of the trunk, will distribute water in a wider area and expand root development.

2 *Temporary drip irrigation system*

Water from water trucks operating from the east side and existing water lines on the west side could be connected to a temporary drip irrigation system. Emitters/laser tubing should be distributed within the tree basin and beneath mulch, so water is applied on top of the root ball (photo at right). Expand the system in the 3rd year.

3 *Hand application from hose*

A hose connected to a water truck (east side) or quick coupler (west side) could be used to fill the basin around each tree with water. This requires a substantial berm to hold water until it can percolate into the soil. Water pressure and volume needs to be regulated to avoid blasting soil away. Enlarge the basin in the 3rd year.

How much and when to irrigate

The timing and volume of water needed to establish young trees varies with time of year and variables of rainfall, temperature, and humidity. To help plan for irrigation, however, a general schedule is provided below.

Time after planting	Start irrigating	End irrigating	Volume to apply
1st year	When rainfall < 0.5/ week (April/May)	When rainfall > 0.5/week or tree loses leaves (Oct./Nov)	5 gal. 2x per week
2nd year	When rainfall < 0.5/ week (April/May)	When rainfall > 0.5/week or tree loses leaves (Oct./Nov)	10 gal. 1x per week
3rd year	When rainfall < 0.5/ week (April/May)	When rainfall > 0.5/week or tree loses leaves (Oct./Nov)	15 gal. every 2 weeks
4+ years	April, if rainfall 75% or less than normal	September	20-30 gal. monthly

Elm Tunnel Management Plan Recommendations

- Pruning young trees
  - Proper pruning of young trees is one of the single most important maintenance activities,
  - Prune young trees at time of planting and annually for the first 5-10 years,
  - Each pruning should only require 1-3 cuts per tree,
  - Goals include selecting a central leader, selecting the lowest permanent branch, selecting main scaffold branches,
  - Sanitation of equipment between trees is critical

Pruning Young Trees
Beringer Elm Tunnel

Note 4

Prune young trees annually for the first 5-10 years to develop a single, sturdy, tapered trunk and well-spaced lateral branches with strong branch attachments. Proper training when trees are young will reduce pruning frequency, intensity and costs as trees mature, reduce public risk from tree failures and avoid conflicts with vehicles and infrastructure.

Because pruning slows tree growth, pruning to establish a good branch structure for young trees should be planned over several years. Repeat these five steps annually until the permanent branch structure of the tree has been established.

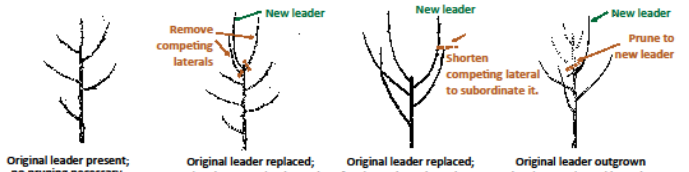
A Key Concept

Pruning removes foliage that produces carbohydrates for tree growth.

Growth of a branch can be reduced by pruning off a third to a half of the branch's foliage.

Pruning to intentionally reduce branch growth is called **subordination**. This technique can be used to slow the growth of a branch that is competing with the trunk.

1. *Remove broken, diseased, dying, crossing and dead branches.*
2. *Select the central leader (trunk) and remove competing leaders.*
   - Identify the most vigorous and upright stem as the main trunk.
   - Identify the branches (laterals) that are competing with this main trunk.
   - Prune to subordinate competing branches by shortening or removing them.
3. *Select the lowest permanent branch.*
   - The lowest permanent branch should be minimum of 14' over streets and 8' over paths. For young trees, the lowest permanent branch may not have formed at planting.
   - Select a branch that will not interfere with street lights, signs, or other features as it grows.



Original leader present; no pruning necessary.

Original leader replaced; select best new leader and remove competing laterals.

Original leader replaced; few lower branches; shorten competing branches to reduce growth.

Original leader outgrown by vigorous lateral branch; prune to select lateral as new leader.

4. *Select main scaffold branches above the lowest permanent branch and remove or reduce (subordinate) competing branches.*

   Permanent scaffold branches should be:
   - Spaced vertically along trunk, with at least 18" between them.
   - Spaced radially around the trunk.
   - Branch diameter should be less than half the diameter of the trunk and have no included bark. If a well-placed branch is larger than half the diameter of the trunk, prune to subordinate it to slow its growth relative to the trunk.
5. *Select and maintain temporary branches below the lowest permanent branch.*
   - Leave small, slow growing branches as temporary branches.
   - Remove or prune to subordinate large, vigorous branches below the lowest permanent branch.
   - In subsequent years, prune to remove a few of the largest, lowest temporary branches.

A Couple of Tips

To avoid reducing the growth of a young tree too much, avoid removing more than 20% of its foliage in one year.

Temporary branches provide carbohydrates for trunk growth that is needed for development of taper.

Elm Tunnel Management Plan Recommendations

- Disease management
  - American elm is susceptible to DED, which has been present in the Elm Tunnel and is responsible for tree/stand decline,
  - DED is vectored by elm beetles, root grafts and unsanitized equip.,
  - Control must focus on monitoring beetle activity and managing infected trees,
  - Cities approach of soil drench in spring to control beetles and systemic injections in late summer to control DED are appropriate,
  - Recommend use of an Integrated Pest Management program

- Alternatives include:
  - Degree day monitoring of beetle activity,
  - Mycoviruses called d-factors, which limit the reproductive ability of the fungi,
  - Verticillium based products, such as ‘Dutch-trig’, which help induce natural resistance to DED,
  - All are novel and efficacy would need to be tracked.

Elm Tunnel Management Plan Recommendations

- Protection from injury and decay
  - Decay is a primary cause of tree failures in the Elm Tunnel,
  - Decay is associated with trunk injuries and utility line pruning,
  - Once established, there are no arboricultural treatments for decay,
  - Recommend protecting lower tree trunks from being struck.
  - Coordinate utility line pruning to avoid the heat of summer.

- Sucker management
  - American elms produce prolific root sprouts that can compete for resources with new plantings,
  - Due to potential for root grafting between trees chemical treatment is not an option.
  - Mowing/manual removal of suckers in spring is the most appropriate approach for the Elm Tunnel.

Elm Tunnel Management Plan Recommendations

- Tree monitoring and record keeping
  - Monitoring of tree health, structure, for presence of insects/disease and for risk is required to know when to take management actions,
  - Designate an experienced staff member to perform regular monitoring of health and structure,
  - Monitor health/structure at least twice a year,
  - Inspect trees following storm events to identify trees/tree parts that pose an imminent threat.
  - Maintain records of inspection dates, personnel, ratings and actions taken.
- Risk Assessments
  - Risk assessment is a systematic process of evaluating tree structure, defects and the likelihood for failure,
  - Training, experience and application of industry standards (TRAQ) for risk assessment are required,
  - Recommend the City hire a TRAQ certified contractor to perform risk assessments every 2-3 years.
  - The City should develop a Tree Risk Management Program. This policy document provides the framework for how the City performs risk assessments

Monitoring Tree Health and Structure
Beringer Elm Tunnel
Note 5

Trees and their environment change over time. Monitoring trees for changes in health, structure and presence of insects and disease regularly is critical, so that treatments can be applied early before too much damage is done.

When changes are noticed, investigate further to identify the cause of the symptoms or characteristic, and to determine if treatment or corrective action is needed.

When monitoring tree health look for...

⇒*Changes in leaf color*
Non-seasonal yellowing of leaves is an early warning of physiological stress such as water stress, root disease, or nutritional problems.

⇒*Unusual leaf loss*
Noticing sparse crowns or a lot of leaves on the ground? The most common causes are water stress and elm leaf beetle infestation.

⇒*Dieback*
Progressive death of twigs and stems of elms is typically caused by drought, Dutch elm disease, verticillium wilt, or stem girdling by squirrels. If leaves are still attached, DED and squirrel damage are the most likely causes.

⇒*Presence of pests, diseases*
Chewing damage (skeletonizing) of leaves is the most common damage associated with elm leaf beetle.

When monitoring tree structure look for...

⇒*Dead and broken branches*
Branches larger than 2" and with the potential to strike a target.

⇒*Cracks in branches, at branch or codominant stem attachments and in main stems*
Can be associated with areas of decay

⇒*Changes in lean*

⇒*Uplifted and/or broken roots*

⇒*Presence conks, mushrooms associated with wood decay*

⇒*Injuries to trunk or low branches (e.g. from vehicles)*

When should we monitor?

While monitoring can take place any time you are at the site, the most important times to take note of changes in tree structure are:

⇒*In the fall, when damage from drought stress is visible.*

⇒*Following storms with strong winds (≥40mph).*

⇒*In the spring after trees are in leaf and following storm season.*

Keep records of observations and treatments

⇒*Document who, what, when and where....*
Name of inspector
Date
Symptom or condition noted by tree tag #
Diagnosis/cause of problem
Action recommended
Date action taken

Elm Tunnel Management Plan Recommendations

- Pruning and removal of mature elms
  - The challenge is how to balance the need to remove diseased and declining elm trees for public safety with the commitment to perpetuate the stand and experience.
  - Pruning and removal should be prioritized based on the results of ongoing monitoring and risk assessments,
  - Consider removing groups of 2-4 trees to provide better growing conditions for replacement elms,
  - In order to create groups, some Priority 2 and Priority 3 trees would need to be removed

- Wood reuse
  - Plan to reuse as much wood as possible,
  - Chipping for use around trees is recommended
  - Consider ways to create souvenirs, art or historic installations that engage and educate the community.

Summary

- Based on my time working with the elms, I see the most important elements of their management as:
  - Remove high-risk and declining trees and replace them with DED resistant varieties,
  - Consider removal of groups of trees,
  - Engage with the community early and often,
  - Contract grow replacement trees,
  - Purchase and plant only high-quality trees
  - Evaluate if increased spacing between trees is an option,
  - Provide optimal conditions for new plantings,
  - Train personnel on pruning practices for young trees,
  - Protect new trees from damage,
  - Monitor tree health and structure regularly,
  - Continue to monitor for and treat DED,
  - Develop a Tree Risk Management Plan.

Report to the City Council
Regular City Council - 26 Jan 2021

Agenda Section: **NEW BUSINESS**

Subject: **Consideration of Proposed Expansion of the Existing Redwood Forest at the Waste Water Treatment Plant and Direction to Staff**

CEQA Determination: **This project is deemed exempt under 15304: Minor Alterations to Land and Common Sense Exemption: 15061(b)(3)**

Prepared By: Preya Nixon, Asst. to the City Manager

Reviewed By: April Mitts, Finance Director

Approved By: Mark T. Prestwich, City Manager

BACKGROUND

In 2011, an experimental Redwood Forest comprised of 450 trees was planted on 1.5 acres on the southeast corner of the Wastewater Treatment Plant (WWTP) spray fields. Today, the 450 trees are healthy with some trees over 30 feet tall. A proposed project has been brought to the City for consideration. The Redwood Forest of St. Helena Project ("Project") proposes to expand the current experimental forest and proposes to plant, grow, and sustainably harvest roughly 3,000 coast Redwood Trees on approximately 10-acres of land currently located within the City of St. Helena's WWTP 100-acres of effluent spray fields.

The current Project and the proposed expansion Project will continue to help reduce local greenhouse gases by providing highly efficient carbon sequestration within the Redwood Forest and producing more oxygen for our community.

The land for the Project is currently designated as part of the WWTP spray fields. The WWTP spray fields are a component for discharging the WWTP effluent per the City's permit, which the City must adhere to. The Project would utilize WWTP spray field lands that are currently fallow due to the proximity to vinicultural fields. The Project is contingent upon the following: (1) approved final design of the WWTP Phase I

Upgrades; (2) the related effluent discharge permit; and (3) any feedback from the San Francisco Bay Regional Water Quality Control Board ("WQCB").

A full project description and Frequently Asked Questions (FAQ) is provided as an attachment to this report.

DISCUSSION

The site for this project is at the Wastewater Treatment Plant (WWTP). The land for the Project is currently designated as part of the WWTP spray fields. The WWTP spray fields are a component for discharging the WWTP effluent per the City's permit, which the City must adhere to.

The City's adopted 5-year CIP Plan, includes CIP S-52 - WWTP Phase I Upgrades. The purpose of CIP S-52 is to upgrade the plant to meet compliance requirements as designated in the State's Cease and Desist Order. The City has 90% of the design plans and it is anticipated that the City will have 100% of the plans by the end of January 2021. Staff has discussed the Redwood Forest proposal with the City's engineering firm for the WWTP Upgrades and recommend the formal approval of the Redwood Forest expansion be contingent upon the final full design of the WWTP, the draft discharge permit, and any feedback from the San Francisco Bay Regional Water Quality Control Board ("WQCB").

On December 3, 2020, Paul Asmuth, who is partnering with Sustainable St. Helena an Environmental Alliance, Inc., presented the proposed Project to the Active Transportation and Sustainability Committee (ATSC), as this Project has a sustainability component. The ATSC supported the Project. Additionally, committee members asked clarifying questions from the Project and made the following comments:

- Consideration of access to the project as the current entrance is through the WWTP - there should be an alterative entrance for this project.
- Ensure there will be enough water for the trees once the WWTP upgrade to tertiary treatment is completed.

Next steps:

The Project is contingent upon the approved final full design of the WWTP, the draft discharge permit. and feedback from WQCB.

If there is Council support for this Project, the next step would include directing staff to prepare an agreement, or other appropriate legal document(s), between the City and the Project proponent, Sustainable St. Helena an Environmental Alliance, Inc., an IRS Code § 501 (c)(3) organization and bring this item back at a future Council meeting (if necessary).

Connection to Council Goals: This project is consistent with the General Plan and City Council adopted Goal #6: Support initiatives that respond to and plan for climate change.

FISCAL IMPACT

There is no fiscal impact for this Project as it will be funded through Sustainable St. Helena an Environmental Alliance, Inc.; however, staff time will be required to oversee the development of this proposal.

RECOMMENDED ACTION

Provide feedback on the proposed expansion of the existing Redwood Forest at the Waste Water Treatment Plant, including, if there is City Council support, direction to the City Manager to develop and advance any necessary implementation steps.

ATTACHMENTS

Project Description 1.18.2021
Frequently Asked Questions 1.18.21
St. Helena City Council 1.26.2021 Powerpoint Presentation

St. Helena Redwoods

A future community forest

Project Summary

January 2021

Project Description

The Redwood Forest of St. Helena Project ("Project") proposes to plant, grow and sustainably harvest 3,000 coast redwood trees on approximately 10 acres of land currently located within the City of St. Helena's ("City") wastewater spray fields. Tree irrigation would be provided from the Wastewater Treatment Plant ("WWTP") effluent. This project would also help reduce local greenhouse gases by providing highly efficient carbon sequestration within the redwood forest and producing more oxygen for our community.

The City currently uses approximately 100 acres of land on the south side of their WWTP for disposal of treated effluent. A strip of land along the southern border of the spray fields has not been used for decades as a spray field due to potential spray drift onto vineyards and remains fallow and unproductive. Each year the noxious weeds and low value plants that grow are mowed/disked under and the cycle repeats. If approved, this Project proposes to reforest a portion of the designated spray fields that are not currently used, for future timber harvest, beneficial carbon sequestration, spray field buffer zone, community walking trails, and forest ecosystem restoration.

This project is in the Napa County Agricultural Preserve on slopes of less than 5 percent and would be classified as "Agriculture" under Napa County Code section 18.08.040:

"Agriculture means the raising of crops or livestock and includes the following:

A. Growing and raising trees, vines, shrubs, berries, vegetables, nursery stock, hay, grain and similar food crops and fiber crops."

Purpose

The purpose of this Project is to:

1. Plant a coast redwood forest that is planned for sustainable timber production while maintaining a high level of carbon sequestration in the redwood trees and root systems.
2. Utilize unused land to plant coast redwood trees that will be irrigated with effluent from the City's WWTP.
3. Create a buffer zone between utilized spray field areas and nearby vineyards.
4. Establish a community forest that provides walking paths connecting with a citywide system.
5. Offer an area for nature viewing and education.
6. Reforest unused lands with a high value crop.
7. Restore a forest ecosystem.

8. Improve soil health for higher water retention.
9. Reduce soil erosion from high volume water events.

California Coast Redwood Trees (*Sequoia sempervirens*)

Coast redwood trees are native to Napa County and other northern and central California coastal areas and are one of the most productive timber trees in the world. Redwood trees grow very well in the Napa County soils and climate provided there is enough available moisture during dry summer months. The available soil and water in the unused areas of the WWTP lands have grown healthy redwood trees that are now 20 to 30 years old. These large trees are located along the southern edge of the WWTP ponds and along the Napa River.

In addition, an experimental forest of 1.5 acres was planted in 2011 on the southeast corner of the WWTP spray fields, and these 450 trees are healthy with some more than 30 feet tall.

Based on established timber planting plans, approximately 300 trees per acre would be planted on an 11' x 13' spacing. Each tree will have a drip irrigation emitter for watering during summer months. After approximately 15 years, 50% of the planted forest will be harvested to allow the remaining 150 trees per acre, more room to grow and mature. The trees that are harvested will send up new sprouts for a second timber harvest in future years. Beginning in approximately 20 years, 20% of the planted forest would be harvested every 5 years and continue this harvest rotation into the future.

Carbon Sequestration

Coast redwood trees sequester carbon better than any tree in the world. Based on carbon sequestration studies, "On average, one acre of new forest can sequester about 2.5 tons of carbon annually. Young trees absorb CO2 at a rate of 13 pounds per tree each year. Trees reach their most productive stage of carbon storage at about 10 years at which point they are estimated to absorb 48 pounds of CO2 per year. At that rate, they release enough oxygen back into the atmosphere to support two human beings."

The proposed increase of 3,000 trees over 10 acres would sequester approximately 48 pounds per tree at 10 years of age or 144,000 pounds of CO2 per year. CO2 sequestered would increase as redwood trees continue to grow and absorb carbon their whole lives. The average age of this forest would be approximately 20 years old yielding annual carbon sequestration of 288,000 pounds.

Prior Approvals

The experimental forest was planted in 2011 with the approval of Mayor Del Britton and then Director of Public Works, John Ferons. The concept of expanding the forest by 50 acres and

using the City's WWTP effluent to plant coast redwood trees on the spray field lands, was previously approved in 2012 by the St. Helena Tree Committee and St. Helena Climate Protection Task Force. This much larger project of up to 15,000 redwood trees, was proposed to the City Council in 2013 and a decision was delayed until after the City's General Plan was approved. Recently, the updated project was presented to the City of St. Helena's Active Transportation and Sustainability Committee, the Napa Resource Conservation District Board of Directors, Napa Sierra Club Board of Directors, and Sustainable St. Helena an Environmental Alliance.

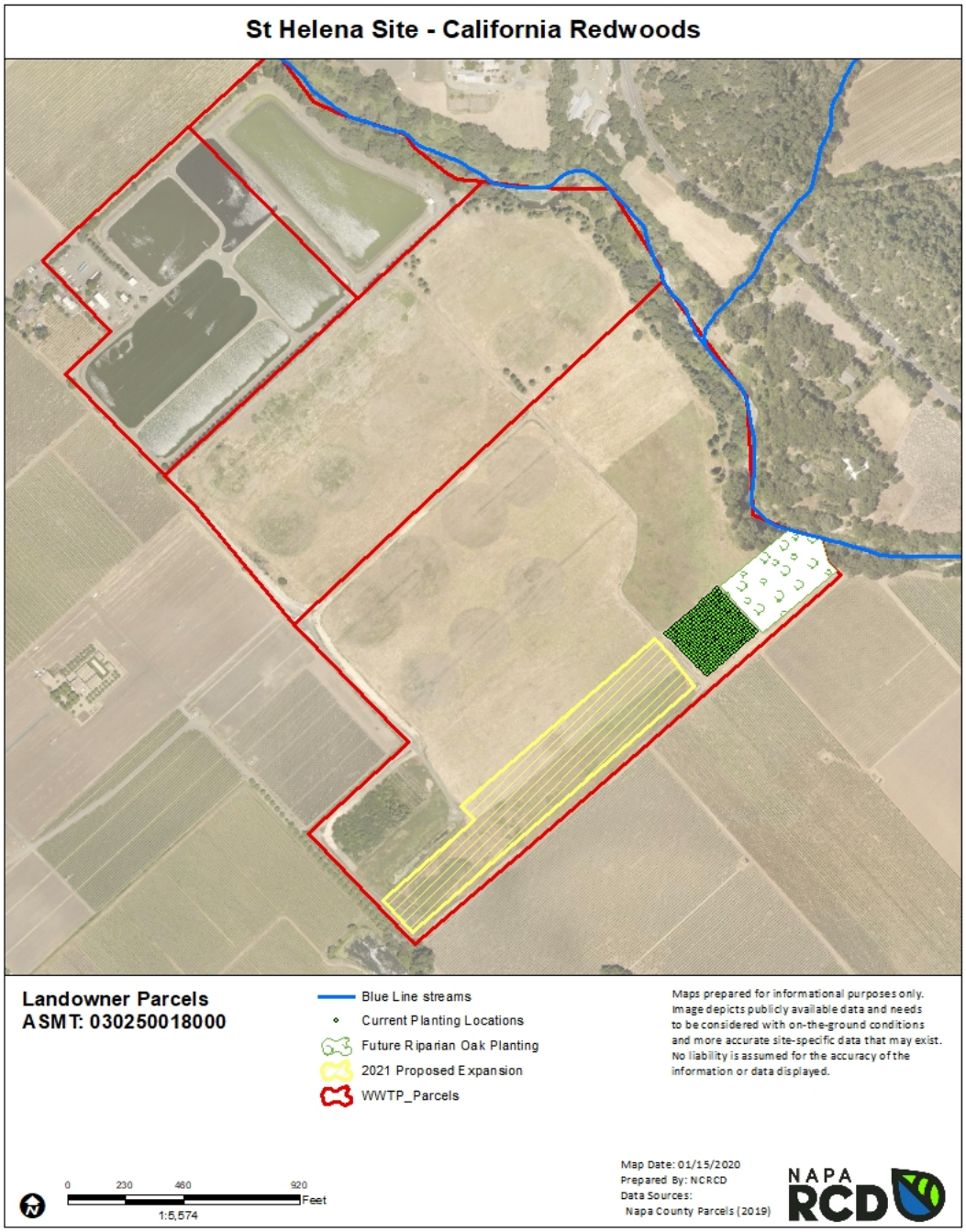
The Team

With project approval, Sustainable St. Helena an Environmental Alliance Inc., an IRC §501(c)(3) organization will be responsible for the planting, farming, and harvesting of the redwood trees including hiring of qualified foresters. Currently Paul and Marilyn Asmuth are directing the project along with Nicholas Kent, a Registered Professional Forester.

Napa County Resource Conservation District ("RCD") is currently providing technical assistance regarding healthy trees and forest conditions, stand density and potential harvests, irrigation management, soil health, and future volunteer coordination. The RCD will also help direct an appropriate Forest Management Plan that would be required for a future timber harvest. In addition, as a separate project, the RCD is considering an oak and riparian planting area between the existing experimental redwood forest and the Napa River.

Summary

The planting of a coast redwood forest on some of the City's underutilized lands for future timber harvests, environmentally beneficial carbon sequestration, spray field buffer zone, beauty, recreation, soil stabilization, and restoration of a forest ecosystem will benefit our community for many future generations.


St Helena Site - California Redwoods
Landowner Parcels
ASMT: 030250018000
Blue Line streams
Current Planting Locations
Future Riparian Oak Planting
2021 Proposed Expansion
WWTP_Parcels
Maps prepared for informational purposes only.
Image depicts publicly available data and needs to be considered with on-the-ground conditions and more accurate site-specific data that may exist.
No liability is assumed for the accuracy of the information or data displayed.
0 230 460 920
Feet
1:5,574
Map Date: 01/15/2020
Prepared By: NCRCD
Data Sources:
Napa County Parcels (2019)
NAPA RCD

5

St. Helena Forest

A future community forest

Frequently Asked Questions for Expanded Forest

January 2021

1. **Why use coast redwood trees (*Sequoia sempervirens*) for this project?**

    - Native tree to northern and central California including Napa County
    - Sequester more and faster carbon dioxide (CO2) than any tree in the world
    - Accept quality of wastewater treatment plant (WWTP) effluent
    - Disease and fire resistant
    - Grow well in climate and soil of WWTP
    - High value wood and locally marketable timber
    - Harvestable commercial lumber that can be milled regionally
    - Trees re-sprout after harvesting
    - Established trees will reduce soil erosion

2. **Why use this location?**
    - There are approximately 100 acres that the City of St. Helena uses to dispose of treated wastewater from the City's WWTP. The spray field areas located along the southern border are too close to viticulture operations for overhead irrigation to be used due to the risk of effluent drift.
    - Experimental 1.5-acre forest of 450 coast redwood trees have grown very well
    - Forested area will act as a buffer from effluent drift between irrigated spray fields and vineyards
    - This land has been fallow for decades and grows noxious weeds and low value plants that are annually disked under
    - Secondary treated effluent is available for irrigation of non-consumable products
    - Soil and climate are suitable for coast redwood trees
    - Proposed planting lands are located primarily in undevelopable floodway and floodplain areas and have limited uses
    - Reforested area has established new ecosystem for birds, amphibians, and mammals as well as generate large amounts of oxygen while providing cooling shade from summer heat

3. **How much carbon sequestration can be expected from this project?**

   Based on carbon sequestration studies, "On average, one acre of new forest can sequester about 2.5 tons of carbon annually. Young trees absorb CO2 at a rate of 13 pounds per tree each year. Trees reach their most productive stage of carbon storage at about 10 years at which point they are estimated to absorb 48 pounds of CO2 per year. At that rate, they release enough oxygen back into the atmosphere to support two human beings."

   The proposed increase in trees of 3,000 over 10 acres would sequester approximately 48 pounds per tree at 10 years of age or 144,000 pounds of CO2 per year. This number would increase as redwood trees continue to grow and absorb carbon their whole lives. The average age of this forest would be approximately 20 years old yielding annual carbon sequestration of 288,000 pounds.

4. **How is the land currently used?**

   This plot of land is not currently used as a "spray field" due to the proximity to the vineyards along the southern border of the wastewater disposal field. Noxious weeds and low value plants grow in this area and are disked under annually.

5. **How is the treated wastewater currently used?**

   The treated effluent is disposed of over approximately 100 acres of spray fields. Only noxious weeds and low value plants grow in the disposal area which are mowed or disked under annually.

6. **Will the redwood trees have an impact on ground water replenishment currently occurring from the effluent discharge on these spray fields?**

   The redwood trees will be located on land that does not currently receive any effluent and therefore there would be no impact to the groundwater recharge from the spray field areas.

7. **What are the main challenges for growing redwood trees on this land?**

   - Seedlings are fragile to grow in the early years and very susceptible to extreme cold/hot temperatures
   - Gophers, voles, rabbits, coyotes, and other varmints kill young trees and damage irrigation systems
   - Noxious weeds with large and deep tap roots sever the root systems and kill young trees
   - Approximately 20% tree loss in first growing year

8. Are there farming challenges using treated wastewater to water redwood trees?

- Algae growth in the wastewater treatment ponds impedes the flow of water through the irrigation system filter increasing labor and material costs
- Water is only available on certain days each week. Extremely hot temperatures and limited watering days may increase the loss of young redwood trees
- Rodents, weeds, and other animals damage small trees and the irrigation system

9. How many trees per acre will be planted?

Based on proven redwood tree planting formulas for timber, there will be 300 trees per acre planted. After approximately 15 years, 50% of the forest will be harvested to allow more room for the remaining 150 trees per acre to grow. Harvested trees will send up new sprouts for future timber harvest.

10. How many acres will be planted in redwood trees?

We are proposing an additional 10 acres of land (3,000 trees) be planted to redwood trees in areas that are not currently used as spray fields.

11. What is the expected tree planting schedule based on 10 acres?

2021 – 600 trees

2022 – 1400 trees

2023 – 1000 trees

12. What is the anticipated sequencing for the project?

- Agreement with the City of St. Helena to utilize the land
- Order redwood tree seedlings
- Land preparation of weed removal and mowing
- Installation of irrigation system
- Planting new trees February/March
- Annual farming, i.e. weeding, mowing, irrigation maintenance, tree pruning
- Year 15 - 1st timber harvest 50% of forest
- Years 20, 25, 30, 35, 40, … selective timber harvest of 20% each year

13. What will the average age of the redwood forest be?

The redwood forest will have an average age of 20 years based on 20% of the trees being selectively harvested every 5 years beginning in year 20.

14. What are the Legacy Trees?

Some trees within the forest will be left to grow in perpetuity and become "Legacy Trees". Over time, these trees will grow tall and large and sequester great amounts of carbon from the atmosphere. These trees will also provide special forest aesthetics to showcase the incredible grandeur of coast redwoods.

15. What type of irrigation system will be used for the redwood trees?

Drip irrigation will be used because the treated effluent has higher than normal levels of salt from standard chlorine sanitation. Redwood trees can tolerate higher than normal levels of salt in the soil but not when sprayed on their needles.

16. How big will the redwood trees be at harvest?

Marketable redwood trees are approximately 60 - 75 feet tall with trunks of about 20" in diameter.

17. Who will be responsible for the cultivation of the redwood trees?

Sustainable St. Helena an Environmental Alliance Inc., an IRC § 501(c)(3) organization will be responsible for all cultivation and harvesting of the redwood trees, including working with a Registered Professional Forester to hire qualified personnel to maintain and harvest the trees.

18. Who is the certified California Forester on the project?

Nicholas Kent, RPF of Cloverdale is the Registered Professional Forester on the project. Nick has more than 30 years of forestry experience and specializes in coast redwood trees. We are also working with Napa County Resource Conservation District's forester, Amanda Benton.

19. Who is the director of the project?

Paul and Marilyn Asmuth are the project directors and local St. Helena citizens since 1993.

20. Who has funded the project so far?

Paul and Marilyn Asmuth have personally contributed for the startup of this project over the last 10 years. There have also been generous donations of equipment, time, and resources by local friends and family.

21. Will the City be paid?

An agreement will need to be entered into between the City of St. Helena and the new nonprofit for the land and the sharing of future timber harvest revenue after deducting applicable costs.

27. **How much will the planting the redwood forest cost?**

Based on planting cost for the existing experimental forest, we estimate that planting 10 acres will be approximately $10,000 per acre or $100,000, plus a new water filtration system of $20,000.

28. **How will the project be funded?**

The project will be funded through private donations, fundraising events, and possibly California reforestation grants.

29. **What other local agencies will be involved?**

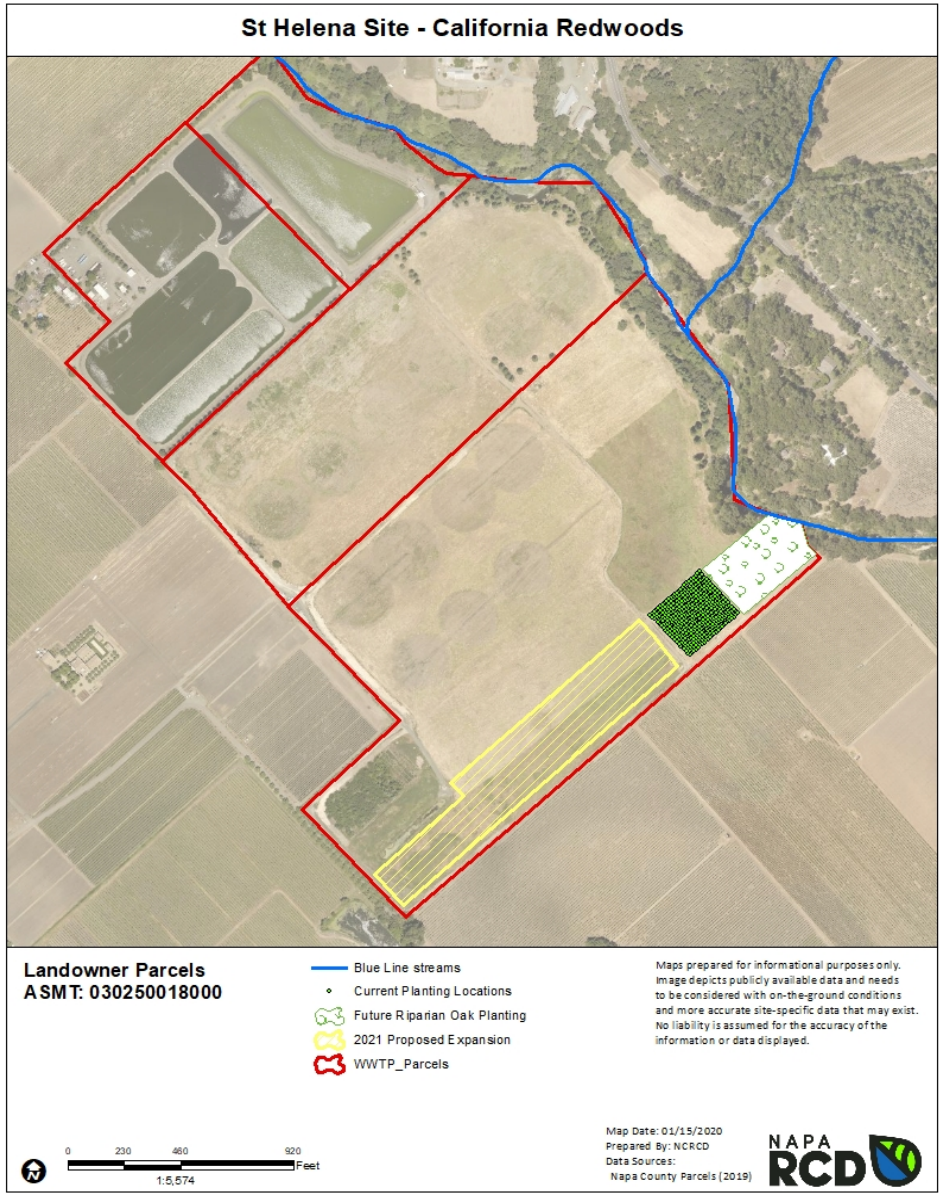
- **Napa County Resource Conservation District** will provide technical assistance with environmental consultation including forestry, mapping, irrigation, education, and volunteer coordination.
- **Napa County Agricultural Commissioner's Office** will provide farming advice as needed.

St. Helena Redwoods *a future community forest*

- St. Helena City Council
- January 26, 2021
- Presented by Paul Asmuth

City of St. Helena

Location of WWTP and Redwood Forest



City of St. Helena
WWTP and
Effluent Spray Fields

Green Area Current
Redwood Trees

Yellow Area Proposed
Expansion

White area near Napa River
NRCD Oaks

Project Overview

- With the permission of St. Helena Mayor Dell Britton, now deceased, an experimental forest of coast redwood trees *Sequoia sempervirens,* was started in 2011 at the City of St. Helena's Wastewater Treatment Plant (WWTP) effluent spray fields.
- The first planting of trees was in December 2011, all died due to the very cold and extremely dry winter. In February 2012, new trees were planted and today there are about 450 trees over 1.5 acres that are irrigated with secondary treated effluent. Many of these trees are now over 30 feet tall and sequestering great amounts of carbon from the atmosphere.
- The entire effluent spray field area is approximately 100 acres, and the City uses a portion of this area for water dispersal.
- Vineyards for wine grapes are located along the southern property line of the effluent spray field. No effluent can be sprayed near the vineyards. This fallow area is approximately 10 acres.
- Based on the success of the current forest, we are proposing that the project be expanded into this fallow land, adding nearly 3,000 coast redwood trees.
- Seedlings will be planted at 300 per acre, and ideally this would begin in February 2021.
- Some portion of the 10 acres would be set aside for a "Legacy Forest" for forever carbon sequestration and the trees would not be harvested.
- A walking path through the forest will be developed and connected to future walking paths along the Napa River and the city of St. Helena.
- Amanda Benton, Forester, with the Napa Resource Conservation District is consulting on the project.
- Nick Kent, who has extensive coast redwood experience is the Registered Professional Forester on the project.
- Dr. William Libby, retired UC Berkeley professor has been instrumental in providing guidance and unique coast redwood clones.

Dr. William J. Libby

- Retired UC Berkeley Professor
- World renowned coast redwood and tree expert
- Worked with forest in most states and many countries
- Helped establish coast redwood timber industry in New Zealand
- Provided special and rare redwood clones for the project

Why Coast Redwoods?

- "California's Redwood Trees Are Best in the World at Storing CO2
- California's ancient redwood trees store more carbon dioxide per acre than any other forest in the world, including tropical rain forests like the Amazon, according to new research published in the journal *Forest Ecology and Management*. "
- YaleEnvironment360, July 7, 2016

- "Coast redwood (Sequoia sempervirens) stands have the largest measured biomass per acre making the argument for use of the species in long-term carbon sequestration projects self-evident."
  - Carbon Storage in Young Growth Coast Redwood Stands, Jones and O'Hara

- "This process, called carbon sequestration, is something California's redwoods do better than just about any other species on the planet. When given the right conditions, redwood trees gain height and girth quickly. Underground, forest soils and root structures store even more carbon. Because redwoods live for thousands of years, they are a very long-term source of carbon storage."
- California Department of Parks and Recreation

- "A typical tree will sequester (remove from the atmosphere) about 1 ton of carbon in its lifetime. A coast redwood will sequester 250 tons of carbon. Just one coast redwood has the ability to absorb as much carbon as 250 "regular" trees"
- www.forbes.com Jul 29, 2019

Coast Redwood
Sequoia sempervirens
Seedlings Grown at Nursery

One Year Old Trees
May and October 2013
Total Trees Planted 450
1.5 Acres

2 years old
July 2014

3 years old
August 2015

3 ½ Years Old
15 – 18 feet tall
November 2015

St. Helena Redwoods July 2019

Some trees 35 tall and 12 – 14 inches in diameter

Special Clones May 2016

- **Dyersville Giant** – from seed (see photo) 370 feet tall when uprooted
- **Luna** – seeds orbited the moon in Apollo 14
- **Del Norte County** – Clone 4
- **Humboldt County** – 7 different clones
- **LaMc** – From Dr. Libby's neighbor's redwood tree
- **Korbel KT** – discovered in Korbel, Humboldt County

August 2020
Korbel KT Clones

- Discovered in 1966 in Korbel, Humboldt County
- Mutated from normal growing redwood trees
- Grows more slowly
- Does not “bronze” in winter
- Maximum height under 100 feet tall
- Make very good Christmas trees and hedges

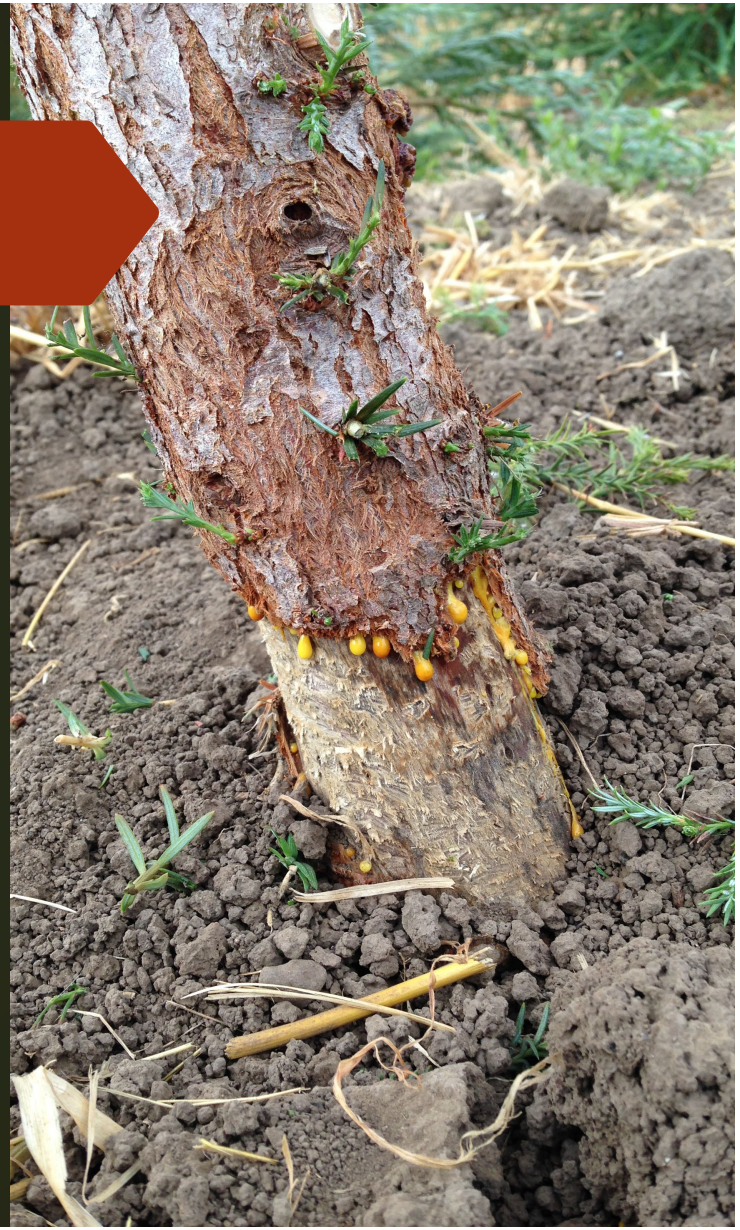
Forest Benefits

- Aesthetic Beauty
- Carbon Sequestration
- Oxygen Generation
- Walking Paths Connected to City of St. Helena Trails
- Future Timber Crops
- Protection of special coast redwood clones and cultivars
  - Las Posadas coast redwoods
  - Dyersville Giant
  - Korbel KT
- Afforestation
  - Land previously in vineyards
  - Currently fallow
- Creation of Forest Ecosystem
  - Arachnids, insects, earthworms, and other invertebrates
  - Amphibians – Pacific tree frogs
  - Birds – raptors and nesting birds
  - Mammals – coyotes, rodents, skunks, and bobcats

Wildlife

Challenges

- Climate
  - Winter lows kill small seedlings grown in exposed areas
- Pests
  - Rodents and mammals damaging trees and drip irrigation system
- Water Quality
  - Algae in effluent requires filtration
- Weed Control
  - Noxious weeds overtake and kill small trees



Winter Bronzing

Rodent Challenges

California Vole

Microtus californicus

Vole Damage to Tree Trunk

Water Quality and Irrigation Challenges

Coyote

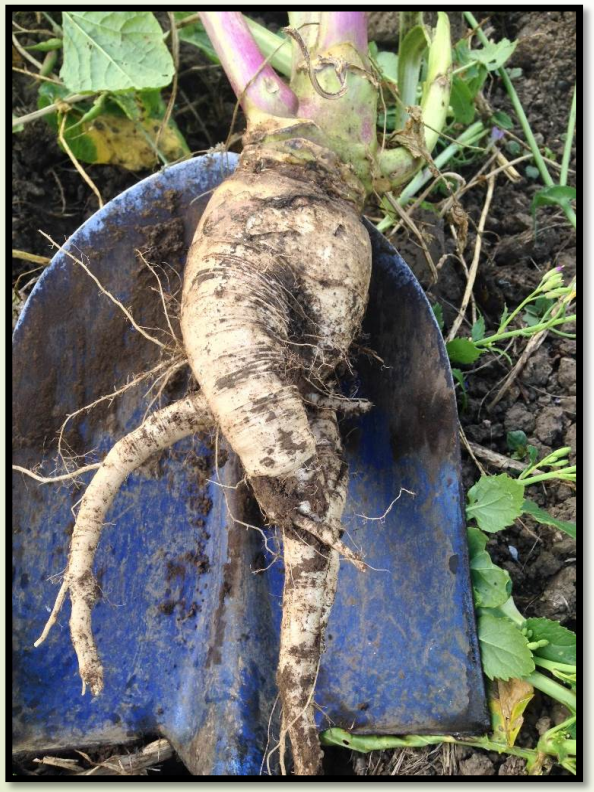
Canis latrans

Destruction of Drip System

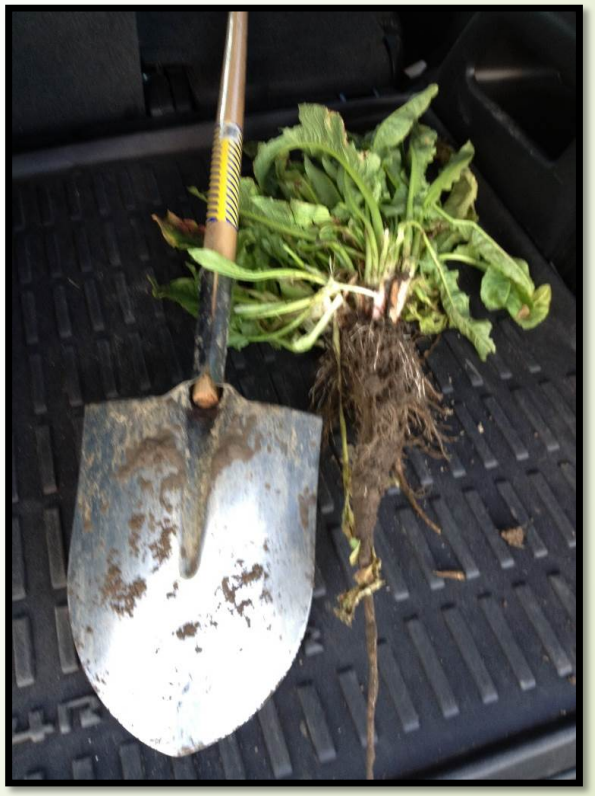
Algae in Effluent Clogs Filters

Weed Challenges

Daikon Radish
Raphanus sativus



Curly Dock
Rumex crispus



Conclusions

- Expanding the current coast redwood forest by another 10 acres is a good use of fallow land.
- Creating a forest in this area has high future benefits for aesthetics, ecosystems, walking paths, carbon sequestration, oxygen generation, legacy trees, and selective timber harvests.
- After the initial thinning in 15 years, revenues would exceed costs and the investment would have positive returns because coast redwood trees regenerate and there would no replanting or other startup expenses.
- Future revenue sharing from timber harvests with the City of St. Helena.
- Benefits to the community and our environment ultimately far outweigh the initial investment costs while offering a worthwhile project for St. Helena and the Napa Valley.
- (Photo from coast redwoods in Rotorua, New Zealand, planted 1901)

A Legacy Opportunity

Benmore
Botanical Gardens

Redwood Avenue
of Giant Sequoias

Argyll, Scotland

Planted 1863

Photo by Paul Asmuth, August 2016

Questions and Comments

Rotorua, New Zealand Redwoods, Hiking Trail, Planted 1901

January 25, 2021

Dear St. Helena City Council,

As we start off 2021, climate change should be at the forefront of decision making. The Redwood Forest expansion should be an easy 'yes' to address the concerns of our environment. The project turns underutilized land into an oxygen producing property by adding the most carbon sequestering trees in the world. I cannot think of a more valuable, efficient, and health conscious development.

And one day, hopefully the community can directly enjoy this project by incorporating walking paths, benches and the like.

Please vote yes to expand and ensure the future of this multipurpose project.

Thank you for your time and consideration,
Madelyn Chandler

Active Transportation and Sustainability Committee – Member
Sustainable St. Helena – President

Cindy Tzafopoulos

From: Mary Wilson <boecoup@gmail.com>
Sent: Monday, January 25, 2021 4:11 PM
To: Public Comment
Subject: [External] Redwoods

This is a note of encouragement to the City to please consider expanding the 1.5 Coast Redwood project that uses the effluent from the wastewater treatment plant.

Here is a project that has only positive things to offer! The environment benefits in a myriad of ways. Please agree to this expansion!

Sent from my iPad

Mary Wilson
1426 Kearney St.
St. Helena, Ca. 94574

707-529-4406

Cindy Tzafopoulos

Subject: RE: [External] Comment to Council: Item 11.1. Consideration of Proposed Expansion of the Existing Redwood Forest...

From: Dave & Loie Whitmer <whitmer25@gmail.com>
Sent: Saturday, January 23, 2021 8:07 AM
To: Public Comment <publiccomment@cityofsthelena.org>
Cc: Paul Asmuth <pasmuth@thenapavalleyreserve.com>
Subject: [External] Comment to Council: Item 11.1. Consideration of Proposed Expansion of the Existing Redwood Forest...

Dear Esteemed St. Helena City Council:

I am writing to urge your **support** of the expansion of the redwood forest project. (This request represents my personal opinion and is not intended to represent a formal decision or recommendation from the County of Napa.)

I have personally toured the site and witnessed the incredible stewardship of the project by Mr. Asmuth and his team. In the approximately 10 years of the initial pilot project, the benefits of carbon sequestration, oxygen generation, renewal of a forest ecosystem, enhanced soil biology and wildlife habitat have become evident. The project has also demonstrated the compatibility with adjacent land uses including commercial vineyard production.

This proposal creates a rare opportunity to create a new forest with all its ecological advantages, while helping the City utilize lands and recycled wastewater in a sustainable model. I applaud Mr. Asmuth's efforts and ask you to support this ingenious project, as well.
Thank you for your consideration.
Best regards,

Dave Whitmer
Retired Napa County Agricultural Commissioner
Current Napa County Planning Commissioner

Cindy Tzafopoulos

From: Lynn Mirassou <lynnmirassou@gmail.com>
Sent: Tuesday, January 26, 2021 9:36 AM
To: Public Comment
Subject: [External] Comment to Council, Agenda Item 11.1

To: St. Helena City Council

Public Comment regarding Expansion of Redwood Forest at the Waste Water plant:

Good Evening,
I am writing to encourage you to support the expansion of the forest project, under the guidance of Paul and Marilyn Asmuth, which has been using effluent from the City of St. Helena's wastewater treatment plant to grow a 1.5 acre forest of trees. I can think of no better example of a "win-win" situation for the community and the planet!

Simply to name a few environmental benefits: Carbon sequestration, oxygen generation, renewal of a forest ecosystem, enhanced soil biology, wildlife habitat, recreation and beauty. I would like to express my sincere appreciation to the Asmuths for their long-time dedication to this worthwhile endeavor and strongly encourage the council to support its expansion.

Sincerely,

LYNN MIRASSOU
1135 Austin Way
Napa, CA. 94558
408-857-0049

Report to the City Council
Regular City Council - 26 Jan 2021

Agenda Section: **NEW BUSINESS**

Subject: **Request for City Council participation in Zoning Code Update Subcommittee**

CEQA Determination: **Not a CEQA project**

Prepared By: Maya DeRosa, Planning & Building Director

Reviewed By: April Mitts, Finance Director

Approved By: Mark T. Prestwich, City Manager

BACKGROUND

In late 2019 the City hired Lisa Wise Consulting (LWC) to prepare a comprehensive update to the City's Zoning Code. Some of the key objectives of this work effort by the City include helping to provide a more user friendly code, clear standards attracting high quality development, addressing current legislation, and ensuring that new development is compatible with neighborhood character. Stakeholder interviews were held in February 2020 with a diverse group of City leaders, developers, designers, non-profits, and business owners.

Following this milestone, the consultant drafted a Recommendations Memo (Attachment 1) which was released in June 2020 and reflects the following; (1) initial public feedback received during the stakeholder interviews, (2) email correspondence, (3) comments received at the May 5, 2020 Special Joint City Council and Planning Commission public meeting, and (4) review by the Zoning Code Update Ad Hoc Subcommittee which was composed of then Planning Commission Chair Lester Hardy, and City Council members Mary Koberstein and David Knudsen. The Recommendations Memo was further discussed on August 24, 2020 at a Special Meeting of the Planning Commission.

The Recommendations Memo provides a blueprint for how the new Zoning Code will be organized and used and provides an excellent reference guide to both the City Council and the public on the scope and content of this project. Appendix A of the document

provides a draft annotated outline of the new zoning code and the regulatory framework of the document. Appendix B includes a Style Guide to help the public understand some of the visual tools to illustrate development standards. Finally, in Appendix C, a summary of the relevant implementing General Plan actions is included.

DISCUSSION

There is still a substantial amount of work effort to be done to complete the Zoning Code update. The strategy to complete this work will include public review and feedback which will be divided into periodic public meetings with each meeting designated to various sections of the code. Because of the work to be done, it will be helpful to Staff that the City Council appoint two members to the Zoning Code Adhoc Subcommittee to continue the important review of preliminary draft documents with staff and consultant, and to provide feedback prior to release to the public.

With the recent election in November 2020 and the replacement of Council Members Koberstein and Knudsen, there is a need for the City Council to appoint two members to support the continued effor tto update the Zoning Code. Additionally, one Planning Commissioner (the Chair) will continue to participate in the subcommittee.

The consultant has completed a substantial portion of Part III of the Code which includes the development standards, use table, and overlay zones. Additional coordination on specific uses including a review of the telecommunications ordinance by the City Attorney is necessary before releasing to the subcommittee. The review of this preliminary draft by the subcommittee is anticipated in late February 2021. In a subsequent subcommittee meeting, there will be feedback provided to staff and LWC.

Any recommended adjustments would be made to the document and then a joint City Council and Planning Commission meeting would be held to receive further public feedback. Members of the subcommittee would continue to participate in subcommittee meetings periodically through the completion of the project which is anticipated to conclude at the end of 2021.

FISCAL IMPACT

Not applicable.

RECOMMENDED ACTION

Pass a Motion appointing two City Council members to serve on the Zoning Code Update AdHoc Subcommittee.

ATTACHMENTS

LWC_St Helena Recommendations Memo_revised_081220

Recommendations Memo and Annotated Outline

June 2020 DRAFT

Revised June 26, 2020

Prepared for:

City of St. Helena
1572 Railroad Avenue
St. Helena, CA 94574

Prepared by:

Lisa Wise Consulting, Inc.
983 Osos Street
San Luis Obispo, CA 93401

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1 Introduction

The City of St. Helena completed a comprehensive update to its General Plan in June 2019. This created an obligation and opportunity to update the Zoning Code to ensure that the Code supports the type of development that will carry out the General Plan's vision. One of the primary tools a city has for implementation of its General Plan, a Zoning Code translates the policies of a General Plan into parcel-specific regulations, including land use regulations and development standards. The type and intensity of land uses that are permitted and how they perform will be critical to achieving the General Plan's vision for neighborhood preservation and enhancement, economic development, environmental sustainability, and community health.

The Project

The Zoning Update will replace the City's Zoning ordinance (Chapter 17 of the City's Municipal Code) and repurpose it as a more effective tool to support the kind of development that St. Helena wants. The objective of the Code update is to produce a user-friendly set of regulations that provide clear direction about the City's expectations and to facilitate development of quality projects by tailoring standards to specific areas of the city, making standards clear and effective, streamlining review processes, and incorporating flexibility to adapt to specific circumstances. This memo reviews the effectiveness of the existing Code and identifies a set of recommendations to be considered by the City for the Code Update.

What is Zoning?

While the General Plan sets forth a wide-ranging and long-term vision for the City, the Zoning Code specifies how each individual property can be used to achieve those objectives. Zoning is the body of rules and regulations that limit and shape what is built on the ground, as well as what uses occupy buildings and sites. It determines the form and character of development, such as the size and height of buildings, and also includes provisions to ensure that new development and uses will fit into existing neighborhoods by establishing the rules for being a "good neighbor."

What Zoning Can Do

Zoning codes are used to implement the community goals expressed in the General Plan. Zoning codes include the following:

- **Development and Design Standards.** Development codes reflect the desired physical character of the community in a set of development and design standards that control the height and bulk of buildings, street frontage and architectural character, location of parking and driveways, "buffering" of uses, and landscape needs.
- **Use Regulations.** Development codes specify which uses are permitted, which uses are required to meet specified standards or limitations, and which uses are prohibited. In this way,

the development codes determine the appropriate mix of compatible uses, as well as how intense these uses can be.

- **Performance Standards.** Development codes often include standards that control the "performance" of uses to ensure land use compatibility between new and existing neighborhoods or uses. Performance standards address items such as noise, glare, vibration, and odors.
- **Predictability.** The use regulations and development standards established in development codes provide neighbors with assurance of which land uses are permitted and the scale to which they may be developed. Developers benefit from knowing exactly what can be done. City staff benefits too, since the need for case-by-case discretionary review of development applications is reduced.

What Zoning Cannot Do

There are things that zoning cannot do since it is limited in some respects by State law and legal precedent. However, issues not addressed in zoning are usually addressed by other planning tools, such as specific plans and design guidelines. Zoning will not do the following:

- **Dictate Architectural Style.** Although development codes can improve the overall physical character and design of the community, they must present objective, quantifiable criteria when it comes to design. Architectural style is usually addressed in specific plans and design guidelines adopted separately.
- **Regulate Free Market.** Development codes cannot create a market for new development. For example, it cannot determine the exact mix of tenants in a private development. It can, however, create opportunities in the real estate market by removing barriers and offering incentives for desirable uses.
- **Establish Land Use Policy.** Development codes are a tool for implementing land use policy, not setting it. As such, development codes are not the appropriate means for planning analysis or detailed study. Development codes take direction from the General Plan.

Why Update the Code?

A well-written and easily implementable zoning ordinance will enable property owners and developers to remodel or build new projects that meet the City's stated goals and objectives. The St. Helena Zoning Code was last comprehensively decades ago. It has been amended numerous times, leading to internal inconsistencies; does not reflect all recent laws; and lacks clarity and specificity in several sections. While it has generally worked well over the years, as land use patterns diversify and modernize, the regulations can sometimes hinder new objectives and economic development, particularly in areas that necessitate more context-sensitive applications. Additionally, continuing to implement the General Plan through individual amendments to the Zoning Code may result in a Code whose length, complexity and organization will be a constant source of frustration for users.

Policy and Research Framework

Aside from the Zoning Code itself, key sources that contribute to the existing policy and regulatory framework and that will inform the update include:

The General Plan

The 2019 St. Helena General Plan Update represents the basic policy direction of the City of St. Helena regarding community values, ideals, and aspirations to govern a shared environment through 2040. It provides a vision for the future, establishes a framework for how the city should grow and change over the next two decades, and addresses all aspects of development including land use and growth management, economic sustainability, historic resources, and community design, among other topics. It emphasizes retaining and enhancing the St. Helena's small-town characteristics, strengthening the Downtown, providing options for mobility, and promoting an active, healthy, and sustainable community life. The General Plan was adopted to be a living document and cognizant of future general plan amendments and further map changes with the adoption of the Zoning Ordinance for consistency. The Zoning Code should clearly communicate and effectively implement the Plan's policies. Key policies that will lead the Code Update effort are listed in Appendix C.

2015-2023 Housing Element

The Housing Element establishes a comprehensive plan to address housing needs in St. Helena over the eight-year planning period between January 31, 2015 and January 31, 2023. The Housing Element sets the community goals and policies for the development, rehabilitation, and preservation of housing units. The Housing Element includes a review of current demographic and economic trends, housing market conditions, special housing needs, constraints, and a site inventory and analysis for a variety of housing types. It also articulates policies for the development of housing throughout the city. Key housing Element policies that will inform the Code Update effort are listed in Appendix C. The City will initiate an update of the Housing Element later this year for the June 30,2022, to December 15, 2030, planning period. The Zoning Code Update will reflect all required regulatory housing legislation related to zoning including limiting barriers to affordable housing.

Highway 29 Specific Plan

The 2005 Highway 29 Specific Plan establishes objectives and actions to implement the 1993 General Plan for properties generally located south of Sulphur Creek, along the east and west sides of South Main Street (State Highway 29) and north of Grayson Avenue (west side of Highway 29) and Dowdell Lane (east side of Highway 29). The Specific Plan establishes that development standards for buildings in the Plan areas are to be consistent with the Zoning Code; however, the Specific Plan also establishes design guidelines related to site design, character and scale; building design; walls and fencing; signs; landscaping; parking and loading; and lighting. No amendments to the Highway 29 Specific Plan is proposed as part of the Zoning Code Update.

St. Helena Housing and Community Report

The 2018 St Helena Housing and Community Report, or white paper, identifies and analyzes a range of factors that contribute to St. Helena's housing challenges. Some of the challenges identified are regulatory, such as barriers to density, unpredictability of the design review process, and the lasting effects of growth control measures. Others are legal, fiscal, or reflective of larger trends. Informed in

part by peer communities' experiences in meeting housing challenges, the paper presents strategies to maintain, sustain and improve access to housing though mechanisms for raising funds, lowering housing costs, and promoting housing production. Mechanisms include incentives to stimulate housing production, supporting a wider range of housing types, promoting infill, and the establishment of an overlay, specific plan, or mixed-use zoning district.

Downtown Retail Market Analysis

The 2018 Downtown Market Retail Analysis was prepared to evaluate Downtown St. Helena's retail viability compared to neighboring jurisdictions and Napa County. The study was conducted in response to significant vacancies and a desire for more vibrancy Downtown. The study found an "anti-business" reputation and recommended community events and experiences, high-image "formula" businesses, improvements to the streetscape, more parking, a more streamlined permitting process, mixed-use and hotel development near Main Street, and higher densities.

Community Outreach

Stakeholder Interviews

As the first step in community outreach, LWC conducted a series of one-on-one and small-group stakeholder interviews between February 19 and March 4, 2020. A total of 33 individuals were interviewed at the Carnegie Library or over the phone. Interviewees included local businessowners, architects, civic leaders, developers, and appointed and elected officials. The interviews were the first step in understanding the range of issues to be addressed during the Zoning Code update, with the goal of gathering insight and perspective from a variety of code-users and decision-makers.

At the interviews, stakeholders discussed the need for more creative housing types, density and strategic infill; observations about new residential rebuilds that are out of context with neighborhood scale and mass; the need for a reduction in allowable floor area ratio (FAR); the lack of clarity in design review findings; and the overly restrictive list of uses permitted in the Downtown.

Joint City Council/Planning Commission Study Session and Follow-Up Questions

At a May 5, 2020 joint study session of the Planning Commission and City Council, the team presented the project objectives, project schedule and a review of the stakeholder input. Decisions-makers offered input on future outreach efforts and priorities for the Code. Shortly after the meeting, staff emailed a short list of follow-up questions to ensure that all decisions-makers had the opportunity to express their views on the project direction. Questions topics included streamlined project review and permitting, non-conformities, and residential densities.

The recommendations discussed in chapters 2 through 7 of this memo reflect the stakeholder input, input from the May 5 PC/CC study session, and responses to the emailed follow-up questions.

This Paper

This working paper summarizes the principal findings and conclusions of an assessment of existing regulatory tools, field reconnaissance of current development, and input from stakeholders and City

staff. The purpose of the paper is to evaluate the City's current regulatory approach and determine if there are better approaches or processes to implement the new General Plan, carry forward elements of the various policy documents, attract high quality development that meets community needs, and respond to State and federal mandates.

Evaluations and recommendations are provided in six chapters based on topical areas and are followed by three appendices:

- Chapter 2: Code Organization and Usability
- Chapter 3: Zoning Districts
- Chapter 4: Use Regulations
- Chapter 5: Development Standards
- Chapter 6: Development Review and Approval
- Chapter 7: Compliance with State and Federal Law
- Appendix A: Recommended Outline
- Appendix B: Style Guide for the Updated Code
- Appendix C: Key Policy Direction

Next Steps

This paper will be the basis for the August 24, 2020 Virtual Open House and Planning Commission study session. Direction from that event and input from City Staff will guide the recommended approach to the overall organizational structure of the new Zoning Code. Subsequent public meetings will be held for more detailed discussions on specific topics.

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2 Code Organization and Usability

The update the Zoning Code presents an opportunity to make the code more user-friendly, concise, and clear. Stakeholder interviews, held in early 2020, indicated that the overall organization works well enough but that some sections are easy to overlook and the document would benefit from illustrations and tables to help users visualize the standards and better understand the city's expectations. The document should be well-organized, easy to use and understand. This section contains general observations about the Code's existing organization, format, and usability, as well as strategies for improvement.

The Existing Code

The St. Helena Zoning Code comprises the following 50 chapters and two appendices:

17.04 General Provisions and Definitions
17.08 Administrative Procedures
17.12 Zoning and General Plan Amendment Procedures
17.16 Zoning Districts Generally
17.20 Twenty-Acre Agriculture (A-20) District
17.24 Winery (W) District
17.28 Agricultural Preserve (AP) District
17.32 Low Density Residential (LR) District
17.36 Low Density Residential One Acre Minimum (LR-1A) District
17.40 Medium Density Residential (MR) District
17.44 High Density Residential (HR) District
17.48 Central Business (CB) District
17.52 Service Commercial (SC) District
17.56 Business and Professional Office (BPO) District
17.60 Industrial (I) District
17.64 Woodlands and Watershed (WW) District
17.68 Public and Quasi-Public (PQP) District
17.72 Parks and Recreation (PR) District
17.76 Open Space (OS) District
17.80 Rural-Residential Overlay (RR) District
17.84 Specific Plan Overlay (SP) District
17.88 Flood Plain Overlay (FP) District
17.92 Historic Preservation Overlay (HP) District
17.96 Planned Development Overlay (PD) District
17.100 Mobile home Park Overlay (MHP) District
17.104 Parking Impact Overlay (PI) District

17.108 Drainage Improvement Benefit Zone
17.112 General Site Design and Development Standards
17.116 Accessory Buildings, Structures, Dwellings and Uses
17.120 Walls, Fences and Hedges
17.124 Parking and Loading Requirements
17.126 Marijuana Facilities
17.128 Adult Entertainment Facilities
17.132 Bed and Breakfast Inns
17.134 Short-Term Rentals
17.136 Miscellaneous Provisions
17.140 Nonconforming Uses, Buildings, Structures, Lots and Signs
17.144 Affordable Housing
17.146 Housing Trust Fund, Housing Impact Fee and Inclusionary/In-Lieu Fee Requirements
17.148 Signs
17.152 Residential Growth Management System
17.156 Development Agreements
17.160 Condominium Conversions
17.164 Design Review
17.168 Use Permits
17.172 Variances
17.176 Reimbursement for Public Improvements
17.180 Small Wineries
17.190 Beekeeping
17.200 Reasonable Accommodation

APPENDIX
I. Regulated Food and Beverage Establishments Inventory
II. Hotels, Motels and B & B Inventory

Complexity and Clarity

The Code's 50 chapters, generally numbered in increments of four, are loosely organized in groups. Chapters for base zoning districts are consecutive but lack use tables and clarity. Standards and provisions that apply citywide generally begin with 17.112 General Site Design and Development Standards and those of an administrative nature generally begin at 17.164 Design Review but can also be found in chapter 17.08 Administrative Procedures. While the chapters of the Code are generally grouped by topic in this way, there is no organizational hierarchy to group the chapters to make the Code easier to use and navigate.

Among the various base district chapters, similar provisions are often repeated, making the Code unnecessarily long. For example, permitted uses and development standards are repeated for each district, as well as lot and development standards. Chapter 17.136 Miscellaneous Provisions, detracts from usability by combining into the same chapter standards for specific land uses (e.g. Service Stations), Site Design standards (e.g., Stream Bank Stabilization). Similarly, some of the provisions in Chapter 17.112 may be best located elsewhere in the Code. For example, Sec 17.112.090 Small Lot Development Standards may be more useful if worked into the base development standards; 17.112.150 Fractional Ownership Hotel Development and Operation Standards may be better located in the "Regulations Specific to Uses section"; and 17.112.110 Requirements for Residential

Condominium and Townhouse Dwelling Projects may be best located in Title 15 of the Municipal Code (Buildings and Construction).

The organization of the current Code also leaves definitions spread out among various chapters. For example, the definitions related to parking and loading located in Section 17.124.020 could easily be moved to the Definitions section, making the parking section shorter and all definitions easier to locate. The Code also lacks a Rules of Measurement section. An illustrated and separate rules of measurement section can help ensure that all code users can determine the way that standards should be applied in the same manner in order to arrive at the same conclusion. In addition, the City's Zoning Code uses bold colors over which the overlay hatches and boundaries can be difficult to distinguish, and some of the colors are too close to easily distinguish (e.g., HR and MR). Furthermore, the close correspondence between the General Plan Land Uses and the Zoning designations warrants the use of similar colors, to aid in clarity and ease of use.

Legibility

The existing Code does utilize tables to present certain regulatory requirements; however, table organization and layout could be improved to enhance clarity. For example, the "Development Standards" tables that list basic development standards for residential base zones would benefit from simple 2D diagrams in plan view. In addition, the tables lack borders, headings, titles. While the tables are designed to be clear as to whether each standard is a minimum or maximum, some tables could display information in a more consolidated fashion and include cross-references to other sections as appropriate. The citywide standards that appear later in the Code, addressing commonly illustrated regulations such as parking, landscaping, and signs, lack the benefit of diagrams and tables. Without clear tables and visual examples of development standards and other complex provisions, these sections present difficulties for code users and administrators in visualizing the intent of the regulations and are vulnerable to misinterpretation.

Recommendations for Improving Code Usability

There are several strategies that St. Helena could consider in drafting a Zoning Code to make it easy to use and understand. These are summarized below.

2-A LOGICAL SEQUENCE

Development codes are complex, with elements building upon, refining, supplementing, and providing exceptions to each other. They are also living documents that change over time as new amendments become law and further alter the existing regulatory framework. Due to this level of intricacy, the structure of the code should reflect the logical relationships between individual elements. Without a logically consistent organization, the intent of regulations is obscured, and users must work to understand what is required of them.

Provisions that establish base rules and regulations should be included at the beginning of each section, followed by provisions that refine or qualify them. Sections of the code given the same organizational primacy (part, chapter, section, subsection) should also have the same degree of importance and follow parallel construction with the other elements of that organizational level. In the existing code, this rule is not always followed; for example, the Administrative Procedures (Chapter 17.08) is given the same organizational importance as Beekeeping (Chapter 17.190).

2-B UTILIZE A 5-PART FORMAT

The organization of the Zoning Code should retain the most effective parts of the existing Code and reflect an organizational structure that is intuitive, easy to navigate, and seamless to the extent possible. The new Code could be divided into the following five parts to group related topics and create a clear hierarchy:

Part I: General Provisions. Includes legislative intent, authority, and severability.

Part II: Administration and Procedures. Includes all permits and procedures. Also includes code enforcement and non-conforming uses and structures.

Part III: District Regulations. Includes the establishment of all zones and the basic development standards specific to those zones. Also includes use tables.

Part IV: Citywide Standards. Includes landscaping; parking/loading; lighting and illumination; fences, walls, and screening; encroachments; affordable housing; density bonuses; signage; public art; performance standards; standards specific to uses; and any other standards applicable citywide.

Part V: Definitions and Rules of Measurement. Includes Definition of Terms and Definition of Uses by Group. Definitions of Sign Terms may also be listed separately or as part of Definition of Terms.

Within each Part, chapters, sections, and subsections should also progress from the most often referenced to the least. This organizational structure should be supplemented with improvements to the appearance of the text itself, including wider spacing, different fonts for parts, chapters, sections, subsections, and the main text, and consistent indentation.

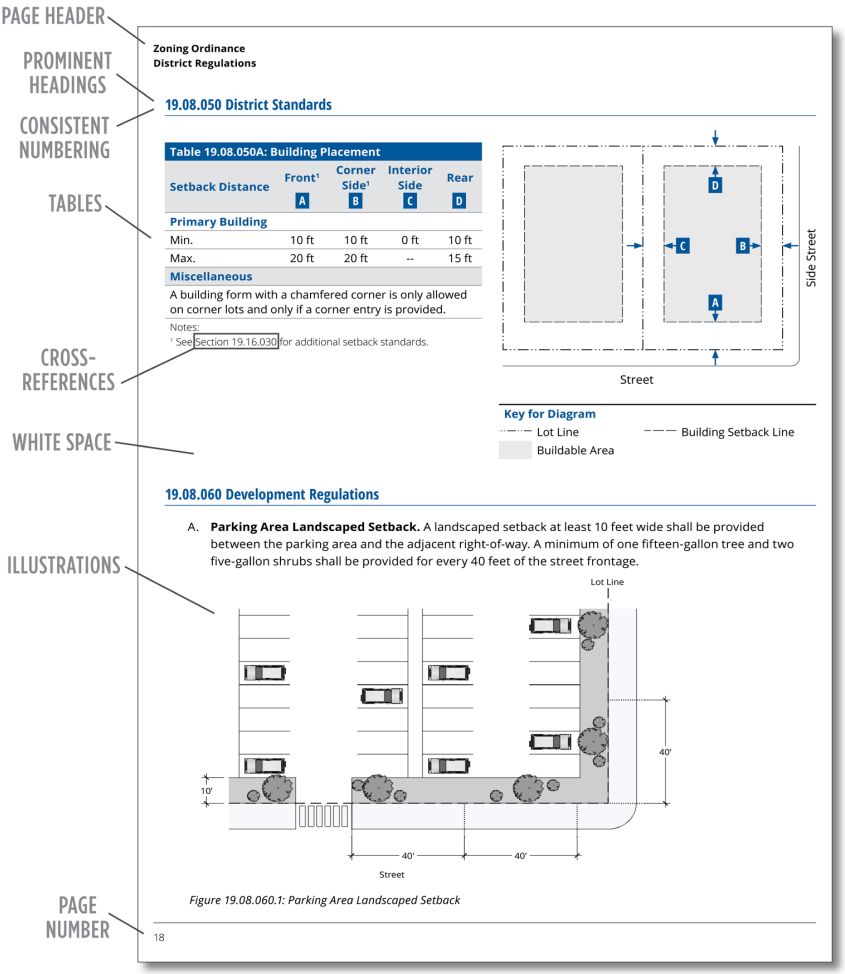
While this paper recommends the above as a general organizing structure, the recommended contents and organization of each Part is detailed Appendix A: Annotated Outline.

2-C HIERARCHY OF IMPORTANCE AND FREQUENCY OF USE

Where appropriate, parts, chapters, and sections of the code should be organized to place the content of highest importance at the beginning. The measure of importance might be defined as the frequency with which code users need to reference each section, or the centrality that a particular standard has in the character of the City. This enhances usability, as those searching the code are more likely to find the information they need quickly and efficiently, and also communicates to users the aspects of development that the City has determined to be most central to its stated goals and policies.

2-D REMOVE AND CONSOLIDATE SECTIONS AS NEEDED

Chapters and sections that are unnecessary, obsolete, or hard to find should be deleted or moved. For example, base and overlay zones that no longer apply should be deleted; all affordable housing standards and related content can be consolidated; the various sections of Section 17.136 Miscellaneous Provisions should be located in their appropriate part of the Code; and 17.160 Condominium Conversions sections may be better located in the Subdivision Ordinance. (Other suggestions are noted above under “Complexity and Clarity”.)



User-friendly formats help users find applicable information and references quickly.

2-E UTILIZE TABLES AND CROSS-REFERENCES

The Zoning Code should rely more extensively on tables and cross references in presenting use regulations and development standards. Tables and cross references can provide quick and consistent access to all relevant regulations for a particular topic. The Code can establish a development standard in a single location and utilize extensive cross-references to the standard in applicable situations. This approach helps avoid unnecessary redundancy, repetition of provisions, errors, and confusion from conflicts.

Tables and cross-references also greatly improve the general legibility of complex regulations and allows the user to quickly compare use regulations and development standards across different districts. This method also helps web-based versions of the Code by facilitating searches with hyperlinks.

2-F INCORPORATE GRAPHIC ILLUSTRATIONS

In many instances, graphics can communicate development regulations more clearly and in less space than written standards. For example, images can clearly depict standards for measuring building height or yard setbacks, while verbal equivalents are prone to misinterpretation and uncertainty. With visual clarification, fewer sections of the Code will be subject to competing or incorrect interpretations, and regulations can be cleared of much of the jargon that can obscure the Code's intent.

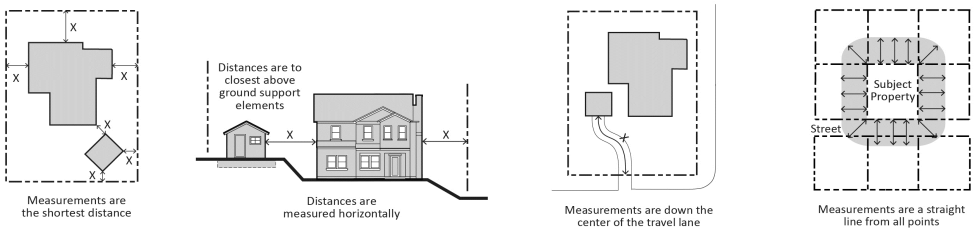
2-G ALPHABETIZATION

Where no other organizational scheme seems applicable, alphabetization should be used to give some degree of structure to the section. This approach is appropriate for sections with many unrelated elements, such as performance standards for specific uses, where each subsection has equal importance and does not modify or affect any of the other subsections. An effective organizational scheme will rely on alphabetization as little as possible, however, as this approach provides few benefits outside of easy navigation.

2-H CONSOLIDATE DEFINITIONS AND PROVIDE CLEAR RULES OF MEASUREMENT

The definitions should be consolidated into one location and updated to include modern terminology and key terms that are currently not defined. Definitions of terms currently located within various chapters of the Code should be consolidated and located in one part of the Code for easy reference; however, technical terms and definitions with limited applicability may remain in their respective chapters.

The Zoning Code should include a separate chapter on rules of measurement (i.e., measuring height, measuring setbacks, determining lot area, calculating FAR, etc.). Clear rules of measurement are helpful to ensure that development standards are interpreted uniformly among Code uses. Placing a complete set of rules of measurement in one location, either at the beginning or the end of the Code, provides an easy-to-locate reference tool to ensure consistent interpretation and application of standards.



Graphics help provide consistent measurement and interpretation.

3 Zoning Districts

Zoning districts create the framework for implementation of General Plan policies and land use designations. The General Plan establishes land use designations and the overall policy basis for land use and development. Zoning then establishes districts which are intended to define distinct locations for different uses, consistent with General Plan land use designations.

General Plan Land Use Designations

The General Plan establishes distinct land use designations. Land use and development parameters for each land use designation are broadly summarized below:

Low Density Residential (3% of the city). Low Density Residential land use designation includes single-family detached homes, accessory dwelling units, limited agricultural uses, and other compatible uses. These uses are limited to large, residentially-subdivided parcels located near the city's perimeter. The LDR land use designation provides opportunities for housing at a gross density of 1 to 5 units per acre.

Medium Density Residential (13%). Medium Density Residential land use designation includes single-family attached and detached homes, secondary residential units, and other compatible uses. This land use designation is intended to maintain consistency with historic development patterns in St. Helena's higher density residential areas. The MDR land use designation provides opportunities for housing at a gross density of 5.1 to 16 units per acre.

High-Density Residential (3%). High Density Residential land use designation includes single-family and multi-family housing, including apartment, townhouses, and group homes at a gross density of 16.1 to 28 units per acre.

Mixed Use (1%). Mixed-Use land use designation includes medium-to high-density residential mixed with retail, office, restaurant, or other commercial uses. The purpose of the MU land use designation is to protect the Urban Limit Line by promoting infill development, reducing greenhouse gas emissions, and locating housing opportunities near commercial and retail. It does not establish a minimum residential density but allows a maximum 20 dwelling units per acre.

Central Business (1%). Central Business land use designation includes retail and commercial uses such as offices, restaurants, specialty retail, and lodging that promote walkability with service uses located on the ground floor with upper floors dedicated to offices. Residential uses are permitted for upper floor areas with a discretionary use permit. The CB district encompasses Sulphur Creek, Main Street, Adams Street, and Pine Street and allows a maximum FAR of 2.0.

Service Commercial (2%). Service Commercial land use designation permits service and retail uses that are local-serving including office, restaurants, lodging, service stations, and other auto-oriented businesses. These uses are located along State Route 29 and Main Street south of Sulphur Creek and allows a maximum FAR of 0.5.

Business and Professional Office (5%). Business and Professional Office land use designation includes professional and administrative office uses such as medical, financial, and similar offices.

Residential uses can be allowed for upper floor areas with a discretionary use permit review and approval. BPO designated areas are located throughout the city and provide transition between commercial and residential areas. This land use allows a maximum FAR of 0.5.

Industrial (2%). Industrial land use designation includes industrial parks, warehouses, light manufacturing, and auto- and farm-related uses, located along State Route 29 and Sulphur Creek. An Urban Reserve Area is designated to the east of the existing industrial area south of Dowdell Lane for future expansion. This land use allows a maximum FAR between 0.5.

Public/Quasi-Public (5%). Public/ Quasi-Public land use designation permits for government-owned facilities, public and private schools, and quasi-public uses such as churches, community/ public serving endeavors, and cemeteries. This land use designation includes the City library, all of the pubic and some private schools, all churches, cemeteries, and the City-owned wastewater treatment plant. The PQP land use designation allows a maximum FAR of 0.5.

Parks and Recreation (4%). Parks and Recreation land use designation includes public parks with recreation uses and apply to all existing public parks and proposed park sites.

Open Space (2%). Open Space land use designation allows public recreation areas and natural open spaces devoted to natural resource preservation, land management, passive outdoor recreation, public health, and safety. Stream corridors that pass through or are adjacent to the City, including the Napa River, Sulphur Creek, and York Creek are designated Open Space areas. Roads are included as OS, but are not contributors to natural resource, public health, and recreation.

Woodland and Watershed (14%). Woodland and Watershed land use designation permits very low density residential that ensures protection of wildlife, vegetation, open space, and watershed resources. These uses are located on steep hillside at the City's Western and Easter boundaries to accommodate low-density, estate type development where the minimum allowable parcel size is five acres.

Agriculture (46%). Agriculture land use designation allows agricultural and winery uses with restricted single-family residential and public/quasi-public uses. This land use designation applies to large areas outside of the Urban Limit Line, regardless of size, except for hillside areas designated WW. Winery uses can designate a small portion of onsite land for provision of adorable employee housing. The minimum allowable parcel size is 20 to 40 acres.

General Plan Land Use/Existing Zoning District Correspondence

The correspondence of the City's existing General Plan land use designations and zoning districts, based on a side-by-side review of the General Plan Land Use and Zoning maps, is provided in the table below. In general, multiple zoning designations implement a single land use designation.

GP LAND USE DESIGNATION	CORRESPONDING BASE ZONING DESIGNATION
Agriculture	Twenty-Acre Agriculture (A-20)
	Winery (W)
Woodlands and Watershed	Woodlands and Watershed (WW)
Low Density Residential	Low Density Residential (LR)

	Low Density Residential One Acre Minimum (LR-1A)
Medium Density Residential	Low Density Residential (LR) Medium Density Residential (MR) High Density Residential (HR)
High Density Residential	Medium Density Residential (MR) High Density Residential (HR)
Mixed-Use	Service Commercial (SC) Central Business (CB) Business and Professional Office (BPO)
Central Business	Central Business (CB) Parks and Recreation (PR)
Service Commercial	Service Commercial (SC)
Office	Business and Professional Office (BPO)
Industrial	Industrial (I)
Public and Quasi-Public	Public and Quasi-Public (PQP) Twenty-Acre Agriculture (A-20) Business and Professional Office (BPO)
Parks and Recreation	Parks and Recreation (PR)
Open Space	Open Space (OS)

Existing Zoning Districts

Generally, development codes include two types of districts, base and overlay. “Base districts” set the basic regulations that apply within the geographic area that defines the district. A community may want to vary some of the regulations within the base district to respond to particular conditions within defined areas. “Overlay districts” are often used for this purpose.

Overlay districts are “laid over” or applied to base districts in situations in which modification of permitted uses or required standards is appropriate due to specific conditions, circumstances, or goals. Overlay districts can be geographically defined and mapped or can apply wherever specific conditions exist.

The City is divided into the following fifteen base zoning and seven overlay districts. The intent of each of the base zoning districts is described, along with basic standards for intensity and density. Two zones are not on the Zoning Map: Agricultural Preserve (AP) and Special Flood Plain (FLP).

CURRENT BASE ZONING DISTRICTS		
Zoning Designation	**Zoning Description:**	**Lot Size/ Density/ Intensity**
Base Districts		
A-20 - Twenty-acre Agriculture	The twenty-acre agriculture district (A-20) provides for agricultural and residential uses. Except for hillside areas designated woodlands and watershed, and wineries designated winery, all lands outside the urban limit line are designated A-20 regardless of their size or use. The purpose of the A-20 district is to promote and implement the policies of the general plan to preserve agricultural land uses and provide for future orderly development as the urban limit line is adjusted to accommodate urban growth. This district restricts the density of residential use and stipulates the location and area of residential development to promote preservation of agricultural land use and reduce impacts to the provision of infrastructure as the urban area of the city expands.	Minimum parcel size 20 acres.
W - Winery	The winery district (W) provides for winery and winery-related uses within the agriculture general plan land use designation. Lands devoted to the production of wine and vineyards which are owned by the winery are classified as W. Max. 1 unit per 5 acre.	Max. 1 unit per 5 acre.
AP - Agricultural Preserve ***(Not Mapped)***	The agricultural preserve district (AP) is intended to be applied in the fertile areas of the city in which agriculture is and should continue to be the predominant land use, where uses incompatible to agriculture should be precluded and where the development of urban-type uses would be detrimental to the continuance of agriculture and the maintenance of open space which are economic and aesthetic attributes and assets of the city.	Min. lot area of 40 acre
WW - Woodlands & Watershed	This district is intended to: A. Implement the policies applicable to areas designated woodlands and watershed in the general plan; B. Minimize the potential for erosion and land movement in steeply sloping areas; C. Minimize long-term cost for constructing and maintaining roads, water systems and sewer systems; D. Minimize the downstream effects of siltation and sedimentation in water courses; E. Maintain or enhance the natural ability of watershed areas to absorb and retain rainfall, both for replenishment of groundwater and moderation of downstream flooding; F. Minimize the public and private cost of providing adequate fire protection services in high fire hazard areas;	Lot area 5 to 40 acres

	G. Minimize the long-term risk to, or loss of, life and property resulting from wildfire in high fire hazard areas; H. Minimize the long-term cost to the community for providing services (water, sewer, fire, police, schools) in remote areas; I. Minimize future demands on the city's water supply system; J. Minimize the city's long-term liability for public protection in remote/hazardous areas; K. Preserve community open space, especially for public protection in remote/hazardous areas and protection of views and ridgelines; L. Preserve wildlife habitat; M. Encourage land planning which carefully considers the community-wide implications of natural conditions noted above; N. Allow development which is sensitive to the intrinsic suitability of the land and its varying capability for residential development.	
LR-1A - Low Density Residential Once Acre Minimum	This district is intended to provide for single-family detached homes, accessory dwelling units, limited agricultural uses, and compatible uses. Residential densities in the LR-1A district shall not exceed 1.0 units per gross acre.	Max. 1 du/ acre
LR - Low Density Residential	This district is intended to be consistent with the low density residential general plan designation. The district provides for single-family detached homes, accessory dwelling units, limited agricultural uses and compatible uses.	1.0 to 5.0 du/ acre
MR - Medium Density Residential	This district is intended to be consistent with the medium density residential general plan designation. The district provides for single-family detached homes, accessory dwelling units, limited agricultural uses and compatible uses.	5.1 to 16.0 du/acre
HR - High Density Residential	This district is intended to be consistent with the high density residential general plan designation. The district provides for single-family and multifamily residential units, group quarters and compatible uses.	16.1 to 28.0 du/acre
CB - Central Business	This district designation provides for retail, personal service uses, offices, restaurants, hotels/motels, service stations, public and quasi-public uses, and similar and compatible uses that serve residents and the surrounding area. Emphasis is on pedestrian-oriented retail and service uses on the ground floor level, with office and residential uses on the upper levels. The intent is for the CB district to remain primarily local resident-serving in character. New uses which serve both residents and tourists will be allowed. Uses which are primarily tourist-serving are not permitted.	Maximum FAR 2.0

SC - Service Commercial	This district designation provides for service and retail uses, restaurants, service stations, motels, public and quasi-public uses and similar and compatible uses. The designation is intended primarily for service and retail uses that are automobile-oriented or whose operational characteristics and space needs are not considered appropriate for the central business district. The intent is for the SC district to be primarily local resident-serving in character. Strictly tourist-serving retail uses are prohibited within this designation.	No specified FAR[1]
BPO - Business & Professional Office	The business and professional office district (BPO) designation provides for professional and administrative offices, medical and dental offices, laboratories, financial institutions, public and quasi-public uses and similar and compatible uses. Residential uses in this designation can be considered for upper floor areas.	n/a
I - Industrial	This district designation provides for industrial parks, warehouses, light manufacturing, auto and farm-related equipment sales and repairs, viticulture and winery support services and similar and compatible uses.	Max. FAR 0.50 for uses including less than ninety percent (90%) warehousing Max. FAR 0.60 for uses including no less than ninety percent (90%) warehousing.
PQP - Public & Quasi-Public	This district is intended to provide for government-owned facilities, public and private schools and quasi-public uses such as churches and cemeteries. The PQP district occurs throughout the city, and includes City Hall, the city library, all the public schools, all of the churches, emergency transportation service, the cemetery and the wastewater treatment plant.	n/a
PR - Parks & Recreation	This district is intended to provide for public parklands primarily designed for public recreation. The PR designation is applied to existing public parks, ranging from active sports parks like Crane Park to more passive, open space-oriented parks such as Stonebridge Park, and to proposed park sites.	n/a
OS - Open Space	This district is intended to provide for natural open space areas that are devoted to the preservation of natural resources, the managed production of resources, outdoor recreation or public health and safety. Areas designated for open space are all associated with stream corridors that pass through or adjacent to the city including: the Napa River, Sulphur Springs Creek, York Creek and Spring Creek.	n/a
Overlay Districts		
RR - Rural-residential	This overlay district is intended to identify those parcels within the city which are not serviced by city water or sewer and which can subdivide into additional parcels. Minimum lot sizes which are larger than the minimum lot sizes established for the underlying	n/a

	zoning district are required for parcels which do not have city water or sewer services.	
SP - Specific Plan	This overlay district is intended to facilitate the general plan provisions for the preparation, adoption and implementation of specific plans.	n/a
FLP - Special Flood Plain ***(Not Mapped)***	This overlay district is intended to identify those parcels within the City which exist in a flood plain and facilitate new construction or replacement of existing construction shall be in conformance with the standards and regulations of the Federal Emergency Management Agency (FEMA).	n/a
HP - Historic Preservation	This overlay district is intended to create regulations to preserve the unique architectural character of those certain specific structures which have contributed to the city's historic development.	n/a
PD - Planned Development	This overlay district is intended to encourage high quality, innovative and creative development in the city and provide for the consideration and approval of development plans which serve public objectives more fully than development permitted under conventional zoning regulations.	n/a
MHP - Mobile home Park	This overlay district is intended to provide, when combined with an underlying residential zoning district, a place which allows the establishment and operation of mobile-home parks.	n/a
PI - Parking Impact	This overlay district is intended to establish parking standards for portions of the city generally located within the central business district. That area so designated on the zoning map of the city is found and declared to be an area impacted by the inadequacy in the amount of off-street parking because the buildings and structures therein were constructed in the early history of the city when automobiles were not a predominant feature in the community and are of historic and unique character and should be preserved.	n/a
Notes [1] Floor area is limited in absolute terms, not as ratio of lot area.		

Recommendations for Zoning Districts

Recommendations for developing Zoning Districts for the Zoning Code are described below. See the next two sections for more detail on uses and development standards.

3-A STREAMLINE LAND USE DESIGNATION/ZONING DISTRICT CORRESPONDENCE

Zoning districts create the framework for implementation of General Plan policies and land use designations. The City will take the first step in General Plan implementation by drafting a full range of districts and appropriate development standards and use regulations determined.

In general, zoning district boundaries should be adjusted so that an individual district corresponds to the fewest number of General Plan land use categories possible. Zoning District/General Plan land use designation boundaries should be evaluated for alignment, particularly in cases where the General Plan land use designation makes up less than one percent of the zoning district. There may also be opportunity for combining existing zoning districts or eliminating those that are no longer necessary. An analysis of the use regulations and development standards for each district will reveal whether a combination or elimination of districts is appropriate. At the same time, new zoning districts such as a residential mixed-use district, may be warranted to implement the General Plan's Mixed-Use land use designation, if the current base and overlay districts do not adequately support the desired form and character of development.

As part of the development of updated Zoning districts, issues related to Zoning map amendments will be addressed to resolve inconsistencies between the General Plan, the Historic Resources Master List, and the proposed base and overlay zones. It is anticipated that General Plan and Zoning amendments will be required concurrent with or subsequent to the Zoning Code update adoption to create housing opportunity sites.

3-B STREAMLINE OVERLAY DISTRICTS

Overlays are most useful when they involve complex regulations and special criteria that apply to different parts of a single district or several different base districts. In cases in which an overlay district applies to only one or two base districts or uniformly imposes relatively straightforward regulations in a geographically defined area, an alternative would be to utilize base district regulations.

There are currently five overlay districts, not including the PD and Specific Plan districts. These districts should be evaluated for their usefulness in implementing General Plan policies. For example, if the intent of all or part of the Mobilehome Park Overlay and Rural Residential Overlay is to encourage uses and design of a particular nature and character, this may be written into the base district regulations. Looking at the Historic Preservation Overlay, the intent is to create regulations that preserve the unique architectural character the City's historic structures. Modifications to the overlay district could include widening the eligibility requirements to encompass more opportunities for historic preservation, adding a Landmarks provision to capture individual properties in addition to district provisions, including the National Register District in the downtown to protect structures from inappropriate changes, and updating the existing historic preservation guidelines and/or referencing nationally applied guidelines and standards. In addition, new overlay districts may be needed to implement General Plan policies related to geographic areas. For example, new overlay districts could implement the standards and guidelines for affordable housing.

4 Use Regulations

Use regulations detail the type of uses that are allowed, the review process, and specific limitations that apply to an activity or use. Land use categories are building blocks that establish the basis for regulation; while use regulations identify the specific use categories that are allowed, allowed with a permit, or prohibited in each zoning district. Use regulations may also include special requirements applicable to specific land uses.

Land use designations in the General Plan outline what is allowed in terms of uses and intensity of development for each area of the city. In addition, citywide policies, particularly those related to economic development, call attention to land uses that should be promoted. It is important to ensure that the use regulations in the Zoning Code carry out these General Plan policies. The regulation of uses ensures that the operation of permitted uses within a district will be consistent with the policies of the General Plan and the purposes of the district.

Current Use Regulations

Organization of Use Lists

Currently, the Zoning Code contains no use tables but rather a list for permitted uses and a list for conditionally permitted uses for each individual zone, leading to repetition of use lists throughout the Code and difficulty when making comparisons between districts and between similar uses. In addition, the use lists often include provisions specific to the use or its location, making it further difficult to compare the permitted uses among districts.

Use tables could help simplify identifying what is allowed where and help in locating specific provisions elsewhere in the code. A simple "permitted, not permitted, or CUP" will make the use tables easier to interpret and ensure that code users will find standards or procedural requirements where they expect to find them.

An Outdated Approach

The changing nature of land use also demands flexibility in regulation. Specialized operations and segregated uses are becoming less prevalent as operations and uses adapt to rapidly changing technology and market preferences. Traditionally, a company may have manufacturing in one place, an office somewhere else, and a shop in still another location. Increasingly, and particularly for smaller operations, functions are blending. For example, a craft brew establishment may brew and distribute beer, sell beer and brewery related merchandise, serve beer and food, and feature live entertainment. This type of operation combines five traditionally separate uses: manufacturing, distribution, retail sales, eating and drinking, and entertainment. The rigidity of the current Code makes it difficult to determine how operations that combine uses fit into the City's use regulation scheme.

The Code update provides the opportunity to update the City's approach to use regulation to reflect contemporary uses, current development practices, and State and federal law. The updated regulations can address specific considerations for certain uses such as urban agriculture, artisan

workspace, entertainment, and others. They can provide flexibility to adapt to changing preferences, technology, and other circumstances. The updated use lists can also support community objectives such diversity of housing types and flexible commercial centers.

Recommendations for Use Regulations

The new Code can take advantage of uses tables and combine permitted land uses into a more logical, systematic framework that makes the regulations more thorough and straightforward. Following are recommendations for use regulations.

4-A ADOPT A USE CLASSIFICATION SYSTEM

The updated Zoning Code should consolidate use types into a clearly defined modern classification system, placing land uses and activities into groups based on common functional, product, or physical characteristics. This helps to streamline the use regulation parts of the Code. Categories are also broad enough to allow classification of new, unanticipated uses, so that the City does not need to amend these sections or make interpretations as frequently to adapt. This system can still allow for standards for problematic uses, such as adult oriented businesses, outdoor storage, and auto repair. Through this 'use group' approach, use definitions may be revised to consist of an overall fewer number of use categories and to better accommodate new and changing uses.

Under this system, all use categories would continue to be defined in a single chapter of the Code. This chapter would organize use categories into groups such as agriculture, residential; public and semi-public; commercial; industrial; and transportation, communication, and utility uses. This way, similar uses are found near one another for comparison when a classification question arises. The official names of each use group would be utilized throughout the Code in a consistent manner, with the definitions chapter serving as a reference.

ANIMAL CARE, SALES, AND SERVICES
- **Animal Sales and Grooming**
- **Boarding/Kennels**
- **Veterinary Services**

AUTOMOBILE/VEHICLE SALES AND SERVICES
- **Automobile Rentals**
- **Automobile/Vehicle Service and Repair**
- **Automobile/Vehicle Sales and Leasing**
- **Fueling Stations**
- **Towing and Impound**

BANKS AND FINANCIAL INSTITUTIONS
- **Banks and Credit Unions**
- **Check-Cashing Businesses**

COMMERCIAL ENTERTAINMENT AND RECREATION
- **Cinema/Theaters**
- **Indoor Sports and Recreation**
- **Outdoor Sports and Recreation**

DRIVE-THROUGH FACILITY

EATING AND DRINKING ESTABLISHMENTS
- **Bars**
- **Wineries**
- **Restaurant**

LODGING
- **Hotel**
- **Motel**

Example of a simple classification system for commercial uses.

4-B REFLECT CONTEMPORARY LAND USES

To help modernize the Zoning Code, a new use classification system should eliminate obsolete uses (i.e., those no longer allowed, or those containing outdated terms) and also include new contemporary uses such as industrial flex space, shared office spaces, and urban agriculture uses (e.g., community gardens, produce stands, etc.), and short-term rentals. The Code update should also incorporate mechanisms to allow for flexibility in the change in uses or combination of uses. In addition to identifying and providing for accessory uses that are typically associated with certain principal uses, the Code may incorporate provisions to allow other accessory uses (e.g., outdoor dining, coffee bar, rooftop gardens and/or dining), up to a certain threshold, that are subordinate and incidental to a principal use. Special attention can also be given to having uniform requirements or standards for uses, where appropriate. Reducing nuances between requirements for varying uses will ease administration and provide flexibility with regard to evolving operations and re-use of property.

4-C ENSURE ALL ZONING DISTRICTS ALLOW APPROPRIATE MIX OF LAND USES

The allowable uses within each zoning district should be evaluated for compatibility with the purpose of the district and the corresponding General Plan land use designation, and for adaptability to contemporary trends. For example, uses in the Downtown area should support a diversity in sales tax base while also reflecting the desired aesthetic, or "brand" of Downtown. Also, use regulations in nonresidential districts should be evaluated to allow a broader range of combination of uses by-right, reflecting the changing nature of land use and allowing a creative combination of uses. Industrial district use allowances should also balance the need to protect the viability of industrial development as an employment base, and the need to support industrial development with adequate amenity uses. Amenity uses that are conducive to and supportive of vibrant employment areas can include restaurants, entertainment, retail, and service uses. An appropriate mix of land uses will also effectively assist the city in reducing its reliance on Conditional Use Permits.

4-D CREATE USE TABLES BY ZONE CATEGORY

Currently, there are no use tables located in any Code sections. In order to find the permitted uses for a particular zone, a code user must refer to a list of uses in each specific zone. Instead, a single use regulation table in chapter of the district regulations (Part III) can simplify matters. In each zoning district chapter, a single use table would show permitted uses along the left-hand column, with all districts (e.g., residential districts) along the top row, creating a grid where the uses are shown to be as permitted, permitted conditionally, or not permitted.

1109.030 Allowed Land Uses and Permit Requirements

A. Land uses must comply with the allowed uses of the base zone, except as specifically modified or waived by an overlay zone in Chapter 1117 (Overlay Zones).

B. The land uses allowed by this Code in the residential zones are listed in Table 1109.030.A, together with the type of planning permit required for each use. Each land use listed in Table 1109.030.A is defined in Chapter 1179 (Definitions).

C. **Establishment of an Allowable Use**

1. Any one or more land uses allowed in Table 1109.030.A may be established on any lot within the identified zone, subject to the planning permit requirement listed in the Table, and in compliance with all applicable requirements of this Code.

2. Where a project on a single lot includes two or more of the land uses allowed in the Table, the overall project will be subject to the most restrictive permit level required by the Table for any individual use.

3. If a use is not defined (in whole or in part) in Chapter 1179 (Definitions), the use is not allowed unless a Conditional Use Permit is approved. If a use is defined in Chapter 1179 (Definitions) and not listed in Table 1109.030.A, the use is not allowed.

Table 1109.030.A Residential Zones Allowed Uses

Land Use Type	Permit Required by Zone							Use Standards
	SE	SN-1	SN-2	TN	MRN-1	MRN-2	MRN-3	
Agriculture and Animal Uses								
Agriculture	P	-	-	-	-	-	-	
Animal Raising and Keeping	P	-	-	-	-	-	-	Section 1121.020
Community Garden	CUP	CUP	CUP	CUP	CUP	CUP	CUP	Section 1121.060
Kennel	CUP	-	-	-	-	-	-	
Veterinary Clinics and Hospitals	CUP	-	-	-	-	-	-	Section 1121.210
Civic, Recreation, and Community Assembly Uses								
Cemetery	CUP	-	-	-	-	-	-	
Child Care Center	MUP	CUP	CUP	CUP	CUP	CUP	MUP	Section 1121.050
Community Assembly	P	MUP	MUP	MUP	MUP	MUP	P	
Family Child Care Home Type A	P	P	P	P	P	P	P	
Family Child Care Home Type B	CUP	CUP	CUP	CUP	CUP	CUP	CUP	
Indoor Recreation	-	-	-	-	-	-	CUP	
Library and Museum	-	-	-	-	-	-	MUP	
Park and Outdoor Recreation	CUP	CUP	CUP	CUP	CUP	CUP	CUP	
Public Service Facility	CUP	CUP	CUP	CUP	CUP	CUP	CUP	
School - Public and Private	CUP	CUP	CUP	CUP	CUP	CUP	MUP	
Vocational/Technical School	-	-	-	-	-	-	CUP	

District regulations can include simple use allowance tables for easy reference and comparison.

5 Development Standards

A well-designed city directly elevates the quality of life, attracts investment, and increases communal pride. As St. Helena grows and becomes increasingly more urbanized, the City will face design challenges, particularly with respect to density, building appearance, compatibility and relationship to key rights-of-way. The current Zoning Code does not adequately support all the development for which there is demand nor adequately control the design of all the development that occurs. This section identifies ways the Code can support a "sense of place" that is unique to St. Helena.

Current Zone District and Citywide Development Standards

Development standards that apply by zone are found in chapters 17.20 through 17.100 of the Zoning Code. This section provides a brief summary of the approach for key issues that warrant closer evaluations and testing as the Code is drafted.

Residential Standards

In the LR-1A zoning district, residential density is a maximum of 1 unit per acre; in the LR district, the maximum is 1.0 du to 5.0 du/ac, the MR allows 5.1 to 16.0 du/acre, and HR allows 16.1 and 28.0 du/ac respectively. The basic development standards for LR-1A, LR, and MR, however, vary little. MR permits a higher lot coverage, however the lot width, lot frontage, building height, building width and minimum setbacks are all the same. Furthermore, the code is lacking in standards specifically for vertical, residential, mixed-use development.

Historic Areas

Existing standards related to preservation of historic areas are limited to the Historic Preservation Overlay (HP) zoning district. This chapter provides little guidance as to what is protected and how new development can be context-sensitive.

Performance Standards

The Zoning Code does not currently include a section for performance standards of uses based on specific impacts. The Code does include standards for non-residential zoning districts, generally located in the Development Standards or Other Standards or Uses and Requirements. Standards generally relate to building form, placement, landscaping and screening – elements which vary based on use and may be better located in supplemental standards or standards specific to use, with cross-references as needed to the performance standards section. Alternately, some topics that can be measured independently such as odor or hours of operation, should be assigned specific criteria and located in a Performance Standards section of the Code.

Addressing Context: Infill, Adjacencies, and the Public Realm

During interviews, code users expressed some frustration with development standards not performing well in an infill or adaptive reuse context. The planning team also heard that the code lacks sufficient tools to ensure quality design in residential neighborhoods. Similarly, stakeholders

stressed the importance of context in historic preservation areas, with buildings that reflect the existing neighborhood scale. While the Zoning Code will reduce internal conflicts, the coming effort will focus on establishing more objective and measurable standards for many context-related issues, including:

- Compatibility among different uses in areas where residential development abuts or is nearby service commercial, industrial, or Central Business zones.
- Building massing in residential areas. The code should be sensitive to different lot sizes, areas, and existing patterns of development.
- The building-to-street relationship. The Zoning Code will be judicious in determining where development standards should address the larger urban design and the public realm.

Parking

The Zoning Code Chapter 17.124 Parking and Loading establishes off-street parking and loading requirements and Chapter 17.104 Parking Impact Overlay District provides parking standards and in-lieu fee provisions as a parking impact overlay district.

The quantity, location, and appearance of parking areas have a substantial impact on the character and functionality of streets, commercial corridors, and residential neighborhoods. Too much parking can limit the utilization of a property, significantly increase costs, and be an impediment to achieving a wide range of community goals. Too little parking can impede accessibility and impact nearby residential neighborhoods. Parking requirements also have a large influence on the overall cost of development and the ability to utilize property, particularly in areas that are already built-out. The Code Zoning Code will revise parking standards and configurations (tandem, shared, individually secured, etc.) that best support the development types and character envisioned in the various areas of the City. The Zoning Code should consider reduced parking near public transit and Highway 29.

Recommendations for Development Standards

As noted by several stakeholders, the current Code does not have sufficient standards to address development control, especially in design compatibility and in promoting the range of businesses and development types the City needs to support as it grows. Establishing effective regulations for these and other topics is central to the Code update effort.

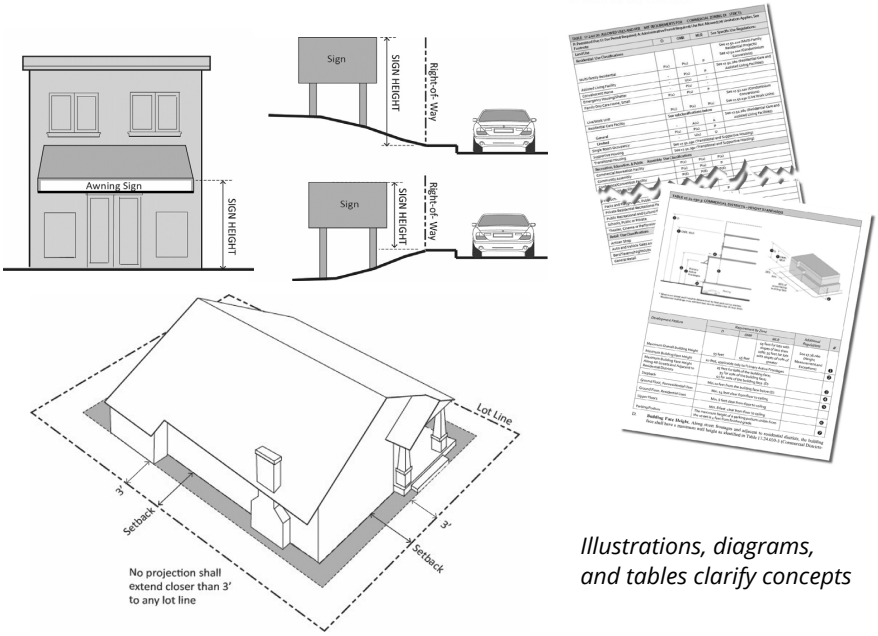
5-A PROVIDE CLEAR, OBJECTIVE FORM AND DESIGN STANDARDS

The City should update development regulations to address the form and design of new development, particularly in infill areas. Infill standards should differentiate among commercial and mixed-use areas, industrial areas, and residential areas; promote a desirable physical form; ensure that setbacks, height and other building standards can achieve allowable densities; provide needed public open space in urban areas; and ensure that more intense uses of land do not become public nuisances. Neighborhood compatibility standards should be tailored to the range of neighborhood patterns throughout the City. To achieve quality design, the Code must include clear, objective development standards.

- Standards for residential intensity (du/ac) - evaluate and revise or remove
- Standards for non-residential density (FAR) - evaluate and revise

- Location of a building on a lot – where a building may or must be built to the street and where setbacks are required.
- Number of stories and/or building height ranges;
- Ground floor height and design;
- Façade design and articulation;
- Orientation of building and location of entries;
- Transparency;
- Limits on blank walls;
- Universal Design;
- Relation to adjoining sites;
- Location and screening of parking;
- Bicycle parking standards;
- Sustainable design measures (passive heating and cooling, low-water appliance, support for solar infrastructure, etc.); and
- Landscaping, including sustainable practices.

Establishing minimum objective design standards will set the tone for the type of development the City hopes to attract. These standards will allow developers and homeowners to know exactly what is expected of them. At the same time, flexibility can still be achieved by allowing minor modifications of standards so long as certain findings and criteria are met. For instance, setback requirements could be modified if a wider sidewalk area or outdoor dining area is provided and creates a more pedestrian-oriented feel. In single-family residential areas, the City should adjust standards carefully to maintain compatibility with surrounding development and avoid creating problematic nonconformities.



Illustrations, diagrams, and tables clarify concepts

5-B DISTINGUSH "SHALLS" FROM "SHOULDS"

There is common sentiment that more flexibility should be built into the development standards. This can be accomplished a number of ways, including striking the right balance between development standards and design guidelines. The City may establish a system where development standards address key elements of development form (i.e., height, building placement, site layout) while design guidelines provide clarity about the City's design objectives. The design guidelines should give examples of acceptable solutions, but not mandate particular architectural styles. Another option is to offer a menu of options as a flexible way to comply with a particular design principle.

The Zoning Code should incorporate, as appropriate, into the development standards any material from the Draft Design Guidelines that is objective, is consistent with recent legislation, and that leads to the best outcome for the City. As a concurrent effort, the City intends to complete and adopt the Design Guidelines document, which will provide additional non-objective guidance to support the Code, aid applicants in understanding the City's expectations, and aid the City and decision-makers in discretionary review. All planning documents – whether in the Code or in supporting documents - should be clear as to which statements are "shalls" (required) and which are "shoulds" (recommendations or guidelines)..

5-C SUPPORT A RANGE OF HOUSING TYPES

Per the Housing Element and General Plan goals, supporting a range of residential building types will be essential to meeting the City's housing goals. However, new housing types must also preserve the character and feel of the City. The Code will calibrate development standards for a range of types, which may include cottage housing, garden court housing, cohousing, SROs, microunits, green manufactured homes, and horizontal and vertical mixed-use, and identify the zones or areas that are appropriate for each building typology. The Code will update standards for parking, landscaping, and screening standards, as needed, to ensure that the requirements fit together and support the building types. The Code will support modifying permitted densities consistent with the General Plan in select areas or districts, modifying the densities established in the General Plan through a General Plan Amendment, and reducing parking requirements, among other strategies to incorporate a range of housing types.

5-D TAILOR STANDARDS TO REFLECT DIFFERENCES IN AREAS

Development standards should be refined to foster the type of character desired within various areas of the City. In commercial and mixed-use areas, the objective should be to provide an interesting, engaging street frontage, making walking and shopping pleasurable. In these areas, standards may address requirements for "active frontages," where a building must include spaces for businesses with walk-in clientele, ground level fenestration, awnings and arcades, and visible entries, rather than long sections of ill-defined buildings, blank walls, and fences. In neighborhoods, the patterns established by the original homes create a unique rhythm and aesthetic to the streets and street frontages. In less intense and industrial areas, by contrast, development is more auto-oriented and there is more potential for incompatibility between uses, so landscaping and screening may be important.

Standards must be cognizant of each area's walkability, historic qualities, typical development patterns, and adjacencies. The updated development standards will be cognizant of new and existing

non-conforming uses and structures to minimize non-conformities and revise non-conforming provisions to permit continued operation and minimize conflicts while ensuring compliance with the General Plan vision and policies to the extent feasible.

While each zoning district should have individually tailored requirements, the organization of the district requirements should be uniform, so that users can easily ascertain the requirements for a particular district.

5-E CREATE A SINGLE SECTION FOR AFFORDABLE HOUSING REGULATIONS

The City and community generally recognize the need to facilitate construction of affordable units and by-right low-income housing and to ensure that such units are distributed throughout the City. These units may take the form of ADUs, duplexes, and triplexes within existing residential areas. As part of the process of evaluating appropriate types and densities, the Code will consider the building envelope, number of units buildable on each lot, appropriate lot sizes, and permissible ADUs. The Zoning Code should also encourage affordable housing types while retaining the character of existing neighborhoods through objective development standards that achieve the General Plan's goals for neighborhood preservation and enhancement. In addition, the fee structure warrants greater clarity (easier calculation). The Zoning Code should clarify the formula or refer to where it is clarified elsewhere in the Municipal Code.

The updated Code should create one Affordable Housing section that includes relevant content from the current Affordable Housing Chapter; the current Housing Trust Fund, Housing Impact Fee, and Inclusionary/In-Lieu Fee Requirements Chapter; and the State density bonus law. Edits and revisions to that combined chapter will be driven by the Housing Element update to be initiated later this year. The Zoning Code should organize the relevant content and additional provisions (e.g. inclusionary requirements, linkage fee, etc.) in the one Affordable Housing section.

5-F UPDATE SIGNAGE REGULATIONS

Chapter 17.148 will require extensive revisions. To bring this Chapter into compliance with the recent Supreme Court decision, *Reed vs. Town of Gilbert,* definitions of sign types need to be content neutral (e.g. real estate signs, public information signs) and a separate severability clause and substitution clause must be added.

Other issues include the need to address the variety of permanent and temporary sign types and to reflect current illumination practices, particularly for billboards and electronic message signs (EMS). The City may also determine whether the addition of basic sign design standards may be warranted to improve the look of signs. Lastly, throughout the Sign section, page layout and use of graphics is particularly important for legibility and ease of interpretation.

5-G CREATE SECTION FOR AND UPDATE PERFORMANCE STANDARDS

The code update will include the creation of a new section for performance standards with measurable criteria. The standards will focus on impacts that affect in the compact Downtown area and its use adjacencies (noise, hours of construction, hours of operation, etc.).

5-H CONSOLIDATE STANDARDS FOR SPECIFIC USES AND ACTIVITIES

The City should consolidate requirements that are applicable to specific uses and activities and locate them in one section in the Code. Within this the section, Standards Specific to Uses, the uses can be alphabetized, making them easy to locate. -Thes standards for specific uses can be referenced in the land use tables in the district regulations, which will reduce overall wordiness in the Code. The following is a preliminary list of uses that may be included in the Specific to Uses chapter:

- Purpose and Applicability
- Accessory Uses
- Accessory Dwelling Units
- Adaptive Reuse
- Adult-Oriented Businesses
- Alcoholic Beverage Sales
- Alternative Energy Sources
- Beekeeping
- Bed and Breakfast Inns
- Cannabis Uses
- Cottage Food Operations
- Fractional Ownership Hotel
- Home Occupations
- Keeping of Livestock and Chickens
- Outdoor Dining and Seating
- Outdoor Display and Sales
- Small Recycling Centers
- Service Stations
- Short-Term Rentals
- Small Wineries
- Telecommunication Facilities
- Temporary Uses
- Time-shares

6 Development Review and Approval

Development code provisions governing development review and other administrative matters create the procedural environment through which the City can achieve the goals and policies laid out in its General Plan and other adopted policies. At their best, development review provisions can promote the type of development a community wants by providing a clear, predictable path to project approval; conversely, vague review processes can cause developers a high level of anxiety, frustrate community residents, and severely dampen a City's ability to attract desirable growth.

Generally, prospective developers value three central qualities in any administrative code: 1) certainty in the requirements and structure of the review process, 2) built-in flexibility to adjust development standards to the needs of individual projects, and 3) opportunities to request relief from requirements that constitute a substantial burden. Certainty about the type and scale of development in their community is also important to residents. The degree to which St. Helena can incorporate these qualities into its Zoning Code will help improve its ability to compete for desirable development in an efficient manner. This section contains general observations about the existing development review procedures and strategies to streamline development review and approval process.

Current Administrative Procedures

The flexibility of a development code is largely defined by its hierarchy of uses and their required permits. This hierarchy establishes the different levels of review the Code requires to make various types of land use and development decisions. These decisions typically range from a relatively informal counter staff review of proposed uses or structures for compliance prior to the issuance of a building permit or business license to more formal and complex procedures requiring public notice and a hearing before the Planning Commission prior to issuance of a use permit or other discretionary approval.

The primary factors influencing a project's place in the hierarchy of uses are whether the proposed use is permitted "by right" or allowed subject to certain conditions, or whether a Conditional Use Permit, with review by the Planning Commission, is required. This determination is a reflection of community issues and concerns that should be embodied in the General Plan. Decisions about where an application fits in the hierarchy may also, however, be influenced by how a jurisdiction selects and designs administrative techniques. It is often possible, for example, to reduce the review threshold for a particular type of application (i.e. place it lower in the hierarchy), by increasing the specificity of development standards and performance-based criteria, along with a related increase in one or more of the following:

- Scope of public notice,
- Length of time for public review, and
- Opportunities for informal public review and consultation.

A development code update provides an opportunity to adjust review thresholds based on analysis of the types of issues and projects in the City that have typically generated the most interest and concern and to ensure compliance with recent legislation including SB 330, the Housing Crisis Act of 2019 (see Chapter 7). Responsibilities should be assigned with a view toward minimizing the number of players involved in making any given decision, while increasing opportunities for meaningful public input.

Land Use Permits, Noticing, and Approvals

The following table summarizes the types of land use and development approvals that the current code authorizes and lists the authorities that can issue these approvals.

Some approvals, such as Conditional Use appeals, have multiple issuing authorities. Distinguishing the issuing authority and applicable review process can help clarify the level of review required for a project. The creation of a simplified permit structure that establishes a limited number of procedural tracks for approvals would provide greater clarity for all code users and simplify administration.

APPROVALS AND ISSUING AUTHORITIES		
Permit or Approval Type	*General Purpose*	*Decision Making Authority*
Determination of Similar Use	Determine whether an unlisted use is similar to those of the appropriate use category (e.g., permitted, permitted with a use permit or accessory)	Planning Director
Extension of permits and approvals	Extend the expiration date of a permit.	Authority of original project application
Modifications	Amendment to the permit or other discretionary approval to allow major modifications or changes to an approved development plan, a use not specifically authorized, or conditions of approval.	Planning Commission
Appeals	Action taken when dissatisfied with any action taken.	Planning Director, Planning Commission, City Council
Design Review	Determination of whether a project has a harmful effect upon the character of an area.	Planning Commission, City Council
Use Permit, Use Permit Amendment, Use Permit Extension	To allow the proper integration in the city of essential or desirable uses	Planning Commission
Master Use Permit	Authorizes more than one conditional use from the list of conditional uses of the zoning district	Planning Commission
Variance	Allow variation from the strict application of the terms of the title where the literal enforcement of the requirements would involve practical difficulties or would cause undue hardship	Planning Commissions
Interpretation of District Boundaries	To determine the location of zoning district boundaries where uncertainty exists	City Council

APPROVALS AND ISSUING AUTHORITIES		
Permit or Approval Type	*General Purpose*	*Decision Making Authority*
General Plan Amendment	Change to the boundaries of land use designations or General Plan policies	City Council
Additional Amendment Procedures	Adoption or amendment to the Zoning Code including Zoning Map (rezoning), General Plan, or Specific Plan	City Council

Noticing

Section 17.08.070 identifies procedures to be observed when a public hearing is required. Notice must be given not less than 10 days prior to the public hearing, must be mailed to all property owners within 300 feet of the proposed project site, and a legal notice must be published in a newspaper if general circulation in St. Helena.

Recommendations for Administrative Procedures

Code users reported that administrative procedures in St. Helena lack clarity and are unpredictable; that fee structures are difficult to decipher; and that the design review criteria listed in the Code are too subjective. The following recommendations for streamlining procedures and increasing efficiency are primarily about providing certainty in the requirements and structure of the review process and providing built-in flexibility to allow the community to say 'yes' to the development it wants.

6-A CONSOLIDATE ALL ADMINISTRATION AND PROCEDURES SECTIONS IN ONE PART OF THE CODE

As discussed in Chapter 1 of this paper, Zoning Code chapters that address administrative procedures generally begin at 17.124 Exceptions and Modifications. The Code should group all provisions of an administrative or procedural nature in Part II: Administration and Procedures. Part II should include common procedures, all permits and approvals, amendments, and enforcement. See Appendix A for the proposed Annotated Outline of the Code.

6-B DEFINE ALL ADMINISTRATIVE AUTHORITIES

The Code lacks definitions of the various hearing bodies and administers of the Code. Part II should include a section that defines each body, their authority, and their role in planning decisions.

6-C CLARIFY PROCEDURES FOR ALL DECISIONS

The updated Zoning Code should clearly set forth in Part II administrative procedures for all types of planning-related decisions. This should include all common procedures (review of application, public noticing, appeals, modification of approved plan, etc.) as well as chapters for decisions requiring review (administrative review, design review, use permits, variances, and amendments).

The approval process can be further improved and streamlined simply by consolidating and clarifying procedures and permit approval criteria. In all sections, the level and protocols of administrative process required for different types of decisions should be described. For even the simplest administrative procedures, the Zoning Code should, at a minimum, establish unambiguous authority

for approval, a clear process illustrated with a graphic, and, where appropriate, the to appeal to a higher authority. The process for all applications to the City Council through the Planning Commission will be clarified. Findings that the decision-making body are required to make in order to approve a project should also be clear so that all interested parties know the criteria against which a project is evaluated and intent statements for regulations should be included to help determine if a proposal meets the purpose of the Code.

6-D CLARIFY AND SIMPLIFY NOTICING REQUIREMENTS

All pertinent public hearing information (e.g., what information should be included in the notices, how notices are to be given [e.g., mailing, posting, publishing, use of the Internet], to whom notices should be sent, how hearings are to be conducted) should be located in one succinct chapter and should be revised to reflect contemporary communication methods.

6-E SIMPLIFY THE DESIGN REVIEW PROCESS AND REDUCE RELIANCE ON DISCRETIONARY REVIEW

The Zoning Code update will update findings of approval for design review to streamline and modernize the design review process. There are a variety of approaches the City could use to reduce the number of projects requiring review, including compliance with enhanced and more detailed development and design standards added to the Code and compliance with new standards and requirements that reflect "standard conditions" typically imposed when such uses have been conditionally approved by the Planning Director, Planning Commission, or City Council.

The Zoning Code may also include a minor design review process to establish an expedited limited discretionary review of development projects that require additional site and design considerations beyond the minimum standards of the Zoning Code. This process can provide for the Administrative review of projects which, because of their limited size and scope, have minor aesthetic, land use, or traffic implications and do not create any significant impact on the public utilities or services. A public hearing is not required for minor design review and minor design review permits would be limited to the discretion of the Planning Director.

6-F CREATE A MINOR USE PERMIT

The Zoning Code could include a new type of use permit – a Minor Use Permit – approved by the Planning Director. The Minor Use Permit would be required for uses that are limited in scope and impact. The City may, for example, reduce the number of uses requiring review by permitting more uses by right subject to compliance with specific limitations on location, floor area, hours of operation, and similar features that are the source of potential adverse impacts. Applications for Minor Use Permits would be subject to public notice and a hearing before the Director only if requested. All decisions would be subject to appeal. The Director would also have the authority to defer action and refer the application to the Planning Commission for final action. Notice of decision or notice of pending decision could be given to Planning Commissioners with an option for the Planning Commission to call for review of a project. Such a procedure creates more certainty in the process for both the community and developers while still providing opportunities for meaningful public input.

Conditional Use Permits would be reserved for uses that pose potential or significant land use compatibility issues due to their location, size, or activity and warrant Planning Commission review and approval. The number of uses that require discretionary review through approval of a Conditional Use Permit can be reduced by including carefully crafted standards and restrictions that are calibrated

for specific uses or zoning districts. As a result, more decisions to approve or deny a particular use based on these clearly defined standards may be made administratively without the financial costs and time constraints otherwise required in seeking approval at public hearings. The Zoning Code will include updating the findings of approval for Use Permits to streamline and modernize the administrative procedure.

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7 Compliance with State and Federal Law

California law grants cities and counties relatively broad discretion in the regulation of land uses and development, and the Federal courts and United States Congress have, for the most part, left land use and environmental regulation up to state and local government. There are, however, some important exceptions to this approach. If local regulations conflict with federal law, pursuant to the supremacy clause of the United State Constitution, then local laws are preempted. In some cases, both Congress and the State have identified matters of critical concern that limit the authority of California cities.

This section discusses some examples of State and Federal laws that should be addressed as part of the Zoning Code Update. This is a list of prominent State and Federal laws, not all of which are entirely applicable to the City and some will be addressed separate amendment process.

Accessory Dwelling Units

California Gov't Code 65852.2 requires local agencies treat all accessory dwelling units that comply with specific standards as ministerial approvals. Standards that may be imposed on accessory dwelling units include, but are not limited to height, setback, lot coverage, landscape, architectural review, maximum size of a unit, and standards that prevent adverse impacts on any real property that is listed in the California Register of Historic Places. Cal. Gov't Code 65852.2 is applicable to single-family and multi-family residential zoning districts. Local agencies cannot require parking if accessory dwelling units meet certain criteria such as being located within a half-mile from public transit or being located within one block of a car share area. Otherwise, parking requirements cannot exceed one space per unit or bedroom. Additionally, absent topographic or safety considerations, local agencies must allow parking in setback areas or tandem parking. Local agencies are also authorized to permit junior accessory dwelling units (units less than 500 square feet and contained completely within the space of an existing structure) through an ordinance. Adoption of a junior accessory dwelling unit ordinance is optional.

Adult Oriented Businesses

Local agencies may regulate, pursuant to a content-neutral ordinance, the time, place, and manner of operation of sexually-oriented business when the ordinance serves a substantial government interest, does not unreasonably limit alternative avenues of communication, and is based on narrow, objective, and definite standards (Cal. Gov't Code §65850.4). Section 17.128 should be reviewed to ensure there are a reasonable range of alternative sites where adult-oriented businesses may be located.

Affordable Housing, Density Bonus, and Ministerial Review

The State Density Bonus Law (Cal. Gov't Code §65915) allows for density bonuses and additional incentives for affordable housing. Cal. Gov't Code §65913 expedites state and local residential development, assuring local agencies can sufficiently zone for affordable housing, and encourage and incentivize affordable housing. Recent changes to Cal. Gov't Code §65400 require local agencies to provide streamlined approval for eligible projects. Other laws include provisions that bar discretionary review of certain attached or multifamily housing projects (Gov't Code §65589.4) and require local agencies to make specific written findings in order to deny an affordable housing development (Gov't Code §65589.5(d)).

The current regulations will also be evaluated against the most recent legislation passed by the State in 2019, including the following:

- Per the SB 35 Statewide determination summary, the City of St. Helena is not currently subject to the SB 35 streamlined ministerial approval process.
- SB330 is intended to limit a city's ability to down-zone or change a general plan designation to result in less intensive land use. It applies to all housing developments, including mixed-use projects with 2/3 or more of the square footage dedicated to residential use. The law prohibits a city from reducing the permitted intensity to below that which was allowed on January 1, 2018 (e.g., reduced density or FAR, increased lot size, increased setbacks, etc.), and prohibits cities from imposing or enforcing non-objective standards established after January 1, 2020.

  Because it prevents cities from reducing the capacity for residential development beyond those limitations set by the General Plan and Zoning, SB 330 may make St. Helena's Growth Management Ordinance unenforceable until the legislations expires.

  SB 330's implications on a comprehensive Zoning Code Update will likely be limited to the obligation on the part of the City to ensure that the revised Zoning map does not support a net reduction in residential units.
- AB 1485 adds a new class of eligible projects that will qualify for streamlined approval under SB 35. The new class of eligible projects must be located in Bay Area cities or unincorporated areas (Counties of Alameda, Contra Costa, Marin, Napa, San Mateo, Santa Clara, Solano, Sonoma, and San Francisco) that did not submit its latest production report to HCD or, if one was submitted, that the production report reflects that there were fewer building permits issued for units of above-moderate-income housing (120% of AMI) than were required for the regional needs assessment cycle for that reporting period. Under AB 1485, these Bay Area projects containing 10 or more units that provide 20% affordable housing to households making below 120% AMI, with the average income of the units at or below 100% of AMI, will qualify for the streamlined project approval process.

  Additionally, AB 1485 provides that any units used to satisfy the affordable housing requirements under Section 65913.4 (i.e., SB 35/AB 1485) can also be used to satisfy any other local or state inclusionary affordable housing requirement, including the State Density Bonus Law. Further, AB 1485 permits developers to satisfy the affordable housing requirement with units that are restricted to households with incomes lower than the applicable income limits required in the bill.

- AB 1397 tightens and adds specificity to the obligation that housing elements identify and make available sites for the community's Regional Housing Needs Allocation (RHNA) for lower income households. It imposes stricter requirements for the adequacy of sites, including non-vacant sites, and sites that were identified in previous elements, as well as requirements that sites have sufficient available infrastructure.
- AB 1763 permits 100% affordable housing projects to be built denser and taller through three modifications to current law that are designed to help reduce costs associated with the development of affordable housing. Modifications include high density bonus, more incentives and concessions, and lower parking requirements.

Cannabis Operations

California is currently passing new legislation to help regulate the state's cannabis industry under the Medicinal and Adult-Use Cannabis Regulation and Safety Act ("MAUCRSA") or Senate Bill 94. The California State Legislature passed Senate Bill 94 which integrated previous bills (MCRSA with AUMA) to create the Medicinal and Adult-Use Cannabis Regulation and Safety Act (MAUCRSA). Under MAUCRSA, a single regulatory system governs the medicinal and adult-use cannabis industry in California. The Adult Use of Marijuana Act (AUMA), under Proposition 64, allowed adults 21 years of age or older can legally grow, possess, and use cannabis for non-medicinal purposes, and also made it legal to sell and distribute cannabis through a regulated business as of January 1, 2018. The Medical Cannabis Regulation and Safety Act (MCRSA), through a series bills created a state licensing and regulatory system for the existing medical market and established California's cannabis licensing authorities – (Bureau of Cannabis Control, CalCannabis Cultivation Licensing, and Manufactured Cannabis Safety Branch). The Adult Use of Marijuana Act and the Medical Cannabis Regulation and Safety Act were repealed when MAUCRSA was passed in 2017.

Cottage Food Operations

Pursuant to Cal. Gov't Code §51035, a city or county may not prohibit cottage food operations (homemade and packaged food defined in Cal. Health & Safety Code §113758) in any residential dwelling, but shall do one of the following: 1) classify the use as a permitted use in any residential district; 2) grant a nondiscretionary permit for the use, or 3) require a permit for the use.

Emergency Shelters; Transitional and Supportive Uses

Cal. Gov't Code §§65582, 65583, and 65589.5 require each local government to: 1) amend its Code to identify district(s) where emergency shelters are allowed as a permitted use without a conditional use or other discretionary permit to include sufficient capacity to accommodate the need for emergency shelter identified in the housing element, and 2) treat transitional and supportive housing as a residential use of the property subject only to those restrictions that apply to other residential dwellings of the same type in the same district. Cal. Gov't Code §65582 contains definitions for "supportive housing," "target population," and "transitional housing" to be more specific to housing element law.

AB2162 requires that supportive housing be a use by right in districts where multifamily and mixed uses are permitted, including nonresidential districts permitting multifamily uses, if the proposed housing development meets specified criteria, and requires a local government to approve, within specified periods, a supportive housing development that complies with these requirements. Local governments are prohibited from imposing any minimum parking requirement for units occupied by supportive housing residents if the development is located within ½ mile of a public transit stop. In addition, the recently-passed AB 139 expands the scope of the Housing Element update to include provisions for citizens experiencing homelessness and vulnerable populations; requires the identification of areas where homeless shelters are allowed, requires that each city has a location where a shelter is allowed to operate year-round; and states that cities can write clear objective standards for maximum number of shelters beds.

Family Day Care Homes

Pursuant to Cal. Health & Safety Code §§1597.30 et seq., small family day care homes in a residential unit is a residential use and is not subject to a fee or business license. Large family day care homes may not be prohibited in any district where residential is allowed, but a city or county shall do one of the following: classify the use as a permitted residential use, grant a non-discretionary permit for the use, or require a permit for the use. However, zoning requirements for large family day care home must be reasonable and are limited to spacing and concentration, traffic control, parking, and noise control. Noise control standards must be consistent with the general noise ordinance and must take noise levels generated by children into consideration.

Farmworker Housing

AB1783 creates an opt-in, streamlined process to build farmworker housing on surplus agricultural land, sets quality standards to ensure that the new housing is dignified and family friendly, and puts safeguards in place to protect the environment. It creates a streamlined process where agricultural employee housing located on land zoned for agricultural uses shall be subject solely to a ministerial approval process and not subject to a conditional use permit, provided it adheres to key environmental safeguards and meets objective quality standards, which include:

- No barrack-style housing, gender discrimination (all male dorms) or other housing that does not allow family unity
- No dual-role of employer and landlord. An employer of farm workers cannot also serve as a landlord; and
- No for-profit management. Housing must be managed by a qualified affordable housing organization.

Housing for Persons with Disabilities

Various provisions in both federal and State law limit the authority of local agencies to regulate facilities for mentally and physically handicapped persons. In 1988, Congress extended the 1968 Fair Housing Act's prohibitions against housing discrimination to include discrimination on the basis of handicap or familial status (families with children). The Federal Fair Housing Act Amendments (FHAA)

defined "handicapped" to include persons with physical or mental disabilities and recovering alcoholics and drug addicts. The FHAA not only prevents communities from discriminating against handicapped individuals but also requires "reasonable accommodations in rules policies, practices, or services, when such accommodations are necessary to afford [handicapped persons an] equal opportunity to use and enjoy a dwelling." The California Fair Employment and Housing Act, codified as Government Code Sections 12900 to 12996, reinforces provisions of federal statute to prohibit any unlawful discrimination against persons with disabilities. The State Supreme Court has prohibited local agencies from limiting the number of persons unrelated by blood, marriage, or adoption who can reside in a single-family home. The Code does allow exterior accessibility retrofitting for reasonable accommodations subject to administrative design review. Such retrofits may be located in setback areas when compliant with the Americans with Disabilities Act design guidelines. However, the Code could more broadly allow the Director to grant waivers when necessary to comply with the Federal Fair Housing Act, the Americans with Disabilities Act, and the California Fair Employment and Housing Act to provide reasonable accommodation to persons with disabilities seeking fair access to housing through a waiver of the application of the City's zoning regulations.

Pursuant to Cal. Health & Safety Code §1566.3, a residential care facility that serves six or fewer people is considered a residential use and its occupants, regardless of legal relation, are considered a family for purposes of residential use laws and zoning codes. Further, such a use shall not be included within the definition of a boarding house, rooming house, institution or home for the care of minors, the aged, or persons with mental health disorders, foster care home, guest home, rest home, community residence, or other similar term that implies that the residential facility is a business run for profit or differs in any other way from a family dwelling. The current Code identifies residential care facilities serving six or fewer people as accessory to a residential use. It identifies different types of residential care facilities, such as for the elderly, mentally and physically handicapped persons, alcohol and drug treatment, and intermediate care, and in some cases, has different allowances for the different type of facilities. Through the Code update, the definition of residential care facilities should be revised to include any facility licensed by the state of California to provide living accommodations, 24-hour care for persons requiring personal services, supervision, protection, or assistance with daily tasks and such facilities should be treated as a residential use.

Manufactured Housing

The Zoning Code will ensure compliance with Cal. Gov't Code §§65852.3-.5 which requires local agencies to allow the installation of manufactured homes certified under the National Manufactured Housing Construction and Safety Standards Act of 1974 (42 U.S.C. §§5401 et seq.) on a foundation system, pursuant to Cal. Health & Safety Code §1855, on lots zoned for single-family dwellings.

Nonconforming Multifamily Dwellings

Local agencies may not prohibit the reconstruction, restoration, or rebuilding of a multifamily dwelling that is involuntarily damaged or destroyed by fire or other catastrophic event, unless certain findings are made that the reconstruction, restoration or rebuilding would be detrimental to public health or safety, and the existing nonconforming use would be more appropriately moved to a district that allows the use (Gov't Code §65852.25). The Zoning Code will ensure compliance.

Processing and Review Procedures

State law specifies a number of processing requirements and review procedures related to land use regulation. These include procedures and requirements for development agreements (Cal. Gov't Code §§65864 et seq.), general plan consistency (Cal. Gov't Code §65860), permit review timelines (Cal. Gov't Code §§65920 et seq.), prezoning land upon annexation (Cal. Gov't Code §65859), notice of public hearings (Cal. Gov't Code §§65090 et seq.), variances (Cal. Gov't Code §§65900 et seq.), and zoning amendment procedures Cal. Gov't Code §§65853 et seq.). The Zoning Code and the City's project review procedures follow State law requirements, including SB 330 (2019) which freezes a City's ability to downzone or change a general plan designation that would result in less intensive land use (reduced height, reduced density, increased lot size) for a five-year period. SB 300 also limits the number of discretionary permits a city can require of a housing development, limits the number of hearings a jurisdiction can have on a project, and reduces the time that a city has to approve a project once it is deemed complete.

Religious Uses

The Federal Religious Land Use and Institutionalized Persons Act of 2000 (RLUIPA) requires public agencies to demonstrate a compelling government interest and to use the least restrictive means when making a land use decision that imposes a substantial burden on religious exercise. Religious uses must be treated the same as similar non-religious uses. Additionally, regulations cannot impose a substantial burden to religious uses. The Code should ensure that religious uses are subject to the standards for 'membership organization facilities' and ensure the applicable standards do not create a substantial burden.

Signs

In June 2015, the U.S. Supreme Court decision in *Reed v. Town of Gilbert* (No. 135 S.CT. 2218, 2015) affirmed that sign regulations must be "content-neutral" to survive a legal challenge. In order to be content-neutral and satisfy First Amendment limitations, sign regulations must be based on "time, place, and manner" restrictions, rather than by content- or message-based restrictions. Content-based regulations are subject to what is called a "strict scrutiny" standard – that is, a compelling governmental interest must be demonstrated, and regulations must be narrowly tailored to serve that interest.

Solar Energy Systems

Cal. Gov't Code §65850.5 requires that solar energy systems be approved administratively with requirements limited to health and safety requirements per local, State, and federal law and those necessary to ensure systems will not have a specific, adverse impact on public health or safety. A use permit may be required if the building official makes a finding based on substantial evidence that a specific, adverse impact on public health or safety would result. Every city and county is required to have an ordinance expediting permitting for small residential rooftop solar energy systems (only).

Telecommunications

The Federal Telecommunications Act of 1996 Limits state or local governments' authority to regulate placement, construction, and modification of personal wireless service facilities. State or local governments must not unreasonably discriminate against providers of functionally equivalent services and not prohibit or effectually prohibit use of personal wireless devices. Further, state or local governments shall not regulate placement, construction, and modification of personal wireless service facilities based on the environmental effect of radio frequency emissions, to the extent that such facilities comply with FCC regulations. Cal. Gov't Code § 65850.6 requires a city or county to ministerially approve an application for a co-location facility on or immediately adjacent to an existing wireless telecommunications co-location facility. It also prohibits a city or county from imposing certain conditions of approval on permits for construction or reconstruction of wireless telecommunications facility. The Code should reflect current technologies, provide clear direction on the design and citing of telecommunication facilities, and specifically identify the provisions related to co-location facilities. Although not required by the State, the Code should include development and design standards for stealth facilities.

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Appendix A: Annotated Outline

Part I: General Provisions

Part I establishes the overall purposes of the zoning ordinance and zoning map and the general rules that govern their applicability. Part I generally addresses the provisions found in Chapter 17.04 of the current Code.

17.01 Title, Authority and Purpose

17.01.010 Title

17.01.020 Authority

17.01.030 Purpose

17.01.040 Applicability

17.01.050 Interpretation of the Zoning Code

17.01.060 Severability

17.02 Zoning Districts and Zoning Map

17.02.010 Purpose

17.02.020 Zoning Districts Established

17.02.030 Zoning Map

17.02.040 Interpretation of District Boundaries

Part II: Administration and Procedures

Part II establishes uniform procedures that are common to the application and processing of a variety of different permits and approvals. Part II generally covers provisions found in the existing Code chapters 17.08 Admin Procedures; 17.12 Zoning and GP Amendments Procedures; 17.156 Development Agreements; 17.164 Design Review; 17.168 Use Permits; 17.172 Variances; 17.176 Reimbursement for Public Improvements; and secs. 17.08.100-120 concerning terms of permits and approvals.

17.03 Zoning Code Administration

17.03.010 Purpose

17.03.020 Decision-Making Bodies. *Each body and its authority may be described in a separate subsection.*

17.03.030 Permits and Approvals to Conform to Code

17.04 Common Procedures

17.04.010 Purpose

17.04.020 Application Forms and Fees

17.04.030 Pre-Application Review

17.04.040 Review of Planning Applications

17.04.050 Environmental Review

17.04.060 Public Hearing Notice

17.04.070 Conduct of Public Hearing

17.04.080 Notice of Action, Findings and Decision

17.04.090 Determination of Similar Use

17.04.100 Conditions of Approval

17.04.110 Expiration and Extension

17.04.120 Modifications to an Approved Permit

17.04.130 Revocation of Permits

17.04.140 Appeals

17.04.150 Reimbursement for Public Improvements

17.05 Planning Permits and Approvals

The various permit types are listed as subsections in this chapter. Section 17.05.020 shows all in tabular format with review authority and appeal authority. Each subsection to include purpose and applicability, public noticing requirements, and findings.

17.05.010 Purpose

17.05.020 Planning Permits and Approvals

17.05.030 Conditional Use Permits

17.05.040 Minor Use Permits

17.05.050 Use Permit Conformity

17.05.060 Design Review

17.05.070 Development Agreements
17.05.080 Demolition
17.05.090 Variance
17.05.100 Exceptions and Modifications
17.05.110 Pre-Zoning for Annexation.

17.06 Amendments to the Zoning Map and Text

17.07 Amendments to the General Plan

17.08 Nonconforming Provisions

17.08.010 Purpose and Applicability
17.08.020 Nonconforming Uses
17.08.030 Nonconforming Sites
17.08.040 Nonconforming Structures

17.09 Specific Plans

Provides the purpose, applicability, and procedural requirements associated with Specific Plans (existing sec. 17.84.010).

17.10 Enforcement

Includes violations and remedies (existing secs. 17.04.110-150).

Part III: District Regulations

Part III establishes all base and overlay zoning districts by category (agricultural, residential, commercial, etc.). Each zoning district will have a purpose statement, a list of uses specifying the level of discretionary review required, development standards specific to the zoning district, and supplemental regulations as appropriate. Where physical form is critical, such as in residential mixed-use and areas, zone regulations will include development and design standards to adequately address the desired character and physical form. Where appropriate, standards will reflect unique qualities of a neighborhoods or area. Part III generally addresses the provisions found in chapters17.16 through 17.104 of the current Code.

17.11 Establishment of Zoning Districts

17.11.010 Purpose

17.11.020 Establishment of Zoning Districts

17.12 Agricultural Zoning Districts

17.12.010 Purpose and Applicability

17.12.020 Use Regulations

17.12.030 Development Standards

17.12.040 Supplemental Regulations

17.13 Residential Zoning Districts

17.13.010 Purpose and Applicability

17.13.020 Use Regulations

17.13.030 Development Standards (includes objective standards for multi-family development)

17.13.040 Supplemental Regulations

17.14 Commercial and Mixed-Use Zoning Districts

17.14.010 Purpose and Applicability

17.14.020 Use Regulations

17.14.030 Development Regulations

17.14.040 Supplemental Regulations

17.15 Office and Industrial Zoning Districts

17.15.010 Purpose and Applicability

17.15.020 Use Regulations

17.15.030 Development Regulations

17.15.040 Supplemental Regulations

17.16 Public and Open Space Zoning Districts

17.16.010 Purpose and Applicability

17.16.020 Use Regulations

17.16.030 Development Regulations

17.16.040 Supplemental Regulations

17.17 Overlay Districts

One chapter provided for each Overlay District. These may include, but may not be limited to: Rural-Residential; Specific Plan; Special Flood Zone; Historic Preservation; PD; Mobile Home Park; and Parking Impact overlays Each Overlay to include purpose, applicability, regulations, and procedural requirements associated with each district. Includes PD.

17.18 Specific Plan Districts

Includes subsection for each adopted specific plan, referencing the specific plan document on file with the City. Procedures related to how to establish a Specific Plan will be located in the Specific Plans chapter of Part II.

Part IV: Citywide Standards

Part IV establishes all standards not specific to zone and generally applicable citywide. Included are general site development standards, parking, signage, performance standards, standards specific to use, and non-conforming uses and structures. Generally addresses the provisions found in chapters 17.112-152, 17,180, and 17.190 of the current Code.

17.19 General Site Standards

17.19.010 Purpose

17.19.020 Accessory Structures

17.19.030 Encroachments

17.19.040 Height Exceptions

17.19.050 Fences, Walls, and Hedges

17.19.060 Flag Lots

17.19.070 Landscaping

17.19.080 Lighting and Illumination

17.19.090 On-Site Storage

17.19.100 Streambank Stabilization

17.19.110 Reasonable Accommodation for Persons with Disabilities

17.20 Parking and Loading

17.20.010 Purpose and Applicability

17.20.020 Required Parking Spaces

17.20.030 Exceptions

17.20.040 General Requirements

17.20.050 Bicycle Parking

17.20.060 Parking Area Design Standards

17.20.070 Loading

17.21 Signage

Chapter re-organized to comply with Reed v. Gilbert *and to address all sign types.*

17.21.010 Purpose and Applicability

17.21.020 Sign Permit Requirements

17.21.030 General Restrictions for All Signs

17.21.040 General Requirements for All Signs

17.21.050 Standards for Permanent Signs

17.21.060 Standards for Temporary Signs

17.21.070 Sign Standards by Zone

17.21.080 Nonconforming Signs

17.21.090 Enforcement

17.22 Performance Standards

Below is an exhaustive list; topics be reduced as appropriate.

17.22.010 Purpose

17.22.020 General Standards

17.22.030 Applicability

17.22.040 Measurement of Impacts

17.22.050 Air Contaminants

17.22.060 Chemicals

17.22.070 Fire and Explosion Hazards

17.22.080 Hazardous Materials

17.22.090 Hours of Construction

17.22.100 Hours of Operation

17.22.110 Light and Glare
17.22.120 Liquid or Solid Waste
17.22.130 Odors
17.22.140 Noise
17.22.150 Radioactivity or Electrical Disturbance
17.22.160 Security Measures
17.22.170 Smoke, Fumes, and Gases
17.22.180 Vibration

17.23 Standards Specific to Uses

17.23.010 Purpose and Applicability
17.23.020 Accessory Uses
17.23.030 Accessory Dwelling Units
17.23.040 Adaptive Reuse
17.23.050 Adult-Oriented Businesses
17.23.060 Alcoholic Beverage Sales
17.23.070 Alternative Energy Sources
17.23.080 Beekeeping
17.23.090 Bed and Breakfast Inns
17.23.100 Cannabis Uses
17.23.110 Cottage Food Operations
17.23.120 Fractional Ownership Hotel
17.23.130 Home Occupations
17.23.140 Outdoor Dining and Seating
17.23.150 Outdoor Display and Sales
17.23.160 Small Recycling Centers
17.23.170 Service Stations
17.23.180 Short-Term Rentals
17.23.190 Small Wineries
17.23.200 Telecommunication Facilities

17.23.210 Temporary Uses

17.24 Affordable Housing

Includes Sections 17.144 Affordable housing and 17.146 Housing Trust Fund, Housing Impact Fee and Inclusionary/In-Lieu Fee Requirements.

Part V: Definitions and Rules of Measurement

17.25 Definitions

17.25.010 Purpose

17.25.020 Definitions

This section should be updated to include key terms that are currently not defined. Current definitions should be updated to include modern terminology and to be made more general, so they apply to multiple arts of the Zoning Code and other codes and ordinances. Definitions of terms currently located within various sections of the Code should be consolidated and located in this Chapter for easy reference. Technical terms and definitions with limited applicability may remain in those respective chapters.

17.26 Rules of Measurement

17.26.010 Purpose

17.26.020 Rules of Measurement

This new chapter should include specific rules that explain how to perform calculations and measurements that are required to implement Code requirements (e.g., measuring floor area, lot area, setbacks, or floor area ratio).

Appendix B: Style Guide

Chapter 17.24 Zoning District Category

Sections:

17.24.010 Purpose and Applicability
17.24.020 Use Regulations
17.24.030 Development Regulations
17.24.040 Supplemental Regulations

17.24.010 Purpose and Applicability

The purposes of the Example Base Zoning Districts are to:

A. General purpose...;

B. General purpose...;

C. General purpose...; and

D. General purpose...

Additional purposes of each Example Base Zoning District:

Example District 1 (D1): The Example District 1 is intended to ....

Example District 2 (D2): The Example District 2 is intended to ....

Example District 3 (D3): The Example District 3 is intended to ....

17.24.020 Use Regulations

Table 14.09.040.020, Use Regulations – Example Base Zoning Districts, prescribes the use regulations for the Example Base Zoning Districts. Section numbers in the right-hand column refer to other sections of this Title.

TABLE 14.09.001.020: USE REGULATIONS – EXAMPLE BASE ZONING DISTRICTS				
Use Classification	*D1*	*D2*	*D3*	*Additional Regulations*
"P" Permitted use; "M" Minor Use Permit required; "C" Conditional Use Permit required; "-" Use not allowed				
Residential Uses				
Example Use	P	-	-	Cross-reference
Example Use with subclassification	See subclassification below			
Use subclassification	P (1)	P (1)	C (1)	
Public/Semi-Public Uses				
Example Use	P	-	-	Cross-reference
Example Use with subclassification	See subclassification below			
Use subclassification	-	P	M	Cross-reference
Use subclassification	P	P	C	Cross-reference
Commercial Uses				
Example Use	-	-	C	
Example Use	C (2)	C (2)	C (2)	
Industrial Uses				
Example Use with subclassification	See subclassification below			
Use subclassification	P	P	M	Cross-reference
Use subclassification	M	M	C	Cross-reference

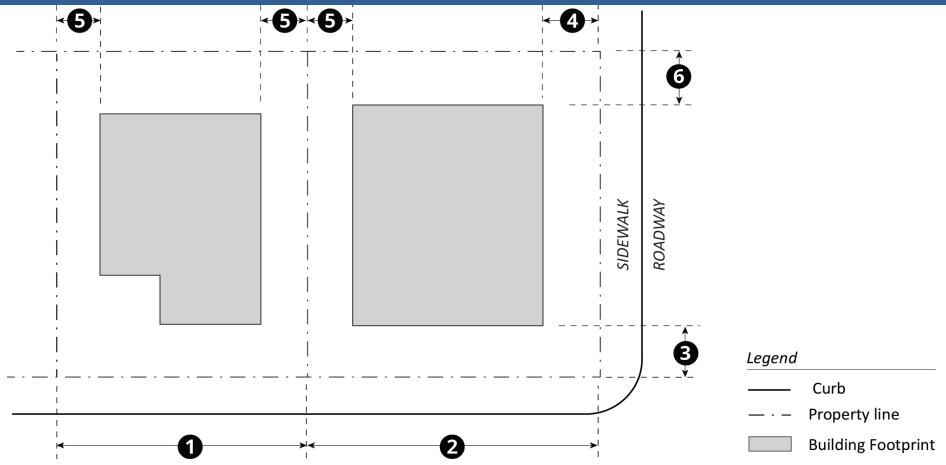
Notes:

1. Limitations on use.
2. Limitations on use.

17.24.030 Development Standards

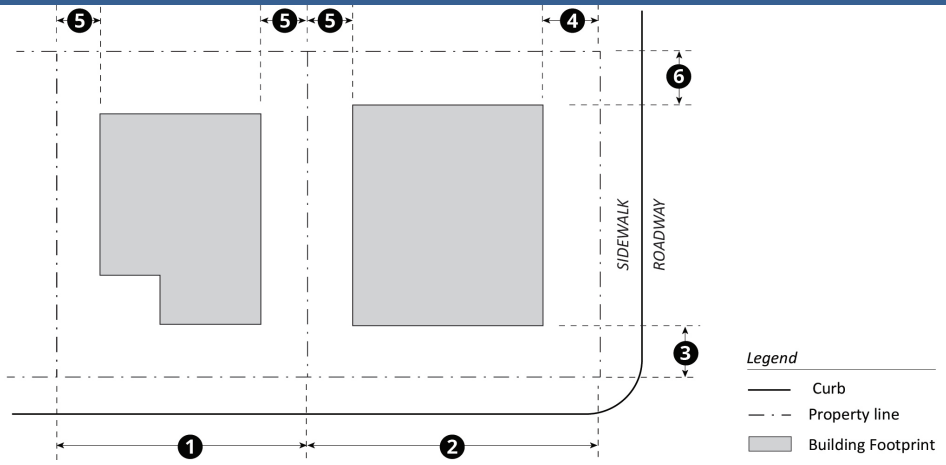
Table 14.09.040.030, Development Standards – Example Base Zoning Districts, prescribes the development standards for the Example Base Zoning Districts. Additional regulations are denoted in a right-hand column. Section numbers in this column refer to other sections of this Title, while individual letters refer to subsections that directly follow the table. The numbers in each illustration below refer to corresponding regulations in the table.

TABLE 14.09.040.030: DEVELOPMENT STANDARDS – EXAMPLE BASE ZONING DISTRICTS



Standard	*D1*	*D2*	*D3*	*Additional Regulations*	*Key*
Lot and Density					
Maximum Density (units/acre)	6	12	15		
Minimum Lot Size (sq. ft.)	6,000	5,000	5,000	Cross-reference	
Minimum Lot Width (feet)	50	50	50	Cross-reference	❶
Minimum Corner Lot Width (feet)	60	65	65		❷
Building Height and Placement					
Building Height (feet)	25(A)	35(B)	35(B)		
Minimum Setbacks (feet)					
Front	20	15	10		❸
Street Side	20	15	10		❹
Interior Side	10	10	10		❺
Rear	20	10	10		❻
Open Space					

TABLE 14.09.040.030: DEVELOPMENT STANDARDS – EXAMPLE BASE ZONING DISTRICTS



Standard	*D1*	*D2*	*D3*	*Additional Regulations*	*Key*
Minimum Open Space (sq. ft. per unit)	n/a	100	100	Cross-reference	

A. **Additional Standard A.** Text here describing additional development standard.

B. **Additional Standard B.** Text here describing additional development standard.

17.24.040 Supplemental Standards

C. **Supplemental Standard A.** Text here describing supplemental standards for the Example Base Zoning Districts.

1. ***Supplemental Standard A1.*** Text here.

2. ***Supplemental Standard A2***. Text here.

D. **Supplemental Standard B.** Text here describing supplemental standards for the Example Base Zoning Districts.

Sample Graphic: Plan Diagram

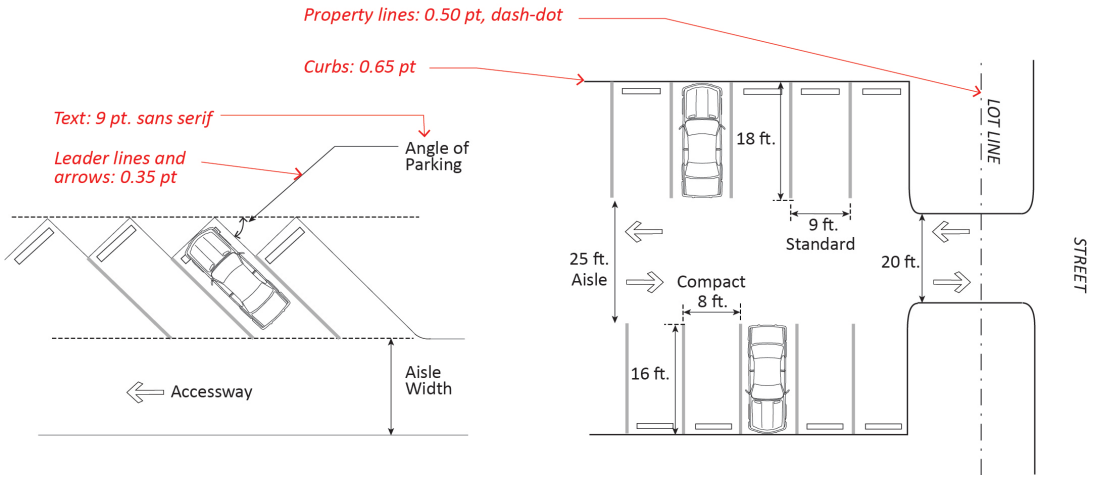


FIGURE: STANDARD PARKING SPACES AND DRIVE AISLES

Sample Graphic: Elevation Diagram

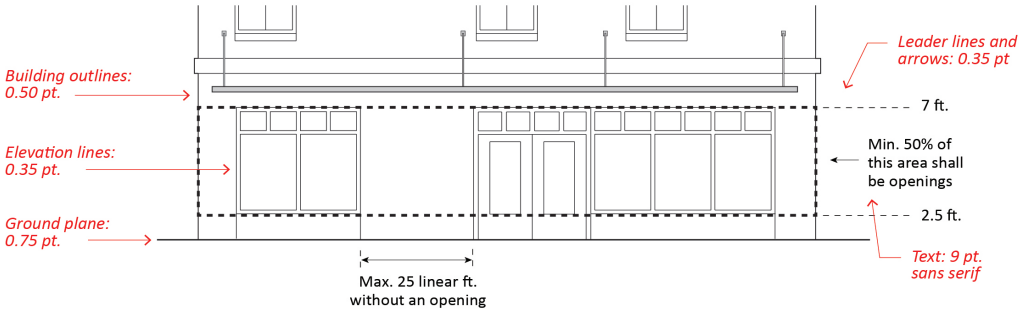


FIGURE: BUILDING TRANSPARENCY

Sample Graphic: Section Diagram

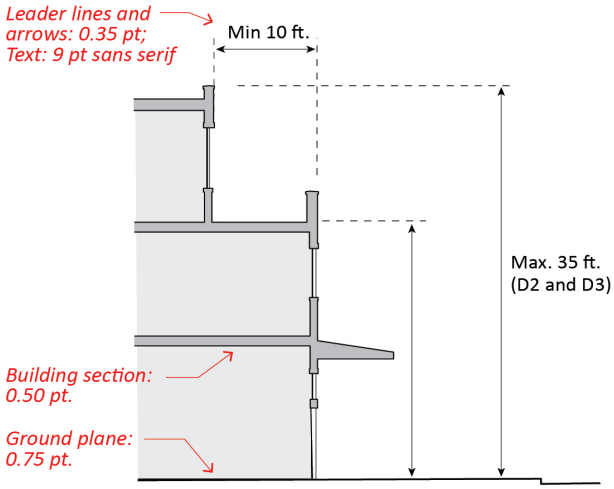


FIGURE: MAXIMUM BUILDING HEIGHT

Sample Graphic: Axonometric Diagram

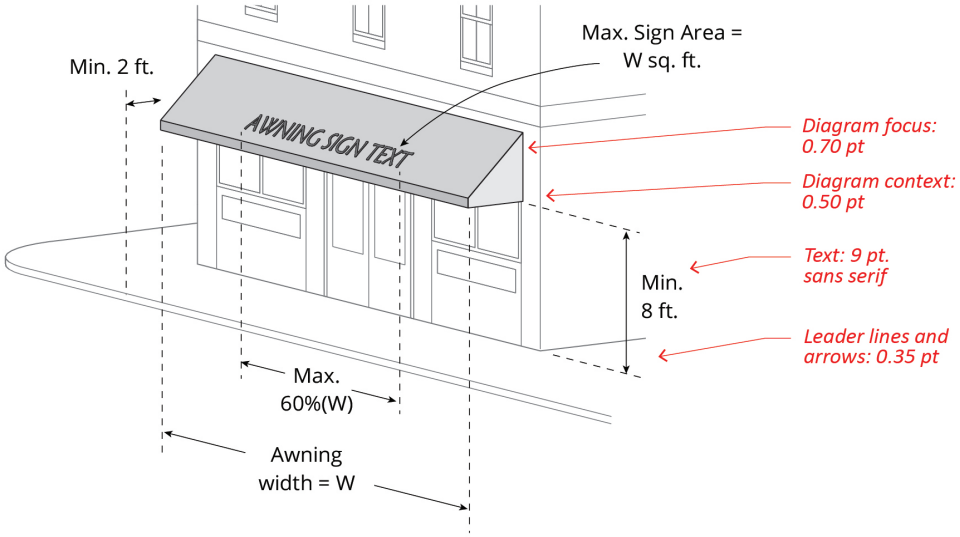


FIGURE: STANDARDS FOR AWNING SIGNS

Sample Graphic: Perspective Diagram

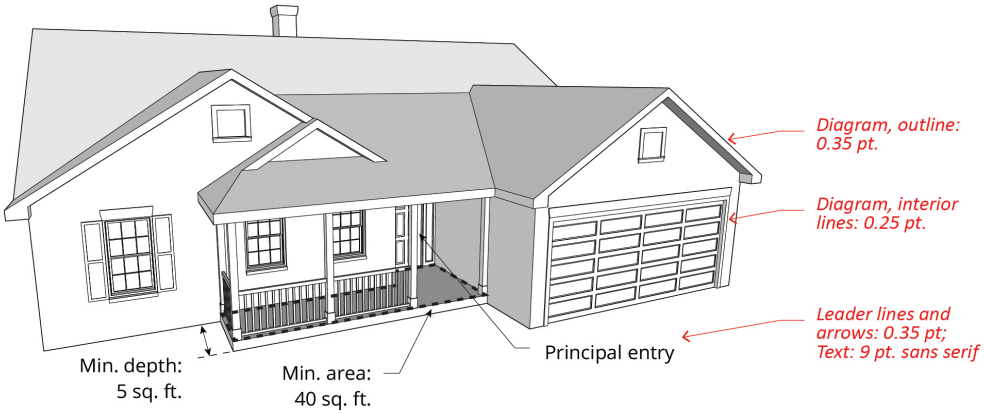


FIGURE: STANDARD PORCH SIZE

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Appendix C: Key Policy Direction

The following table identifies the policies and implementing actions of the General Plan and Housing Element that will be most directly relevant to the Zoning Code Update.

KEY POLICY DIRECTION	
Ref #	***Policy/Implementing Action***
General Plan	
LU 1.3	Support agricultural and low-intensity uses beyond the Urban Limit Line.
LU1.A	In order to increase residential density and housing availability without requiring an extension of the Urban Limit Line, allow the conversion of single-family homes in central locations to duplexes or triplexes under appropriate circumstances and where the homes are in medium and high density zoning districts. Update the Zoning Code to implement this policy.
LU1.B	Rezone appropriate sites with land use designations such as Central Business, Service Commercial, and Mixed-Use, in accordance with the General Plan Land Use Map. Include provisions to allow for compatible uses on the same site, either in one structure or adjacent structures. The mix of uses can be vertical or horizontal and can include attached residential development in keeping with the integrity of historic structures and historic districts.
LE1.E	Restrict the use of housing units as short-term rentals, except for those allowed by the Short-Term Rental Ordinance.
LU 2.1	Promote a mix of housing types and price ranges that are consistent with the Housing Element RHNA categories of housing affordability.
LU 2.2	Encourage new residential development that is consistent in design, size, color, and floor area ratio (FAR) with the older residences in the neighborhood.
LU 2.3	Protect residential neighborhood views of surrounding vineyards and mountains.
LU 2.4	Encourage the subdivision and/or development of larger parcels as Planned Unit Developments to ensure a more comprehensive and creative approach to planning the development as a single unit. This does not prohibit use of Planned Unit Developments on parcels less than three acres.
LU 2.5	Encourage the development of higher density housing in areas near the center of the city and close to recreation and services, such as transit, retail, and public facilities.
LU 2.6	"Allow residential density at the higher end of the permitted range for single family development within Medium and High Density Residential Land Use designations as long as the development character of the single family area is maintained, including lot widths, orientation to street, building heights, onsite parking, traffic, and noise, among other considerations. "
LU 2.7	"Ensure safe, walkable, and bikeable residential neighborhoods and vibrant, livable streets."
LU 2.8	Ensure walkable and accessible neighborhoods through mixed-use development.

KEY POLICY DIRECTION	
Ref #	***Policy/Implementing Action***
LU2.A	Update the zoning ordinance and map to be compatible with the General Plan land use map and designations.
LU2.B	Develop and implement residential design guidelines and/or form-based codes, for single family and multiple family uses, to provide oversight and guidance for new buildings and renovations. Guidelines should ensure that new residential development is consistent with the design, size, and footprint of older residences in the neighborhood. Consider the impact of new development on surrounding residences.
LU2.E	Update zoning standards to encourage the following criteria: • A variety of lot widths and sizes, such as that found in the older areas of town; • Garages at the rear of lots rather than on the street; or creative garage designs that incorporate the "garage door" frontage appearance to blend into the home; • Lot coverage and floor area ratio (FAR) that is consistent with the scale of historic and older areas; • Planting of street trees and planting strips along sidewalks; and • Setbacks, building massing, and configuration consistent with older parts of neighborhoods.
LU 3.1	Strengthen the downtown as the City's social and cultural core, and as the primary center of retail services. Facilitate a healthy mix of retail and commercial uses, residential development, entertainment, and lodging.
LU 3.2	Enhance the pedestrian-oriented character of commercial areas and provide for convenient pedestrian and bicycle connections to encourage walking and reduce vehicle trips within the commercial area.
LU 3.3	Support the redevelopment of auto-oriented commercial areas into pedestrian-friendly commercial uses.
LU 3.4	Protect historic resources in the commercial areas and encourage appropriate rehabilitation and adaptive reuse.
LU 3.5	Ensure that new retail and commercial development is compatible with and complementary to St. Helena's small-town image. In addition, within the City's Central Business District, new retail and commercial development should be of a scale and type that complements the historic character.
LU 3.7	Provide sufficient auto and bicycle parking in order to serve local businesses in the commercial districts. Ensure that all parking areas are well designed and that auto parking spaces are hidden from pedestrian view, whenever possible.
LU 3.8	Provide sufficient opportunities for offices that support the regional, agricultural-based economy and the local needs of the community.

KEY POLICY DIRECTION	
Ref #	***Policy/Implementing Action***
LU 3.9	"In Mixed-Use, Service Commercial, and Central Business districts encourage residential and office uses in upper-story locations or locations along the periphery of the retail district. This will facilitate active and pedestrian-oriented commercial areas."
LU 3.10	"Encourage office development within Mixed-Use, Service Commercial, and Central Business districts to complement the pedestrian orientation of surrounding development."
LU 3.11	Ensure that new commercial development does not obstruct view corridors to the mountains.
LU3.D	Develop and implement commercial design guidelines and/or form-based codes to provide oversight and guidance for new buildings and renovations. Guidelines should ensure that new commercial development is consistent with the City's character, particularly in historic districts.
LU3.E	Prohibit retail commercial zoning on Main Street north of Pine Street.
LU3.F	Limit the floor area and size of buildings in the Central Business and Service Commercial districts to ensure that new buildings are in scale with typical older buildings in the district.
LU 4.1	Support and maintain a transitional zone around industrial areas to protect the health and safety of residential neighborhoods.
LU 4.2	Support the development of industries that are consistent with viticulture and winery support services and similar, compatible uses. Support the role of the City as an agriculturally-based service center for the surrounding area, including Calistoga, Angwin, Deer Park, Meadowood, Madrone Knoll, Rutherford, and the unincorporated area south of St. Helena.
LU 4.3	Ensure that industrial projects are designed and sited to provide a positive image of the community. Landscaping and setbacks should be used to enhance industrial buildings.
LU4.B	Develop and implement industrial design guidelines and/or form-based codes, to provide oversight and guidance for new buildings and renovations. Guidelines should ensure that new industrial development is consistent with the City's character.
LU4.C	Evaluate the compatibility of the Industrial Area and existing heavy equipment use between Highway 29 and Crane Avenue and determine if re-zoning or other action is necessary to ensure safety and liability, hazard, and noise reduction in surrounding neighbor-hoods, schools, and parks.
LU 5.1	Discourage conversion of existing farmland to non-agricultural uses.
LU 5.3	Strictly limit development on properties existing at the time of the adoption of this General Plan that are designated as agricultural land.
LU 5.4	Support community-based agricultural uses within the city, including community gardens, orchards, and parks.
LU 5.5	Encourage the use of sustainable agricultural practices.

KEY POLICY DIRECTION	
Ref #	***Policy/Implementing Action***
LU 5.6	Permit wineries and other agricultural-related industries to locate in the city if their location does not adversely impact surroundings, uses, or city services (water, traffic, etc.) or the quality and character of the community.
LU5.C	Explore the feasibility and desirability of implementing permanent agricultural protection for lands within the Urban Limit Line in the form of agricultural preserves.
LU5.F	Where proposed residential, commercial, or industrial development abuts lands devoted to agricultural use, require the non-agricultural uses to incorporate buffer areas to mitigate potential land use conflicts as a condition of approval for subdivisions or use permits. The type and width of buffer areas shall be determined by the City based on the character, intensity, and sensitivity of the abutting land uses. Prepare and adopt guidelines and regulations to assist in the determination of the appropriate type and scope of agricultural buffer areas needed in circumstances that warrant the creation of such buffer areas.
LU5.H	Prepare and adopt guidelines and regulations to assist in the determination of the appropriate type and scope of agricultural buffer areas
ES1.4	Encourage the creation of workforce housing to support the local employment base in keeping with small town smart growth.
ES1.5	Encourage commercial uses that provide basic, everyday shopping and services for residents.
ES1.B	Update the Municipal Code to (a) encourage to the extent feasible businesses that are complementary to St. Helena's small-town character and that provide a range of goods to local residents; (b) define and permit non-chain, discount type stores while maintaining the existing provisions in the Municipal Code that prohibit formula restaurants, outlet, and chain discount-type stores, and retail businesses over 10,000 square feet in size; and (c) limit certain non-retail uses, such as real estate offices, from occupying ground-floor retail space in Central St. Helena.
ES1.E	Provide development incentives for new visitor-serving businesses to develop affordable workforce housing either through construction of housing or payment of an appropriate in lieu fee to develop housing elsewhere in the city. Such incentives shall include consideration of visitor-serving uses in Medium Density Residential or Higher Density Residential where a project provides affordable housing or an appropriate payment of an in lieu fee.
ES1.1	Support the development of responsible, visitor-serving components to the City's economy as a valuable source of jobs, tax revenues, and cultural amenities. Promote policies that facilitate and encourage this type of sustainable economic development.
ES1.2	Encourage visitor-serving uses oriented toward an upscale market, consistent with the Valley's reputation as a producer of world-class wines. Discourage the introduction of uses that are dependent upon a mass tourist market.
ES1.3	Ensure a diverse mix of uses that avoids an over-representation of any particular use. Remove the cap on the number of hotel and motel rooms and restaurant seats but continue to limit vacation rentals.

KEY POLICY DIRECTION	
Ref #	***Policy/Implementing Action***
ES1.5	Encourage socially and environmentally responsible businesses that make positive contributions to the community and operate in an environmentally-sound manner.
ES1.6	Expand lodging in the downtown area to encourage walking, biking, and alternative transportation modes in order to reduce the need for automobile trips.
ES1.7	Do not legislate or restrict the number of restaurant seats, but continue to prohibit formula restaurants.
ES2.A	Continue to prohibit formula restaurants, chain discount stores, and time-share lodging projects (excluding Fractional Ownership Lodging). Consider destination membership clubs and other potential lodging options that contribute to the Transient Occupancy Tax (TOT) revenue stream subject to a conditional use permit.
ES3.3	Ensure clarity, transparency, and efficiency in local regulations, permitting processes, and fee structures.
HR1.1	Preserve the City's historic and cultural resources, so that they may contribute to the special character and quality of the City and support its economic base.
HR1.2	Protect the historic resources that exist in the downtown commercial area.
HR1.3	Encourage the adaptive reuse, rehabilitation, and retrofit of historic buildings in which the original use is no longer feasible.
HR1.4	Promote the application of sustainable building practices to the preservation of historic resources.
HR1.B	Adopt design review guidelines and/or form-based codes, standards and criteria for the alteration or rehabilitation of historic properties. The adoption of design review guidelines and/or form-based codes can assist City staff, the Planning Commission, and City Council when reviewing permit requests and provide long-term regulatory consistency.
HR1.C	Adopt design review guidelines and/or form-based codes that require new development in or adjacent to historic areas or buildings to be compatible in design and character with existing historic buildings.
HR1.G	Continue to develop and implement downtown design guidelines and/ or standards to protect historic buildings and guide façade changes.
CD1.1	Ensure high-quality design and construction through a robust design review process.
CD1.2	Ensure the construction of sustainable buildings and landscaping in all public and private development projects.
CD1.3	Require construction and development practices that reduce energy demand through conservation and efficiency, such as the use of green building materials, site design to maximize passive heating and cooling and energy generation, on-site water reuse, water efficient landscaping, and use of low-flow appliances, among others.

KEY POLICY DIRECTION	
Ref #	***Policy/Implementing Action***
CD1.A	Continue to implement the existing design review process for new development and remodels throughout the city. Create additional tools, including design guidelines and/or form-based codes, to inform decision-making and ensure high-quality, sustainable design that is compatible with and enhances community character. Consider formation of historic design review committee and/or policies.
CD2.1	Maintain the character and identity of the downtown by emphasizing strong street definition, creating active front setbacks with outdoor seating, locating parking on the side and behind buildings, and maximizing entrances and transparency on building façades.
CD2.2	Within industrial and commercial areas outside downtown, maintain transitional zones as needed to protect public health and safety but allow flexible front setbacks while encouraging transparent and accessible front façades and parking on the sides and backs of buildings.
CD2.3	Encourage distinction within and between buildings by varying roof lines and articulating building facades.
CD2.D	Require businesses and structures to be of a scale commensurate with existing older buildings in the CB and SC land use areas.
CD3.1	Limit building envelope sizes and require adequate side and rear setbacks to preserve the character of existing residential areas and to avoid overbuilt lots. Require future development to conform to the pattern and density of the neighboring areas. In order to complement existing town character and protect against incursion into vineyard agricultural areas.
CD3.2	Ensure that new residential designs contribute positively to existing neighborhoods by comple-menting character and incorporating design features, such as front porches, façade articulation and stepbacks.
CD3.B	Review the existing ordinance language limiting lot coverage/floor area ratio according to parcel size in residential areas in order to preserve neighborhood character, reduce adverse view and shade impacts on existing homes, improve groundwater infiltration, and avoid overbuilt conditions. At the same time, care needs to be taken that any ordinance revision does not impair the ability to build second units on existing lots where appropriate.
CD3.E	Require new development to include landscaping and street trees.
CD3.G	Explore a reduction in parking requirements for residential uses that implement transportation demand management strategies, consistent with the parking management strategy articulated in the Circulation Element.
CD4.A	Require private development to incorporate appropriate public open space into site designs.
Housing Element	
HE1.3	Encourage the development of affordable housing and remove development constraints as feasible.
HE1.4	Address workforce housing needs by supporting an improved jobs/housing “match.”

KEY POLICY DIRECTION	
Ref #	***Policy/Implementing Action***
HE1.5	Encourage innovative housing types and designs.
HE1.6	Address emergency shelter and transitional housing requirements.
HE1.B	Review and possibly amend the Growth Management System to encourage the production of regulated affordable and workforce housing units. Review the Growth Management System (GMS) to make sure that it is not disproportionately affecting the development of affordable housing. Exemptions for restricted "workforce" housing units should be explored, and adopt as appropriate, in addition to current exemptions for affordable housing units. Continue to allow a maximum of 9 market rate units per year and priority allocation of annual building permit allocations and carryover permits to market rate units in development projects that include a minimum of 40 percent affordable units.
HE1.J	Encourage development of co-housing, ecohousing, 'green' manufactured homes, and other 'nontraditional' forms of housing. Ensure these housing types are addressed in the development of design guidelines to streamline the approval process.
HE1.K	Amend the Zoning Ordinance to define "family" as one or more persons living together as a single housekeeping unit in a dwelling unit. The definition should not distinguish between related and unrelated individuals and should not impose a numerical limit on the number of persons that constitute a family.
HE2.1	Encourage higher density development where appropriate.
HE2.2	Ensure that higher density housing opportunity sites are not lost to lower density uses.
HE2.3	Promote mixed-use developments.
HE2.4	Promote second unit production.
HE2.5	Allow conversion of single-family homes to multi-unit dwellings.
HE2.6	Promote a balance of types of housing throughout the whole community.
HE2.A	Provide incentives for higher density housing. Explore possible incentives for building attached market rate housing units for rent and for sale. Incentives to adopt as appropriate include, but are not restricted to, fast tracking development applications, deferred development fees, reduced parking and/or other city standards, and density bonuses.
HE2.B	Study potential modifications to the Zoning Ordinance to facilitate higher density housing [and discourage construction of oversize homes]. Modify the Zoning Ordinance to encourage higher density developments [and restrict construction of large single-family units], including current floor area ratios and yard and setback requirements.
HE2.C	Amend regulations to discourage exemptions from the minimum density requirements. The City shall discourage exemptions for minimum density requirements
HE2.D	Modify section 17.100 of the Zoning Ordinance to rename the Mobilehome Park Overlay District to "Manufactured Housing Overlay District." Develop policies to streamline the review process

KEY POLICY DIRECTION	
Ref #	***Policy/Implementing Action***
	for this overlay district on residential land for projects that create land-ownership opportunities for residents. Support giving residents the right of first refusal if an existing park is to be sold.
HE2.G	Promote both 'vertical' and 'horizontal' mixed-use. Encourage mixed-use developments that combine compatible uses on the same site, either in the same structure or adjacent structures. Amend the Zoning Ordinance accordingly. Amendments to the Zoning Ordinance include permitting the FAR for the residential component of a mixed-use development to be 'additive' rather than within the established FAR for that zone, and allowing commercial and residential users to 'share' their parking, resulting in a lower overall parking requirement. Requirements for covered parking should also be reconsidered.
HE2.H	Explore the possibility of allowing mixed use and live/work units in non-residential zoning districts. • Explore and adopt as appropriate modifications to non-residential Zones that would permit, either as of right or as a conditional use, residential uses including mixed use and integrated live/work units. • Analyze requirements that commercial projects provide housing for a portion of the employment that will be generated on site. The City will study and determine what portion of employment generated will require housing, whether housing will be required on-site or allowed off-site, if pricing for the non-inclusionary units will be tied to anticipated salaries for employees in the commercial portion of the project, and if in-lieu fees will be permitted for smaller sized projects. • Explore and adopt as appropriate development incentives such as higher density and height allowances, a streamlined design review process, and financial incentives, including fee reductions and waivers and contributions from the City's Housing Trust Fund, to encourage employers to provide on-site employee housing.
HE2.I	Review and revise development standards pertaining to second units. Ensure that the development of second units is physically and financially feasible in targeted areas. Give particular attention to parking standards, setbacks, and impact fees.