



CITY OF CARMEL-BY-THE-SEA FOREST AND BEACH COMMISSION

Sarah Berling, Kelly Brezoczky, Tamara Michie, JC
Myers, Brian Sours

All meetings are held in the City Council Chambers
East Side of Monte Verde Street
Between Ocean and 7th Avenues

REGULAR MEETING Thursday, August 10, 2023

THIS MEETING WILL BE HELD IN PERSON AND VIA TELECONFERENCE. The public is welcome to attend the meeting in person or remotely via Zoom, however, the meeting will proceed as normal even if there are technical difficulties accessing zoom. The City will do its best to resolve any technical issues as quickly as possible. To view or listen to the meeting from home, you may watch the Youtube Live Stream at: <https://www.youtube.com/@CityofCarmelbytheSea/streams>, or use the link below to view or listen to the meeting via Zoom teleconference:

<https://ci-carmel-ca-us.zoom.us/j/88539690386> Meeting ID: 885 3969 0386 Passcode: 501194

HOW TO OFFER PUBLIC COMMENT: Public comment may be given in person at the meeting, or using the Zoom teleconference module, provided that there is access to Zoom during the meeting. Zoom comments will be taken after the in-person comments. The public can also email comments to yoblender@ci.carmel.ca.us. Comments must be received 2 hours before the meeting in order to be provided to the legislative body. Comments received after that time and up to the beginning of the meeting will be made part of the record.

Tour Time 2:30 PM

ROLL CALL

TOUR OF INSPECTION

Prior to calling the meeting to order, the Board/Commission will conduct an on-site tour of inspection of the properties listed on the agenda and the public is welcome to join. After the tour is complete, the Board/Commission will begin the meeting in the City Council Chambers no earlier than the time noted on the agenda.

- A.** Ocean Avenue 4 NE of Guadalupe Street (Mardani, 23-215)
- B.** Santa Rita Street 4 SE of Ocean Avenue (Gaya, 23-024)
- C.** Southwest Corner of Santa Fe Street and Mountain View Avenue (Westphal, 23-217)
- D.** Camino Real 2 NW of Thirteenth Avenue (Jones, 23-198)

MEETING 3:30 PM

PLEDGE OF ALLEGIANCE

EXTRAORDINARY BUSINESS

- A. Introduction of the new Environmental Programs Manager and new City Forester

PUBLIC APPEARANCES

Members of the public are entitled to speak on matters of municipal concern not on the agenda during Public Appearances. Each person's comments shall be limited to 3 minutes, or as otherwise established by the Commission. Matters not appearing on Commission's agenda will not receive action at this meeting but may be referred to staff for a future meeting. Persons are not required to give their names, but it is helpful for speakers to state their names so that they may be identified in the minutes of the meeting.

ANNOUNCEMENTS

CONSENT AGENDA

Items on the consent agenda are routine in nature and do not require discussion or independent action. Members of the Commission or the public may ask that any items be considered individually for purposes of Commission discussion and/ or for public comment. Unless that is done, one motion may be used to adopt all recommended actions.

1. Approve the June 8, 2023 Meeting Minutes
2. Approve July 20, 2023 Special Meeting Minutes

PUBLIC HEARINGS

3. Approve or deny the pruning of limbs of a Significant oak tree on a neighboring property to construct a second-story addition at the property located at Ocean Avenue 4 Northeast of Guadalupe Street (TR 23-215, DS 23-221)
4. Approve or deny the removal of one coast live oak tree for construction purposes at Santa Rita Street, 4 Southeast of Ocean Avenue (TR 23-024, DS 22-330)
5. Approve or deny the removal of two coast live oak trees for reconstruction purposes at the Southwest Corner of Santa Fe Street and Mountain View Avenue (TR 23-217)
6. Approve or deny the removal of one Monterey pine tree at Camino Real, 2 Northwest of Thirteenth Avenue (TR 23-198)

ORDERS OF BUSINESS

Orders of Business are agenda items that require City Council, Board or Commission discussion, debate, direction to staff, and/or action.

7. Receive a presentation from Integral Corp./Haro Kasunich & Associates/EMC Planning Group regarding the results of the Shoreline and Beach Change Analysis, Task 2, which is part of the Coastal Engineering Study
8. Status update on the Urban Forest Master Plan (UFMP), respond to Stakeholder Survey questions from Davey Resource Group (DRG), and finalize the UFMP Community Survey

9. Ocean Avenue Median Islands Landscaping Design Alternatives
10. Commission discussion of the findings and priorities regarding the Beach Infrastructure Tour of Inspection conducted on July 20, 2023
11. Public Works Director's Report for July 2023, including the Forestry Division Report.
12. Public Works Director's Report for June 2023, including the Forestry Division Report.

FUTURE AGENDA ITEMS

ADJOURNMENT

13. Correspondence received after Agenda posting

This agenda was posted at City Hall, Monte Verde Street between Ocean Avenue and 7th Avenue, Harrison Memorial Library, located on the NE corner of Ocean Avenue and Lincoln Street, the Carmel-by-the-Sea Post Office, 5th Avenue between Dolores Street and San Carlos Street, and the City's webpage <http://www.ci.carmel.ca.us> in accordance with applicable legal requirements.

SUPPLEMENTAL MATERIAL RECEIVED AFTER THE POSTING OF THE AGENDA

Any supplemental writings or documents distributed to a majority of the Forest & Beach Commission regarding any item on this agenda, received after the posting of the agenda will be available at the Public Works Department located on the east side of Junipero Street between Fourth and Fifth Avenues during normal business hours.

SPECIAL NOTICES TO PUBLIC

In compliance with the Americans with Disabilities Act, if you need special assistance to participate in this meeting, please contact the City Clerk's Office at 831-620-2000 at least 48 hours prior to the meeting to ensure that reasonable arrangements can be made to provide accessibility to the meeting (28CFR 35.102-35.104 ADA Title II).



CITY OF CARMEL-BY-THE-SEA FOREST AND BEACH COMMISSION Staff Report

August 10, 2023
EXTRAORDINARY BUSINESS

TO: Forest and Beach Commissioners

SUBMITTED BY: Robert M. Harary, P.E., Director of Public Works

SUBJECT: Introduction of the new Environmental Programs Manager and new City Forester

RECOMMENDATION:

Receive a brief introduction regarding the qualifications, experience, and current and upcoming key assignments for Environmental Programs Manager Mary Bilse and City Forester Justin Ono.

BACKGROUND/SUMMARY:

The Public Works Director will provide an overview of the backgrounds and assignments of these new employees. Both employees play key roles in planning, operating, maintaining, and improving the City's urban forest, parks and open spaces, the Mission Trail Nature Preserve, North Dunes, and Carmel Beach.

FISCAL IMPACT:

None.

ATTACHMENTS:

**FOREST AND BEACH COMMISSION
REGULAR MEETING MINUTES
Thursday, June 8, 2023**

TOUR TIME 2:30 PM

ROLL CALL

Shortly after 2:30 p.m., the Commission will leave the Council Chambers for an on-site Tour of Inspection of all properties listed on this agenda. Prior to the beginning of the Tour of Inspection, the Commission may eliminate one or more on-site visits. The public is welcome to follow the Commission on its tour of the determined sites. The Commission will return to the Council Chambers at 3:30 p.m. or as soon thereafter as possible.

TOUR OF INSPECTION

- Casanova Street, 2 Southeast of Palou Avenue
- Southwest corner of Scenic Road and Tenth Avenue
- Junipero Street, 3 Northeast of Twelfth Avenue

MEETING 3:30 PM

CALL TO ORDER AND ROLL CALL

PRESENT:	Berling, Brezoczky, Michie, Myers, Sours
ABSENT:	None
STAFF PRESENT:	Robert Harary, P.E., Director of Public Works Tom Ford, Administrative Analyst Yvette Oblander, Commission Secretary/Administrative Coordinator

PLEDGE OF ALLEGIANCE

Chair Myers led the public in the Pledge of Allegiance

PUBLIC APPEARANCES

Shirley Moon

ANNOUNCEMENTS

Director Harary announced:

- Before Covid, the Commissioners and staff met in the Council Chambers first before going on the Tour of Inspection, like we did today, and as stated in the by-laws. During Covid, we made an exception to this rule by meeting at the site of the Tour of Inspection. If the Commission wishes, the Commission could modify the by-laws with a majority vote so that we can always meet first at the site. The Planning Commission recently enacted this change. The Commissioners appeared to be receptive to this upcoming modification.

- A candidate has been offered the City Forester position and has accepted it. Once the background check has cleared, we will announce the name of the candidate. The intent is to have the new Forester start on July 1st or 16th, 2023.
- Item Number 2 on the agenda, regarding Permit Application Number 23-051 and located at the northwest corner of Guadalupe Street and Ocean Avenue, has been withdrawn by the Applicant.

CONSENT AGENDA

Item 1: Approve the May 11, 2023, Meeting Minutes

Approve the May 11, 2023, Meeting Minutes

Commissioner Berling moved to approve the April 13, 2023, Meeting Minutes, seconded by Commissioner Michie and carried by the following vote:

AYES: Berling, Brezoczky, Michie, Myers, Sours
NOES: None
ABSENT: None
ABSTAIN: None

PUBLIC HEARINGS

Item 2: Tree Permit Application 23-051, located at NE corner of Guadalupe Street and Ocean Avenue. This item has been withdrawn by the Applicant

Item 3: Approve or deny the removal of one significant Santa Lucia fir tree at Casanova Street, 2 Southeast of Palou Avenue (Tree Permit Application 23-148)

Mr. Ford presented the Staff Report and recommends approving the removal of one Santa Lucia fir tree at the Applicant's expense. Should the removal be approved, require the replanting of 1 upper canopy tree at the Applicant's expense. Mr. Ford answered questions of the Commission.

The Applicant was not present.

PUBLIC COMMENT

None

Commissioner Sours motioned to approve the removal of one Santa Lucia fir tree, seconded by Commissioner Michie and carried by the following roll call vote:

AYES: Berling, Brezoczky, Michie
NOES: Myers, Sours
ABSENT: None
ABSTAIN: None

Item 4: Approve or deny the removal of one Monterey pine and three Monterey cypresses the Southwest corner of Scenic Road and Tenth Avenue (Tree Permit Application 23-164)

Mr. Ford presented the Staff Report and recommends removal of one dying Monterey pine tree located in the pedestrian pathway, and pruning, but not removal, of three significant Monterey cypress trees along the Scenic Pathway, all at the City's expense. He answered questions of the Commission

The Applicant was not present.

PUBLIC COMMENT

None

Chair Myers motioned to approve the removal of one Monterey pine tree, seconded by Commissioner Berling and carried by the following roll call vote:

AYES: Berling, Brezoczky, Michie, Myers, Sours
 NOES: None
 ABSENT: None
 ABSTAIN: None

Chair Myers moved forward with the three Cypress trees, per the recommendation of Commissioner Berling, to vote on each tree individually.

Chair Myers motioned to follow the arborists recommendation to prune Trees No. 2 and No. 3, but Tree No. 4 needs further investigation in terms of its stability and safety. Commissioner Brezoczky made a friendly amendment to have three trees be appropriately pruned of deadwood to maintain their aesthetic shapes, and to have the crowns inspected on Trees 2, 3, and 4, which is also recommended by the arborist, but to delay a decision on Tree No. 4 pending the crown evaluation and exploration of whether cabling is a possibility to maintain that tree. Seconded by Commissioner Sours and carried by the following roll call vote:

AYES: Berling, Brezoczky, Michie, Myers, Sours
 NOES: None
 ABSENT: None
 ABSTAIN: None

Item 5: Approve or deny the removal of one significant eucalyptus and one non-significant Japanese maple at Junipero Street, 3 Northeast of Twelfth Avenue (Tree Permit Application 23-154)

Mr. Ford presented the Staff Report and recommends approving the removal of one significant eucalyptus which is located too close to the structure, and removal of a healthy Japanese maple tree which appears to conflict with a proposed renovation project, all at the Applicant's expense. Should the removals be approved, require the replanting of 2 upper canopy trees at the Applicant's expense. He answered questions of the Commission.

The Applicant was not present

PUBLIC COMMENT

Gwen and Mike McColl – email correspondence prior to Forest and Beach Meeting
 Courtney and Raju Krishnamurthy – email correspondence prior to Forest and Beach Meeting

Mark and Dorothy Anayati – Mr. Ford made a comment on behalf of Mr. and Ms. Ananyati
 Marcia Zelus – Mr. Harary made a comment on behalf of Ms. Zelus

Commissioner Brezoczky motioned to approve the removal of the eucalyptus tree No. 5, deny the removal of the Japanese maple No. 6, and add a requirement for one upper canopy tree to be planted. Seconded by Chair Myers and carried by the following vote:

AYES: Berling, Brezoczky, Michie, Myers, Sours
 NOES: None
 ABSENT: None
 ABSTAIN: None

ORDERS OF BUSINESS

Item 6: Introduction of the Urban Forest Citizen's Advisory Group

Director Harary spoke about a group that was formed during the winter storms led by Mr. Bill Taormina and who call themselves the "Urban Forest Citizens Advisory Group." The Group was quoted in a recent Carmel Pine Cone article, and Mr. Taormina and Director Harary have discussed how to ensure that the objectives of the Citizen's Advisory Group are compatible with the mission of the Forest and Beach Commission and ties in with the objectives of the Urban Forest Master Plan which is in progress, as well as subsequent modifications of the City's Tree Ordinances. He then introduced Mr. Taormina.

Mr. Taormina presented a slide outlining how his advisory group would like to see positive changes to the urban forest to help Carmel be safer. He stated that they want to provide input and support the Commission's efforts to continue to keep the forest healthy. Their focus is life safety and protection of the homes/properties. They would also like to help staff during potential emergency situations and provide voluntary work. In addition, they are interested in reviewing potential ways of increasing the City's forestry resources via special assessments or a special fee. They believe that the Forest is our most important asset and are here to help.

Mr. Taormin answered questions of the Commission.

PUBLIC COMMENT

Dale Byrne

Item 7: Steering Committee member selection for the Urban Forest Master Plan

Director Harary presented the Staff Report regarding the Steering Committee. As background, the City received a grant from Cal Fire to prepare the Urban Forest Master Plan (UFMP) which is in progress by Davey Resource Group. In November 2022, Staff initially presented to the Commission two potential committees to guide development of the City's UFMP – a Technical Advisory Committee and a Citizen's Steering Committee. This discussion concluded that having two committees may be onerous, but that having one steering committee comprised of interested citizens and technical experts to supplement the Forest and Beach Commissioners would be the best way to go forward for the UFMP.

The proposed Steering Committee would be for a relatively short duration with less than a dozen meetings. There was agreement to have a diversity of opinions about the urban forest, just like we have in the community. Staff drafted a questionnaire which was included in the Friday Letter and posted on the City's website. We received 13 applications by the late May deadline.

Attached to the agenda packet is a spreadsheet of the questionnaire results with names and personal information redacted to encourage an unbiased selection process. Director Harary emphasized that the objective of this Agenda Item is to have the Commission select candidates to serve as the Steering Committee with a diversity of perspectives, technical expertise, and community involvement.

The Commissioners went over the applications and ultimately selected 5 candidates to serve on the Selection Committee. Names were not identified pending their notification by Mr. Ford. The remaining candidates will be sent a letter of appreciation for their interest and will be encouraged to continue to participate in the UFMP development process.

PUBLIC COMMENT

None

Item 8: Public Works Director's Report for May 2023, including the Forestry Division Report.

Director Harary presented the Public Works Department report for May 2023, including the Forestry Division Report.

City Council actions related to Forestry, Parks and Beach issues (June 6, 2023 Meeting)

- All forestry-related capital improvement projects and operations budget items discussed last month, and as listed in the May Meeting Minutes, were approved.
- Two Change Orders were approved for each of our three on-call tree service contractors. Change Orders No. 1, with a net increase of \$33K, covers the balance of Fiscal Year (FY) 2022/23. Change Orders No. 2 will be to award each contractor \$175k (\$525k total) for FY 2023/24 – a notable increase from the previously-anticipated total budget of \$300k.
- A Professional Services Agreement was awarded to Ono Consulting for on-call arborist services for \$100k.

Forestry Division Report

- Davey Resource Group continues making good progress with technical studies associated with development of the UFMP. They are nearing completion of the GIS mapping and operational review, halfway done with the tree canopy and land cover assessments, and are starting on the economics analysis and stakeholder interview questions.
- Coordinated with Cal Fire and provided additional backup information for reimbursement of approximately \$89k of the \$150k grant for the UFMP.
- The local workshop for the Community Wildfire Protection Plan was attended by roughly 30 residents. Preliminary findings can be found via a link on the City website's main page.
- Attachment #2 is the PowerPoint presentation, entitled: "City Prioritization, Data, and Actions related to Tree Concerns," as presented to the Forest and Beach Commission on April 13, 2023.

Forestry Parks and Beach-related Capital Improvement Projects

- For the Mission Trail Nature Preserve (MTNP) Well Abandonment and Water Tank/Pump House Removal Project, the project was advertised for bids effective May 8th, and a well-attended pre-bid meeting was held on May 24.

- For the MTNP 3 Drainage Improvements Project, additional back and forth questions and answers continued with the California Department of Fish and Wildlife and the Water Quality Control Board prior to issuance of these regulatory permits which have delayed this project.

Climate Action and Climate Adaptation Plan implementation

- For the Coastal Engineering Study, the Project Team reviewed the preliminary findings of Task 2, which includes historical beach sand movement, coastal tide patterns, and future changes due to climate change.
- Consultant EMC/Integral also prepared an application for a non-competitive Coastal Commission LCP grant, requesting over \$418k, for future phases of the Coastal Engineering Study. Grant application is currently being reviewed by staff.

Update on Volunteer Organizations

- Council approved a \$3,000 Discretionary Grant to Carmel Cares for proposed upgrades at the Vista Lobos Park.
- MPC horticulture professor, Alan Wheat, took his Native Plant Class to the Forest Theater where they planted native grasses and plants to supplement landscaping recently installed by Carmel Cares.
- At the North dunes Habitat Restoration Site, coordinated with volleyball player volunteers to pull weeds out of ice plant and amongst endangered species.

Miscellaneous, Forestry, Parks and Beach-related Public Works items

- Collaborated with Monterey Fire and Carmel Police to consider alternatives for beach emergency access resulting from the January storms which destroyed the preferred beach access ramp near Eighth Avenue. At the west of the Del Mar parking lot, relocated a boulder, installed a chain, deflated tires, and successfully test drove fire, police, and public works vehicles down to the tide line and back up into the parking lot.
- Rented a bobcat and spread sand up the embankment near the Del Mar parking lot and west of the volleyball courts to cover over exposed sandstone.
- Cleared out more piles of fire fuel and debris from MTNP, with many more piles remaining.
- The City's Traffic Safety Committee recently discussed the Friends of Mission Trail Nature Preserve's (FOMTNP) request to prohibit bicycles and e-bikes in the Preserve. Committee discussed embankment erosion problems caused by bikes, as well as patrol and enforcement challenges. Committee moved to continue the matter until a representative of FOMTNP appears, and to gather statistics on prior bike complaints, existing bike signs throughout the Preserve, and any bike-prohibiting governing documents.
- Updated Public Works fees for services, including tree permits.

PUBLIC COMMENT

Maria Sutherland

Cindy Lloyd

Dale Byrne

FUTURE AGENDA ITEMS

- Special Meeting to tour the Beach, with a proposed the date of July 20, 2023.

ADJOURNMENT

Respectfully submitted,

Yvette Oblander, Administrative Coordinator, Commission Secretary

Approved by:

JC Myers, Chair

**FOREST AND BEACH COMMISSION
SPECIAL MEETING
Thursday, July 20, 2023**

MEETING 3:00 PM

CALL TO ORDER AND ROLL CALL

PRESENT: Berling, Brezoczky, Myers, Sours
ABSENT: Michie

STAFF PRESENT: Mary Bilse, Environmental Manager
Javier Hernandez, Project Manager
Justin Ono, City Forester

Commissioner Michie was unable to be present during Roll Call and joined the tour at the Beach site at 3:30

TOUR TIME - 3:15 PM

TOUR OF INSPECTION - Carmel Beach, bottom of Ocean Avenue near walkway

Item 1: The Carmel by-the-Sea Forest and Beach Commission will be conducting a walking beach tour starting at the bottom of Ocean Avenue and heading south. The purpose of the beach tour is to allow the Commission to take a general assessment of the condition of the Carmel Beach infrastructure. The Commissioners will visually identify issues related to items presented in the February 2023 Coastal Summary Report, and generate a list of recommended future agenda items for City Staff to bring back on near-future Commission agendas. No formal decisions or specific direction regarding projects along the beach will be considered as part of the tour.

The Forest and Beach Commission conducted a walking beach tour starting at Ocean Avenue and ending at the south end of Carmel Beach. The Forest and Beach Commissioners during the tour looked at all eleven stairs' cases, eleven walls and six revetements and came up with a consensus about the priorities to be discussed at subsequent meetings.

ADJOURNMENT

Meeting Adjourned at 4:30 pm at the south end of Carmel Beach.

Respectfully submitted,

Mary Bilse, Environmental Manager

Approved by: _____
JC Myers, Chair



CITY OF CARMEL-BY-THE-SEA FOREST AND BEACH COMMISSION Staff Report

August 10, 2023
PUBLIC HEARINGS

TO:	Forest and Beach Commissioners
SUBMITTED BY:	Thomas C. Ford, Administrative Analyst
SUBJECT:	Approve or deny the pruning of limbs of a Significant oak tree on a neighboring property to construct a second-story addition at the property located at Ocean Avenue 4 Northeast of Guadalupe Street (TR 23-215, DS 23-221)

RECOMMENDATION:

Deny the pruning of a Significant oak tree at Ocean Avenue 4 Northeast of Guadalupe Street.

Should pruning be approved:

- All costs will be at the Applicant's expense.
- Tree Permit 23-215 would only be valid upon an approved Design Study (DS 23-221) and issuance of a Building Permit.

BACKGROUND/SUMMARY:

In 2021, Permit **TR 21-099 (Attachment 1)** authorized "pruning of branches over the roof no more than 4 inches in diameter" over the Applicant's property. Several limbs under 4 inches were subsequently removed; however, two limbs between 4 and 5 inches were also pruned from Tree #4 without authorization.

Property owner Adazeh Mardani submitted a new Application, **TR 23-215 (Attachment 2)**, to prune several additional limbs on Tree # 4 for purposes of constructing a second-story addition to the Applicant's house. See **Attachment 3 for the Site Map**. Tree #4 is a Significant, multi-stem oak tree owned and located on the neighboring property to the west. The branches of this tree overhang the property line, are situated above the Applicant's roof, and would conflict with the **proposed construction design in DS 23-221 (Attachment 4)**.

See **Attachment 5 for photos**.

City Forester Justin Ono assessed Tree #4 and determined that the tree still appears relatively healthy. Story poles were not present at time of inspection. City staff made a reasonable interpretation of the height of the proposed second-story addition and any corresponding limb clearance that would be needed.

Prior to the proposed construction, one stem of the tree and several limbs over 4 inches in diameter would likely need to be removed for clearance. This may remove over 25% of the existing canopy, exceeding a tree industry standard limit of healthy pruning. The Forester recommends denial of pruning on merits that the extent of the requested pruning would likely lead to the tree's decline and are in contradiction with

International Society of Arboriculture's (ISA) best management practices and the American National Standards Institute's (ANSI) pruning standards. Instead, Staff suggests that the Applicant's architect evaluate alternative second story designs that eliminate or reduce the need for pruning.

The adjacent property owners to whom the tree belongs oppose pruning of Tree #4.

The Applicant and their neighbors were notified of the opportunity to speak at the Public Hearing.

ENVIRONMENTAL EVALUATION:

This action does not constitute a project within the meaning of the California Environmental Quality Act under Public Resources Code Section 21065. It has no potential to cause either a direct physical change in the environment or a reasonably foreseeable indirect physical change in the environment and, therefore, does not require environmental review.

FISCAL IMPACT:

Should the tree be approved for pruning, all costs will be at the Applicant's expense.

ATTACHMENTS:

Attachment 1 – 2021 Permit, TR 21-099

Attachment 2 – 2023 Permit, TR 23-215

Attachment 3 – Site Map, TR 23-215

Attachment 4 – Proposed Construction Designs from DS 23-221

Attachment 5 – Photos

**TREE REMOVAL/PRUNING PERMIT AND POSTING NOTICE****2021 permit (TR 21-099)**

CITY OF CARMEL-BY-THE-SEA

Permit # 21099 Receipt # 0

P.O. Box CC

Tree Tag # 3900

Carmel, CA

Ph: (831) 620-2070/FAX: 831-624-2132

☐ Construction☐ No ConstructionExact Location of property: Ocean Avenue 4 NE of Guadalupe GuadalupeBlock: 64 APN: 010033011000Name of Property Owner: MARDANI SEYEDEH & MOSTAFAZADEH SHAHRAM

Agent for Owner: _____

Mailing Address: 1110 CALCATERRA CT
SAN JOSE CA 95120

Mailing Address: _____

Email: azadehmardani1@yahoo.com

Email: _____

Phone #: 408-826-9046

Phone #: _____

Approved for removal or pruning: Remove Acacia and prune oaks**Standard Conditions/Requirements:**

1. ALL Permits must be obtained before any tree is removed or pruned, i.e. Building, Demolition, Coastal Commission, etc.
2. The City Forester must be contacted no less than 2 working days but no more than 1 week before tree work commences.
3. All tree work must be done by a tree service company currently licensed by the City of Carmel-by-the-Sea.
4. This permit **MUST** be displayed on site in a publicly-accessible location prior to the commencement of work (including staging).
5. All tree(s) required to be planted, shall be installed within 30 days after tree removal.
6. All replacement trees must be maintained in a healthy condition for a minimum of 5 years. Inspections will be performed annually.
7. I will return the attached page indicating where and when the replacement trees were planted within 30 days tree removal, when replanting is required by the City.

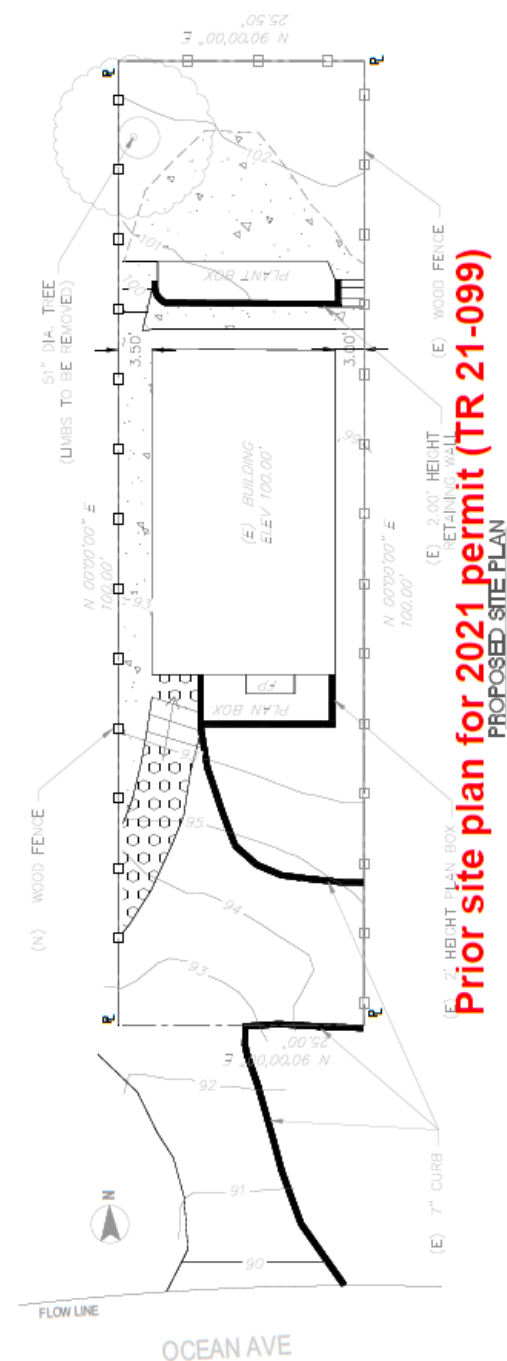
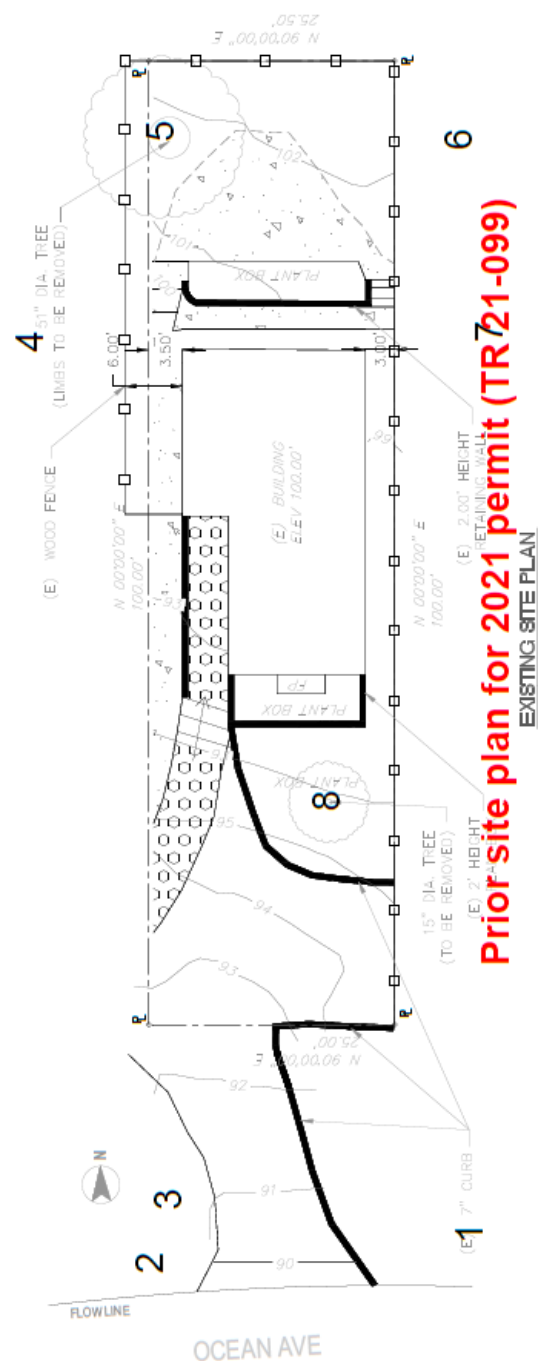
Replant: N/A upper / lower canopy trees // Species: _____ // _____ gal. / boxAdditional Comments: Pruning of branches over the roof of no more than 4" in diameter.

ISSUANCE OF A PERMIT BASED UPON PLANS AND SPECIFICATIONS ATTACHED HERETO SHALL NOT PREVENT THE BUILDING OFFICIAL OR THE CITY FORESTER FROM THEREAFTER REQUIRING THE CORRECTION OF ERRORS IN SAID PLANS AND PERMIT WHEN IN VIOLATION OF ANY CODE AND/OR ORDINANCE. ANY DEVIATIONS AND/OR CHANGE IN THESE PLANS SHALL BE APPROVED BY THE CITY FORESTER OR FOREST AND BEACH COMMISSION.

I understand and agree to comply to with the above stated conditions.

Property Owner or Authorized Agent's Signature _____ Date: _____

Print name _____ as ☐ Property Owner ☐ Authorized Agent (check one)Permit #: 21099 Approved By: Sara Davis Date: 7/12/2021



**Public Works/Forestry**

PO BOX CC
CARMEL, CA 93921
Phone: (831) 620-2070

Date Received: 6/26/23FEE: \$ 255 Attachment 2RECEIPT #: 1190Permit #: 23-215**APPLICATION FOR PERMIT TO REMOVE OR PRUNE TREES FOR THE PURPOSE OF CONSTRUCTION/DEMOLITION**Location of property: 4 Ne Guadalupe Carmel, CA 93923BLOCK: 64 LOT: 6 APN: 010-033-011-000Name of Property Owner: Azadeh Mardani Name of Applicant/Contractor: Azadeh MardaniMailing Address: 1110 CALCATERRA CT, SAN JOSE, CA 95120 Mailing Address: _____Email: azadehmardani1@yahoo.com Email: _____Phone #: 408-826-9046 Phone #: _____

WHO WILL REMOVE/PRUNE TREE(S): _____

PLEASE NOTE IF TREE(S) ARE ON CITY OR PRIVATE PROPERTY

Number, size and species of tree(s) to be removed: _____

Number, size and species of limb(s) to be removed: Coastal Oak Tree #4 and #5 from Tree Evaluation Worksheet for Construction of second story.

Number, size and species of root(s) to be removed: _____

Reason for removal or pruning: For home remodel/addition project

You will be notified in writing the date and time that your request is scheduled for a hearing. If you or your representative is unable to attend the hearing your application will be tabled. You may reschedule by contacting the Secretary to the Forest and Beach Commission at (831) 620-2070. You may waive your right to speak at the hearing and authorize the Forest Beach Commission to act on your absence by signing on the following line: _____ Date: _____

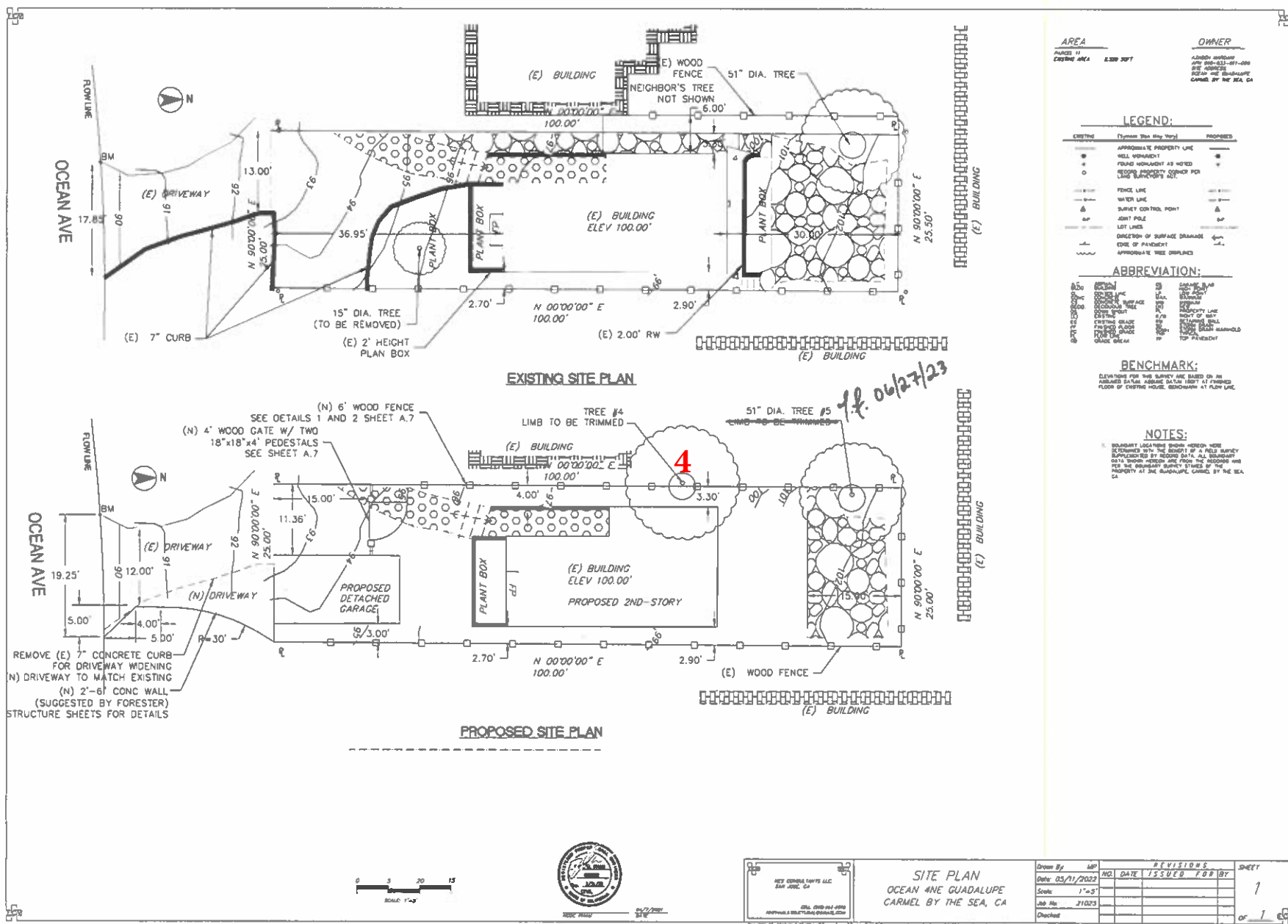
A SITE PLAN MUST ACCOMPANY THIS APPLICATION AND SHOW THE FOLLOWING:

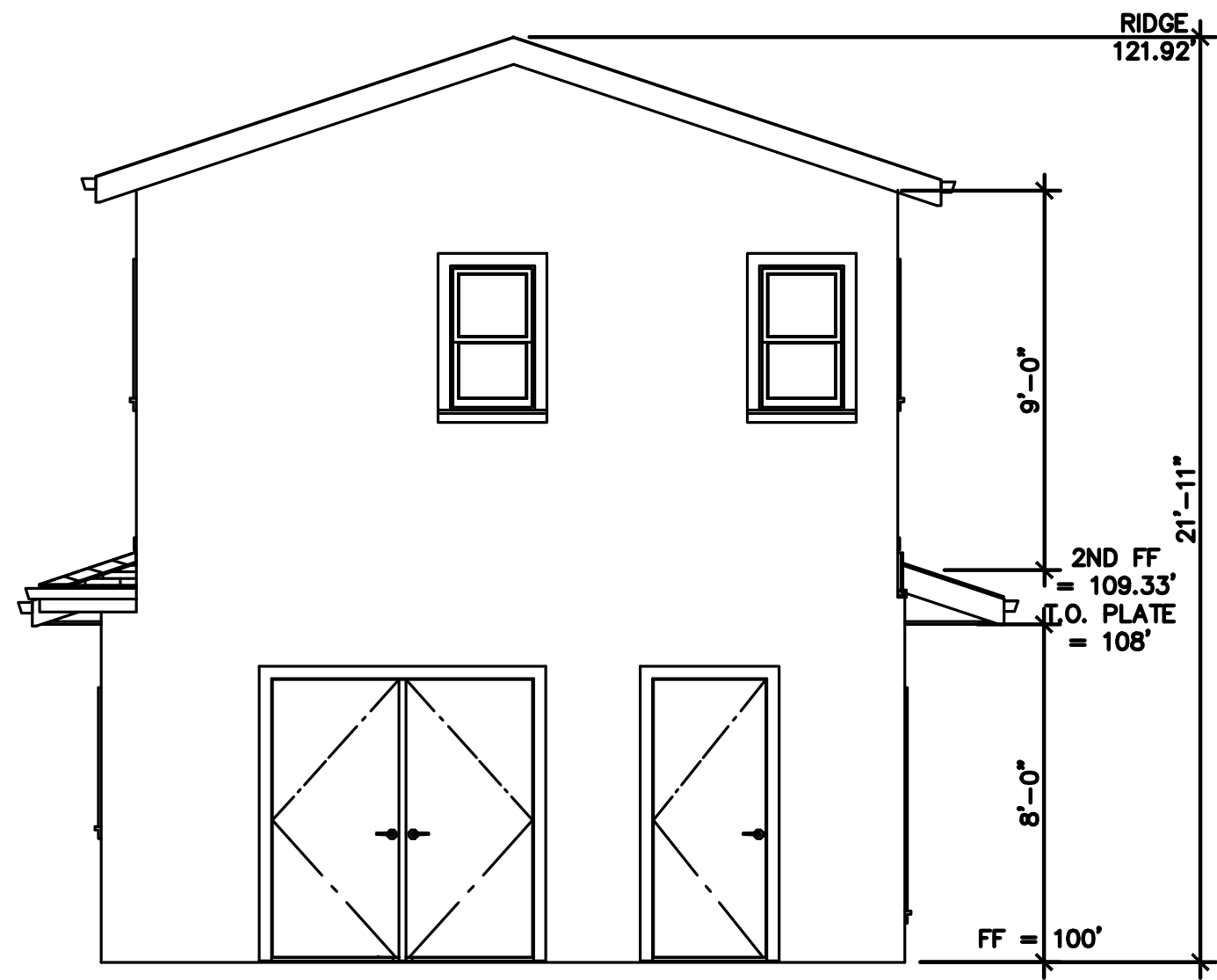
1. Location, size and species of ALL trees on the lot.
 2. Location and species of tree(s) /limb(s) to be removed or pruned
 3. Footprint of the structure
 4. Existing and proposed site coverage.
 5. ALL areas that are to remain for landscaping and the total square feet of open space.
 6. Location of areas for tree replanting- The City has adopted Design Review Guidelines which include a minimum tree density per lot. Please review the attached Policy and indicate on the site plan where you intend to plant trees necessary to comply with which guideline.
 7. Will excavation other than standard footings be required as part of your construction? NO ☒ / YES ☐
If YES, you **MUST** show the area of cut, its depth and total cubic yards to be removed.
- Any decision of the Forest and Beach Commission is based on information submitted with this application.
 - In order to properly consider your application it is necessary that the footprint of your purposed construction be clearly defined on the lot and height poles are installed prior to the Commission's Tour of Inspection. Any decision of the Forest and Beach Commission is based on information submitted with this application. If the design is altered or the location of the structure changes, another application for a tree permit is required.
 - **NO WORK IS PERMITTED** until you have picked up your permit for tree work-The Permit must be posted on the job site when work is being performed.

Owner's Signature: Date: 06/26/2023

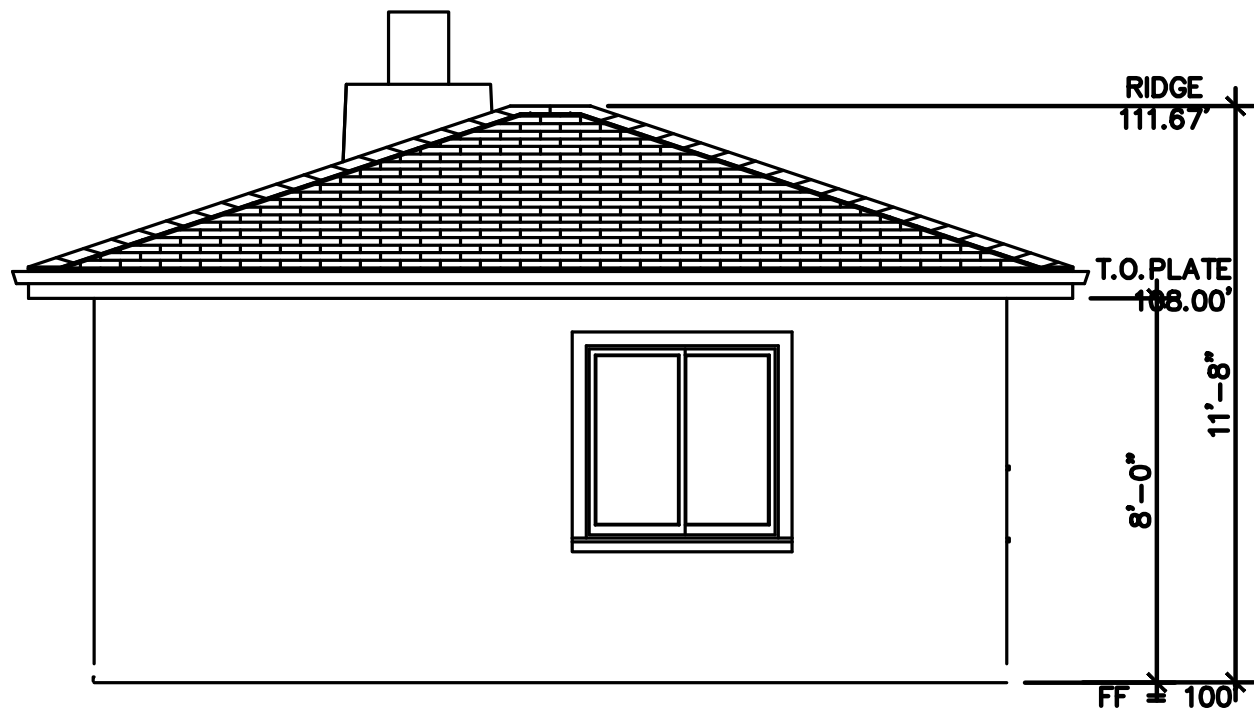
Agent for Owners: _____ Date: _____

INCOMPLETE APPLICATIONS WILL BE RETURNED

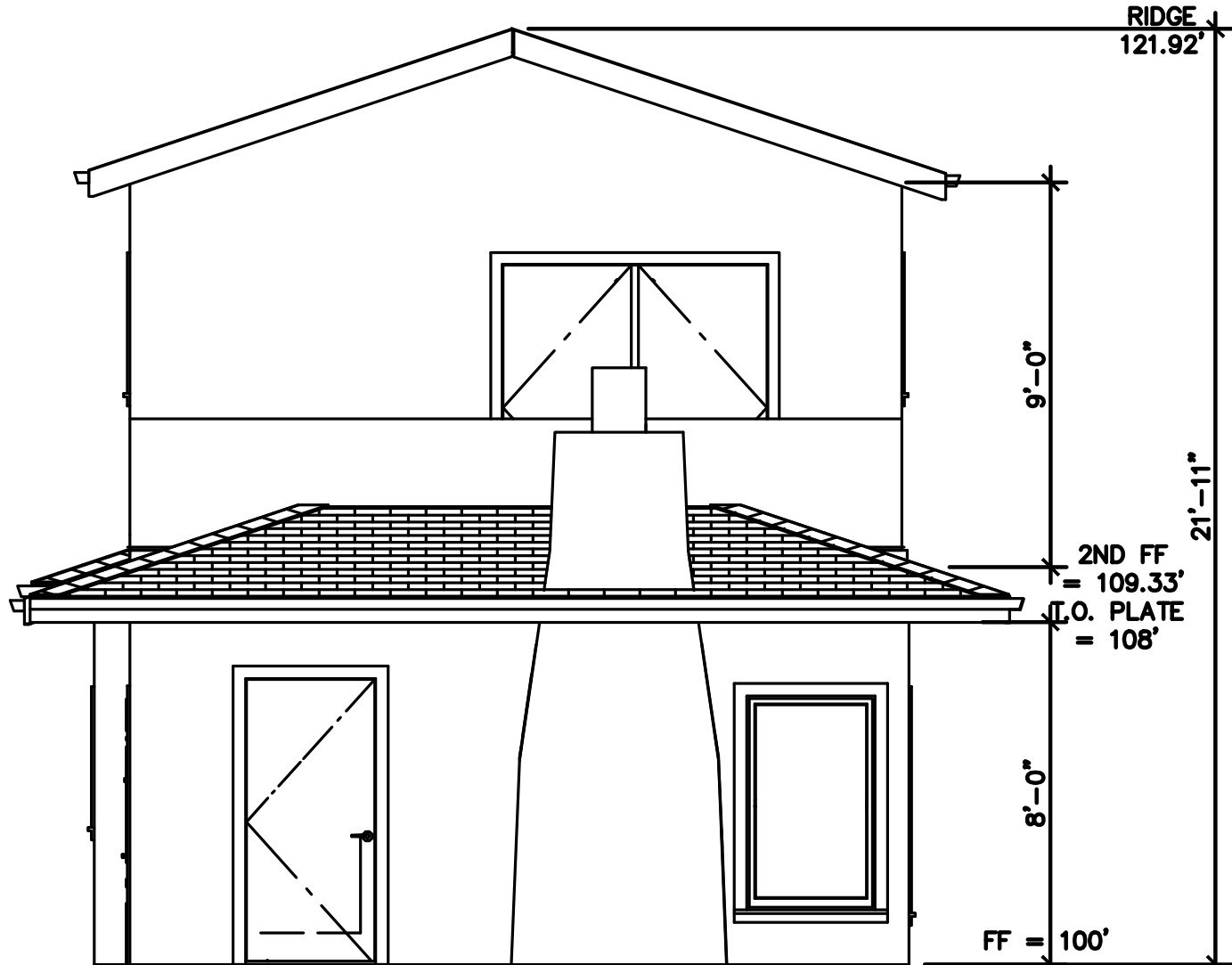




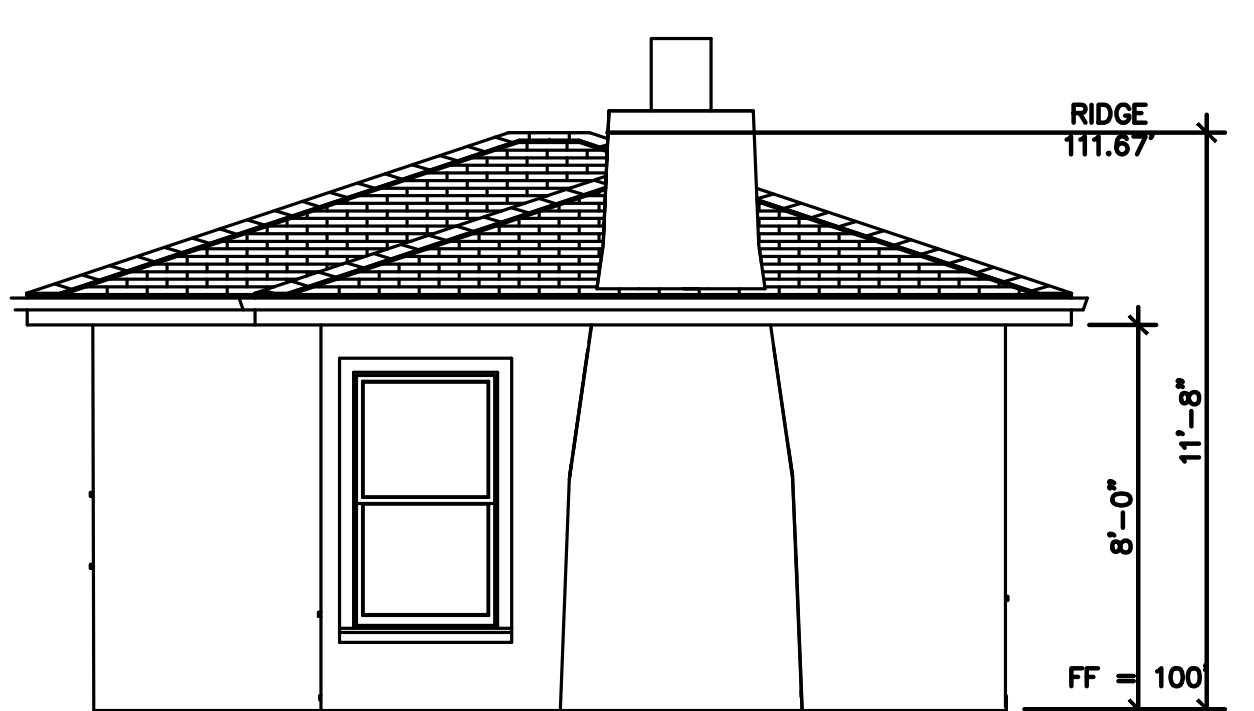
(N) BACK ELEVATION – NORTH
scale: 1/4" = 1'-0"



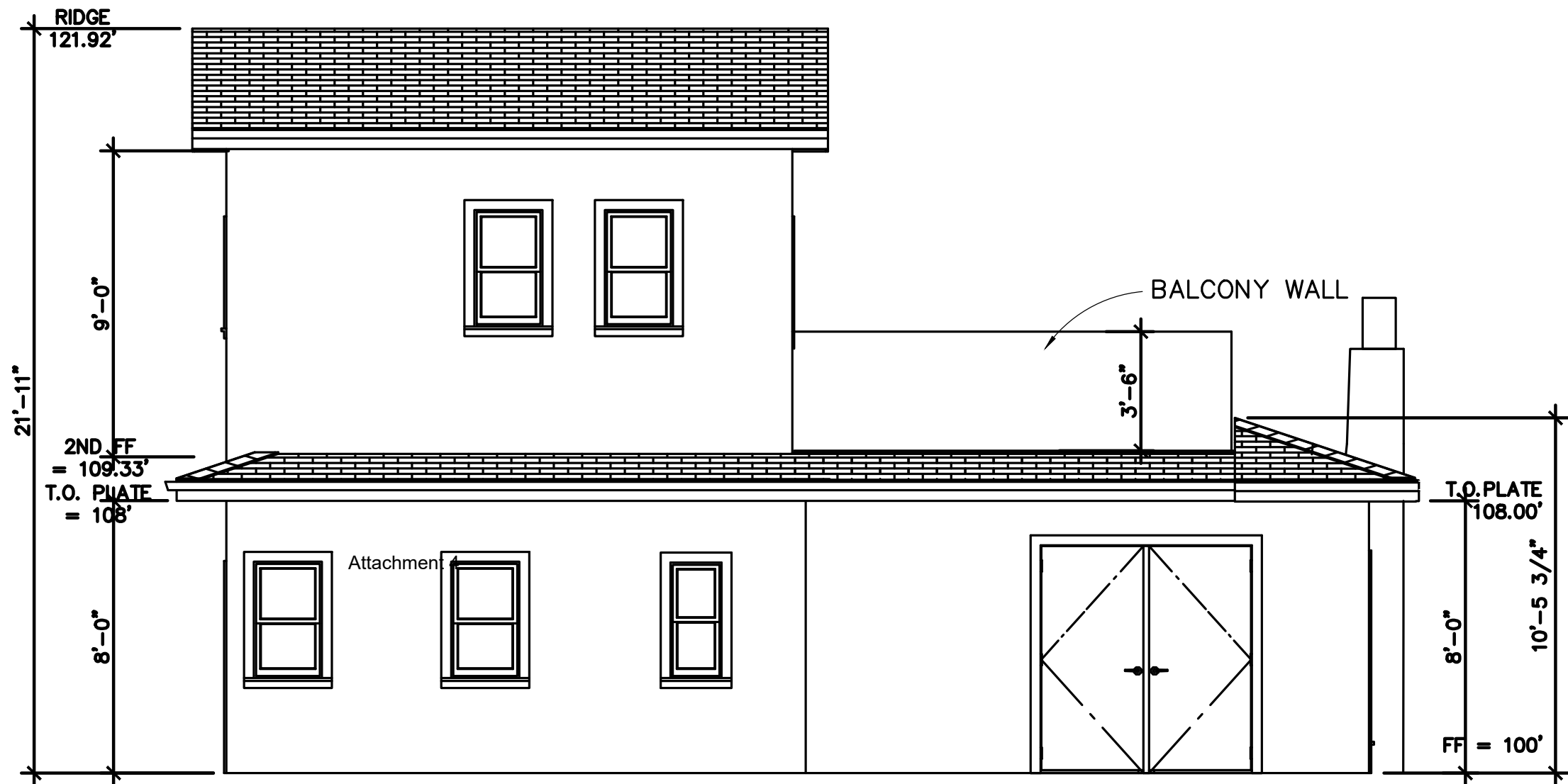
(E) BACK ELEVATION – NORTH
scale: 1/4" = 1'-0"



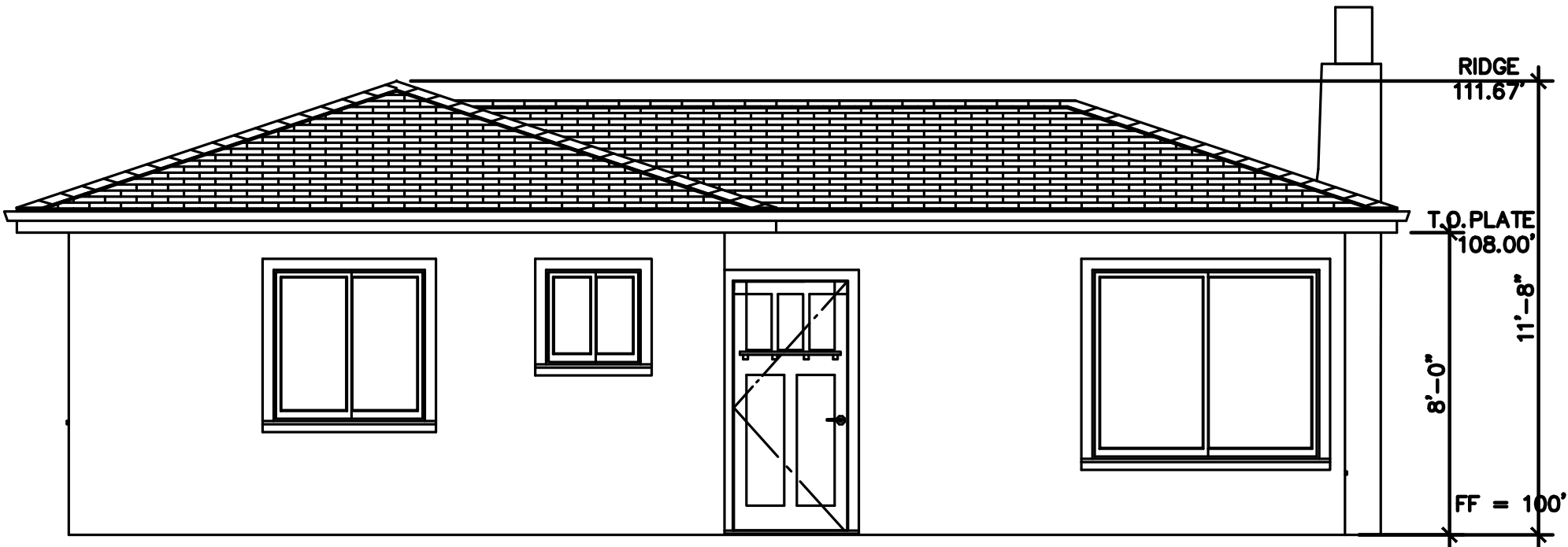
(N) FRONT ELEVATION – SOUTH
scale: 1/4" = 1'-0"



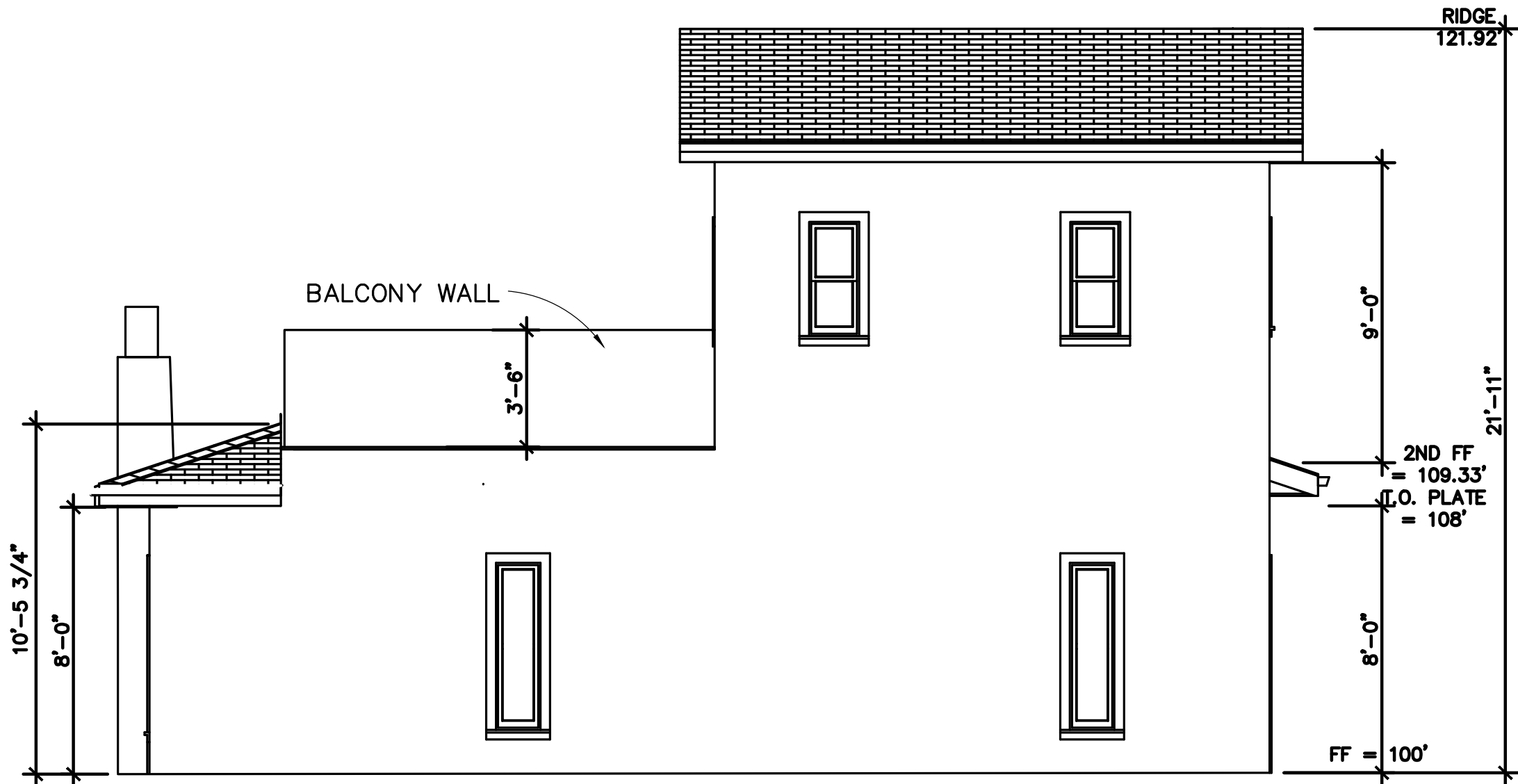
(E) FRONT ELEVATION – SOUTH
scale: 1/4" = 1'-0"



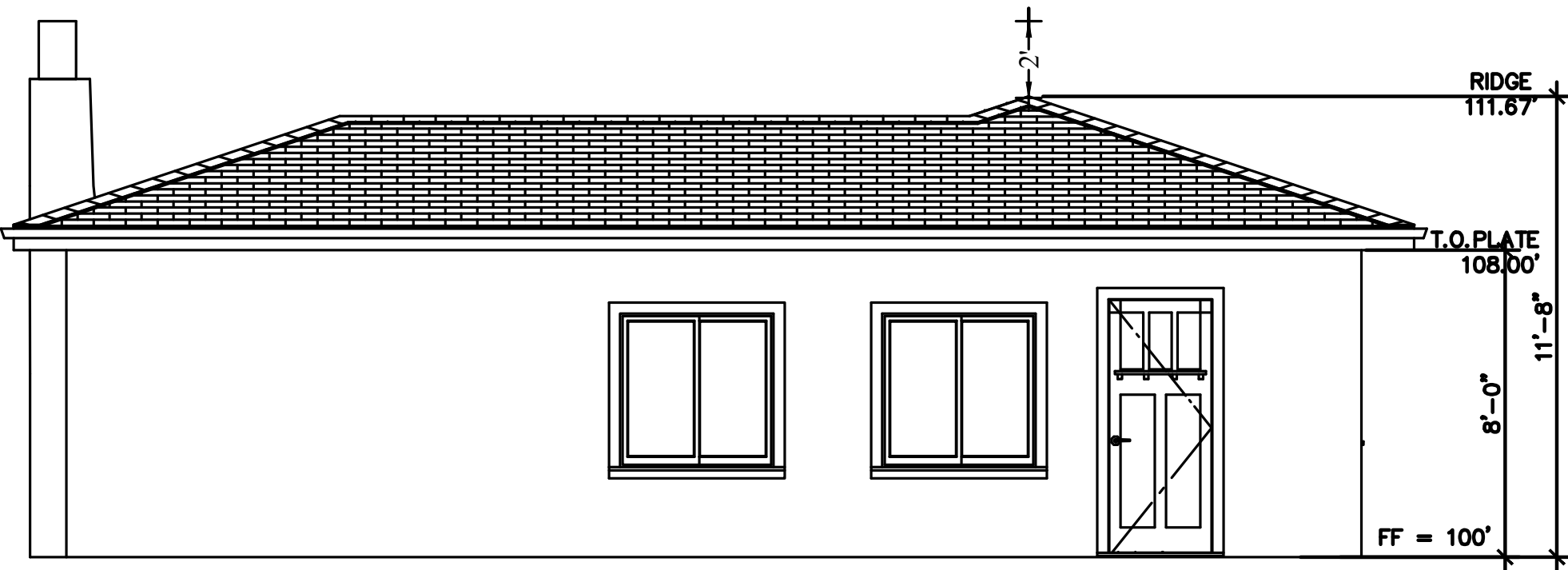
(N) LEFT ELEVATION – WEST
scale: 1/4" = 1'-0"



(E) LEFT ELEVATION – WEST
scale: 1/4" = 1'-0"



(N) RIGHT ELEVATION – EAST
scale: 1/4" = 1'-0"



(E) RIGHT ELEVATION – EAST
scale: 1/4" = 1'-0"

Attachment 4

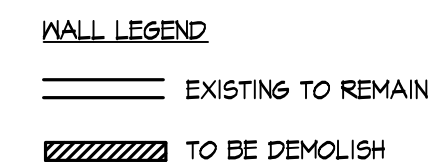
Proposed Design,

DS 23-221

1' 2' 4' 8'

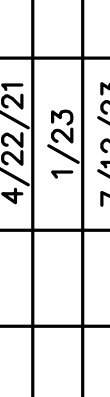
REVISIONS				ELEVATIONS			
DATE	MARK	DESCRIPTION	BY	FILE	REGISTERED CIVIL ENGINEER	REGISTERED CIVIL ENGINEER	REGISTERED CIVIL ENGINEER
4/22/21		SUBMITTAL	VL	NGOC PHAM (C81902)	NGOC PHAM (C81902)	NGOC PHAM (C81902)	NGOC PHAM (C81902)
1/23		SUBMITTAL	VL	NGOC PHAM (C81902)	NGOC PHAM (C81902)	NGOC PHAM (C81902)	NGOC PHAM (C81902)
7/12/23		SUBMITTAL	NP	NGOC PHAM (C81902)	NGOC PHAM (C81902)	NGOC PHAM (C81902)	NGOC PHAM (C81902)
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CONTRACTOR SHALL NOTIFY USA (UNDERGROUND SERVICE ALERT)
AT 800-642-2444 A MINIMUM OF TWO WORKING DAYS BEFORE
BEGINNING UNDERGROUND WORK FOR VERIFICATION OF THE LOCATION
OF UNDERGROUND UTILITIES.



scale: $1/4" = 1'-0"$



DEMOLITION PLAN		AZADEH MARDANI RESIDENCE OCEAN 4NE THADALUPE CARMEL-BY-TH-SEA, CA		NGOC PHAM (CB1902) REGISTERED CIVIL ENGINEER		 SIGNATURE				VL Designated VL Drawn NP Checked		4/22/21 1/23 7/12/23		SUBMITTAL SUBMITTAL SUBMITTAL	
Scale AS NOTED		Date 4/22/21		REF. NO.		DWG. NO. D.1		____ of 10 Sheets		JOB NO. 21021		DESCRIPTION MARK DATE BY		REVISIONS	



Side



Below



Front



Pruning in 2022



CITY OF CARMEL-BY-THE-SEA FOREST AND BEACH COMMISSION Staff Report

August 10, 2023
PUBLIC HEARINGS

TO:	Forest and Beach Commissioners
SUBMITTED BY:	Louise Shurvinton Bradley
SUBJECT:	Approve or deny the removal of one coast live oak tree for construction purposes at Santa Rita Street, 4 Southeast of Ocean Avenue (TR 23-024, DS 22-330)

RECOMMENDATION:

Approve the removal of one coast live oak at the Applicant's expense. (Permit will only be valid with an approved Design Study 22-330 and issued Building Permit)

BACKGROUND/SUMMARY:

Thomas Rettenwender submitted Tree Permit Application 23-024 (**Attachment 1**) on behalf of Bruce Gaya for the removal of one 14" coast live oak on private property, to accommodate renovations to the existing home. See **Attachment 2** for the existing and proposed Site Maps.

The City Forester assessed the oak tree and found that tree is fairly healthy, but has a significant lean and is growing very close to the house (**Attachment 3**). Outside of the proposed construction project, the oak tree would not meet the criteria for removal. Per Carmel Municipal Code section 17.48.140, the City Forester cannot act on applications for tree removal for construction purposes, so the application requires review by the Forest and Beach Commission. Should the tree be approved for removal to accommodate construction, the tree permit will only be valid if Design Study 22-330 is approved and a building permit is issued.

The proposed construction plans have not yet been approved by the City, as Carmel Municipal Code Section 17.58.020 specifies that projects involving tree removal or pruning must go before the Forest and Beach Commission before they may be taken under consideration by the Director of Community Planning and Building or the Planning Commission.

Per Carmel Municipal Code Section 17.48.080:

Tree Density Chart for property of 4,000 square feet		
	# of Upper Canopy	# of Lower Canopy

Recommended:	3	1
Currently:	2	8
If removal is approved:	2	7

There is a greater number of existing trees on the property than recommended, and there does not appear to be adequate space on the property to accommodate replanting, should the removal be approved.

The Applicant was notified of their opportunity to speak at the Public Hearing.

ENVIRONMENTAL EVALUATION:

This action does not constitute a project within the meaning of the California Environmental Quality Act under Public Resources Code Section 21065. It has no potential to cause either a direct physical change in the environment or a reasonably foreseeable indirect physical change in the environment and, therefore, does not require environmental review.

FISCAL IMPACT:

Should the tree be approved for removal, all costs will be at the Applicant's expense. Should the Applicant be required to plant an additional tree on the private property, the Applicant will pay the cost of the replacement tree.

ATTACHMENTS:

- Attachment 1 - Tree Permit Application 23-024
- Attachment 2 - Existing and Proposed Site Maps
- Attachment 3 - Photos

Attachment 1



Permit Application 23-024

TREE REMOVAL OR PRUNE APPLICATION

Date: 01/30/2023

Owner / Agent

Owner Name: Bruce Gaya
Address: [Owner Address]
Phone: 831-620-5805
Email: [Owner Email address]

Agent Name: Thomas Rettenwender
Address: PO Box 6451
City, State, Zip: Carmel, CA 93923
Phone: 831920-8333
Email: [Agent for Owner/Applicant Email address]

Project

Permit Type: [Permit Type]
Physical Location: Santa Rita, 4 SE Ocean Ave
Carmel, CA 93923
Block: 82

Lot: 8
Tree Service: TBD

Project Description: REMOVE one (1) (E) 14" OAK TREE. Add Balcony and Deck to upper floor & awning roof. Remove and changing of windows and door and staircase.

Number, size and species of tree(s) to be removed: 14" Oak Tree to be removed.

Number, size and species of limb(s) to be removed:

Number, size and species of root(s) to be removed:

I do hereby certify that the information contained herein is true and correct.

Thomas Rettenwender

Name

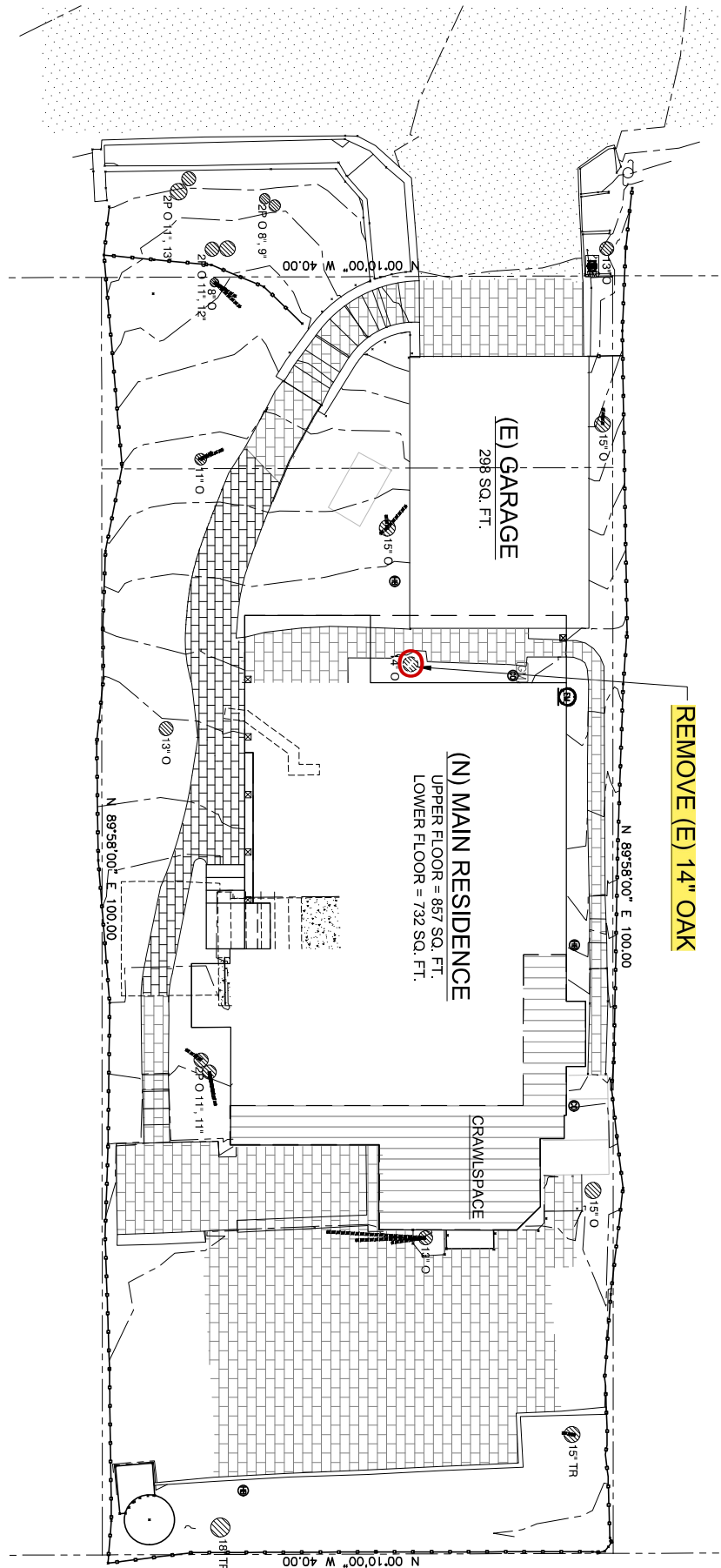
01/30/2023

Date

[illegible]

CONTACT INFORMATION:					
OWNER:					
MR. BRUCE GAY					
PO BOX 1295					
CARMEL-BY-SEA, CA 93821					
SITE LOCATION:					
SANTA RITA ST., S E OF OCEAN AVENUE					
CARMEL-BY-SEA, CA					
No.	DATE	BY	RELEASED TO CLIENT	REVISION	
	01/18/70 JK				

Proposed site plan



REMOVE (E) 14" OAK

1 **PROPOSED SITE PLAN**
SCALE: 1/4" = 1'-0"

$$1/4^{\circ} = 1^{\circ} \cdot 10^{-4}$$

LEGEND

MAJOR CONTOUR
MINOR CONTOUR

DEMOLISH

DATE	1/11/23 PLANNING COMMENTS

PROPOSED SITE PLAN - TREE REMOVAL

Bruce Gaya Residence Remodel

SANTA RITA STREET 4 SE OF OCEAN, CARMEL-BY-THE-SEA CA 93923

SCALE	1/4"=1'-0"
DRAWN BY	SL
JOB NUMBER	# 2219

6134

6134



Ecologic Architects

Thomas Rutenfranz, Architect
PO Box 6451 Carmel-by-the-Sea CA 93921 USA
Cell: (831) 920 8333
thomas@ecologicarc.com

CA 90321 USA

A-1.1

SHEET







CITY OF CARMEL-BY-THE-SEA FOREST AND BEACH COMMISSION Staff Report

August 10, 2023
PUBLIC HEARINGS

TO:	Forest and Beach Commissioners
SUBMITTED BY:	Louise Shurvinton Bradley
SUBJECT:	Approve or deny the removal of two coast live oak trees for reconstruction purposes at the Southwest Corner of Santa Fe Street and Mountain View Avenue (TR 23-217)

RECOMMENDATION:

Deny the removal of two coast live oak trees. Should the removals be approved, require the replanting of two upper canopy trees (one for each removed tree) at the Applicant's expense. This permit would only be valid with an approved Design Study and issued Building Permit.

BACKGROUND/SUMMARY:

Architect Eric Beckstrom submitted Tree Permit Application 23-217 (**Attachment 1**), on behalf of property owners Bruce and Patricia Westphal, to remove two coast live oak trees on private property to accommodate reconstruction. The Westphals' garage was destroyed by a private, neighboring tree during the March storms, and the two subject oak trees (Tree #3 and Tree #4) are in conflict with the plans for the proposed, modified garage (see **Attachment 2** for site plan and rendering). The Applicant also expressed concerns about the health and stability of the oak trees.

The City Forester assessed the trees and determined that both oak trees are in fair condition (see **Attachment 3** for photos). The oaks appear to have sustained some damage from the large pine tree that fell on the original garage, and were recently tied together with rope. However, both oaks appear relatively healthy and stable, and would not meet the City's criteria for removal except to potentially accommodate construction.

At the time of writing this report, no building permit or design study application has been filed with the City's Community Planning and Building Department for construction of a new garage on the property. While the Applicants have the right to rebuild their garage, the Forester is concerned that alternative designs that could potentially preserve one or both oak trees may not have been explored yet. The two oak trees were not in conflict with the previous garage, but both would need to be removed to accommodate the proposed modified design.

As the trees do not meet the City's criteria for removal, the issuance of Tree Permit 23-217, if approved by the Commission, will be contingent on the approval of a Design Study and issuance of a Building Permit.

Per Carmel Municipal Code Section 17.48.080:

Tree Density Chart for property of 7,179 square feet		
	# of Upper Canopy	# of Lower Canopy
Recommended:	5	4
Currently:	2	9
If removals are approved:	2	7

Should the trees be approved for removal, there appears to be adequate space to replant two upper canopy trees.

The Applicant was notified of their opportunity to speak at the Public Hearing.

ENVIRONMENTAL EVALUATION:

This action does not constitute a project within the meaning of the California Environmental Quality Act under Public Resources Code Section 21065. It has no potential to cause either a direct physical change in the environment or a reasonably foreseeable indirect physical change in the environment and, therefore, does not require environmental review.

FISCAL IMPACT:

Should the trees be approved for removal, all costs will be at the Applicant's expense. Should the Applicant be required to plant an additional upper canopy tree(s) on the private property, the Applicant will pay the cost of the replacement tree(s) or pay the \$800 fee in lieu of each tree not replanted.

ATTACHMENTS:

Attachment 1 - Tree Permit Application 23-217
Attachment 2 - Site Map and Proposed Rendering
Attachment 3 - Photos



City of Carmel-by-the-Sea
City Hall
PO Box CC
Carmel, CA 93921 Phone:
(831) 620-2010

Attachment 1

Date Received: _____

FEE: \$ Attachment 1

RECEIPT #: _____

Permit #: 23-217

APPLICATION FOR PERMIT TO REMOVE OR PRUNE TREES FOR THE PURPOSE OF CONSTRUCTION/DEMOLITION

Location of property: 0 SW Corner of Sante Fe and Mountain View

BLOCK: _____ LOT: _____ APN: 010082001000

Name of Property Owner: Bruce & Patricia Westphal Name of Applicant/Contractor: Eric Beckstrom

Mailing Address: 251 Pershing Drive, Oakland, CA 94611 Mailing Address: PO Box 1317, Los Gatos, CA 95030

Email: bruce.westphal@icloud.com Email: eric@beckstromarchitecture.com

Phone #: 925-330-7571 Phone #: 650-847-8351

WHO WILL REMOVE/PRUNE TREE(S): Frank Ono Consulting, (831) 373-7086., 1213 Miles Ave Pacific Grove

PLEASE NOTE IF TREE(S) ARE ON CITY OR PRIVATE PROPERTY

Number, size and species of **tree(s)** to be removed: (2) Coastal Live Oak (Quercus Agrifolia)

Number, size and species of **limb(s)** to be removed: _____

Number, size and species of **root(s)** to be removed: _____

Reason for removal or pruning: A large nearby Pine fell which exposes the two oaks which are leaning towards the house with ropes holding them together.

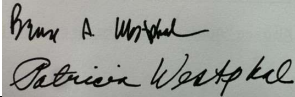
You will be notified in writing the date and time that your request is scheduled for a hearing. If you or your representative is unable to attend the hearing your application will be tabled. You may reschedule by contacting the Secretary to the Forest and Beach Commission at (831) 620-2070. You may waive your right to speak at the hearing and authorize the Forest Beach Commission to act on your absence by signing on the following line: _____ Date: _____

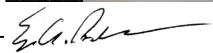
A SITE PLAN MUST ACCOMPANY THIS APPLICATION AND **SHOW** THE FOLLOWING:

1. Location, size and species of ALL trees on the lot.
2. Location and species of tree(s) /limb(s) to be removed or pruned
3. Footprint of the structure
4. Existing and proposed site coverage.
5. ALL areas that are to remain for landscaping and the total square feet of open space.
6. Location of areas for tree replanting- The City has adopted Design Review Guidelines which include a minimum tree density per lot. Please review the attached Policy and indicate on the site plan where you intend to plant trees necessary to comply with which guideline.
7. Will excavation other than standard footings be required as part of your construction? NO ☒ / YES ☐

If **YES**, you **MUST** show the area of cut, its depth and total cubic yards to be removed.

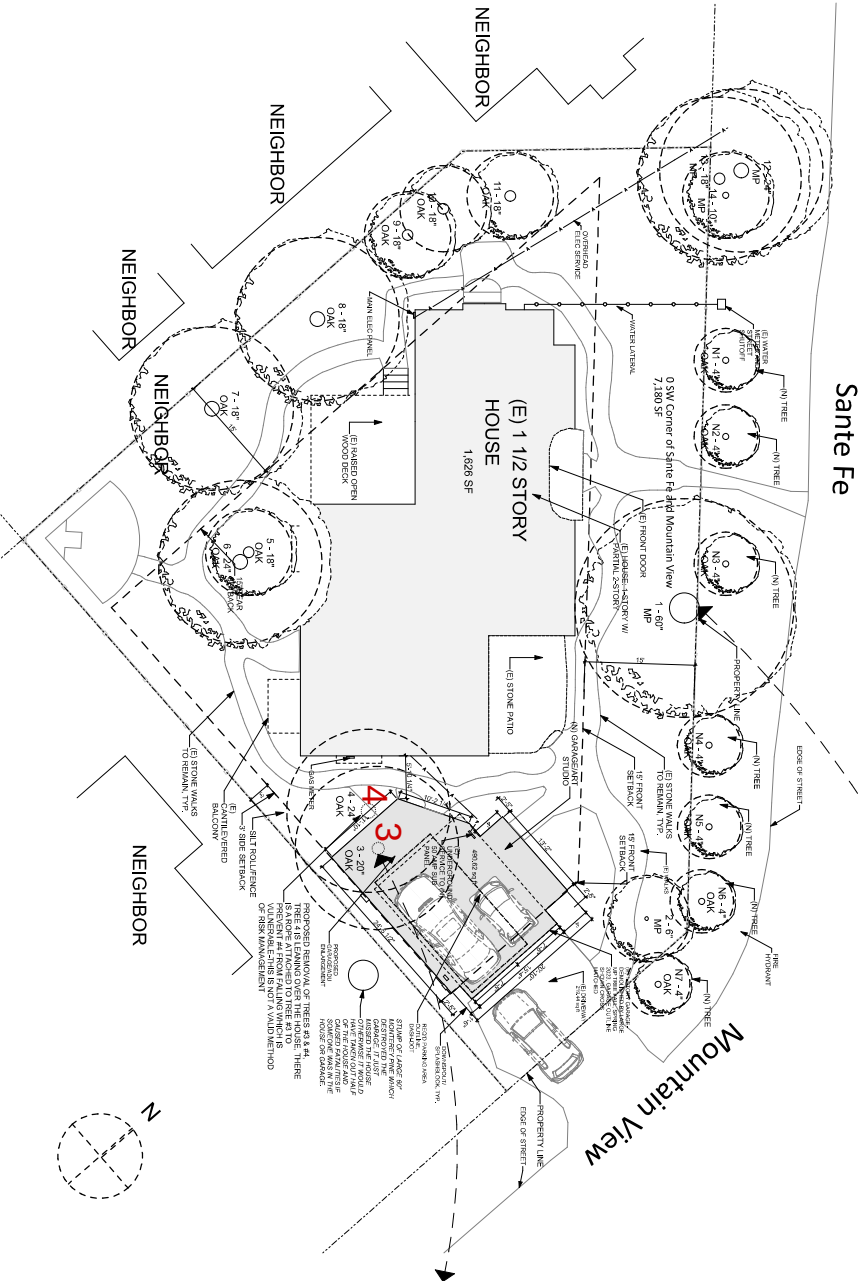
- Any decision of the Forest and Beach Commission is based on information submitted with this application.
- In order to properly consider your application it is necessary that the footprint of your purposed construction be clearly defined on the lot and height poles are installed prior to the Commission's Tour of Inspection. Any decision of the Forest and Beach Commission is based on information submitted with this application. If the design is altered or the location of the structure changes, another application for a tree permit is required.
- **NO WORK IS PERMITTED** until your permit has been issued to you. The permit must be posted on the job site when work is being performed.

Owner's Signature:  Date: 6/20/2023

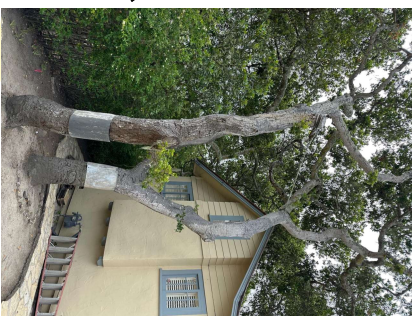
Agent for Owners:  Date: 6/20/2023

INCOMPLETE APPLICATIONS WILL BE RETURNED

Tree Table			
ID	Tree Name	Size (m³)	Status
1	Monterey Pine	300	Healthy
2	Monterey Pine	250	Healthy
3	Oak	200	Healthy
4	Oak	250	Healthy
5	Oak	200	Healthy
6	Oak	250	Healthy
7	Oak	200	Healthy
8	Oak	250	Healthy
9	Oak	200	Healthy
10	Oak	250	Healthy
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389	Oak	200	



TREE #1
60' MONTEREY PINE AT FUTURE RISK



TREES #3 & #4
20" AND 24" COASTAL OAKS PROPOSED REMOVAL DUE TO FALLING RISK
AND PROPOSED GARAGE/ADU RECONSTRUCTION







A rope is tied around a stub on tree #3



CITY OF CARMEL-BY-THE-SEA FOREST AND BEACH COMMISSION Staff Report

August 10, 2023
PUBLIC HEARINGS

TO: Forest and Beach Commissioners

SUBMITTED BY: Louise Shurvinton Bradley

SUBJECT: Approve or deny the removal of one Monterey pine tree at Camino Real, 2 Northwest of Thirteenth Avenue (TR 23-198)

RECOMMENDATION:

Approve the removal of one Monterey pine tree at the Applicant's expense. Should the removal be approved, require the replanting of up to five upper canopy trees at the Applicant's expense.

BACKGROUND/SUMMARY:

Lopez Tree Service submitted a Tree Permit Application (**Attachment 1**) on behalf of property owner Steve Jones to remove one 35" DBH Monterey pine tree on private property due to concerns that the tree is damaging the adjacent building. See **Attachment 2** for a Site Map from 1987.

The Applicant also submitted an Arborist Report with photographs (**Attachment 3**) prepared by ISA-certified arborist Frank Ono, who found the Monterey pine to be in good health, with no signs of disease or significant structural defects. The report notes that the radial growth of the tree's root collar and root plate appears to be causing structural damage to the adjacent home. He noted that nearby windows "appear to be misaligned," and that there is a "slight bow in the north wall."

The City Forester* also assessed the Monterey pine, and found the tree to be healthy and in good condition. Based on the tree's condition, he recommends the pine be approved for removal only if there are no reasonable long-term architectural or engineering remedies for the situation. If the removal is approved, the Forester recommends that up to five upper canopy trees be replanted on the Applicant's private property as a mitigation measure.

Carmel Municipal Code Section 17.48.070 authorizes the Forest and Beach Commission to approve the removal of trees that are causing "substantial damage to a building that cannot readily be repaired or alleviated on a long-term basis, through minor reasonable building modifications". The Commission has previously permitted the removal of trees in similar situations in which the applicant clearly identified damage to the building directly caused by the adjacent tree.

Per Carmel Municipal Code Section 17.48.080:

Tree Density Chart for property of 8,000 square feet		
	# of Upper Canopy	# of Lower Canopy
Recommended:	5	4
Currently:	2	16
If removal is approved:	1	16

There is adequate space to plant up to five new upper canopy trees.

The Applicant was notified of their opportunity to speak at the Public Hearing.

*It is the opinion of the Director of Public Works that there is no conflict of interest between the report prepared by Frank Ono and the assessment by City Forester Justin Ono for this permit application.

ENVIRONMENTAL EVALUATION:

This action does not constitute a project within the meaning of the California Environmental Quality Act under Public Resources Code Section 21065. It has no potential to cause either a direct physical change in the environment or a reasonably foreseeable indirect physical change in the environment and, therefore, does not require environmental review.

FISCAL IMPACT:

Should the trees be approved for removal, all costs will be at the Applicant's expense. Should the Applicant be required to plant additional upper canopy trees on the private property, the Applicant will pay the cost of the replacement trees.

ATTACHMENTS:

Attachment 1 - Tree Permit Application 23-198

Attachment 2 - 1987 Site Map

Attachment 3 - Frank Ono Arborist Report, including photos, dated 05/23/2023



City of Carmel-by-the-Sea
City Hall
PO Box CC
Carmel, CA 93921 Phone:
(831) 620-2010

Attachment 1

Date Received: 06-02-2023

FEE: \$ Attachment 1

RECEIPT #:

Permit #: TR 23-198

APPLICATION FOR PERMIT TO REMOVE OR PRUNE TREE NO CONSTRUCTION

Location of property: Camino Real 2 NW of 13th

BLOCK: _____ LOT: _____ APN: 010-285004

Name of Property Owner: Balinda Holiday Steve Jones Name of Applicant/Contractor: Lopez Tree Svc.

Mailing Address: 26358 Carmel Rancho Ln Mailing Address: PO Box 1023
unit 5
Carmel, CA 93923 Seaside CA 93955

Email: Jack@scucarboagency.com Email: Lopeztreeservice@comcast.net

Phone #: (831) 620-1931 Phone #: (831) 521-8495

WHO WILL REMOVE/PRUNE TREE(S): Lopez Tree Svc.

PLEASE NOTE IF TREE(S) ARE ON CITY OR PRIVATE PROPERTY

Number, size and species of tree(s) to be removed: 1 Monterey Pine Tree Approx 35" diam.

Number, size and species of limb(s) to be removed: N/A

Number, size and species of root(s) to be removed: Stump Ground out

Reason for removal or pruning: Damaging structure / Arborist Report emailed

You will be notified in writing the date and time that your request is scheduled for a hearing. If you or your representative is unable to attend the hearing your application will be tabled. You may reschedule by contacting the Secretary to the Forest and Beach Commission at (831) 620-2070. You may waive your right to speak at the hearing and authorize the Forest Beach Commission to act on your absence by signing on the following line: [Signature] Date: 6/2/23

A SITE PLAN MUST ACCOMPANY THIS APPLICATION AND **SHOW** THE FOLLOWING:

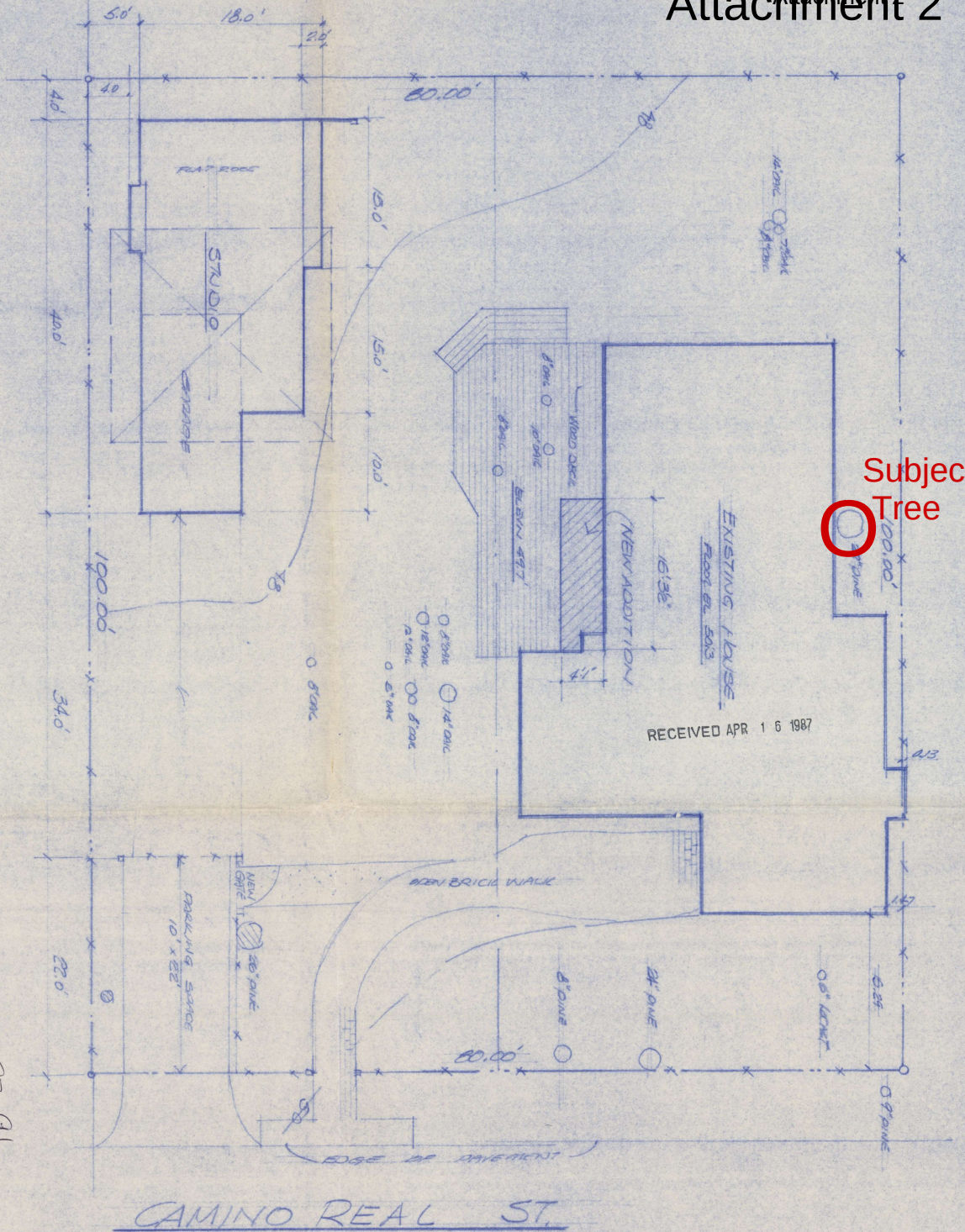
1. Location, size and species of ALL trees on the lot.
 2. Location and species of tree(s) /limb(s) to be removed or pruned
 3. Footprint of the structure
 4. Location of areas for tree replanting- The City has adopted Design Review Guidelines which include a minimum tree density per lot. Please review the attached Policy and indicate on the site plan where you intend to plant trees necessary to comply with which guideline.
- Any decision of the Forest and Beach Commission is based on information submitted with this application.
 - **PLEASE BE ACCURATE.**
 - **NO WORK IS PERMITTED** until your permit has been issued to you. The permit must be posted on the job site when work is being performed.

Owner's Signature: [Signature] San Carlos Agency (Jack Britton) Date: 6/2/23

Agent for Owners: [Signature] Date: 6/2/23

INCOMPLETE APPLICATIONS WILL BE RETURNED

Subject Tree



1987 Site Plan

SITE PLAN

RECEIVED APR 16 1987

AP 10-285-4

LOTS 15 & 17 AC CE
HARDWOOD No. 1.

LOT AREA 8,000 sq ft
ALLOWABLE FLOOR AREA 41% - 3,280 sq ft
EXISTING " " 2,246 sq ft
PROPOSED NEW " 42,947 sq ft
ALLOWABLE SITE COVERAGE 60% - 4,800 sq ft
ACTUAL SITE COVERAGE 2,248 sq ft

THIS DESIGN ESPECIALLY FOR:

JIM & BEVERLY HALLIDAY

WOOD-MODE
Fine Custom Cabinetry

DESIGNED BY
DRAWN BY

DATE
DATE

SHEET 1 OF 4
SCALE 1/8" = 1'-0"
REVISIONS:

CABINETRY
STYLE
WALLS
WOOD
FINISH
HARDWARE:
HINGES

BASES
DOORS
DRAWERS

APPROVED BY:

ON:

THIS DRAWING IS THE EXCLUSIVE
PROPERTY OF: ~~SEBENS~~

AND MAY NOT BE RELEASED
WITHOUT PERMISSION 23-87-1

KITCHENS
& MORE

Frank Ono
International Society of Arboriculture
Certified Arborist # 536
Society of American Foresters Professional Member 48004
1213 Miles Avenue
Pacific Grove, CA 93950
Telephone (831) 373-7086

May 23, 2023

Lopez Tree Service
P.O. Box 1023
Seaside, CA 93955

RE: Camino Real 2 NW of 13th Avenue
APN: 010-285-004-00

Mr. Lopez;

You requested a visual tree assessment (VTA) of a Monterey pine (*Pinus radiata*) tree located at the above-referenced property. Your clients who own the home wish to have the tree removed because it appears to be creating significant property damage where the tree is leaning onto the house and its roots appear to be lifting the home.

The tree was visually inspected, first for its health and stability, then secondly to observe what effect the tree has on the adjacent structure. As stated to the property owners, I can only document my observations and what is occurring from the growth of the tree for a decision by the City for its treatment. Removal of a healthy pine tree that does not constitute a hazard to the general public falls under the jurisdiction of the Forest and Beach Commission.

Observations

The tree is a 35" diameter Monterey pine (*Pinus radiata*), in good health and with sound structural integrity standing 85 feet tall and with a crown spread of 50 feet. It does not show any fungal conks or any significant presence of disease or insect infestation. The tree crown has been pruned correctly and crown thinned so that it does not have a dense crown making it susceptible to windthrow failure. No active bird or animal nesting sites were observed within the crown at the time of assessment.

The tree is located between the north fence line and the structure, growing in a confined space where its root expansion is evident. A buttressed portion of the root collar appears to be placing pressure on the north wall of the structure and the bathroom area, affecting the wall and windows. Additionally, the bole (upper trunk) of the tree rests on the roof fascia and splash block (the roof has been altered in the past to accommodate the radial growth of the tree bole, but the radial growth of the tree has increased, resulting in the tree resting on the structure). Observation of the wall and roof area shows that the windows appear to be misaligned (not functioning properly) and there is a slight bow in the north wall.

This is a healthy tree, evidenced by its production of fresh wood observed between the tree's bark plates and expanding root collar. The tree currently has no signs of diseases or significant structural defects and does not appear to meet the threshold for removal required by the City of Carmel by the Sea for a removal permit based on it being a diseased or structurally deficient tree. The tree does, however, appear to be creating significant property damage. I am also to understand the structure, or at least a portion of the structure, may be historical, so this may be a case where a decision must be made to the value of a non-renewable resource versus a renewable resource. These are issues that should be investigated by a structural engineer with other professionals such as a historian as to the extent of damage and for what treatments should be prescribed.

Conclusion

The radial growth expansion of the trunk and root collar is problematic and appears to be creating considerable damage to the structure. The root collar's radial growth and its root plate appear to be lifting the side of the house from pressure exerted by both the radial growth of the tree trunk and root collar expansion. This tree is a candidate for consideration by the Forest and Beach Commission for its treatment.

Disclosure Statement

Use of report: This letter is to be considered and used as background information for the current tree removal application process implemented by the City of Carmel by the Sea. The report is prepared to assist the City, along with other required documents, in determining if and under what circumstances a permit for treatment may be issued.

Inspection limitations: The inspection of the tree consisted solely of a visual inspection from the ground. While more thorough techniques are available for inspection and evaluation, they were neither requested nor considered necessary or appropriate at this time. This report is based on a visual inspection of the tree's condition and for obvious defects. It is not intended to constitute a complete health and hazard evaluation. Further investigation would be required to more definitively evaluate the health and hazards posed by the subject trees, some of which may not be disclosed by visual inspections. Investigations include but are not limited to core samples, root crown excavation, and visual inspection of the entire trees by climbing. Please be advised that healthy trees and/or limbs may fail under certain conditions and that the above recommendations are based on industry standards of tree care.

Urban Foresters/Arborists are tree specialists who use their education, knowledge training, and experience to examine trees, recommend measures to enhance their health and beauty, and attempt to reduce the risk of living near trees. Clients may choose to accept or disregard the recommendations of the arborist or seek additional advice. Trees and other plant life are living, changing organisms affected by innumerable factors beyond our control. Trees fail in ways and because of conditions, we do not fully understand.

Urban Foresters/Arborists cannot detect or anticipate every condition or event that could lead to the structural failure of a tree. Conditions are often hidden within the trees and below ground. Urban Foresters/Arborists cannot guarantee that a tree will be healthy or safe under all circumstances, for any specific period, or when a tree or its parts may fail. Further, remedial treatments, as with any treatment or therapy, cannot be guaranteed. Treatment, pruning, bracing, and removal of trees may involve considerations beyond the scope of the arborist's skills and usual services such as the boundaries of properties, property ownership, site lines, neighbor disputes and agreements, and other issues. Therefore, urban foresters/arborists cannot consider such issues unless complete and accurate information is disclosed in a timely fashion. Then, the urban forester/arborist can be expected, reasonably, to rely upon the completeness and accuracy of the information provided. Trees can be managed but not controlled. To live near trees, regardless of their condition, is to accept some degree of risk. The only way to eliminate all risks associated with trees is to eliminate all trees.

Hazard/hazard potential: For this evaluation and/or report, a tree or tree part presents a threat to humans, livestock, vehicles, structures, landscape features, or other entities of civilization from uprooting, falling, breaking, or growth development (e.g., roots). While all large landscape trees in proximity to such targets present some degree of hazard regardless of their condition, such inherent hazard is not intended as within this definition and its usage in this evaluation and report. As trees and other plant life are living, changing organisms affected by innumerable factors beyond our control, F. O. Consulting and its personnel offer no guarantees, stated or implied, as to tree, plant, or general landscape safety, health, condition or improvement, beyond that specifically stated in writing in accepted contracts.

Thank you very much and please feel free to call if there are any questions or if I can be of further assistance.

Sincerely,



Frank Ono

Certified Arborist #536

This report is based on a visual inspection of the tree's condition and for obvious defects. It is not intended to constitute a complete health and hazard evaluation. Further investigation would be required to more definitively evaluate the health and hazards posed by the subject trees, some of which may not be disclosed by visual inspections. Investigations may include but are not limited to core samples, root crown excavation, and visual inspection of the entire tree or trees by climbing. Please be advised that healthy trees and/or limbs may fail under certain conditions and that the above recommendations are based on industry standards of tree care. This report is made with the understanding that no representations or warranties, either expressed or implied are made that any trees referred to in the report or located on or adjacent to the subject property are sound or safe.

PHOTOGRAPHS

The healthy subject Pine tree.



The roofline has been altered to accommodate the tree



The root collar is buttressed against the wall of the house

The tree is growing in a confined space that cannot accommodate further radial growth



The buttressed root collar is placing pressure against the wall and the wall appears to be bowed.

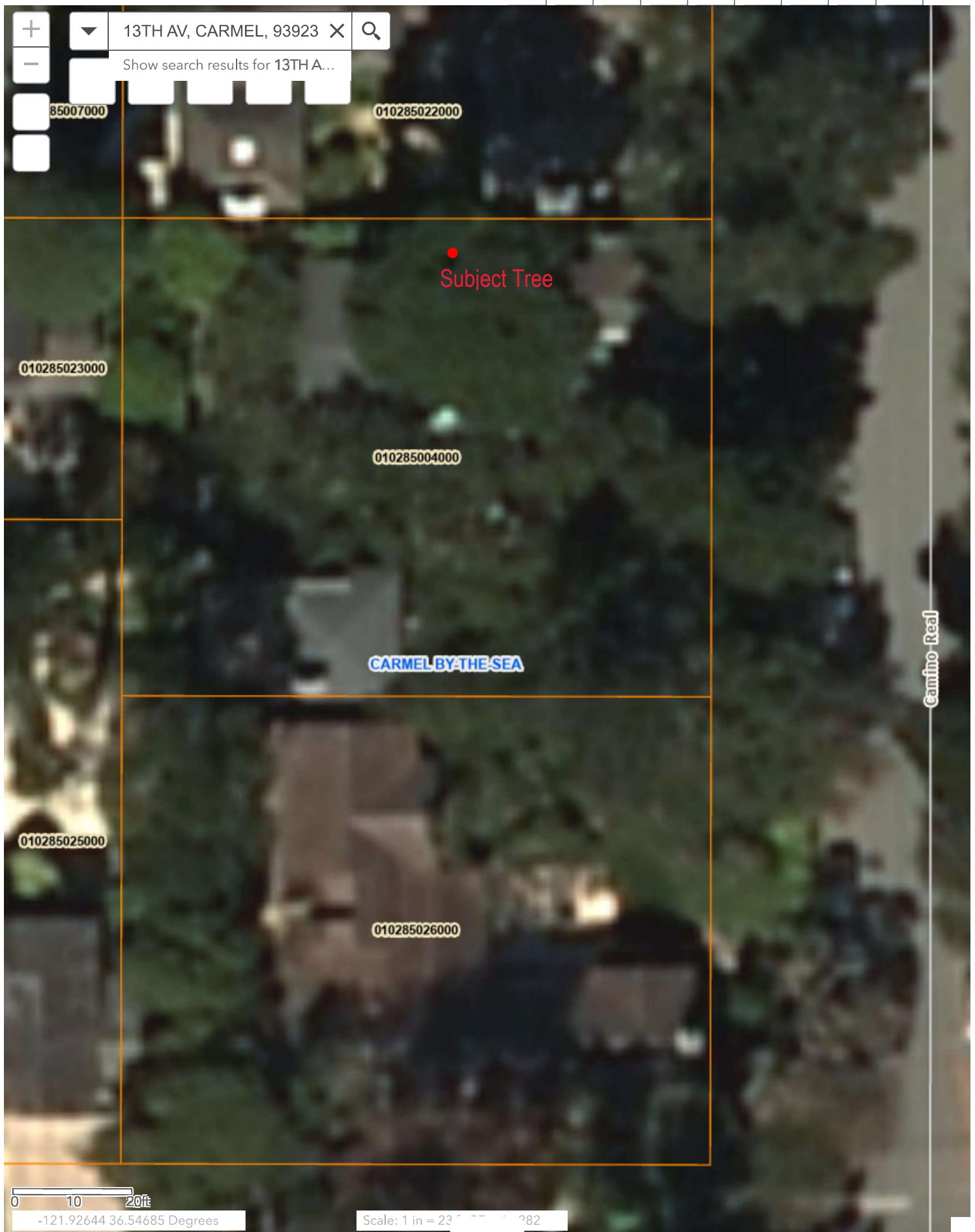
The roof has been altered to accommodate the radial growth of the tree.



The tree now rests on the roof and is placing pressure on the roof.

The windows are not fully functional due to the pressure being placed on the exterior wall.







CITY OF CARMEL-BY-THE-SEA FOREST AND BEACH COMMISSION Staff Report

**August 10, 2023
ORDERS OF BUSINESS**

TO: Forest and Beach Commissioners

SUBMITTED BY: Mary Bilse, Environmental Programs Manager

SUBJECT: Receive a presentation from Integral Corp./Haro Kasunich & Associates/EMC Planning Group regarding the results of the Shoreline and Beach Change Analysis, Task 2, which is part of the Coastal Engineering Study

RECOMMENDATION:

Receive a presentation from Integral Corp./Haro Kasunich & Associates/EMC regarding the results of the Shoreline and Beach Change Analysis, Task 2, which is part of the Coastal Engineering Study.

BACKGROUND/SUMMARY:

Project Scope of Work

At the November 2022 meeting, the City Council adopted Resolution 2022-094 awarding a Professional Services Agreement with EMC Planning Group, for a not-to-exceed fee of \$175,000, to conduct the Coastal Engineering Study and Adaptation Planning Project. Key subconsultants for this Study are Integral Corporation and Haro Kasunich & Associates.

To develop the project's scope of work, the Consultant team reviewed the 2001 Coastal Development Permit for Scenic Road Armoring Repairs, 2003 Shoreline Management Plan (Shonman and D'Ambrosio), 2016 Carmel Shoreline Assessment Update, 2016 Assessments of Shoreline Improvements at Carmel Beach (Easton Geology), and the City's 2022 Climate Adaptation and Climate Action Plans.

The Study will be completed in two phases, Phase 1 is funded in the current Capital Improvement Plan (CIP), while Phase 2 is not yet fully funded. Staff has identified a non-competitive California Coastal Commission grant of \$500,000 for which this project is eligible to complete Phase 2. At an upcoming meeting, the City Council will be requested to approve submission of the grant application and authorize an Amendment to this Agreement with EMC before any work would begin on Phase 2.

Key tasks and associated deliverables for Phase 1 are briefly outlined below:

Phase 1 – Coastal Engineering and Hazard Assessment

- Task 1 – Coastal Engineering Condition Evaluation

At the March 9th, 2023 Forest and Beach Commission meeting, the consultants presented their preliminary findings of Phase 1, Task 1 (Shoreline Condition Evaluation) to the Commission and the public. The following table summarizes the key issues of the Condition Assessment.

Coastal Infrastructure	Total Number	In Need of Repair	High Priority Repairs
Seawalls	11	2-4	1
Beach Access Stairs	11	9	3
Revetments	6	4	3

- Task 2 -Shoreline and Beach Change Analysis – Long Term and Seasonal

At August 10, 2023 Forest and Beach Commission meeting, the consultants will present their key findings of Phase I, Task 2 to the Commission and the public. See below for further information.

Additional Phase I tasks, which are in the early stages, include:

- Task 3 – Shoreline and Beach Erosion Exposure Modeling

Deliverables: Technical memo of methods and maps showing results of the projected existing and future coastal hazard extents, and one public presentation.

- Task 4 – Coastal Hazard and Sea Level Rise Vulnerability Assessment

Deliverables: Executive summary of results, up to five sector profile summaries (land use, transportation, utilities, etc.), and one public presentation.

- Task 5 – Policy Review

Deliverables: Memo summarizing the City's existing coastal hazard policies; and meetings with California Coastal Commission staff. An Action Plan for Revised Hazards Policies will be prepared in Phase 2.

Phase I Task 2 – Shoreline and Beach Change Analysis – Long Term and Seasonal

At the August 10th Forest and Beach Commission meeting, the consultants will present their key findings of the Shoreline and Beach Change Analysis. This study determined the seasonal and historical trends of shoreline position and beach sand widths using historic reports and imagery data dating back to the 1940s. The findings are summarized below, and a figure depicting the Average Beach Width by Month and the Carmel Beach Section map are provided in the Attachments:

Long Term

- The sand affecting Carmel Beach extends beyond the City limits north to include Pebble Beach along the 10th golf course hole.
- Overall, the long-term shoreline position and beach widths have been relatively stable. This indicates

a relatively stable amount of sand in the sandy beach compartment.

- On average, the beach widths were narrower south of 8th Avenue, wider at Pebble Beach, and the widest in the dune-backed areas near the Del Mar parking lot.

Seasonal

- The beach widths change seasonally, where the narrowest beach widths occur in the spring (after winter storm waves), and the widest beach widths occur in the fall (after small summer waves).
- The highest range in beach widths occurs south of Eighth Avenue and near Pescadero Creek (around the offshore rock).
- The beach width was most stable in the dune-backed areas near the Del Mar parking lot.

Storm Impacts and Recovery

- During strong west swells (often in El Niño years), when beach erosion is highest, most of the sand is moved offshore, exposing bedrock under the sand in some areas.
- The highest observed cliff erosion was between 20-40 feet and was observed following the 1982-1983 El Niño.
- Recovery after large storm events occur can take a few years, and the area south of Eighth Avenue usually takes the longest.

The results of Task 2 will lead into Task 3, Shoreline and Beach Erosion Modeling where Integral will conduct Coastal Hazard Exposure modeling. The consultants will also provide input on the effect of erosion by existing armoring (revetments, seawalls) and what happens when the structures fail or are removed.

In Task 4, the consultants will conduct a vulnerability assessment and summarize the results by hazard type, sea level rise, coastal bluff, and roadway impacts. The report will state whether an impact is anticipated in the near-term or long term.

FISCAL IMPACT:

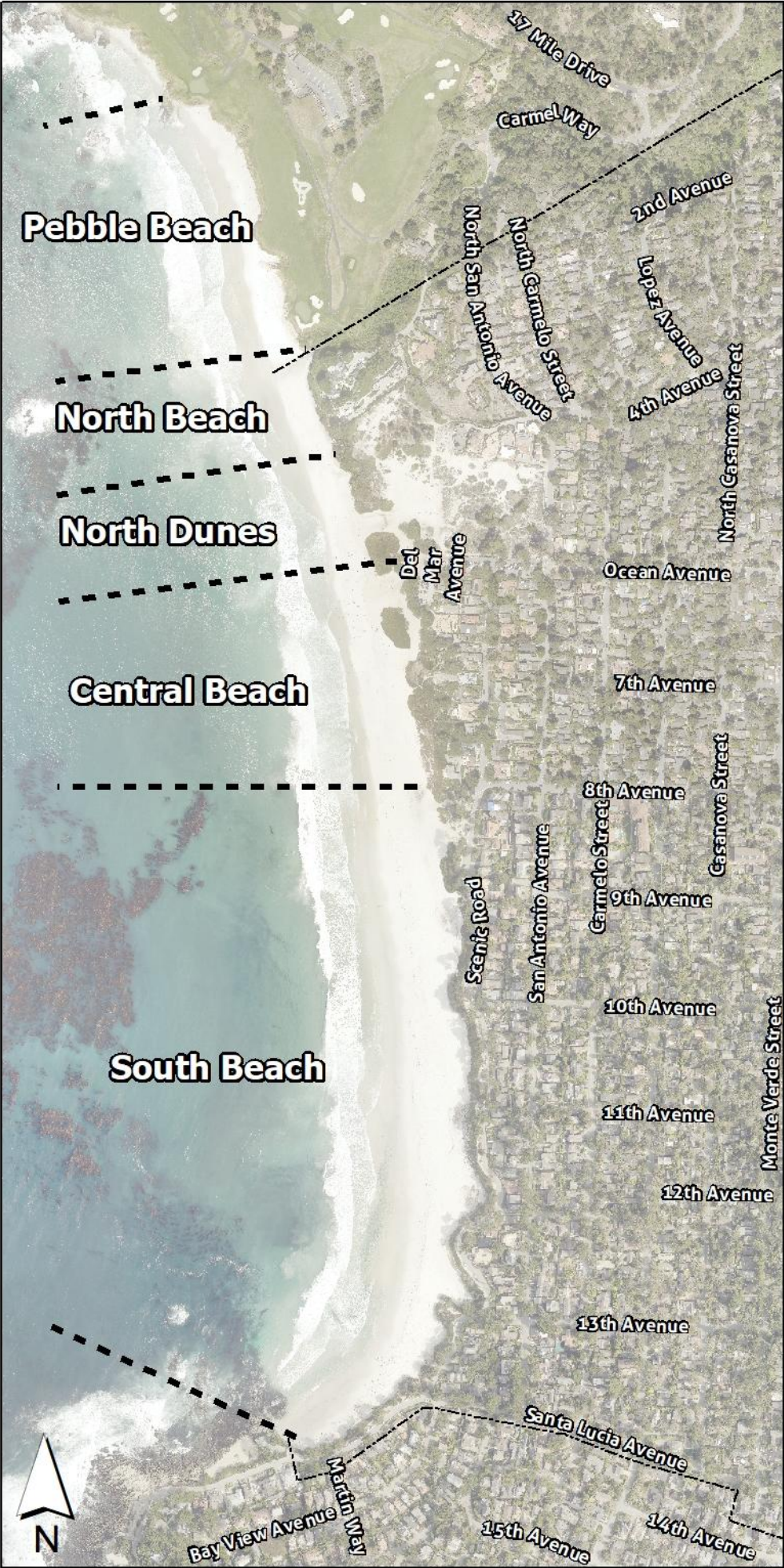
No direct fiscal impact for this presentation. In November 2022, the City Council awarded a Professional Services Agreement to EMC/Integral/Haro Kasunich, for a not-to-exceed fee of \$175,000, for the first phase of the Coastal Engineering Study, a Capital Improvement Project.

ATTACHMENTS:

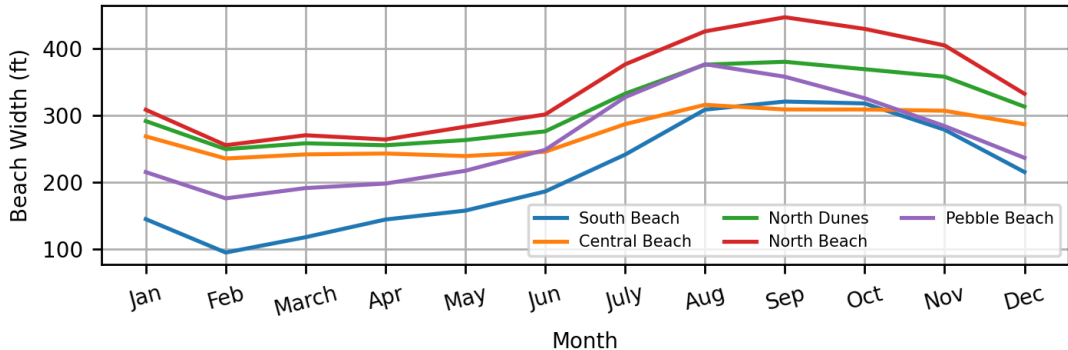
Attachment #1 Carmel Beach Section Map

Attachment #2 Map of Average Beach Width by Month

Carmel Beach Sections



Monthly Beach Width Average
Observations from Satellite Imagery 1984-2021





CITY OF CARMEL-BY-THE-SEA FOREST AND BEACH COMMISSION Staff Report

August 10, 2023
ORDERS OF BUSINESS

TO: Forest and Beach Commissioners

SUBMITTED BY: Thomas C. Ford, Administrative Analyst

SUBJECT: Status update on the Urban Forest Master Plan (UFMP), respond to Stakeholder Survey questions from Davey Resource Group (DRG), and finalize the UFMP Community Survey

RECOMMENDATION:

Receive a status update of DRG's development of the UFMP from City Staff, finalize the questions for the UFMP Community Survey, and respond to the Stakeholder Questionnaire.

BACKGROUND/SUMMARY:

- Status Update:

Attachment 1 – DRG Status Update is a summary of completed tasks thus far in the UFMP process.

The UFMP process kicked off in January 2023 following over a year of consultant proposals/selection, development of a Professional Services Agreement, and planning. The initial stages focused primarily on DRGs tree inventory collection and data gathering regarding the City and its history of tree care, along with a comprehensive review of City documents, including the 2002 Forestry Master Plan, the Mission Trail Nature Preserve Master Plan and associated studies, prior years' Forestry budget allocations, the Carmel Municipal Code, and other documents to gain a comprehensive picture of the City and the Forestry Division as a whole.

In July, the City and DRG began the "Community Input" portion of the UFMP process, a months-long endeavor to gather sentiments of the public. The following Tasks were part of the beginning stage of this Community Input phase:

- Stakeholder Questionnaire:

On June 19th, all Steering Committee members (5 Commissioners and 5 resident-Committee members) were sent a 10-question Stakeholder Survey to provide their input regarding their vision of the urban forest, and to allow DRG to gather a well-rounded perspective from crucial stakeholders. The same questionnaire (**Attachment 2 – Stakeholder Survey**) will be asked to the Commissioners by DRG personnel Tina

McKean and Allison Steere at this meeting to allow Commissioners who have not yet provided input to do so, or to allow for any final modifications to prior responses.

- Community Survey:

On June 19th, all Steering Committee members were also requested to propose questions to be included in the UFMP Community Survey. After collecting proposed questions from the Steering Committee, Forestry Staff, and DRG (in order to gather information critical to the development of the UFMP), Staff consolidated similar questions and included those questions critical to the development of the UFMP, thus compiling a 20-question survey (**Attachment 3 – Community Survey**), which was initially intended to be launched following the Community Meeting on July 12th. However, due to requests to include additional questions after the intended launch date of the Survey, Forestry decided it was in the best interest of all parties to postpone the survey to allow Commissioners to review the questions and provide guidance or any additional questions at this meeting.

- Community Workshop:

On July 12th, a UFMP Community Workshop was held at the Vista Lobos facility to receive a presentation of the tree inventory and data collection from DRG up until this point in the process (**Attachment 4 – Community Workshop presentation**) as well as provide an opportunity for the public at large to provide initial input regarding their views of the urban forest and that of the future. This meeting was advertised in the Pine Cone and sent in several Friday Letters of the City. Roughly 20 members of the public, including several Steering Committee members, attended.

The City intends to host another Community Workshop later in the year, prior to finalizing the UFMP.

Attachment 5 is correspondence received from Steering Committee member Linda Smith.

FISCAL IMPACT:

The costs of the above surveys and meetings were incorporated into the original UFMP Agreement.

ATTACHMENTS:

Attachment 1 – DRG Status Update

Attachment 2 – Stakeholder Survey

Attachment 3 – Community Survey (Proposed)

Attachment 4 – Community Workshop presentation

Attachment 5 – Communication from Steering Committee member Linda Smith

Carmel-by-the-Sea, CA

Status Report

Davey Resource Group

To: Tom Ford, Justin Ono, Brandon Swanson
From: Allison Steere
CC: Tina McKeand, Emily Spillelt, Katelyn Obana, Anne Fenkner, Rachael Sitz, Will Ayersman, Shelby Huth
Date: 08/2
Re: Project status



Tom, Justin, and Brandon,

The following is a summary of our recent actions and next steps:

Tasks completed and in progress:

- Inventory - complete, data accepted by city on 6/20
- GIS Services ~99% complete
 - GIS database deliverables pending Tree Canopy and Land Cover Assessment Delivery
- Tree Canopy and Land Cover Assessment ~93% complete
- Urban Forest Resource Analysis (Eco) - complete
 - Delivered on 8/1
- Background review - complete, 7/31
- Operations review ~90% complete
- Draft 1 UFMP ~40% complete
 - Background information and findings from stakeholder interviews summarized
 - Identifying challenges and opportunities
- Stakeholder interviews ~90%
 - Onsite interviews completed 6/10-6/14
 - Pending Forest and Beach Commission Meeting
- Community Presentation/Workshop - completed, 7/12

Next steps:

- Complete stakeholder interviews and summarize challenges and opportunities
- Community Survey
 - Pending feedback from Forest and Beach Commissioners

Upcoming meetings:

- Forest and Beach Commission Meeting on August 10th
- Status calls - ongoing

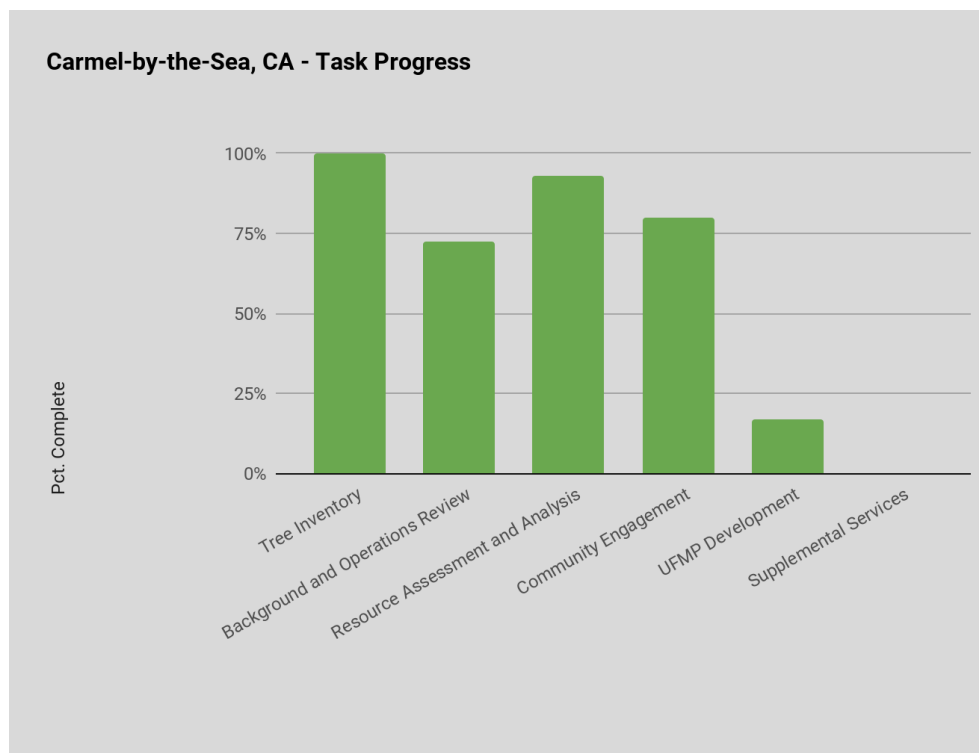
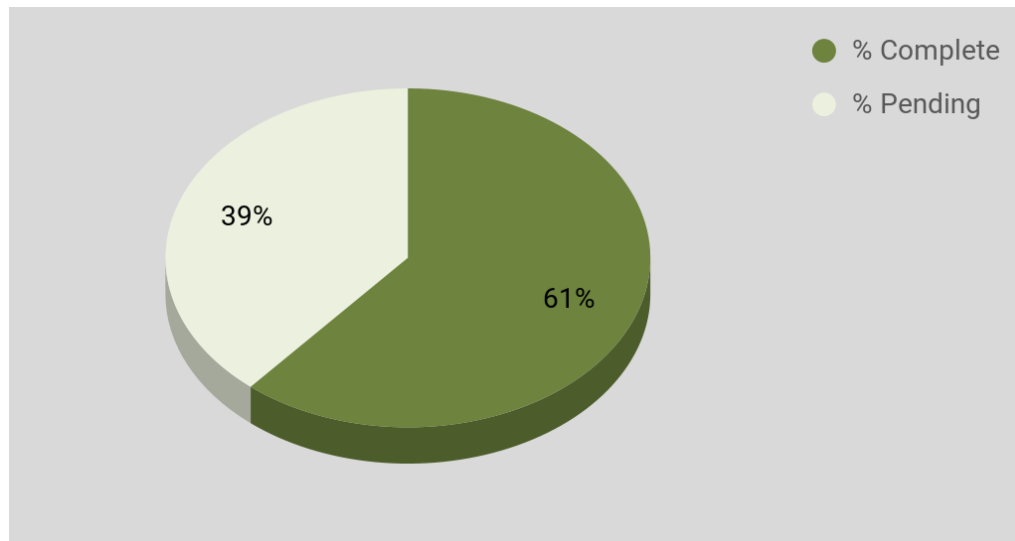
Challenges:

- N/A

Please feel free to contact me if you have any questions.

Carmel-by-the-Sea, CA Status Report

The following graphs summarize our status as of today:



What is your name and title? *

Your answer

Describe your role and responsibilities in planning, caring for, or affecting policy for community trees. If you do not currently have a role, describe how the management of City trees affects you?

Your answer

What do you perceive to be the biggest threat to the urban forest in Carmel?

Your answer

What do you believe are the biggest challenges and opportunities facing Carmel's urban forest?

Your answer

Do you have suggestions for improving City ordinance or policies with regard to tree protection, tree preservation, development/design, or other activities that affect trees?

Your answer

How can the UFMP help you or your team to protect, preserve, and enhance the Carmel's urban forest and tree canopy?

Your answer

What do you think the community appreciates most about trees and the urban forest in Carmel?

Your answer

What type(s) of outreach or education programs are most effective for engaging the community?

Your answer

Are there specific goals and objectives that you would like to see included in the UFMP?

Your answer

Please provide any additional information that you feel is important for consideration in the development of the UFMP.

Your answer



The City of Carmel-by-the-Sea has contracted with Davey Resource Group, Inc. to develop an Urban Forest Management Plan (UFMP). The UFMP will provide a road map for the preservation and maintenance of Carmel-by-the-Sea's canopy and trees, including vision, goals, strategies, and actions to be implemented over the next 40 years.

The urban forest includes all of the trees in Carmel-by-the-Sea, including those on public and private property. The urban forest provides significant environmental benefits and is vital to maintaining the character of the community as "a village in the forest by the sea".

Your engagement and commitment to the planning process is key to ensuring that the UFMP reflects the community's vision for the future of the urban forest. Your response to this survey will help us more clearly understand community values and the information you share will guide the development of the UFMP.

This survey should take approximately 15 minutes to complete. Thank you for your participation!

1. Carmel has:
 - a. Too few trees
 - b. The right amount of trees
 - c. Too many trees
2. Currently the tree canopy covers 36% of Carmel. Considering that many trees are very mature, the urban forest management plan will need to consider replacing aging trees along with meeting community goals for future canopy cover. In your opinion, what is the ideal canopy cover for Carmel's future urban forest?
 - a. Reduce canopy cover
 - b. Maintain current canopy cover
 - c. Increase canopy cover
3. Trees and canopy have long defined the character of Carmel. To help us better understand where trees and shade are most valued by the community, please rank (1-6) the following areas with 1 representing where you most value and enjoy trees.

 - ___ Streets
 - ___ Medians
 - ___ Downtown
 - ___ Neighborhoods
 - ___ Parks/Open space
 - ___ Trails

4. What characteristics of trees do you appreciate most? Please rank (1-7) the following, with 1 representing the characteristic you most value:
- ☐ Shade
 - ☐ Ornamental/flowering
 - ☐ Seasonal color
 - ☐ Wildlife habitat
 - ☐ Architectural interest
 - ☐ Greenery
 - ☐ Environmental benefits (air quality, carbon, etc.)
5. Describe your willingness to plant trees on your property. Check all that apply
- ☐ I am willing to plant trees.
 - ☐ I would plant trees but I don't have the space.
 - ☐ I already have enough trees.
 - ☐ I do not want to plant trees.
 - ☐ Other (please explain): _____
6. The trees growing on my private property are important to me
- a. Strongly agree
 - b. Agree
 - c. Neutral
 - d. Disagree
 - e. Strongly disagree
 - f. I don't own property in Carmel with a tree
7. The trees growing in the public right-of-way in front of my house (or business) are important to me
- a. Strongly agree
 - b. Agree
 - c. Neutral
 - d. Disagree
 - e. Strongly disagree
8. Are you satisfied with the current level of care that the City provides for public trees?
- a. Yes
 - b. No
 - c. Not sure
 - d. Other (please explain): _____

9. Please rank the following from 1 - 5 in order of what you believe should be the priority of Forestry's field tasks:
- ___ Tree Plantings
 - ___ Tree Watering
 - ___ Stump Removals
 - ___ Tree Removals
 - ___ Tree Pruning (i.e., thinning canopy, removing deadwood/broken limbs)
10. What City services related to trees do you appreciate the most? Rank the following from 1-6, with 1 representing the service you most value:
- ___ Maintain street trees
 - ___ Remove dead or dying trees
 - ___ Inspect trees for risk
 - ___ Consultation for private trees
 - ___ Conduct Design Reviews and Tree Protection Plans
 - ___ Plant/replace trees in the public rights-of-way
11. What tree benefits/"services" do you value? (Circle/select all that apply)
- a. Screening
 - b. Support mental and physical health
 - c. Wildlife habitat
 - d. Aesthetics
 - e. Shade
 - f. Reduce 'noise pollution'
 - g. Promote tourism/retail
 - h. Improve air quality
 - i. Mitigate climate change (e.g.: capture CO₂)
 - j. Food (fruits, nuts)
 - k. Reduce flooding and stormwater runoff
 - l. Enhance spirituality and connection with nature
 - m. Other (please specify)
-

12. What consequences of trees do you dislike? (Circle/select all that apply)

- a. Block sunlight/shade lawn/garden
 - b. Litter (leaves, seeds, fruit, etc.)
 - c. Infrastructure conflicts (damage to sidewalks/foundations)
 - d. Allergens
 - e. Nuisance pests (aphids, etc.)
 - f. Tree/limb failure (during storms, etc.)
 - g. Inhibit view
 - h. Costs (maintenance, removal, etc.)
 - i. Other (please specify)
-

13. Having a large tree(s) on my property... (Circle/select all that apply)

- a. Is a burden
- b. Is a privilege
- c. Is a part of living in Carmel
- d. I don't have any large trees on my property
- e. I don't own property in Carmel with a tree

14. How do you feel about Monterey pine trees? (Circle/select all that apply)

- a. More should be planted
- b. They are an important part of our urban forest
- c. They need to be better maintained
- d. They are not suitable for our urban environment

15. It is important to sustain the row of large Monterey cypresses along Scenic Drive:

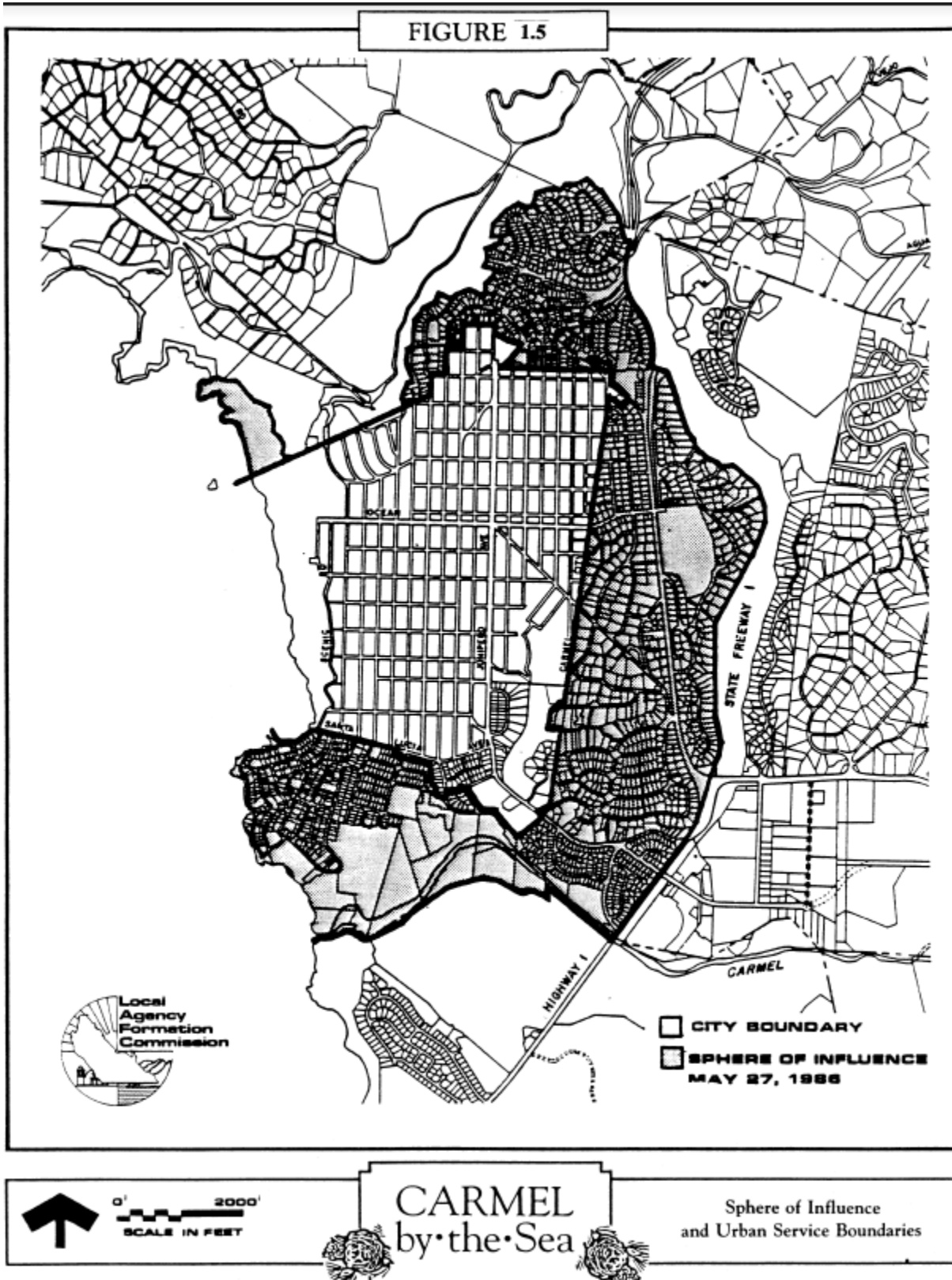
- a. Strongly agree
- b. Agree
- c. Neutral
- d. Disagree
- e. Strongly disagree

16. If a tree is removed within City limits, whether it is on public or private property, it should always be replaced with another tree.
- a. Strongly disagree
 - b. Disagree
 - c. Neutral
 - d. Agree
 - e. Strongly agree
17. Do you currently want a tree planted in the public right-of-way in front of your home (or business) if the City were to provide you a list of adequate trees to choose from?
- a. Yes
 - b. No
 - c. N/A
18. What is the most important issue that the Urban Forest Master Plan should address? (open ended)
19. Please provide any additional comments or suggestions to help guide the creation of our Urban Forest Master Plan. (open ended)

20. What is your connection to the City of Carmel-by-the-Sea?

Attachment 3

- a. I am a resident of the City of Carmel-by-the-Sea
- b. I am not a resident but I live within the City of Carmel-by-the-Sea's surrounding Sphere of Influence (map below shows City limits and Sphere of Influence, per the Carmel General Plan)
- c. I am not a resident but I work or own a business within the City limits of Carmel-by-the-Sea
- d. I live outside of the City and its Sphere of Influence



CARMEL-BY-THE-SEA, CA PLANNING FOR OUR URBAN FOREST

Presented by Davey Resource Group, Inc.

Funding for this project was provided by the California Department
of Forestry and Fire Protection as part of the California Climate
Investments Program.



THIS PRESENTATION



PLAN
DEVELOPMENT



DISTRIBUTION
OF
TREE CANOPY



COMMUNITY
TREE
RESOURCE



URBAN
FORESTRY
SERVICES



COMMUNITY
VISION



PLAN DEVELOPMENT



THE URBAN FOREST

- Community trees (public trees)
 - Public rights-of-way (street trees)
 - Parks and natural areas
 - Trees at city facilities
- Private trees
 - Residential
 - Commercial
 - Industrial zones



PLAN DEVELOPMENT

- Kickoff – January 2023
- Community tree resource analysis
- Tree canopy and land cover assessment
- Recommended Species List
- Background review
 - Current policies
 - Operations and funding
- Community and stakeholder engagement
- Urban Forest Management Plan (UFMP)
 - Drafts (2)
 - Final



CARMEL'S MANAGEMENT PLAN

- Illustrate the value and benefit of community trees
- Communicate challenges and opportunities
- Promote shared vision
- Ensure resources are in place to support community goals

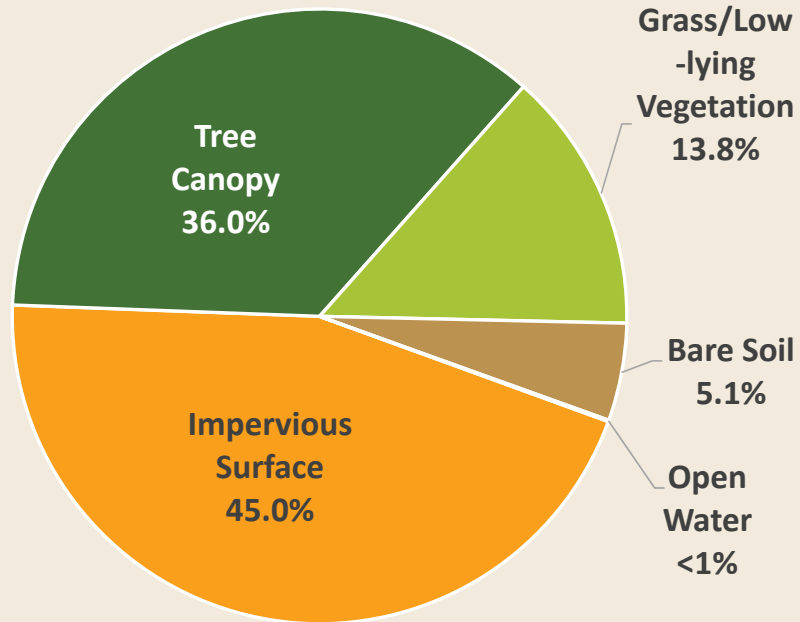
EXAMPLE URBAN FOREST MANAGEMENT PLANS





DISTRIBUTION OF TREE CANOPY

LAND COVER



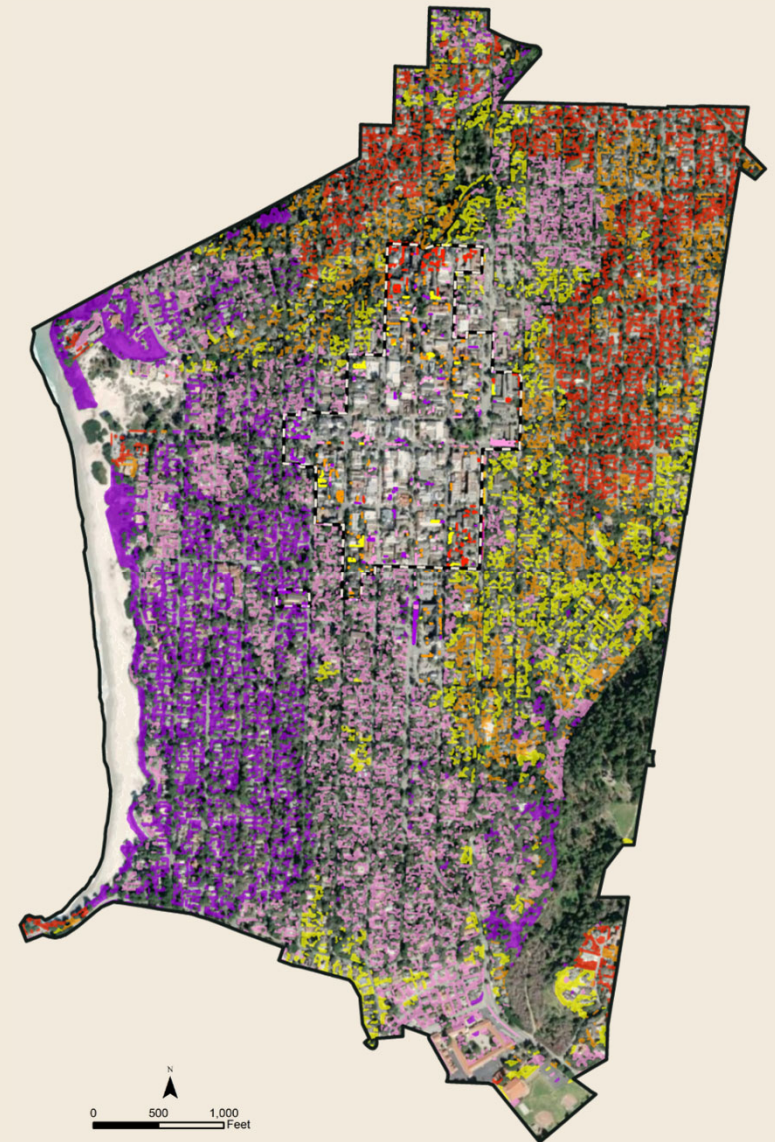
- 676 total acres
- 243 acres of tree canopy
- 36% tree canopy



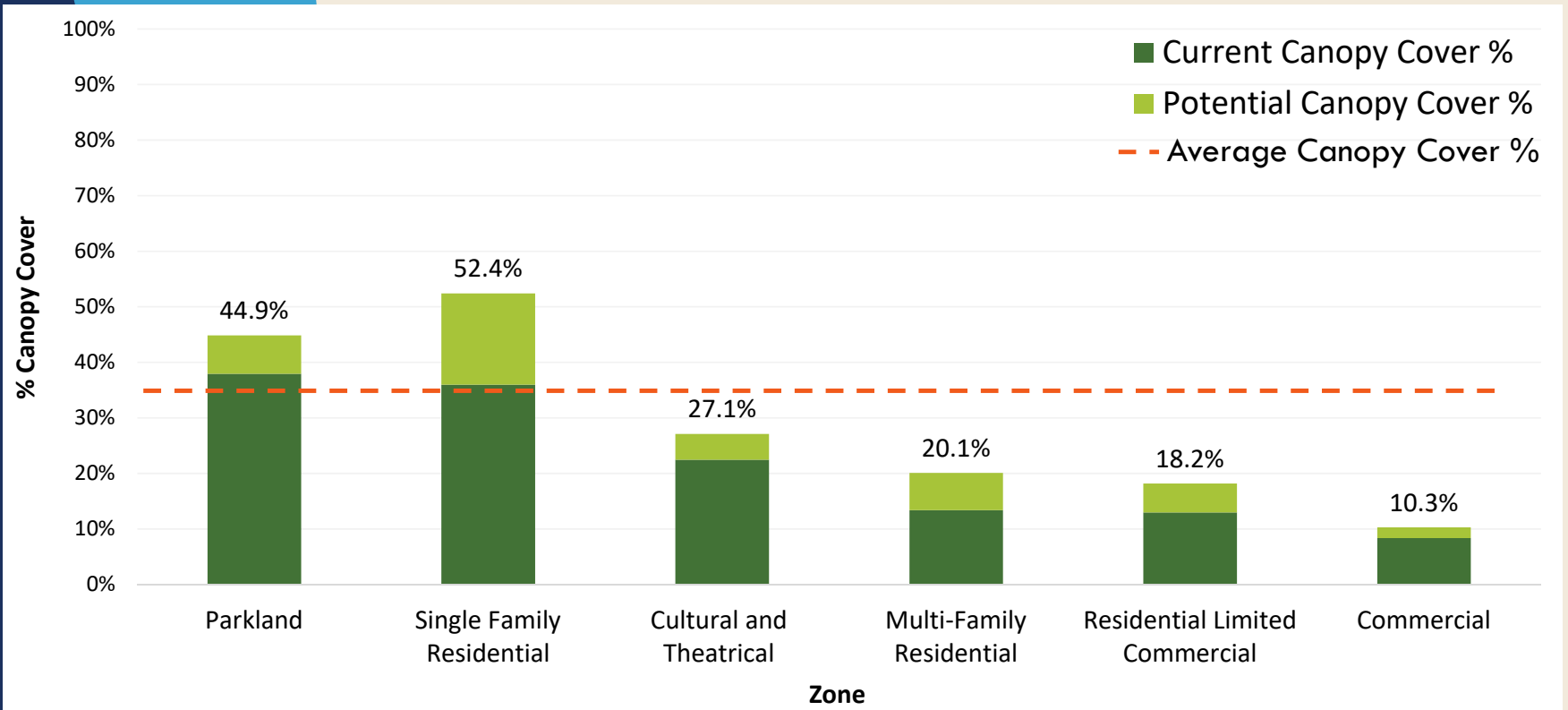
PLANTING POTENTIAL

- 79 acres residential areas
 - 21 acres high or very high priority
 - 3,621 potential planting sites
- 2 acres commercial areas
 - 1 acre high or very high priority
 - 99 potential planting sites
- Prioritization based on stormwater management and canopy continuity

Priority Planting

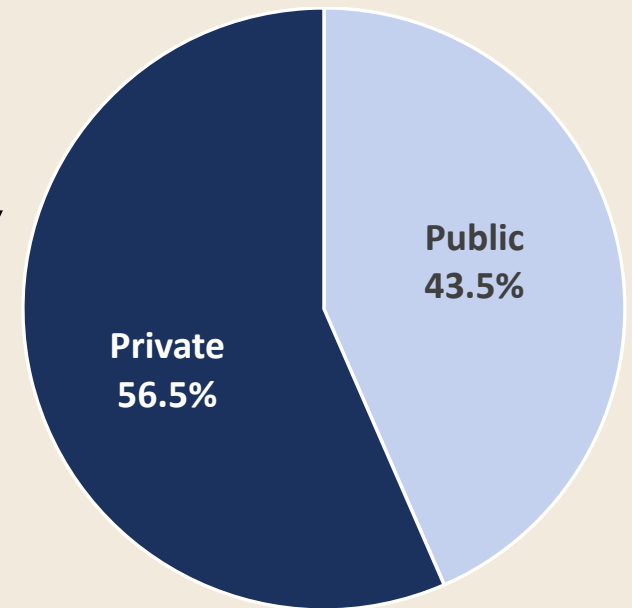


CANOPY BY ZONING



PUBLIC V. PRIVATE CANOPY COVER

- 106 acres on public property
 - 40% tree canopy cover
 - 47% potential canopy cover
- 138 acres on private property
 - 33% tree canopy cover
 - 49% potential canopy cover



Canopy Distribution



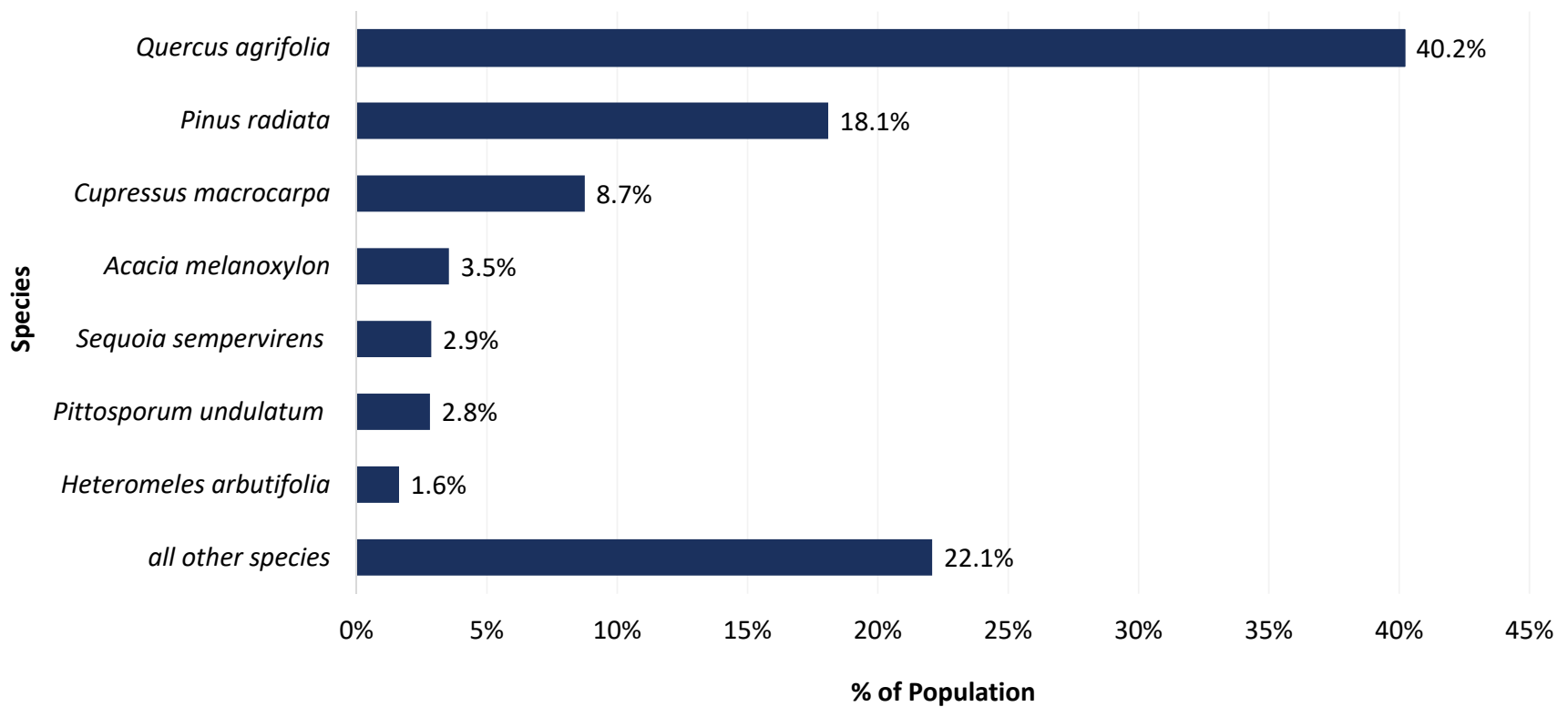
COMMUNITY TREE RESOURCE

COMMUNITY TREE RESOURCE

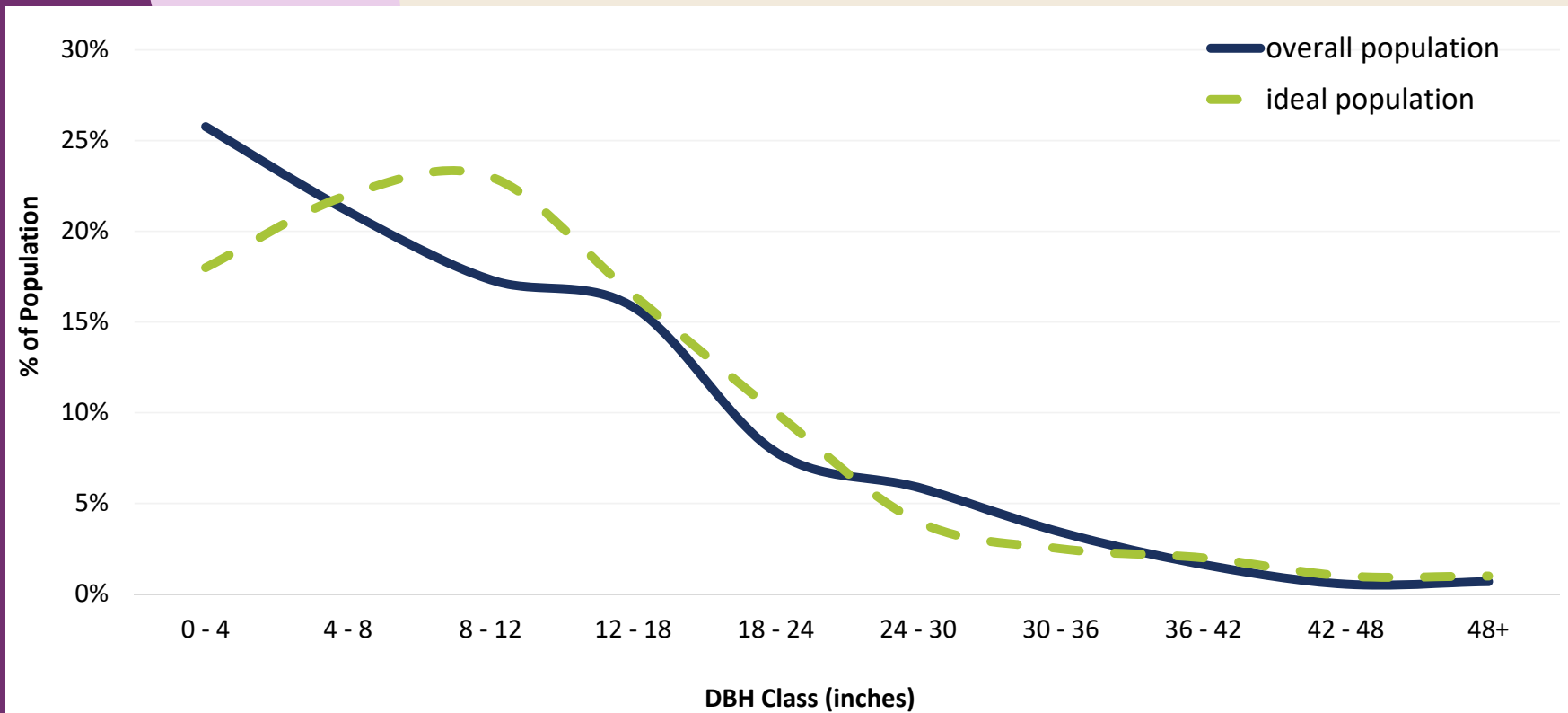
- 9,875 trees
- 1,118 potential planting sites
- 4,412 tons of carbon stored
- \$25.2 million to replace



SPECIES DIVERSITY



AGE DISTRIBUTION



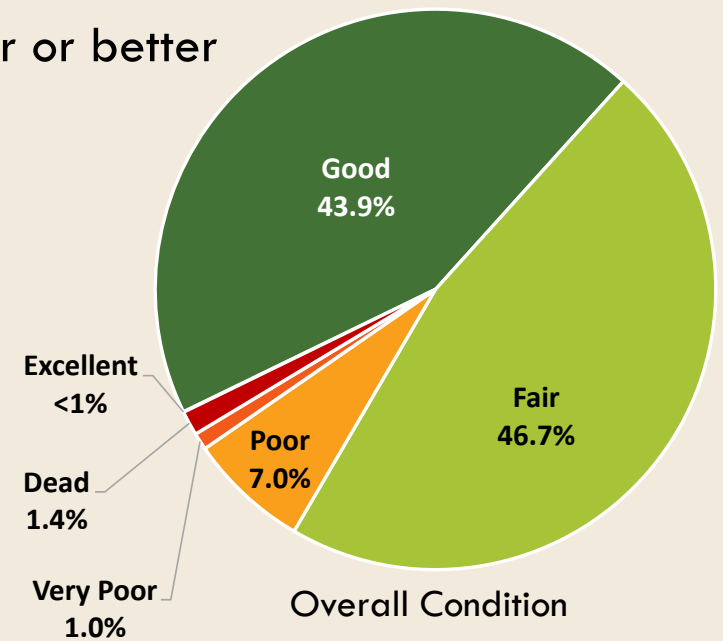
ANNUAL BENEFITS FROM COMMUNITY TREES

- 582,667 gallons of stormwater runoff avoided
- 3 tons of air pollutants removed
 - \$22,420 savings from fewer adverse health incidents
- 115 tons of carbon directly sequestered



TREE CONDITION

- Trees <8" DBH – 94% in fair or better
- Trees 9 to 12" DBH – 87% in fair or better
- Trees >24" – 88% in fair or better
 - 12% in poor or worse



TREE CONDITION

- 10% of trees in poor or worse condition
 - 687 Poor
 - 96 Very Poor
 - 139 Dead

Trees >19 inches

- Poor – 687
- Very Poor – 96
- Dead – 139

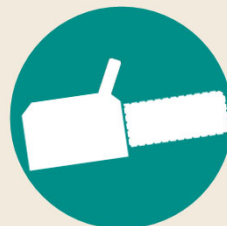




URBAN FORESTRY SERVICES

URBAN FORESTRY OPERATIONS

- Annual Services
 - ~300 trees pruned
 - ~150 trees removed
 - ~80 trees planted
 - Inspections for pests & pathogens





COMMUNITY VISION



BREAKOUT SESSION

1. Guidelines
2. Workbooks
3. Discussion (~15 minutes/topic)
4. Reporting



#1 CANOPY GOALS

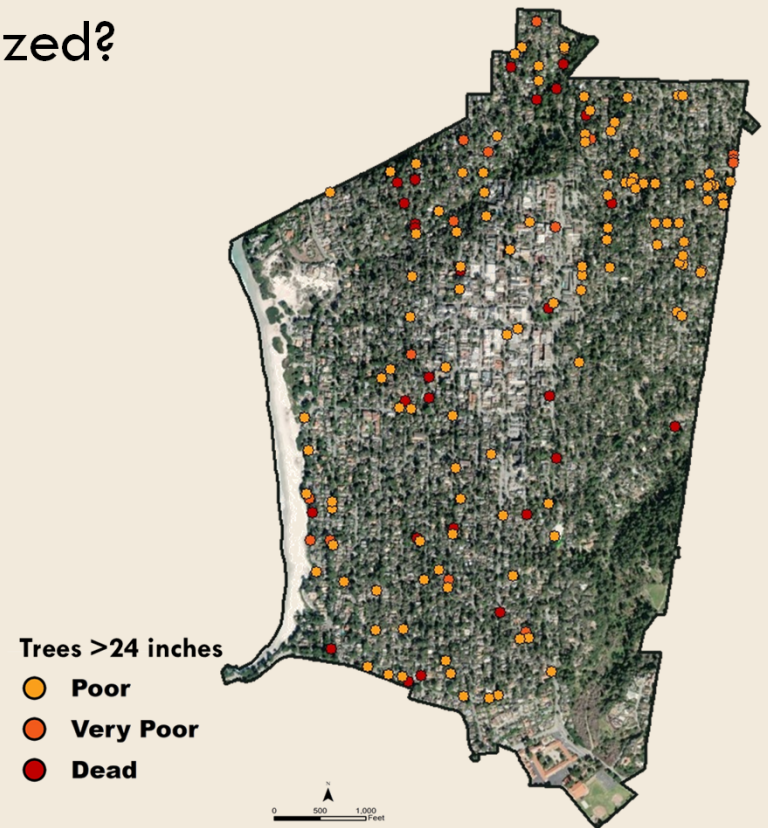
Should canopy cover be maintained, increased, or reduced? What should the canopy goal be?

- Overall
- Commercial areas
- Residential areas
- Parks/open space

Current tree canopy cover = 36%

#2 GEOGRAPHIC PRIORITY

As community trees are removed, where should replanting be prioritized?



#3 SPECIES CHARACTERISTICS

1. What tree characteristics are most important (e.g., shade, fruit, color, etc.)?
2. What species or types of trees should be added to or excluded from the Recommended Species List?
 - Why?



GROUP REPORTING & DISCUSSION

#1 Canopy Goals

#2 Geographic Priority

#3 Species Characteristics

THANK YOU

Tina McKeand

928-246-7048

tina.mckeand@davey.com

Allison Serafin Steere

303-921-5641

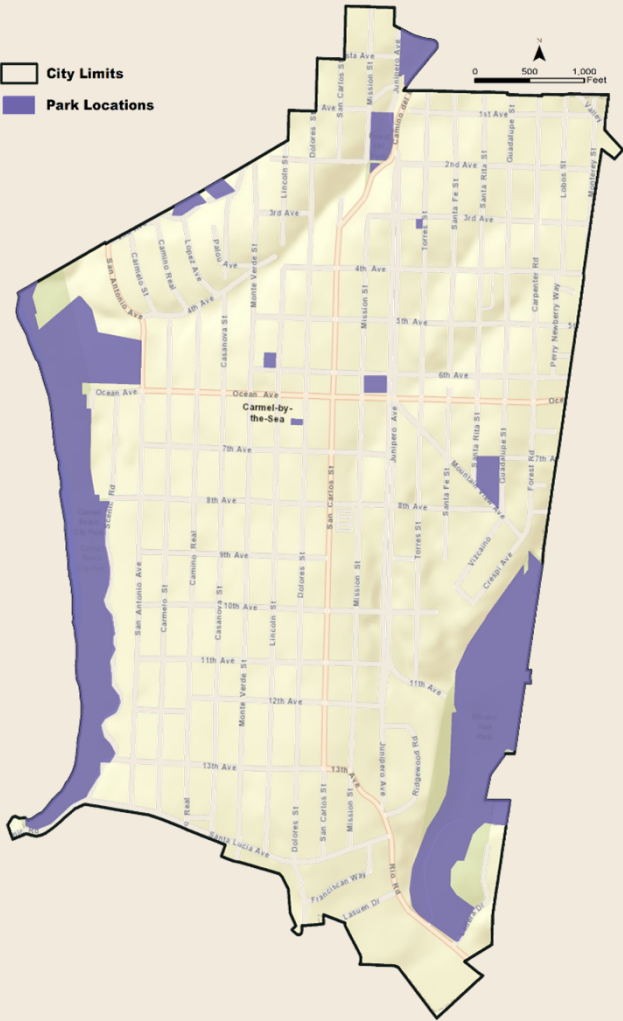
allison.steere@davey.com

TAKE THE SURVEY!

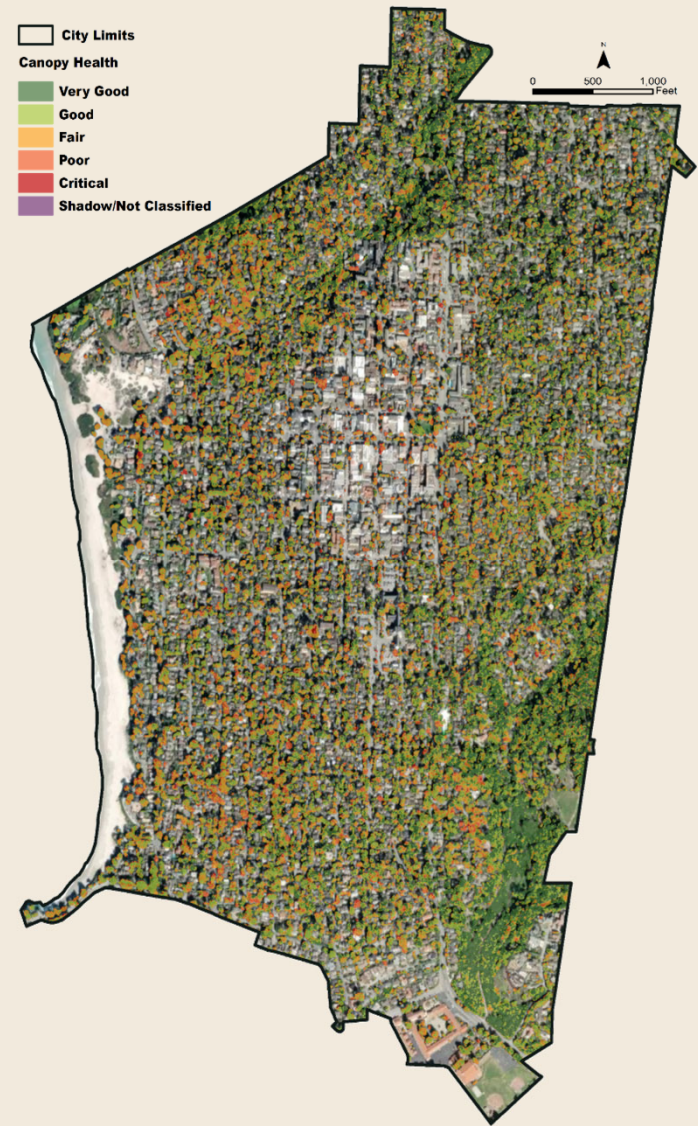
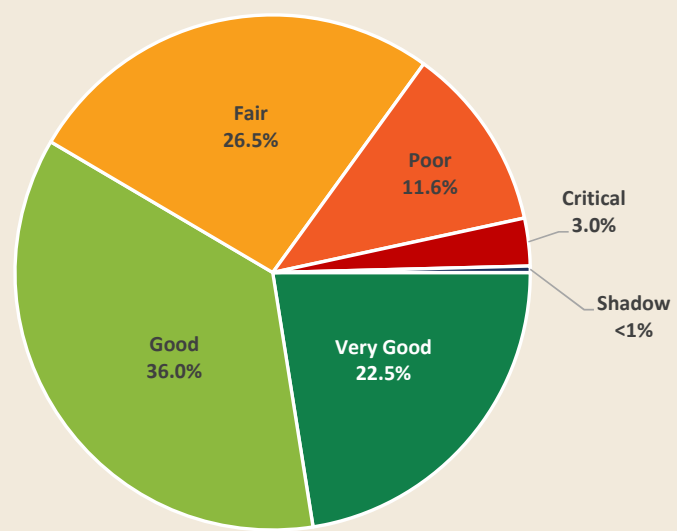
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CANOPY BY PARKS

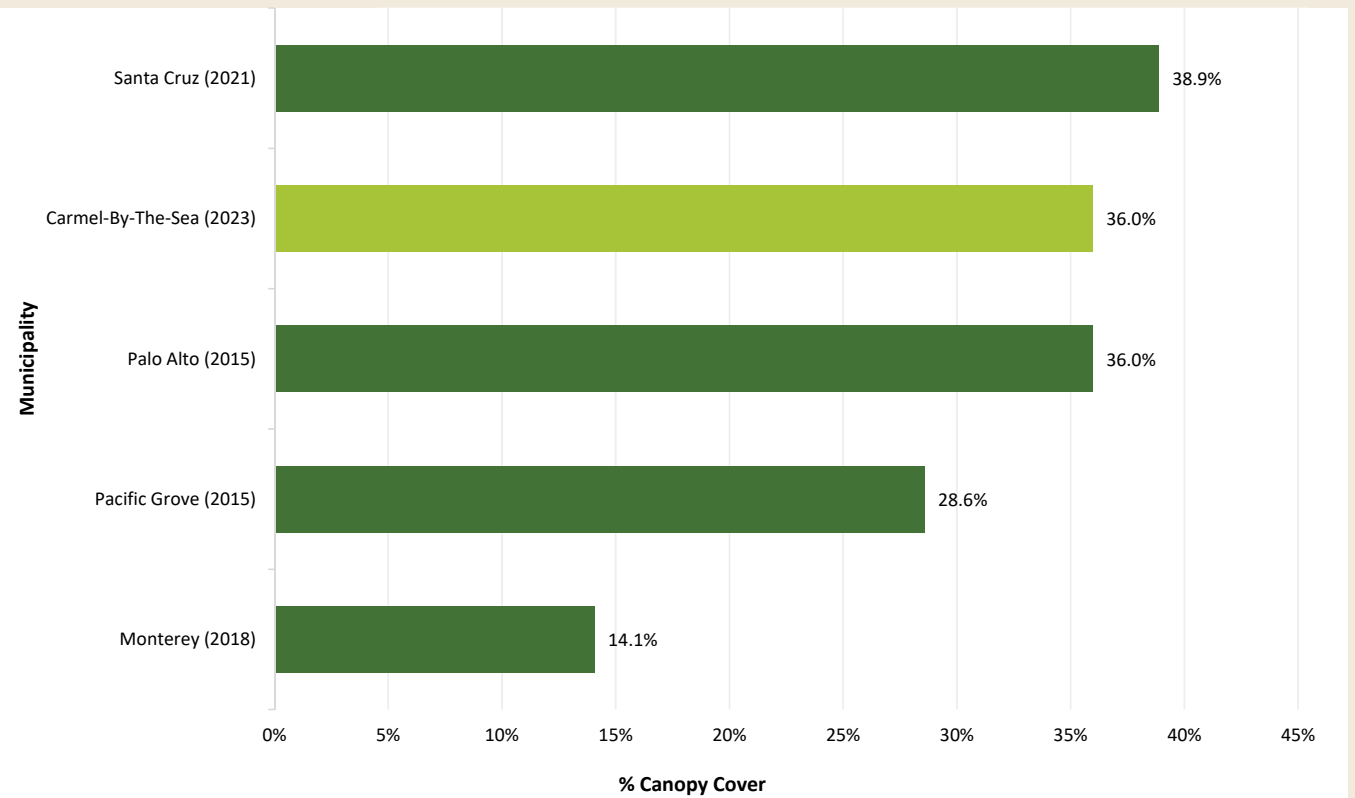
Parks	Acres	Canopy Acres	Canopy %	Impervious Acres	Grass/Low-lying Vegetation Acres	Bare Soil Acres	Open Water Acres	Potential Canopy %
Carmel Beach	39.63	2.75	6.95	0.59	7.10	28.70	0.48	17.95
Mission Trail Park	34.38	23.83	69.31	0.93	6.96	2.67	0.00	69.46
Forest Hill Park	3.90	2.55	65.28	0.36	0.76	0.23	0.00	72.30
PacRep at the Forest Theater	1.57	0.63	40.40	0.67	0.23	0.04	0.00	56.84
Open Space	1.12	0.80	71.09	0.04	0.28	0.00	0.00	96.21
Devendorf Park	0.63	0.34	52.92	0.04	0.26	0.00	0.00	53.00
First Murphy Park First Murphy House	0.28	0.11	39.14	0.11	0.06	0.00	0.00	61.31
Picadilly Park	0.10	0.06	65.81	0.02	0.01	0.00	0.00	74.55
Open Space	0.08	0.02	29.09	0.03	0.02	0.00	0.00	59.70
Total	81.68	31.09	38.06%	2.80	15.68	31.63	0.48	44.57%



CANOPY HEALTH

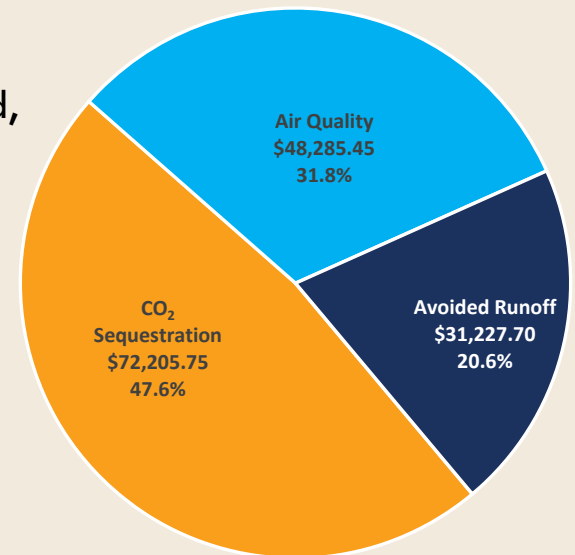


NEIGHBORING COMMUNITY COMPARISON



ANNUAL CANOPY BENEFITS

- 18,029 lb. of air pollutants removed, valued at \$48,285
- 4 million gallons in avoided stormwater runoff, valued at \$31,228
- 423 tons of CO₂ sequestered from the atmosphere, valued at \$72,205



Begin forwarded message:

From: "Linda L. Smith" <lachmund@pacbell.net>
Subject: Fw: Carmel General Plan excerpts
Date: July 31, 2023 at 4:48:04 PM PDT
To: Karen Ferlito <kferlito@ci.carmel.ca.us>

Hi Karen,

I wonder if you could send me the email addresses of the Forest and Beach Commissioners? I can't find them on the city website. Also, do you have those of the Friends of Carmel Forest? The consultants for Davey want me to forward them all the information i have on Carmel's connection to Monterey pines, ecologically and culturally, and i'd like to cc the info to everyone concerned.

Here are a few things from the archive. The first is from our rather terrific General Plan that came out of our history and all the combined work of scientists and citizens in the 1990s and early 2000s. Included a note from the USDA Forest Service too. Monterey pines are really a terrific species in so many ways!...and in our skyline! At dusk, in the fog...well, Carmel is bereft without them...

♥ Linda



George Sterling's house has recently been completed and stands only a short distance northward from the mission, overlooking the river valley and within hearing of the breakers. Beyond the house in the direction of the village one penetrates into a deep pine forest, whose floor is soft to the feet, the soil being very loamy and covered thickly with pine needles.

The poet's reasons for selecting this spot for a home are beautifully expressed in the following lines, written by him a few days ago:

In Carmel! pines the summer wind
Sings like a distant sea
O, harps of green, your murmurs find
An echoing chord in me!

On Carmel shore the billows moan
Like pines that breast the gale:
I fain would sing their grief unknown,
But words cannot avail.

General Plan/Coastal Land Use Plan Coastal Resource Management Element

"Carmel's forest is an "urbanized" Monterey pine forest rather than an "urban" forest...An "urbanized" forest exists before development and is characterized by its diversity in species, age and randomness in tree location resulting in meandering streets of varying width. (LUP)"

"To many, the 'urbanized' forest is the character-defining feature that makes Carmel-by-the-Sea so unique. The forest, along with the beach and ocean, is the City's largest and most visible natural resource. Homes are nestled into the native Monterey pine and Coast Live oak on a grid of streets that yields to trees more than to engineering expediency. Upper canopy trees impart a distinctive ambiance and identity to the City. Lower canopy trees soften and provide screening of development. Together the mix of upper and lower canopy trees establishes a powerful sense of place. (LUP)"

"In a city with few formal street improvements or drainage systems, the "urbanized" forest also serves to convey runoff from the watershed to the beach and Carmel Bay through a variety of natural drainages, swales, and creeks. The forest performs the important functions of absorbing water from the soil, reducing runoff, filtering pollutants, and minimizing erosion. As such, the "urbanized" forest reduces the amount of polluted runoff and in large part, helps the City comply with the National Pollutant Discharge Elimination System (NPDES) Phase II Storm Water permit regulations. (LUP)"

“Steps must be taken to minimize the threat to existing healthy Monterey pines and new seedlings to ensure continued diversity in species, age, and location. This document includes policies to respond to this issue. Disturbance and/or removal of mature and disease resistant trees during construction or other development activities should be avoided. Permit conditions requiring replacement trees for those removed from private land should be monitored and enforced to ensure that the trees are healthy and reach maturity. Replacements should also be in like kind. It is essential that these and other policy directives be carried out to ensure that the Monterey pine forest landscape is protected so that the forested character of this unique coastal village is preserved. (LUP)”

Pg 10 of the Carmel General Plan, Coastal Resource Element

General Plan/Coastal Land Use Plan Land Use & Community Character Element

“The natural setting of Carmel is dominated by a southwest-facing slope, which rolls gently towards the Pacific Ocean. This slope is intersected by several drainages resulting in a variety of hills, cross slopes and other topographic challenges. Within these drainages and on the upper slopes of the City, a natural Monterey Pine forest existed. These trees formed an upper canopy. A lower canopy of Coast Live oaks also was part of the forest. On the lower slopes (approximately west of present day Casanova Street) were sand dunes and coastal scrub. The beach along Carmel’s shore is made of fine, white sand. These natural features are part of the community character and attracted settlers and visitors to Carmel, just as they do today. (LUP)”

From simple beginnings, the City quickly developed a residential community and a strong, centralized business district. By 1940, just 24 years after incorporation, Carmel had a population of 2,837 and a housing stock of 1,575 units. This developmental period was critical in establishing community character. **The dominant themes that continue to shape the City today were formed in these early years:**

- Meeting the full range of local human needs, including health, safety shelter, social interaction, culture, commerce and growth, while accommodating the needs of coastal visitors;
- Designing buildings, infrastructure, and other improvements to a human scale;
- **Enhancing and protecting the Monterey Pines, Coast Live oaks and other species of the natural environment that contributes to the high quality of life;**
- **Respecting the past as a continuing legacy that challenges each citizen to preserve the City's character in spite of on-going change;**
- Preserving Carmel’s primarily residential character with business and commerce subordinate to its residential character. (LUP)

Goals, Objectives and Policies in the Coastal Resources Management Element of the General Plan

G5-3 Protect, conserve and enhance the unique natural beauty and irreplaceable natural resources of Carmel and its Sphere of Influence, including its biological resources, water resources, and scenic routes and corridors. (LUP)

O5-8 Protect, conserve and enhance designated open space, the urban Monterey pine forest, beach and shoreline, the sensitive habitats and the hillside areas, and acquire additional open space as deemed appropriate. (LUP)

P5-47 Continue Carmel's tree preservation program and encourage the use of indigenous or native plants. (LUP)

G5-4 Preserve and enhance the City's legacy of an urbanized forest of predominantly Monterey pine, coast live oak and Monterey Cypress. (LUP)

O5-9 Maintain a Forest and Beach Commission and a Forest, Parks and Beach Department that have specific responsibility and jurisdiction for the health and well-being of the forest, parks and beach. (LUP)

P5-49 Review periodically all existing tree related ordinances and policies in the Forest Management Plan/LCP. Propose changes to bring them into alignment with new advances in urbanized forest management practice. (LUP)

P5-50 Conduct the forest program in accordance with a coherent body of laws, goals, policies and guidelines. (LUP)

P5-51 Coordinate all functions of the urban forest program through the City Forester. (LUP)

P5-52 Commit resources necessary to support the forest, parks and beach programs. (LUP)

O5-10 Maintain a Citywide map and database of trees and landscaped areas to support tree planting and maintenance programs. (LUP)

P5-53 Complete a Citywide survey and database update every four years. Compile the data by size of tree and species in an electronic format. Also survey replacement trees required by permit conditions of approval. Report survey information and the status of replacement trees to the Forest and Beach Commission and Planning Commission at the conclusion of each yearly survey. Continue to monitor replacement trees for at least one survey cycle (i.e., 4 years). (LUP)

O5-11 Maintain, restore and enhance the upper and lower tree canopy of Carmel's urbanized forest. (LUP)

P5-55 Implement adopted tree density policies for private and public property as appropriate to each site taking into consideration neighborhood characteristics and site constraints. (LUP)

P5-56 Establish and implement tree canopy policies for the commercial district. (LUP)

P5-57 Maintain a list of tree species that could qualify as indigenous upper and lower canopy trees, for the purposes of meeting tree density and replacement policies. (LUP)

P5-58 Maintain, restore and enhance a predominantly indigenous forest of native Monterey pines and coast live oaks. (LUP)

P5-59 Avoid encroachment within the root protection zone of significant trees. Removal of significant live Monterey pine trees to facilitate

residential development is prohibited unless necessary to provide a viable economic use or protect public health and safety. (LUP)

P5-60 Review all projects involving an increase in lot coverage or tree removal and apply the adopted tree density policy as appropriate to each neighborhood and site conditions. Preserve upper and lower canopy trees classified as significant when planning and implementing residential and commercial development. (LUP)

P5-61 Promote natural regeneration of the forest and retention of seedlings by maintaining natural ground surfaces. (LUP)

P5-62 Use tree species and sizes well adapted for each planting site. (LUP)

P5-63 Manage the tree-planting program to achieve an uneven-aged, healthy forest with particular emphasis on native Monterey pines and coast live oaks. (LUP)

P5-64 New development shall be sited and designed to avoid or minimize significant adverse effects to the forest. Avoid projects that significantly increase building footprint to the detriment of trees. No grading, compaction of soils, construction of building walls or placement of impermeable surfaces within six feet of trees classified as significant shall be permitted. (LUP)

Goals, Objectives and Policies in the Land Use and Community Character Element

P1-40 Residential designs shall maintain Carmel's enduring principles of modesty and simplicity and preserve the City's tradition of simple homes set amidst a forest landscape. Buildings shall not present excess visual mass or bulk to public view or to adjoining properties. Buildings shall relate to a human scale in their forms, elements and in the detailing of doors, windows, roofs, and walkways. Oversized design elements make structures appear dominating and monumental. This out-of-scale character represents a poor fit to the human form, vitiates the more intimate, rural charm and village character of Carmel-by-the-Sea and should be avoided. (LUP)

P1-44 Prohibit the removal of significant trees (as determined by the City Forester) unless it would prevent a reasonable economic use of the site or pose a threat to health and safety. Locate buildings and other site structures to avoid removal and pruning and otherwise minimize damage to existing significant trees. Avoid impacts to trees by avoiding/minimizing impacts to the root protection zone identified by the City Forester during the preliminary site assessment. Establish continuity of landscape elements throughout each neighborhood. Replace trees removed for construction with appropriate trees of the urbanized forest. Require that they be nurtured until well established. (LUP)

P1-76 Develop and maintain an effective program for the systematic enforcement of all codes.

Many Pleasures for a Vacation

The beautiful beach of pure white silicon sand, with the fifty-two acres of sand dunes, is a playground for the children, and resting place for the nerve weary. The four-hundred acre pine forest, with its deep carpet of pine needles, furnishes all the balsamic odors of the Sierras.

Fishing abounds, in the river for trout and steelhead, and in the bay for all kinds of sea-food fish.

Driving and riding, either around the 17-mile drive, or down the coast, or up the valley, are interesting diversions.

More than sixty per cent of the residents of the village are devoting their time to work related to the aesthetic arts. College teachers, artist, poets, magazine writers, and professional men and women find the environment especially conducive to their best work.

The Arts and Crafts club, the Library, the Manzanita club, the Choral society, and several reading circles are organizations for the promotion of social intercourse and intellectual advancement.

CARMEL PINE CONE

Feb. 3, 1915

Vol 1 Issue 1

BY

EUNICE T. GRAY

Perhaps, after all, the crowning glory of Carmel is her trees: her pine trees with stately spires and young cones like altar candles; pine trees with sheltering boughs inviting one to rest beneath upon the fragrant needle carpet; fantastic trees, wind-blown and distorted; and her oaks, with grey arms flung out in frenzied terror to escape the storm; sheltering oaks, homing the birds and spreading a canopy beneath which rabbits frolic and insects and lizards live their cycle.

From the brow of the hill at the eastern boundary to within a few hundred feet of the western sea we find them—friendly, protecting, steadfast trees. The little winds sing in their branches; overtones of the sea drift through to our listening ears; incense, grateful and invigorating, rises from the pine boughs; and the oaks make patterns—sharp, provocative patterns, that challenge the eye and stimulate observation.

The Monterey Pine or *Pinus radiata* (so-called because of its whorls of cones) is far wider spread than the cypress, but because of its short life and its usefulness as fire-wood it is showing a deplorable tendency to disappear from our community. At the present time there is a threatened invasion of our pine forests by the borer, or boring beetle, and experts have been called in to attempt to stop it; but by far the most serious invaders are the ax men, who come at the call of the greedy and the impatient to clear away everything that stands in the way of their houses, their views or their automobiles. Carmel without her pines and her oaks would be like a lovely woman without a voice or eyelashes—but perhaps there are those who like her that way.

Plant Guide

MONTEREY PINE

Pinus radiata D. Don

Plant Symbol = PIRA2

Contributed by: USDA NRCS National Plant Data Center



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California Academy of Sciences
@ Calflora

Alternate Names

Insignias pine, radiata pine, Cambria pine

Uses

Ethnobotanic: The seeds of all pine species are edible and pine nuts have historically been an important food utilized by many Native American tribes (Strike 1994). Pines were also valued for their wood, sap, and pine needles. Because of its restricted range, few tribes used Monterey pine. The Costanoan and probably the Salinan relied on the seeds as a source of food in coastal areas of their territory. Pedro Fages (1937) describes the California Indians in the Monterey area as using many kinds of pine nuts and among them those of Monterey pine. He writes, "the cones of the pine tree are small, and the nuts are extremely so, but very good and pleasing to the taste. The method of gathering them is to build a fire at the foot of the tree, which in a few hours falls, making the fruit available without difficulty" (Fages 1937; 68-69). Many bedrock mortars are found adjacent to Monterey pine forests, which may be additional evidence of their use by both tribes (Leonard 1963). The closed cones of Monterey pines were probably a particularly valuable resource because they remain on the tree and can therefore be harvested all through the year. The closed cones open in response to heat and

could be easily opened by placing them on or near a fire. Pine nuts were eaten whole or pounded into flour that was made into porridge or mixed with other foods. The young, male catkins are edible and said to have a nice flavor either raw or cooked (Couplan 1998). During heavy winters or times of scarcity the inner bark of pine trees would serve as an emergency food.

The needles of pines, which contain vitamin C, were brewed into a tea that was drunk to treat headaches (Heinsen 1972). The Costanoan and others chewed pine resin to treat rheumatism. This resin or pitch was used as a salve that was applied to burns and sores. Pine resins were useful as glue or sealant. Pine resin was also chewed as gum. Pine nuts were burned into charcoal, crushed, and then applied to both sores and burns. Various Native American tribes used the split roots of many pine species as the foundation to make fish traps, seed beaters, burden and many other types of baskets (Murphey 1959). The inner portions of slender new pine twigs could be processed into sewing materials (Barrett & Gifford 1933).

Livestock: Goats browse on Monterey pines.

Wildlife: Black-tailed deer browse the leaves and branches of Monterey pine. Porcupines are known to browse on leaves and branches as well as eat the bark. Small mammals including deer mice, chipmunks, and ground squirrels eat the seeds. Among the birds that eat the seeds are scrub jays, Stellar jays, and crows. Nesting chestnut-backed chickadees have been observed to obtain almost 80% of their insect diet from foraging in Monterey pine trees (Kleintjes & Dahlsten 1994).

Other: Monterey pine is used for erosion control and stabilization of steep slopes because it is fast growing and has a wide spreading root system. The trees are sometimes used as Christmas trees.

Status

The California Native Plant Society considers Monterey pine rare in its native range. Please consult the PLANTS Web site and your State Department of Natural Resources for this plant's current status (e.g. threatened or endangered species, state noxious status, and wetland indicator values).

Plant Materials <<http://plant-materials.nrcs.usda.gov/>>

Plant Fact Sheet/Guide Coordination Page <<http://plant-materials.nrcs.usda.gov/intranet/pfs.html>>

National Plant Data Center <<http://npdc.usda.gov>>

Weediness

This plant may become weedy or invasive in some regions or habitats and may displace desirable vegetation if not properly managed. Please consult with your local NRCS Field Office, Cooperative Extension Service office, or state natural resource or agriculture department regarding its status and use. Weed information is also available from the PLANTS Web site.

Description

General: Pine family (Pinaceae). Monterey pines are native to California and Baja California where they occur in only a few small populations. Mature Monterey pines can reach 38 m in height with trunks up to 2 m in diameter. The young trees begin as compact pyramids but age into varied shapes. The adult canopy is usually rounded to flat-topped. Along the Pacific coast, the winds sculpt Monterey pine canopies into picturesque shapes. The bark is red-brown to blackish brown and has deep furrows. The leaves are glossy, dark green needles, 6-15 cm long that grow in bundles of three. Needles on older trees are sometimes a bluish green. Flowers appear in late winter or early spring. The trees are monoecious; having both male and female flowers (McDonald & Laacke 1990). The yellow male catkins are 12mm long and are generally found on the lateral branches. Female flowers grow throughout the entire canopy. The grayish brown cones are asymmetrically oval, 6 to 15 cm long, and are born on short stalks in clusters of 3 to 7 cones. The scales are smooth and rounded. Each cone contains from 120 to 200 dark brown to black, bumpy winged seeds that are 6-7mm long. The cones remain closed on the tree until the second year or sometimes longer. Cones generally ripen and open from late winter to early spring of the second year. Thereafter, they may remain on the tree where they can open and close several times depending on temperature and moisture. The close-grained wood is light and soft. Although it is not considered an important lumber tree in California, it has been widely planted in areas with Mediterranean climates throughout the world for use as lumber and pulp.

Distribution: Monterey pines are native to California and Baja California. Native Monterey pine forests occupy a small portion of their historical range and are currently restricted to five coastal locations: Año Nuevo in the north, the Monterey Peninsula, Cambria, and on Guadalupe and Cedros islands off the coast of Baja, California in the south.

For current distribution, please consult the Plant Profile page for this species on the PLANTS Web site.

Habitat: Monterey pines grow below 1200 meters in closed cone pine forests and oak woodlands. The species is one of the 18 California species of pines and cypresses that bear closed cones (Dallman 1998:27). The remaining stands of Monterey pine are threatened by numerous factors including urbanization, recreational development, and fire suppression, pests and diseases. Fire suppression has resulted in very old stands of forest, which are more susceptible to attacks from pests and diseases. In the Monterey area, the trees are seriously threatened by an epidemic of "pine pitch canker", a fungal disease caused by *Fusarium subglutans pini*. This fungus was recently introduced to California from the southeastern United States and is carried from tree to tree by several native insects including the Monterey pine cone beetle (*Conophthorus radiatae*), twig beetles (*Pitophthorus* spp.) and engraver beetles (*Ips* spp.). Indigenous stands of Monterey pine are also threatened by genetic contamination, which results from crossbreeding with planted trees that were brought in from other areas.

Adaptation

Monterey pines are adapted to soils of medium to heavy texture. Monterey pines have serotinous cones that do not release the seeds unless subjected to high temperatures. Superheating may occur on very hot days or during fire events. Because hot days do not often occur in the Central Coast of California, replenishment of the seed bank is highly dependant on fire (Hillyard 1997).

Establishment

Monterey pines are ornamental as well as useful. This species is the most widely cultivated pine in the world (Templeton et al. 1997). Monterey pines are also the most widely planted trees for choose-and-cut Christmas tree farms in California. They are excellent shade trees, act as effective wind and sound barriers, and have been used for erosion control.

Be careful to select a proper place to plant these fast growing trees. Monterey pines are the most rapid growing pine of over 90 species that occur in the world (Labadie 1978). Young trees can grow up to 2 meters per year, generally reaching from 12 to 18 meters within 25 years. The trees have an average life span of 80 to 90 years.

These trees require deep, well drained, medium to course textured soils of medium fertility. Trees that

are planted on shallow or waterlogged soils may be unstable because of shallow vertical roots. Monterey pines can be damaged or killed in areas where temperatures reach below freezing.

Monterey pines are usually transplanted from containers or bare rootstock grown by commercial nurseries. However, these plants usually come from New Zealand stock. Even though the New Zealand stock originated from California populations, crossbreeding with native populations is considered a threat to the native population's conservation because of genetic contamination (Cope 1993).

Seed may propagate Monterey pine trees. Handpick mature cones from the trees or from the ground. Air-dry opened cones by spreading them in a sunny, dry place. To open closed cones, drop them into boiling water for 1 to 2 minutes or more, if needed. Remove the seeds from the cones by shaking them out. Although the cones require heat in order to release the seeds, the seeds do not generally require pretreatment in order to germinate. One to three weeks of cold-moist stratification may improve germination, especially for seeds that have been stored (Emery 1988). Monterey pines are not generally propagated by cuttings as, even with bottom heat, the cuttings may take four or more months to form roots.

Management

Established trees require occasional deep watering accompanied by a light fertilization to remain healthy. To control the size of the tree, and to increase bushiness, the new growth, called candles, may be pruned in the spring as they appear. Remove dead or dying branches.

Pests and Potential Problems

Western dwarf mistletoe, western gall rust, various needle blights, pitch moth, red turpentine beetle, pitch canker, Monterey pine scale, irregular pine scale, pine leaf scale, aphids, mites, pine tip borer, pine tip moth.

Environmental Concerns

Although Monterey pines are threatened in their present native habitat, they have been considered a weedy pest in some areas of California where they have escaped cultivation. Millar (1998) uses fossil evidence to support an alternate view: that Monterey pine populations have historically shifted in size and location along the California and Baja coasts in response to changing climate. She suggests, that in order to allow for the continued survival of Monterey pines, establishment of new stands of native stock

within the pine's historical range should be considered as opportunities for their conservation and not as a threat to other native species.

Cultivars, Improved, and Selected Materials (and area of origin)

These plants are readily available from commercial sources. Request plants established from native California rather than New Zealand stock. If you are planting trees in areas near native stands, be sure the seeds or seedlings are from the same genetic stock as those stands.

Contact your local Natural Resources Conservation Service (formerly Soil Conservation Service) office for more information. Look in the phone book under "United States Government." The Natural Resources Conservation Service will be listed under the subheading "Department of Agriculture."

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Edited: 05apr02 ahv; 29may03 ahv; 060803 jsp

For more information about this and other plants, please contact your local NRCS field office or Conservation District, and visit the PLANTS Web site <<http://plants.usda.gov>> or the Plant Materials Program Web site <<http://Plant-Materials.nrcs.usda.gov>>

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AGE AND ORIGIN OF THE MONTEREY ENDEMIC AREA

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ABSTRACT

The Monterey endemic area originated during late Wisconsin and Holocene times. Widespread sandy substrates afforded sites for the origination, by various modes, of new species following population movements into the region. Their sources included taxa *a*) from forest communities that earlier were in the lowlands under cooler, moister Pleistocene climates, *b*) from widespread species along the central coastal strip, and *c*) from interior and southern alliances that probably invaded the area during the Xerothermic. In addition, paleoendemics of wider Quaternary distribution found a haven here under the influence of the Monterey submarine canyon on land climate; it provided an effective local foggy shield from Xerothermic conditions. The paleoendemics include two cypresses and a *Pinus radiata* population with relatively small cones. By contrast, the *P. radiata* populations at Año Nuevo and Cambria, farther removed from a more persistent foggy shield, apparently developed larger cones in response to Xerothermic aridity.

Of the diverse endemic regions in California (Stebbins and Major 1965), the Monterey area poses a unique problem. Although it is much smaller than the mountainous Santa Cruz and Santa Lucia endemic areas directly north and south, it is richer in endemics even though those areas are far more diverse in relief, climate, and rock-soil type. Furthermore, there are no serpentine exposures in the Monterey area to help account for its high endemism, as in the Santa Cruz or Mt. Tamalpais areas. In addition, whereas the larger endemic areas in the northern (Siskiyou) and southern (Diegan) parts of the state have a relatively high incidence of warm season precipitation that appears to account for the persistence of paleoendemics there (Raven and Axelrod 1978), this is not true of the Monterey area. This low-lying region not only has a much lower total rainfall than endemic areas to the north and south in the outer Coast Ranges, it receives less warm season precipitation than those areas. Furthermore, the occurrence of quartz diorite at Monterey-Carmel can scarcely explain the high endemism there. The same rock makes up the northern half of Inverness Ridge and Montara Mountain, north and south of San Francisco. Both are nearly equal in size to Monterey-Carmel endemic area yet few endemics occur there. Clearly, other factors must account for the occurrence in this local region of the highest number of endemics in the outer central Coast Ranges. To provide a basis for interpreting its history, some of the general features of its flora and vegetation are recalled briefly (Howitt and Howell 1963, 1973; Stebbins and Major 1965). All specific names are those in Munz (1973).

FLORA AND VEGETATION

Monterey County is a meeting place for plants from the north and south. Howitt and Howell (1963, 1973) report that of the 1400-odd native species, about 150 and 160 reach their northern and southern limits there, respectively, excluding the flora of the higher Santa Lucia Mountains. In the Monterey endemic area members of the closed-cone pine forest include the notable paleoendemics *Cupressus goveniana* and *C. macrocarpa* with very restricted ranges (see Griffin and Critchfield 1972) and *Pinus radiata*, apparently a relict, ancestral population (see below). In addition, the area has six endemic species of *Arctostaphylos* as well as other taxa listed in the Appendix. Inland from the coast, the Salinas and Carmel Valleys are covered with coastal sage on drier slopes that alternates with a *Quercus agrifolia* woodland-grassland on moister flats and north-facing slopes. Farther up Carmel Valley climate rapidly becomes more continental and *Quercus agrifolia* woodland-grassland gives way to *Quercus lobata*-*Q. douglasii* woodland-grassland, with *Pinus sabiniana* joining them farther inland. In this interior area, commencing about 20-25 km southeast of Monterey, there are numerous additional species that have a wider distribution in the inner Coast Ranges but do not extend into the coastal strip. Among these are (for others, see Howitt and Howell 1963, 1973; Linsdale 1955):

<i>Aesclepias eriocarpa</i>	<i>Orthocarpus attenuatus</i>
<i>Amorpha californica</i>	<i>Pectocarya penicillata</i>
<i>Baccharis viminea</i>	<i>Penstemon centranthifolius</i>
<i>Calochortus splendens</i>	<i>Penstemon heterophyllus</i>
<i>Camissonia graciliflora</i>	<i>Phacelia brachyloba</i>
<i>Cercocarpus betuloides</i>	<i>Phacelia douglasii</i>
<i>Cirsium proteanum</i>	<i>Plagiobothrys canescens</i>
<i>Cryptantha microstachys</i>	<i>Plagiobothrys nothofolius</i>
<i>Emmenanthe penduliflora</i>	<i>Prunus ilicifolia</i>
<i>Eriodictyon californicum</i>	<i>Quercus douglasii</i>
<i>Gilia achilleifolia</i>	<i>Quercus dumosa</i>
<i>Gilia tenuiflora</i>	<i>Quercus lobata</i>
<i>Lasthenia chrysostoma</i>	<i>Rhamnus ilicifolia</i>
<i>Linanthus bicolor</i>	<i>Salvia columbariae</i>
<i>Malacothrix clevelandii</i>	<i>Sanicula bipinnata</i>
<i>Microseris elegans</i>	<i>Senecio douglasii</i>
<i>Microseris heterocarpa</i>	<i>Trichostema lanatum</i>

Howitt and Howell (1963, p. 17) note that a number of these species, as well as those in the flora a few km southeast in Salinas Valley and adjoining interior valleys, have affinities with the Mohave Desert flora, a relationship also displayed by the floras of the inner Santa Cruz Mountains (Thomas 1961) and the Mt. Hamilton Range (Shar-

This summary suggests that the Monterey endemic area recently has accumulated its unique taxa from diverse sources. Clearly, the area is a haven for conifers that had a wider distribution along the coast in the past. The Appendix shows that other endemics are allied to species now in mixed conifer forests to the north that probably invaded the lowlands of the area during the Pleistocene when rainfall was higher and temperature lower than they are now in the Monterey area. These endemics occur chiefly on sandy substrates, notably old dunes, elevated floodplains, and old coastal terraces. Also in similar sites are taxa allied to species that are widespread along the central California coast. In addition, another group has affinities with presently interior and southern species that imply that a warmer, drier climate affected the area following the last major glacial-pluvial stage.

Immunochemical comparisons of seed proteins from the three California populations of *P. radiata* support the idea that they diverged recently, despite the great differences in mean cone size (Murphy 1981). The immunochemical differences measured between pairs of the California populations were approximately equal, but significantly less than differences measured between California populations and those on Guadalupe and Cedros Islands. If the *P. radiata* populations to the north and south were affected by the Xerothermic dry climate, how did the Monterey population escape? Is this population, which had a wider late Pleistocene distribution, an ancestral, relictual population that persisted under a favorable local climate, one that was less affected by warm, dry Xerothermic climate?

Persistence under local climate. The supposition that the origin and distribution of the *P. radiata* populations have been controlled by local climate is consistent with the influence of topography on climate along the central coast. Between Cape Mendocino and Point Conception there is only one major submarine canyon that heads in the near-shore area. This is the Monterey submarine canyon (Fig. 6), which is more than 2000 m deep and 22 km wide only 13 km from the shore at Cypress Point. It is as broad as, but deeper than, the Grand Canyon of Arizona in the area from Grand Canyon Lodge on the North Rim to Park Headquarters on the South Rim! By contrast, the continental shelf from Monterey to Cape Mendocino is fully 40 to 50 km wide out to the continental slope and it is not incised by major submarine canyons (for detail, see U.S. Coast and Geodetic Survey, Bathymetric Maps, 1308 N-12; 1307 N-18; 1307 N-11B; 1306 N-20; scale 1:250,000, 1974). A similar broad shelf extends south to Point Conception except for the locally narrower strip where it fronts the fault scarp at the north end of the Santa Lucia Range between Nepenthe and Lopez Pt. at Lat. 36°N (see Jennings 1975; this map also shows bathymetry).

The large, deep Monterey submarine canyon and its subsidiary branches to the north (Soquel Canyon) and south (Carmel Canyon) that reach close to shore are the sites of intense upwelling of deep, colder water that provides greater fog frequency in this area. Although temperature data are not available for comparison with the Año Nuevo and Cambria populations, maps of summer sea-surface tempera-

ture (Calcofi Atlas 1963) and a map showing the distribution of mean annual heavy fog (days/year) along the coast (Peace 1969, fig. 1), indicate a foggier summer climate at Monterey. Furthermore, in discussion (Nov 1980) Dr. Larry Breaker (National Environmental Satellite Service, Redwood City) stated that his several years' study of satellite photos of the California coast shows that the present discontinuous groves of closed-cone pines are all at centers of high fog concentration. The fog is then dispersed by winds along the coast according to local terrain. He also stated that the Monterey area has the highest fog frequency in this sector of the central California coast. The Monterey submarine canyon probably would have ensured a greater fog frequency for the pine groves during the Xerothermic as compared with areas to the north or south where upwelling is not as pronounced, and where the influence of drought would be greater during the Xerothermic.

Pinus radiata at Monterey, with smaller cones than those at Año Nuevo and Cambria, thus appears to be an ancestral, relict population. Its position at the head of Monterey submarine canyon during the Xerothermic probably afforded a more favorable, local climate than that in groves to the north and south, which responded to greater drought stress by developing larger cones. Local climate at Monterey probably accounts also for the persistence of the relict stands of *Cupressus macrocarpa* and *C. goveniana* which have even narrower distributions than the pine (see Griffin and Critchfield 1972). Both cypresses have fossil records north and south of Monterey, as does the *Pinus radiata* population associated with them (Fig. 4). Their restriction to the Monterey area during the later Pleistocene probably resulted from the spread of colder climate at the north and warmer, drier climate at the south, though not simultaneously.



CITY OF CARMEL-BY-THE-SEA FOREST AND BEACH COMMISSION Staff Report

August 10, 2023
ORDERS OF BUSINESS

TO: Forest and Beach Commissioners

SUBMITTED BY: Thomas C. Ford, Administrative Analyst

SUBJECT: Ocean Avenue Median Islands Landscaping Design Alternatives

RECOMMENDATION:

Receive a presentation regarding three (3) landscape designs for the five (5) Ocean Avenue median islands, between Junipero and Monte Verde Streets, and provide direction to staff.

BACKGROUND/SUMMARY:

The western-most median island, located between Monte Verde and Lincoln Streets, was renovated as a pilot project in late 2021. In February 2022, the Forest and Beach Commission approved the landscaping and irrigation design for this median island and requested staff to proceed to improve the four remaining median islands between Lincoln and Junipero Streets. See **Attachment 1 – Design #1**. The Commissioners did request minor modifications to the pilot design, notably to install boulders at key locations to further dissuade citizens from crossing over the medians and damaging landscaping.

Although much of the dripline and irrigation control materials were purchased for the four remaining median islands, neither the implementation of the irrigation system nor the landscaping of the remaining islands were implemented for various reasons.

More recently, two alternative designs have emerged:

Councilmember Alissandra Dramov brought to the attention of Staff the 1938 Thomas Church design which was the original median island landscaping. See **Attachment 2 - Design #2** for background summary of the original design intent, as well as photographs and blueprints (hard to read but can be interpreted with effort). Councilmember Dramov requested that the Forest and Beach Commission consider this design alternative.

Carmel Cares is also requesting to modify the approved 2022 pilot project design in effort to enhance the plan. Alan Wheat, Professor of Horticulture at MPC, has provided input regarding the landscaping of this design. See **Attachment 3 - Design #3**.

The irrigation system in the four remaining median islands is over 30 years old and requires continual

repairs and replacement of parts. Regardless of the selected design alternative, Staff believes that it would be prudent to replace the current system during the renovation of each subsequent island.

At the August 10th Forest and Beach Commission meeting, staff will present the background for Designs #1 and #2, and Carmel Cares will present Design #3. Following the presentations and public comments, staff will be seeking Commissioners guidance in selecting one of these designs for the Ocean Avenue medians, or for providing further information at a subsequent meeting.

FISCAL IMPACT:

The cost to complete the remaining four median islands with Design #1 is estimated at \$55,000 for landscaping, hardscaping, irrigation, weed control, and other materials and supplies. The cost to re-establish the median islands to reflect the original Thomas Church design, Design #2, is unknown at this time. The cost to enhance the pilot design as noted in Design #3 is unknown at this time, but is believed to be only moderately higher than the cost for Design #2.

ATTACHMENTS:

Attachment #1 - Design #1

Attachment #2 - Design #2

Attachment #3 - Design #3



CITY OF CARMEL-BY-THE-SEA

Ocean Avenue Median Islands Renovation Project

Forest and Beach Commission

January 13, 2022



How did this happen?

The City Council has made the beautification of the downtown a priority

The outdoor seating parklets have created a new funding stream





Current state



A pilot project renovation was installed over the last few months

- Now there is opportunity for the Forest & Beach Commission to refine the concept
- Four more islands remain for renovation
- Design cohesion is desired across all five islands



Irrigation upgrades

New dripline and irrigation controllers



Manage gardens, greenhouses, traffic medians, and temporary irrigation sites from a smartphone without opening the valve box.





Plant selection – native and cultivated

Existing plants

- Pine - native
- Cypress - native
- Oak - native
- Toyon - native
- Manzanita - native
- Dark Star Ceanothus - native

New plants*

- 'Cliff Schmidt' Ceanothus - native
- 'Claremont' current - native
- 'Mountain Fire' lily of the valley shrub
- 'Petite Butterflies' Polygala
- Rockrose
- 'Forever Purple' coral bells
- 'Lime Marmalade' coral bells
- 'Snow Queen' Hydrangea

*These are plants available from nurseries in the winter at the time of the pilot. More herbaceous perennials will be added as they become available. The perennials will be in the same color palette of the shrubs and provide interest across all seasons.



Trees





Shrubs





Herbaceous perennials





Color progression

Spring

- Ceanothus - blue
- Current – pink
- Polygala – purple
- Lily of the valley shrub – red foliage
- Rockrose – white
- Coral bells – lime and purple foliage

Summer

- Toyon – white
- Rockrose - white
- Polygala – purple
- Hydrangea - white
- Current – black berries
- Coral bells – lime and purple foliage

Autumn

- Toyon – red berry
- Polygala – purple
- Coral bells – lime and purple foliage
- Hydrangea – red foliage

Winter

- Toyon – red berries
- Polygala – purple
- Ceanothus – blue
- Manzanita - white



Pilot finished product



Shrubs will fill-in to be three feet tall providing more of a pedestrian barrier and will still allow views of the businesses across the street.





Potential for the future

Deter mid-block pedestrian crossing with plant selections and boulders





Potential for the future

Create seasonal color displays at the bullnoses

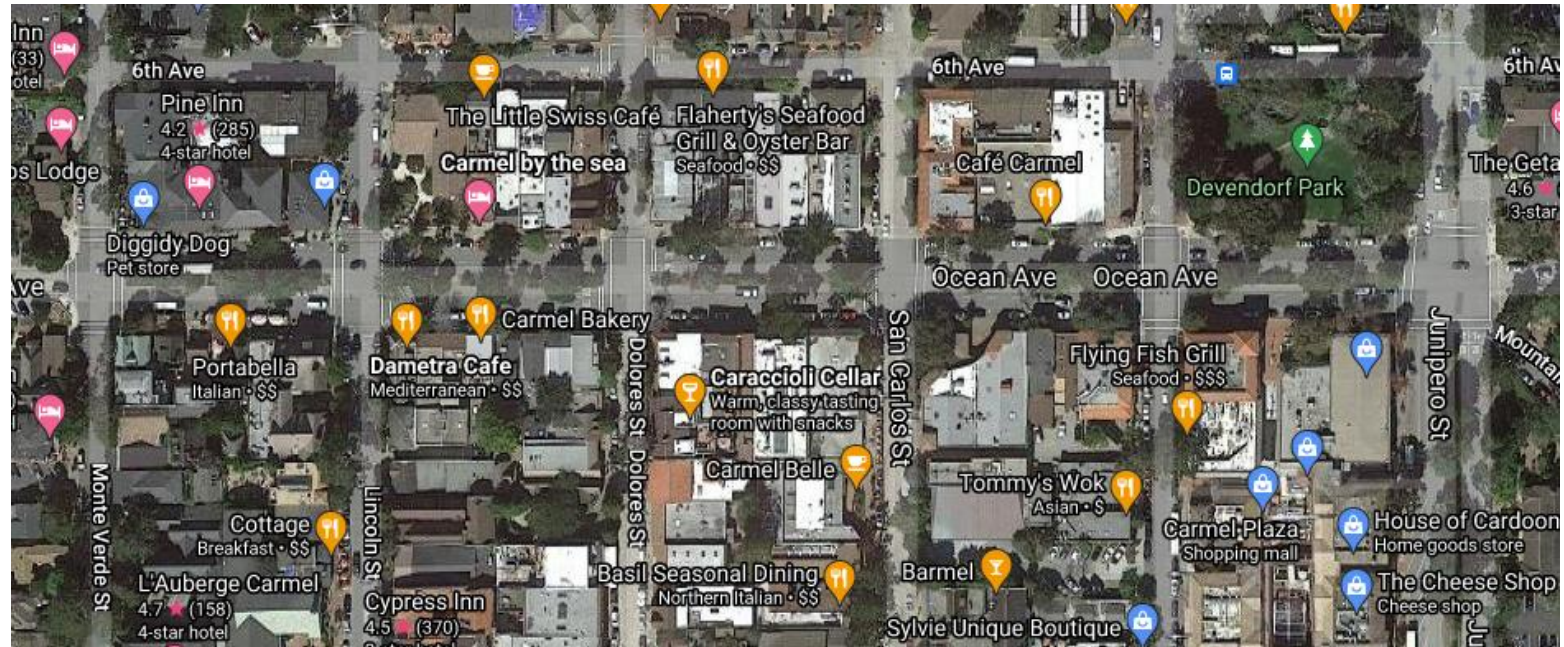
The Carmel Resident Association is possibly donating a split rail style fence to rundown the center of the island





What does this cost?

- Pilot island < \$10,000
 - Irrigation materials
 - Plant material
 - Weed prevention
 - Mulch
- Five islands – to be determined





Thank you!

Pilot project team

- Carmel Cares
- Cindy Lloyd
- Sara Davis
- Bob Harary
- Rene Aldama
- Brandon Swanson
- Mike Tope



CITY OF CARMEL-BY-THE-SEA FOREST AND BEACH COMMISSION Staff Report

February 10, 2022
ORDERS OF BUSINESS

TO: Forest and Beach Commissioners

SUBMITTED BY: Sara Davis, City Forester

SUBJECT: Ocean Avenue Median Island Renovation Project

RECOMMENDATION:

Receive a presentation and approve the renovation of all five Ocean Avenue Median Islands as designed, or provide alternative direction to staff.

BACKGROUND/SUMMARY:

The City Council made the beautification of the downtown area a priority for this year. The Ocean Avenue median island between Monte Verde Street and Lincoln Street was selected by Public Works to pilot a new landscape design.

In a team effort, the Community Planning and Building Department assessed and collected Parklet fees. Next, Carmel Cares removed all the scruffy looking neglected plants in the Island. Parks and Forestry removed the old irrigation system, pruned the trees, and removed stumps. City staff chose and installed new subsurface dripline, irrigation valves and Bluetooth enabled irrigation controllers. The new, state of the art, irrigation system evenly provides water throughout the entire island to ensure the success of the trees and other plants.

The goals of the pilot project are to refresh the selected island with plant material and features to block pedestrians from crossing Ocean Avenue outside of the crosswalks (jaywalking). Consideration was given to the plants selected so that the views of the businesses across the street would not be blocked.

Since this project was implemented in the winter months, the availability of many perennial herbaceous plants was limited, but those plants will be selected and planted at a later time. With design input from volunteer Cindy Lloyd, City staff installed the following trees and shrubs to the existing plant material:

- 'Cliff Schmidt' Ceanothus
- 'Claremont' current
- 'Mountain Fire' lily of the valley shrub
- 'Petite Butterflies' Polygala
- Rockrose
- 'Forever Purple' coral bells
- 'Lime Marmalade' coral bells
- 'Snow Queen' Hydrangea

New natural mulch has also been installed, several small boulders were placed, and seasonal color displays were planted at the ends of the medians.

At the February 2022 Forest and Beach Commission meeting, the Forester will present the overall project, and then the following topics should be discussed:

- Comments received to date from the public
- Potential designs for the four islands not included in the pilot project
- Protection of the landscaping during events held on Ocean Avenue
- Ongoing care of the plantings

FISCAL IMPACT:

The cost of the project on the pilot island was under \$10,000 and sufficiently funded with the revenue generated by the parklet fees. The cost to renovate the remaining four islands will be determined based on the selected design and would also be funded by the parklet revenue.

ATTACHMENTS:

Ocean Avenue Presentation

Honoring Thomas D. Church's historic landscape plans and vision for the Ocean Avenue medians in downtown Carmel-by-the-Sea (1938)

Thomas Dolliver Church (1902-1978) was one of the most highly regarded, pioneering and influential landscape architects of the 20th century. For decades from the 1930s through the 1960s his modern landscape design had an impact in California predominantly and across the United States. He did 1000s of projects from home gardens to master plans for institutional clients. His work was routinely featured in notable magazines and he was a longtime contributor to ones such as *Sunset*, *Architectural Forum*, *House Beautiful* etc.

Church graduated from the University of California, Berkeley in 1922 and from Harvard University with a Master's Degree in Landscape Architecture in 1926. During the 1920s he traveled widely in Europe, where he focused on a variety of plants including those that thrived in the Mediterranean climate and needed less water. Church was based out of San Francisco and had his studio there from 1929 until his retirement in 1977. He was known nationally and specifically recognized for the California style of landscape design he developed, with low maintenance plants suitable for the drier California climate.

He worked alongside top architects of the day. Church's landscape design work in Carmel-by-the-Sea included the now historic homes on Scenic Road designed by Frank Lloyd Wright (1951-52), and two designed by William Wurster (of Wurster, Bernardi & Emmons) (1947-48 and 1961). Church also did multiple projects in Carmel with noted local architect Jon Konigshofer, including the brick courtyard, pathways and landscaping of the historic Pine Inn in 1941.

The city of Carmel-by-the-Sea selected Thomas Church to design the Ocean Avenue medians from Monte Verde to Junipero Streets in 1938 and later lower Ocean Avenue at San Antonio in 1952. There had previously been parking along the center median and the city wanted to beautify Carmel's main thoroughfare. Church was hired and he designed the stone medians and selected the plants in 1938. **(See photos: before and after)** Church intentionally decided that colorful flowers would be in flower boxes and tubs along the street in front of the buildings and specifically not in the medians. The vast majority of plants he selected for the median islands were dwarf juniper. (The project entailed 925 1-gallon *Juniperus Sabina Tamariscifolia* and 60 larger-sized *Juniperus Sabina*). These were low spreading evergreen shrubs with needles, that do well in dry soil and tolerate city conditions. These plants with rich green foliage were used for ground-cover, and an excellent accent to rock gardens, which worked well with the granite rock stones Church designed for the medians' exterior. As dwarf juniper is a conifer and in the cypress family, Cupressaceae, it provided a year round decorative evergreen cover and was complimentary to Carmel's pines and cypress trees.

Church's well thought out vision for the Ocean Avenue medians was to have them serve as an extension of the forest, a "mini forest" strip of sorts—that's why he emphasized simplicity, modesty and an evergreen palate complimentary to the existing evergreen trees. Church explained his view of the project, as he wrote in the landscape plans, ***"The preservation of the central, planting strip with its pines in its simplest form, the bare ground becoming covered through the use of a low, permanent, green cover. We have chosen the most beautiful of the low growing Junipers for this purpose, and suggest that a ruling be made that no additions of other material shall be allowed. Our argument is that the center strip thus borrows some of the charm of the site itself with its pine and low under-cover, and the color and excitement belong at the sides with the more obviously man-made achievements."***

Thus the center medians intentionally were not flower boxes, nor a colorful, dramatic garden setting. Rather the color and flowers would go on the side of the street at the storefronts, businesses and restaurants in flower boxes. This was deliberate as Church understood and honored the village in a forest pioneering aesthetic implemented by Carmel's founders. The low spreading, evergreen dwarf juniper plants were selected to be low maintenance, yet aesthetically pleasing—a true compliment to Carmel's existing pine and cypress trees. In Church's own words, the intent of his landscape project was **"The preservation of Ocean Avenue as a street set informally in native trees."**

It was an honor for our village that renowned landscape architect Thomas Church was selected to design and landscape Carmel-by-the-Sea's Ocean Avenue medians in 1938. We can continue to respect and pay tribute to his historical legacy by bringing back his original vision for landscaping the center medians. We can preserve the medians by bringing back the original plants Church carefully chose and designed as an extension of the forest—its green aspect, its simplicity and low maintenance character—as a way to mark the 85th year anniversary of the selection of prominent and highly respected landscape architect Thomas D. Church to beautify downtown Carmel-by-the-Sea.

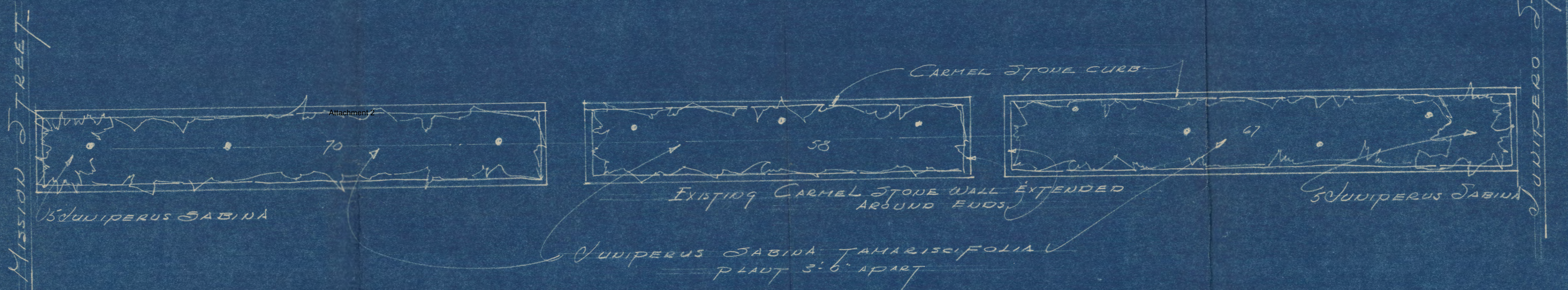
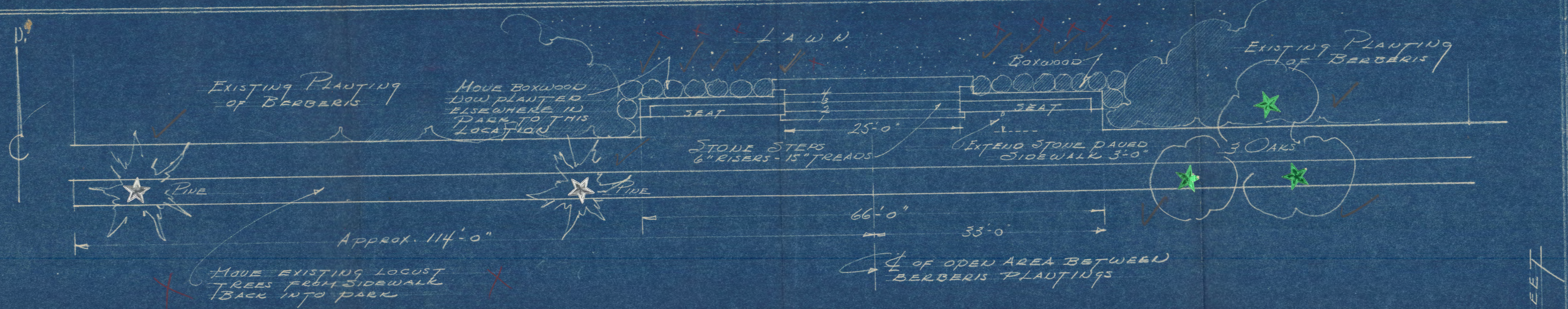
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STREET SCENE, CARMEL, CALIFORNIA

5933







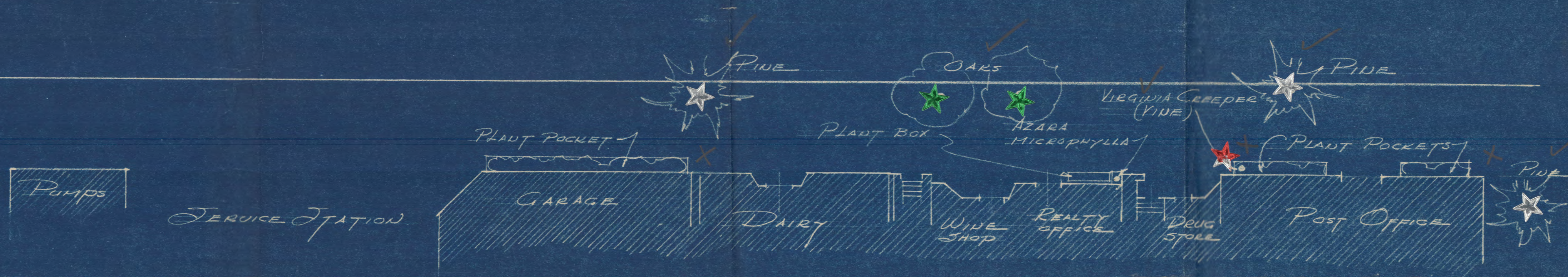
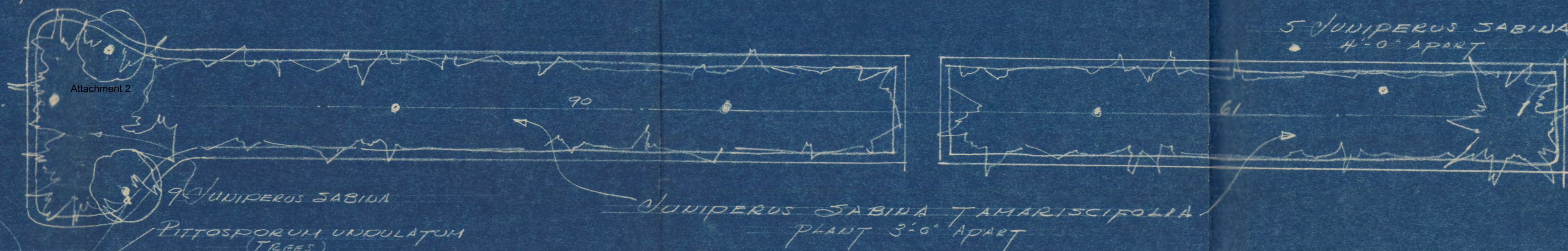
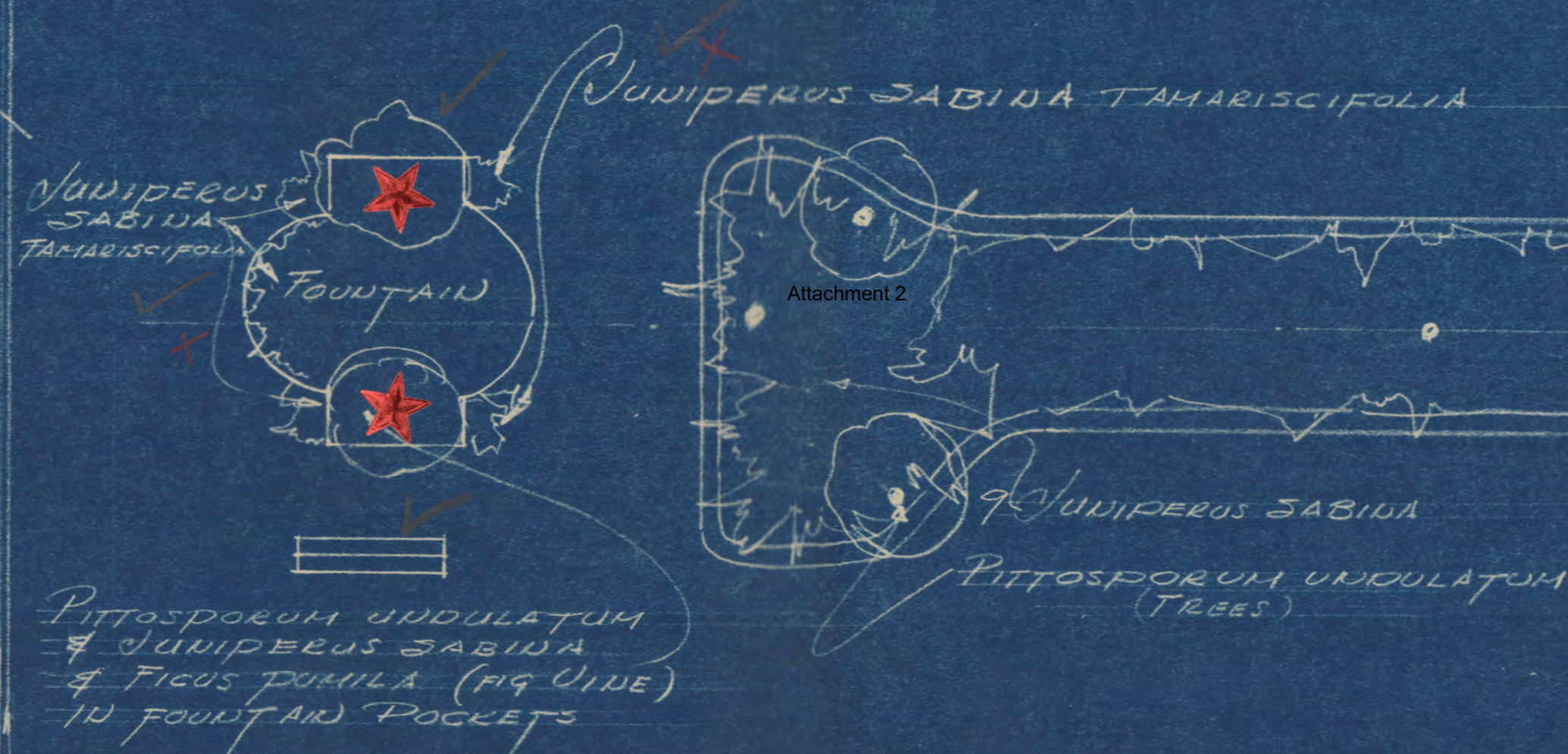
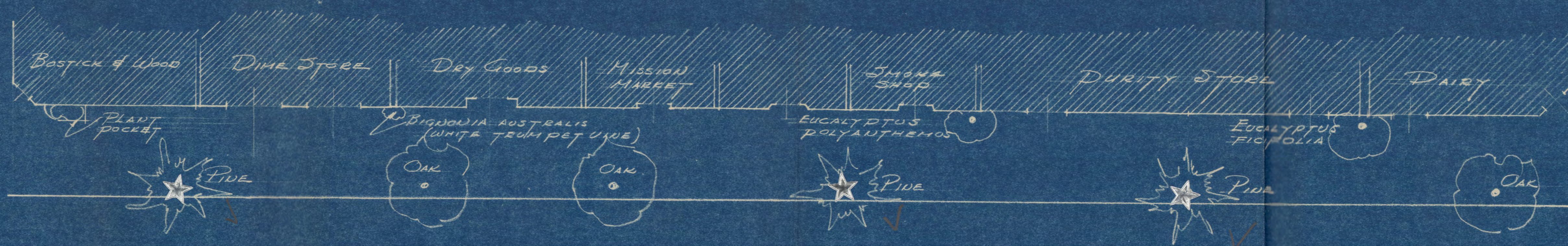
THOMAS D. CHURCH
LANDSCAPE ARCHITECT
SAN FRANCISCO

SHEET No. ①

OCEAN AVENUE
BETWEEN MISSION & UNIPERO STS.
CARMEL, CALIFORNIA
SCALE = 1/8" = 1'-0"
NOV. 1938

SAN CARLOS STREET

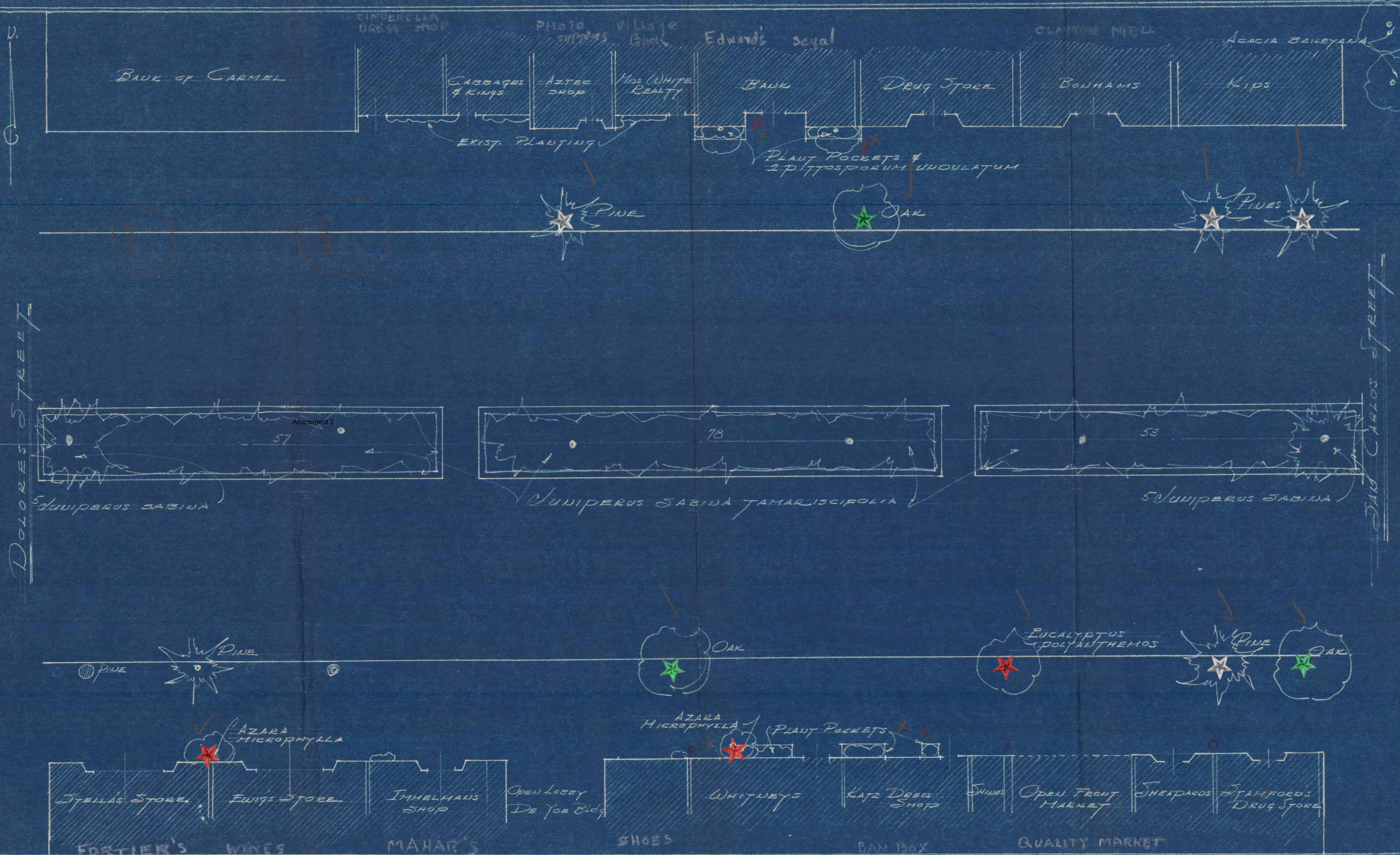
MISSION STREET



THOMAS D. CHURCH
LANDSCAPE ARCHITECT
SAN FRANCISCO

SHEET No. 2

OCEAN AVENUE
BETWEEN SAN CARLOS & MISSION STS.
CARMEL - CALIFORNIA
SCALE - 1/8" = 1'-0" NOV. 1933



THOMAS D CHURCH
LANDSCAPE ARCHITECT
SAN FRANCISCO

SHEET No. 3

OCEAN AVENUE
BETWEEN DOLORES & SAN CARLOS
CARMEL - CALIFORNIA
SCALE = 1/8" = 1'-0"
Nov. 1950

KRAMERS

HEARTHSTONE

WHITE

DESIGN 100

HARRISON LIBRARY PARK.

WASHINGTON
HAWTHORNE

PATIO CANDIES



PLANT BOX

BARBAR
SHOP

DE LOE'S

DIXON
REALTY

ARTEC
SHOP

WILLIAMS CAFE

WILSON BLDG.

EUCALYPTUS
FICIFOLIA

EUCALYPTUS
POLYANTHEMOS

TRUMPET
VINE

EXISTING WINDOW BOXES
SHOULD BE LARGER
OR MAKE PLANT POCKET
IN CONCRETE FOR GERANIUMS

OAK

OAK

PINE

PINE

OAK

LINCOLN STREET

DOLORES STREET

Attachment 2

62

81

53

5 JUNIPERUS SABINA

JUNIPERUS SABINA TAMARISCIFOLIA

5 JUNIPERUS SABINA

PINE

3 CAROLINA JASMINE ALONG
SILL UNDER WINDOWS

PLANT POCKET

OAK

EUCALYPTUS
FICIFOLIA

OAK

PINE

PINE

OAK

OAK

2 VIBURNUM SUSPENSUM SAKI TUBS

AZARA MICROPHYLLA
CAROLINA JASMINE

PLANT BOXES

AZARA

VARIEGATED IVY

EXIST. SAKI TUBS

MERLE'S

VYE DEESS
SHOP

CHARMAK
& CHANDLER

THURBURN'S
REALTY

WISTERIA

BAKERY

DER LING
SHOP

SLEVIN'S

DEL MONTE
PROPERTIES

CORNER SUPERMARKET

COUNTRY
DRESS SHOP DEREK RAYNE WAREHOUSE

USE EXIST. PLANTS
FROM CENTER

CAFETERIA

SPENCER'S

LANE SHOP

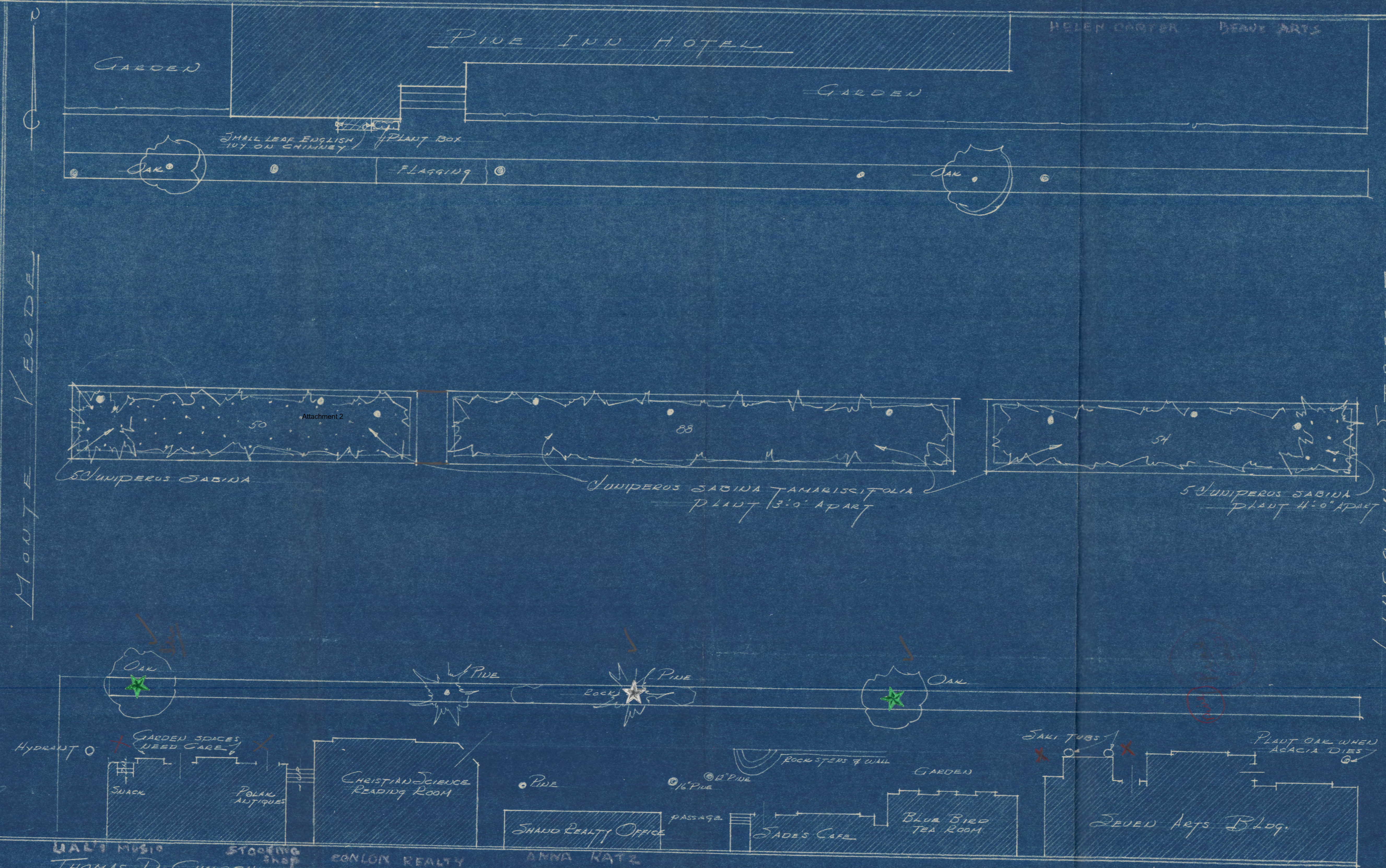
THOMAS D CHURCH
LANDSCAPE ARCHITECT
SAN FRANCISCO

SHEET No. 4

OCEAN AVENUE
BETWEEN LINCOLN & DOLORES
CARMEL - CALIFORNIA
SCALE: 1/8" = 1' 0" - NOV-1933

MONTA VERDE

LINCOLN STREET



SHEET No 5

OCEAN AVENUE
BETWEEN MONTA VERDE & LINCOLN
CARMEL - CALIFORNIA
SCALE = 1/8" = 1'-0"
NOV 1938

REPORT ON LANDSCAPING OCEAN AVENUE

The planting plans as submitted represent the ideas and principles as discussed at our first meeting and are briefly reviewed now, namely:

The preservation of Ocean Avenue as a street set informally in native trees.

The planting of sidewalk trees to accomplish this purpose as well as to prevent long rows of store fronts from becoming too prominent.

The provision of color and additional planting along the store fronts by various means such as plant pockets, tubs and window boxes.

The preservation of the central planting strip with its Pines in its simplest form, the bare ground becoming covered through the use of a low, permanent, green cover. We have chosen the most beautiful of the low growing Junipers for this purpose, and suggest that a ruling be made that no additions of other material shall be allowed. Our argument is that the center strip thus borrows some of the charm of the site itself with its Pine and low under-cover, and that color and excitement belong at the sides with the more obviously man-made achievements.

We have the following suggestions to make relative to achieving the desired results:

1. Plants which now exist in the center strip might be used on any project which the City has under construction. Considerable material could be transferred to areas on plan shown as plant pockets along the store fronts.

Also, there is some room in the existing park.

2. The construction of an entrance to the park from Ocean Avenue as shown on Sheet #1. This plan calls for moving the Boxwood specimens in the park to form a hedge along the wall; this leaves considerable room for additional planting from the center strip.

3. Removal of the "knobs" from the ends of the center strip, and replacement of the boulder stone on the north side with a low Carmel stone curb.

4. Removal of the existing plants from the pockets on each side of the Memorial Fountain and planting two trees as shown to become a frame for the fountain.

5. Adoption of a standard tub or box for Geraniums and other flowering plants as a means of increasing the amount of color in restricted spots. There are many doorways where planting other than in pots is not practical and at these points we would suggest the well-known Saki tub with the bamboo bands left natural and the tub part stained brown.

6. The desirability of seats along the sidewalk and store fronts should be discussed as an item of additional interest and comfort.

PLANT LISTS AND SPECIFICATIONS

1. Center Strip

925 Juniperus sabina variety tamariscifolia - gallon cans
60 Juniperus sabina - balled 18" - 24"

2. Fountain Planting

4 Ficus pumila - gal. can
4 Pittosporum undulatum - 3/4' balled
8 Juniperus sabina tamariscifolia
4 Juniperus Sabina

3. Sidewalk Trees

26 Quercus agrifolia 8/10'	California Live Oak
22 Pinus radiata 7/8'	Monterey Pine
5 Azara microphylla 5/6'	Azara
3 Eucalyptus ficifolia 5 GAL. - 4'	Scarlet Fl. Eucalyptus
5 Eucalyptus polyanthemos " "	Round leaf Eucalyptus
2 Pittosporum undulatum 8-10 5/6'	Victorian Box
2 Acacia Baileyana 5 GAL 8/10'	Bailey Acacia

Planting Specifications

All shrubbery and trees shall be as called for in the plans. Where sizes are not available the contractor shall figure on the next nearest size as established by the California Association of Nurserymen and so state in his bid.

All shrubs and trees to be guaranteed for ninety days after planting and where any die same shall be removed and replaced, still carrying the above ninety day guarantee. This guarantee shall be mandatory except in case of fire, flood, operation of law or Act of God.

All nursery stock shall have well rotted cow manure worked thoroughly into the different plant pockets and through the loam used for backfilling.

All beds in center strip shall be spaded to a depth of fifteen inches before digging plant holes, except where such digging interferes with or endangers existing pine tree roots.

CONDITIONS OF CONTRACT

The contractor agrees to furnish and install all materials, to perform all work, and to provide all labor necessary to complete the work named, subject to the general supervision of an authorized agent and his right to furnish additional instructions.

The Owner agrees to pay the Contractor the sum stipulated upon completion and acceptance of the work

The contractor shall:

1. Examine conditions at site, check dimensions, report errors, do no work without proper information, make no changes without proper authority, and give notice of any claim for extras before proceeding with work.
2. Obtain and pay for all permits.
3. Give his personal supervision to work or employ competent foreman, keep drawings at job, employ only skilled workmen.
4. Maintain safeguards, protect existing work and planting.
5. Remove rubbish and extra materials, leave job clean, settle

with other contractors for damage to their work.

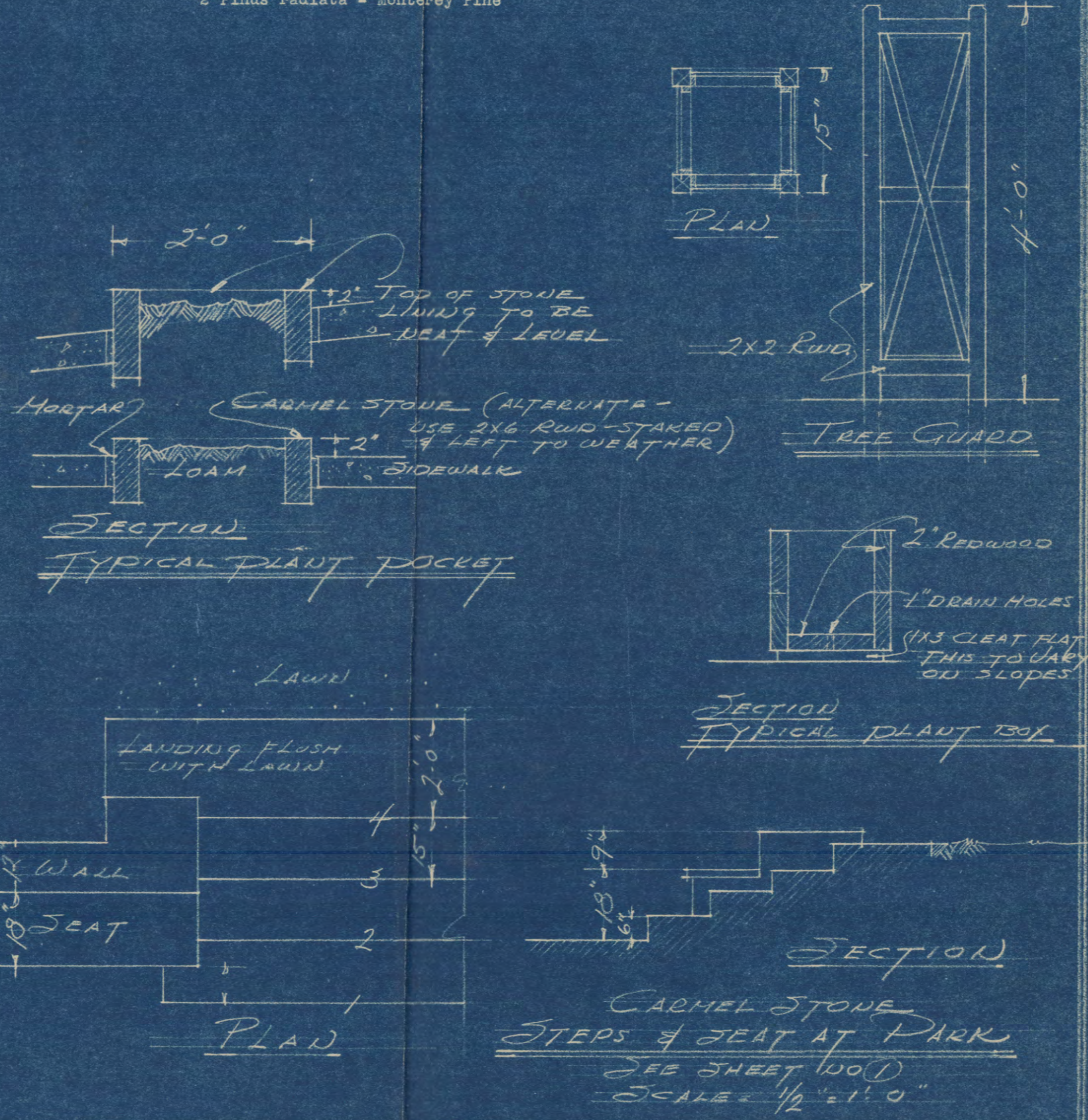
6. Take out and pay adequate compensation insurance.

DOLORES STREET - South of Ocean Avenue (not shown on plan)

Ivy on store wall southeast corner of Ocean Ave. & Dolores.
Eucalyptus ficifolia at end of Frank's store.
Oak tree in front of Vinings Meat Market
Pine tree in front of Del Monte Park Nursery
2 Eucalyptus ficifolia in front Monterey County Trust
Pine at Telephone Building
2 Oak trees in front of Pacific Gas & Electric Co.

Contractor to include in his bid:

- 3 Eucalyptus ficifolia - Scarlet Flowering Eucalyptus
- 3 Quercus agrifolia - California Live Oak
- 2 Pinus radiata - Monterey Pine



THOMAS D. CHURCH
LANDSCAPE ARCHITECT
SAN FRANCISCO

SHEET NO. 6

OCEAN AVENUE
CARMEL - CALIFORNIA
DETAILS & SPECIFICATIONS
SCALE = 1/8" = 1'-0"

Ocean Avenue Medians Landscape Plan

Updated 2/9/23 - 8/1/23

Alan Wheat Consulting
wheatlandscaping@gmail.com
(831) 238-3424



Site Analysis/Priorities

- Safety concerns of pedestrians crossing over medians
- Visibility for motorists
- Color at ends for enhanced beauty
- Maintain visibility from opposite side for business exposure
- Banners need to remain and be accessible for rotation
- Many existing plantings are old, past prime, or poor species
- Tree work necessary for visibility, tree health, and new understory
- Some trees have bad wounds from trucks and fungal disease
They should be removed to preserve health of other trees

Landscaping Goals

- Deter jaywalking with boulders and plants
- Use low growing and high color with long bloom periods at ends
- Properly thin existing trees to allow filtered light for understory
- Plant selections that streamline maintenance and water needs
- Plants should handle high soil temperatures, not impede tree roots
- Recommend mostly local CA native plants to support wildlife through our changing climate
- Ideally we integrate with proper street trees on the sidewalks

February 2022 Approved Design and Pilot Planting

- The pilot planting did receive positive public feedback
- Many consistency elements have been incorporated into this design
- The plant palette needed some adjusting
 - Some were short lived and under-performers in our area
- Did not have consistent watering requirements that protect existing trees as well as our long term goals
- Did not incorporate tree care of existing trees, tree removals, or planting of any new ones

Why we should be planting local native plants

- Require less soil preparation than traditional plantings
- Require less water to establish and little after being established
- Benefit existing native pines and oaks by planting their natural neighbors
- Supply native birds and butterflies with larvae, nectar, seeds, and nest materials
- Ocean Ave connects Forest Theater and MTNP habitat planting to the North Dunes and Scenic Pathway habitats, establishing a consistent native corridor for wildlife and beauty - “Pollinator Pathway”
- Carmel is one of the most beautiful cities. Why not enhance its beauty by using plants that naturally should be here?
- Sets a example of plant community landscapes for residents and visitors

Wildlife Corridor

- Provides transition zones from one wildlife habitat to another
- ❖ Wildlife corridors provide traveling avenues for wildlife species between two habitat areas.
- ❖ Ocean Avenue would connect the MTNP and Forest Theater to the North Dunes and Scenic Pathway.
- ❖ In the future, large medians and eastments, Forest Hill Park, and other areas could also be developed with native plants, increasing biodiversity throughout the city for humans and wildlife.

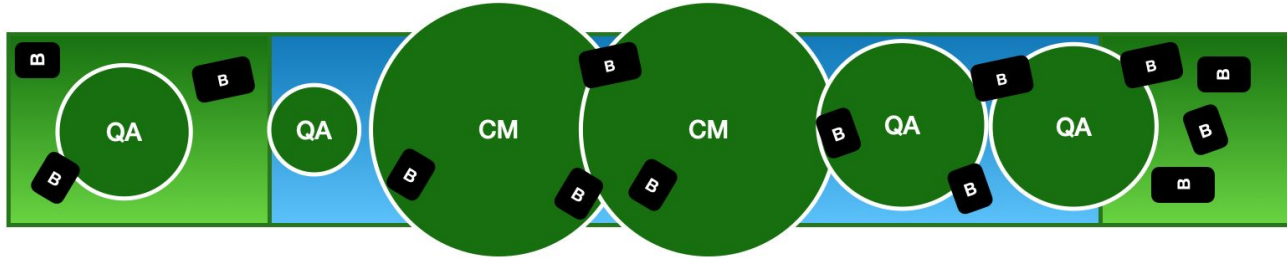


Sample Median

Monte Verde Street

Monte Verde to Lincoln

Lincoln Street



- B Granite Boulder
- Vegetative Mix
- Shrub Layer
- QA Coast Live Oak
- CM Monterey Cypress

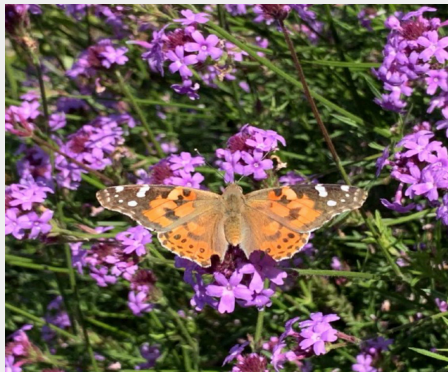
Locally Sourced Boulders



Low Vegetation for Median Ends

- *Erigeron glaucus*, Seaside Daisy
- *Epilobium canum* 'Everett's choice'
- *Eschscholzia californica* 'maritima', Beach CA Poppy
- *Achillea millefolium*, Yarrow
- *Dudleya brittonii*, Live forever
- *Salvia leucophylla* 'Point Sal', Pt. Sal Salvia
- *Carex tumulicola*, Berkeley Sedge
- *Salvia spathacea*, Hummingbird Sage
- *Eriogonum rubescens* 'Grande', Red Flowering Buckwheat

Median Vegetative Layer Plant List - Coastal Natives



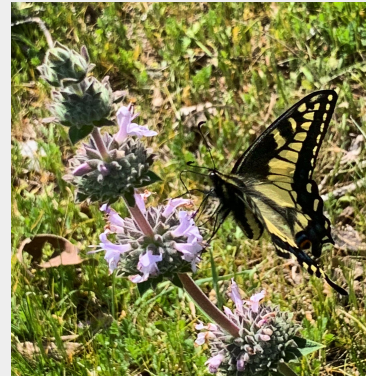
Mid to Low Growing for Boulder Pockets and Layering

- Calamagrostis nutkaensis, Pacific Reed Grass
- Arctostaphylos 'John Dourley', John Dourley Manzanita
- Ribes viburnifolium, Catalina Perfume
- Arctostaphylos 'Carmel Sur', Carmel Manzanita
- Ceanothus 'Yankee Point', Coastal Ceanothus
- Verbena lilacina 'De la Mina', Coast Verbena
- Arctostaphylos 'Pacific Mist', Pacific Mist Manzanita

Larger Shrubs to a Maximum of 4 Ft

- Ribes Sanguineum, Flowering currant
- Salvia Clevelandii 'Pozo Blue', Cleveland Sage
- Rhamnus californica 'Leatherleaf', California Coffeeberry
Arctostaphylos 'Warren Roberts', Pajaro Manzanita
- Garya elliptica 'Evie', Compact Silk Tassel Bush

Medium & Large Shrub List - Coastal Natives



Tree Issues on the Ocean Avenue Medians

- There many trees in these medians - Coast Redwood, Coast Live Oak, and Monterey Cypress. With help and approval from City Forester, I would prefer to make selections for removal of unhealthy trees to preserve the health of surrounding trees.
- All of the Monterey Cypress have Cypress Canker, a fungal vascular tissue disease. This slows growth and canopy development and eventually the tree will die. Most are overcrowding young oaks that could be come fantastic trees.
- A few oaks have structural defects, are too close together, and have wounds created by large trucks. Should be analyzed individually.
- Monterey Pines have red turpentine beetle damage, included bark, and other structural defects that could be a liability for the city.

Tree Issues



This Monterey pine has two main leaders that meet in a long unclipped bark attachment. This is a dangerous structural defect.

Around the crown you see Red Turpentine Beetle pitch extrusions. These larvae create tunnels affecting the vascular system causing a reduction in canopy and eventual mortality.

More importantly, it makes it more likely to fail in crown fracture or uprooting.

Tree Issues



Left: Large cypress in later stages of Cypress canker. Lower limbs yellowing and dying. As this process proceeds the wood becomes very brittle and prone to failure. Design wise too close to the crosswalk and over growing young oaks which could be great trees.

Right: Young cypress newly planted, already infected. You can see the yellowish bark discoloration as it damages vascular tissue. All the cypress in the medians and sidewalk planters are infected. There is no cure, only preventative measures.



Next Steps

- Work with Public Works Forestry and Landscaping team to develop detailed analysis of tree issues and opportunities
- Develop detailed planting schedule for each median
- Develop plant and boulder orders
- Order all required plants and materials
- Execute plan



CITY OF CARMEL-BY-THE-SEA FOREST AND BEACH COMMISSION Staff Report

August 10, 2023
ORDERS OF BUSINESS

TO: Forest and Beach Commissioners

SUBMITTED BY: Robert M. Harary, P.E., Director of Public Works

SUBJECT: Commission discussion of the findings and priorities regarding the Beach Infrastructure Tour of Inspection conducted on July 20, 2023

RECOMMENDATION:

Discuss the findings and priorities regarding the Beach Infrastructure Tour of Inspection conducted on July 20, 2023

BACKGROUND/SUMMARY:

At the July 20, 2023 Special Forest and Beach Commission Meeting, the Commissioners and staff reviewed the condition of the beach access stairs, sea walls, and revetments as noted in the Shoreline Condition Assessment Report. This Report was one of the tasks of the ongoing Coastal Engineering Study and was presented by consultants Integral and Haro Kashunich & Associates at the March 9, 2023 Commission meeting. Minutes of the Special Commission Meeting are included in the Consent Agenda.

Commissioner Sours and Chair Meyers requested that this item be placed on the August 10, 2023 meeting for an opportunity to discuss the findings and priorities based on the beach tour. Staff will endeavor to answer any questions but have no presentation at this time.

FISCAL IMPACT:

There is no fiscal impact to summarize the Tour of Inspection of the beach infrastructure conditions. The City Council authorized an initial budget of \$250,000 in the current Fiscal Year 2023/24 Capital Improvement Program for design of the highest priority repairs and physical repairs of, tentatively two, beach access stairs. The full cost of all repairs is unknown at this time, but ballpark estimates of up to \$10 million have been noted.

ATTACHMENTS:



CITY OF CARMEL-BY-THE-SEA FOREST AND BEACH COMMISSION Staff Report

August 10, 2023
ORDERS OF BUSINESS

TO: Forest and Beach Commissioners

SUBMITTED BY: Robert M. Harary, P.E., Director of Public Works

SUBJECT: Public Works Director's Report for July 2023, including the Forestry Division Report.

RECOMMENDATION:

Receive the Public Works Director's Report for July 2023, including the Forestry Division Report.

BACKGROUND/SUMMARY:

The Public Works Director's Report for July 2023 will include:

- A. City Council actions related to Forestry, Parks, and Beach issues
- B. Forestry Division Report
- C. Forestry, Parks, and Beach-related Capital Improvement Projects
- D. Climate Action and Climate Adaptation Plan implementation
- E. Update on Volunteer Organizations
- F. Miscellaneous Forestry, Parks, and Beach-related Public Works items

FISCAL IMPACT:

None.

ATTACHMENTS:

Attachment #1 - Public Works Director's Report for July 2023



CITY OF CARMEL-BY-THE-SEA

Public Works Department

July 2023 Monthly Report

TO:	Honorable Mayor and City Council Members
SUBMITTED BY:	<i>Robert M. Harary, P.E., Director of Public Works</i>
SUBMITTED ON:	August 2, 2023
APPROVED BY:	Chip Rerig, City Administrator

City Council Meeting of July 11, 2023

- Authorized issuing a letter to the County of Monterey for the Fiscal Year (FY) 2023/24 Used Oil Program.
- Adopted Resolution 2023-067, awarding a Professional Services Agreement (PSA) with Denise Duffy & Associates to provide North Dunes Habitat Restoration and on-call environmental monitoring services for two years for a fee of \$111,560.
- Adopted Resolution 2023-070, approving Amendment No. 1 to the PSA with Davey Resource Group to provide additional services associated with the Urban Forest Master Plan (UFMP) for an additional fee of \$45,000.
- Adopted Resolution 2023-071, awarding a PSA with Advance Design Consultants to provide electrical engineering services for panel upgrades at several City buildings, and for design of a replacement electrical panel for the Sunset Center north lot and additional EV charging stations at Vista Lobos, for a fee of \$79,560.
- Adopted Resolution 2023-072, approving Amendment No. 1 to the PSA with Neill Engineers to design four high-priority drainage improvements identified in the 2023 Storm Drain Master Plan Update for a fee of \$159,100.
- Adopted Resolution 2023-073, approving Amendment No. 1 to the PSA with Ausonio, Inc. to provide project management services for seven facility renovation projects during FY 2023/24 for a fee of \$125,000.
- Adopted Resolution 2023-076, approving a fee for services schedule with a new fee for tree evaluations, and reduced fees for tree pruning and removal permits, and for tree-related appeals to the Forest & Beach Commission and City Council.

Forest and Beach Commission Meeting of July 13, 2023

- Meeting canceled for lack of quorum. Next meeting is on August 10, 2023.

Forest and Beach Commission Special Meeting of July 20, 2023

- Commissioners conducted a tour of Carmel Beach focusing on shoreline infrastructure deficiencies, including beach access stairs, seawalls, and revetments, as noted in the Coastal Engineering Study's Shoreline Condition Assessment.

Administration

- New City Forester, Justin Ono, began on July 17th.
- Facility Maintenance Specialist, Leo Hernandez, began serving our Country in the National Guard for 6 weeks.

- An in-house promotional opportunity was posted for a Maintenance Worker III.
- Unfortunately, no Proposals were submitted in response to the Request of Proposal for Scout House renovation, activities programming, and facility management.
- Supported review of Police license plate reader cameras (Flock) for cameras installed prior to issuance of an encroachment permit.
- Supported the City Attorney's office regarding a claim for alleged damage due to drainage issues for property near Lincoln Street and First Avenue.
- The Director provided a training session for City staff regarding consistent contracting terminology, the advantages of maintaining a roster of Statement of Qualifications, and tips for preparing Requests for Proposals, selecting consultants, and developing PSAs.
- Several Public Works managers attended Brown Act training and a Generational Diversity Workshop.
- Processed numerous final invoices for goods and services provided through June to close out FY 2022/23. Also prepared blanket purchase orders for often-used contractors and vendors for the new FY 2023/24.

Carmel Cares

- Began construction of the Scenic Pathway Guardrail Repair Project. Project anticipated to be completed by late August.
- Decorated Devendorf Park and downtown for the July 4th holiday.
- Installed the wooden cabinet for audio equipment at Forest Theater.
- Submitted documentation for design review and permit approval for proposed new cigarette butt containers to replace the existing, smaller "Butt Stops Here" containers.
- "Downtown Detail" volunteers continued to beautify sidewalks in the downtown area.
- The "Median Minders" continued to improve medians across the Village.
- Continued to pick up illegal fire remains and other debris along the beach.

Environmental Programs

- Incorporated edits and modifications requested by the Coastal Commission regarding the City's draft Stormwater Ordinance Updates. Coordinated with the City Attorney's office regarding the Coastal Commission's more stringent and impactful requirements, and with other local agencies to get their input on these potential new mandates.
- Reviewed proposal from the California Marine Sanctuary for additional water quality testing.
- For the Coastal Engineering Study, executed Amendment No. 1 to the PSA with EMC/Integral/HKA and issued the Notice to Proceed.
- Prepared staff report and coordinated presentation for August 10th Forest & Beach Commission meeting regarding Task 2 for the Coastal Engineering Study, for the Shoreline and Beach Change Analysis.
- Monitored water ponding on the beach, restrained from draining out with the tides due to sand deposits.
- Developed standard CEQA Findings language applicable to most Forest & Beach Commission Public Hearing items.
- Executed PSA with Denise Duffy & Associates for North Dunes Habitat Restoration and issued the Notice to Proceed. Kickoff meeting to be held in early August. Also compiled list of potential volunteers to be organized by staff for consistent, ongoing weed pulling and ice plant removals in the Dunes habitat area.
- Completed the annual Cal Recycle report for e-waste disposal.
- Reviewed the trash can survey and developed preliminary locations for the next batch of ribbon style trash/recycling containers to be purchased.
- Prepared a CEQA Categorical Exemption document for the FY 2020/22 Paving Project.

- Public outreach noted in Friday Letters included: organics recycling workshop, reef-safe sunscreen products, doggie doo photo contest, and stranded beach mammals.

Facility Maintenance

- For the Police dispatch room, contractor demolished the former closet walls to open up the room for more space. The drop ceiling was modified, and electrical circuits were temporarily relocated. Quotes are also in progress to install drywall and paint prior to installing modular furniture.
- Contractor repaired the mahogany Scenic Restroom doors and frames so they no longer jam as the doors expand and contract due to temperature changes. New door closers were also installed.
- As a new FY 2023/24 CIP project, evaluated the condition of the existing 11 traffic bollards surrounding the Sunset Center Box office, and obtained quotes for new bollards to replace those damaged and for spares.
- Contractor replaced the heater and blower switches in the back of the City Council chambers with energy-efficient timers.

Project Management for the Capital Improvement Program

4 Leaf Projects:

- For the Police Building Project, a kickoff meeting with Indigo Architects was held on July 7th. Their building condition assessment tour was scheduled for August 2nd, and programming interviews with key City staff are also being scheduled, for their functional program report.

Ausonio, Inc. Projects:

- The bundled project for City Hall Roof Replacement, Sunset Center Exterior Painting - north wing, Cottage Windows Repairs, and Harrison Memorial Library Exterior/Interior Painting was advertised for bids effective July 14th. A pre-bid meeting is scheduled for August 1st and bids open on August 22nd.
- Began review of existing plans for the San Antonio Pathway Reconstruction Project, between Second and Fourth Avenues.

Wallace Group Projects:

- The one bid received from Bowen Engineering & Environmental, for the MTNP Well and Tank/Pump House Removal Project, was determined to be responsive and responsible. Analysis of the higher than expected bid revealed that the cost estimate was too low for handling and disposing hazardous materials, and the estimate for mobilization assumed a local contractor, (Bowen is based in Fresno). Award of the \$139,700 construction contract is scheduled for the August 1st Council meeting.
- For the FY 22/23 Concrete Streets Repair Project, BKF Engineers submitted a proposal for additional services associated with intermittent street returns along Ocean Avenue, between Monte Verde Street and San Antonio Avenue, and additional treatment options. Proposal under review for potential award of an Amendment to their PSA in September.
- For the FY 23/24 City-wide Paving Project, the selected streets for overlays and slurry seals were reviewed a second time in the field, and final adjustments were made to the rehabilitation strategies. Wallace Group prepared the scope of work proposal and are developing a fee and schedule to perform the engineering and design work.

Additional Projects:

- Recently-revised plans and contract documents were completed and approved for the FY 2021/22 Paving Project. Bid advertising to commence on August 7th.
- For the MTNP 3 Drainage Improvement Projects, continued back and forth dialog and resubmittals with the California Department of Fish and Wildlife and Water Quality Control Board to obtain required regulatory permits. Wrote memorandum to Council regarding the types of regulatory comments requested and resultant delays and extra costs.
- Negotiated the City's proposed special conditions of permit approval with Cal Am Water for their proposed 8-inch waterline to be installed along Dolores Street, between Santa Lucia and Eighth Avenues.
- Wave Broadband submitted another revised set of plans associated with their proposed fiber optics infrastructure project spanning across the City. The plans are nearing completion, and a special encroachment permit may be issued by City Council following an upcoming presentation by Wave to describe their project purpose, scope, and mitigation of impacts.
- PG&E submitted easement documents for City review as required for PG&E to install a transformer at the southeast corner of the Vista Lobos parking lot to accommodate more EV charging stations.

Street Maintenance

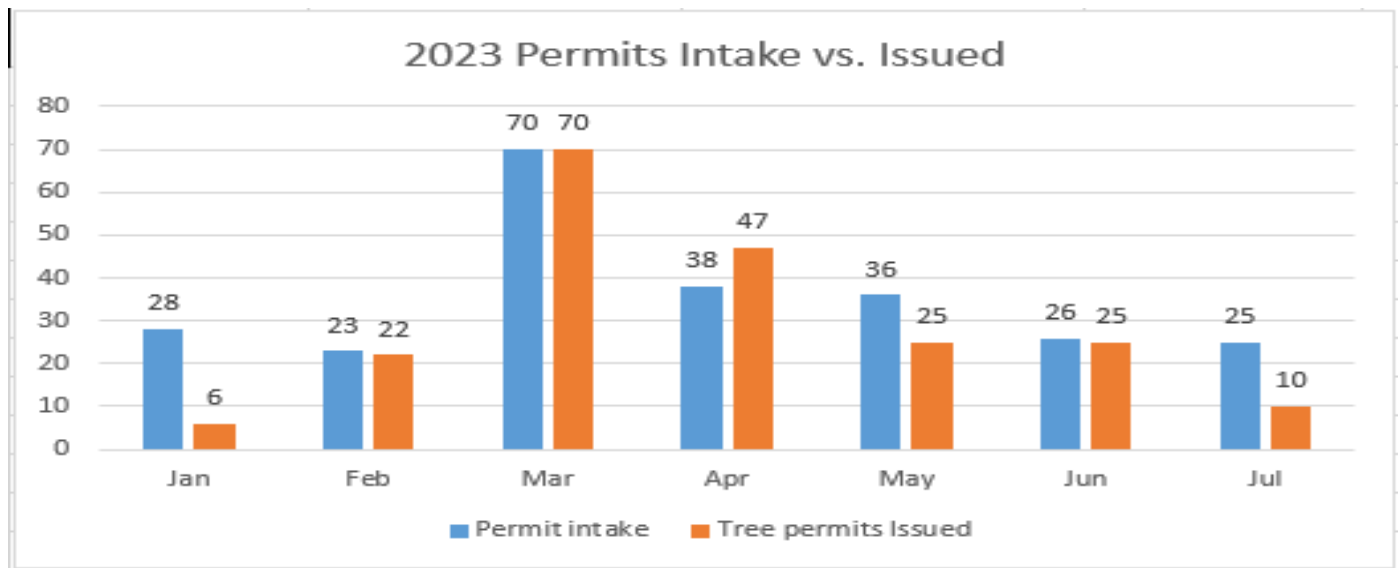
- For the very busy, extended July 4th holiday weekend, followed the next week by the U.S. Women's Open golf tournament in Pebble Beach, provided parking signage for Police, additional staffing, trash bins, portable toilets, sinks, and supplemented trash pickups.
- Began to coordinate and prepare for Car Week events in August.
- Substantially completed the Annual Traffic Painting Program by finishing red, yellow, green and gray curbs. Thermoplastic parking tees and legends remain.
- Refreshed/repainted wayfinding signs in various locations.
- At Torres Street and Ninth Avenue, replaced a collapsed, wooden drainage culvert with an HDPE pipe, constructed a custom rock headwall, and reconstructed a fence and pathway.
- Installed five dual trash/recycling ribbon style containers at Sunset Center.
- Rented a bobcat to spread sand over exposed rocks at the base of the Eighth Avenue beach access stairs and over the embankment west of the Del Mar parking lot.
- Cleared out more piles of fire fuel and debris from MTNP.
- Coordinated the delivery, testing, and training of the new Electric Street Sweeper arriving on August 4th.

Forestry, Parks, and Beach

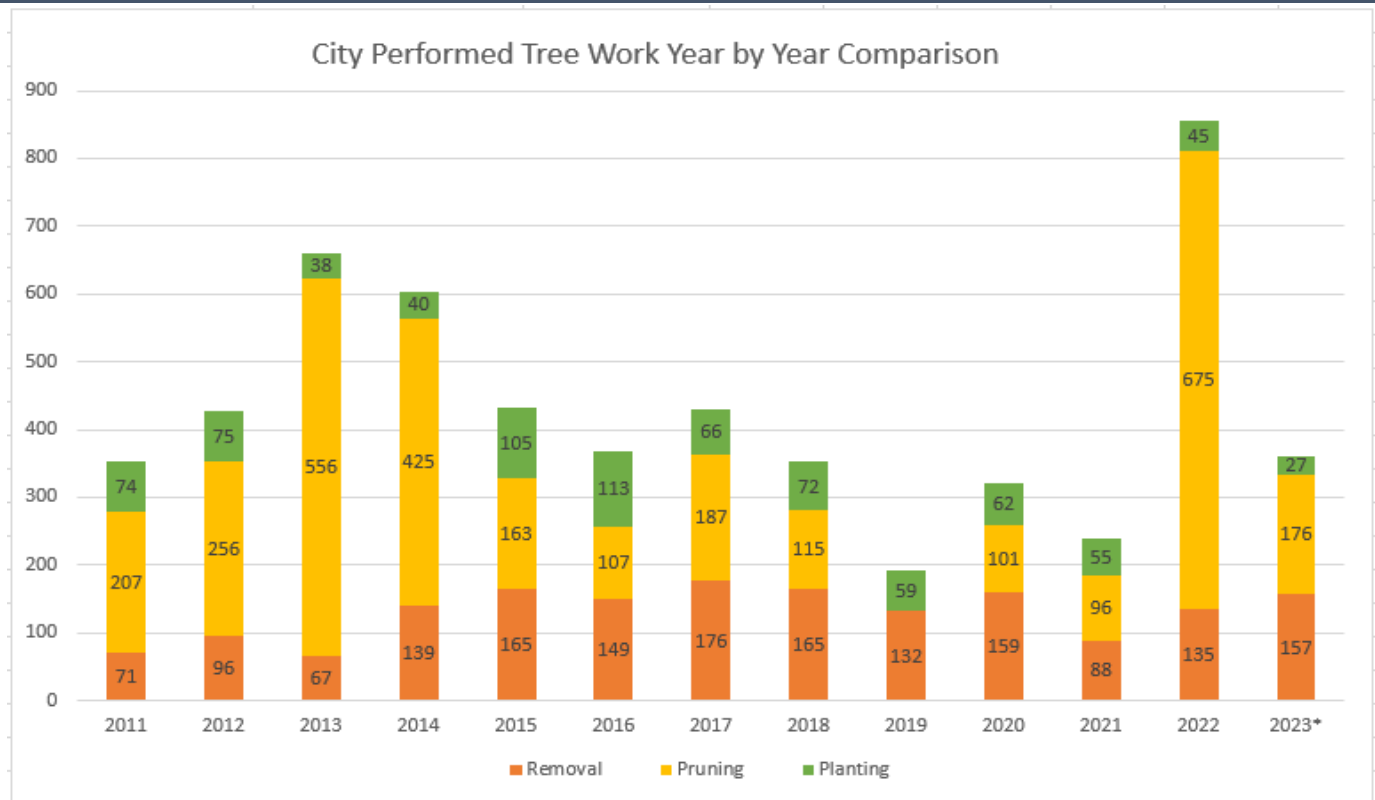
- The first Community Workshop for the Urban Forest Master Plan (UFMP) was held at Vista Lobos on July 12th and was attended by roughly 20 residents, plus several Commissioners and new Steering Committee members. It was the first of several opportunities in the coming months where public input will be requested.
- The Community Survey for the UFMP was developed but not yet released to allow for further discussion among Commissioners prior to launching the survey.
- Davey Resource Group provided the following status update for development of the UFMP:
 - Tree Inventory - complete
 - Urban Forest Economics Resource Analysis - complete
 - GIS Mapping ~ 99% complete
 - Tree Canopy and Land Cover Assessment ~93% complete
 - Operational background review – 90% complete
 - Stakeholder interviews ~ 90% complete
 - Draft UFMP Report ~ 40% complete

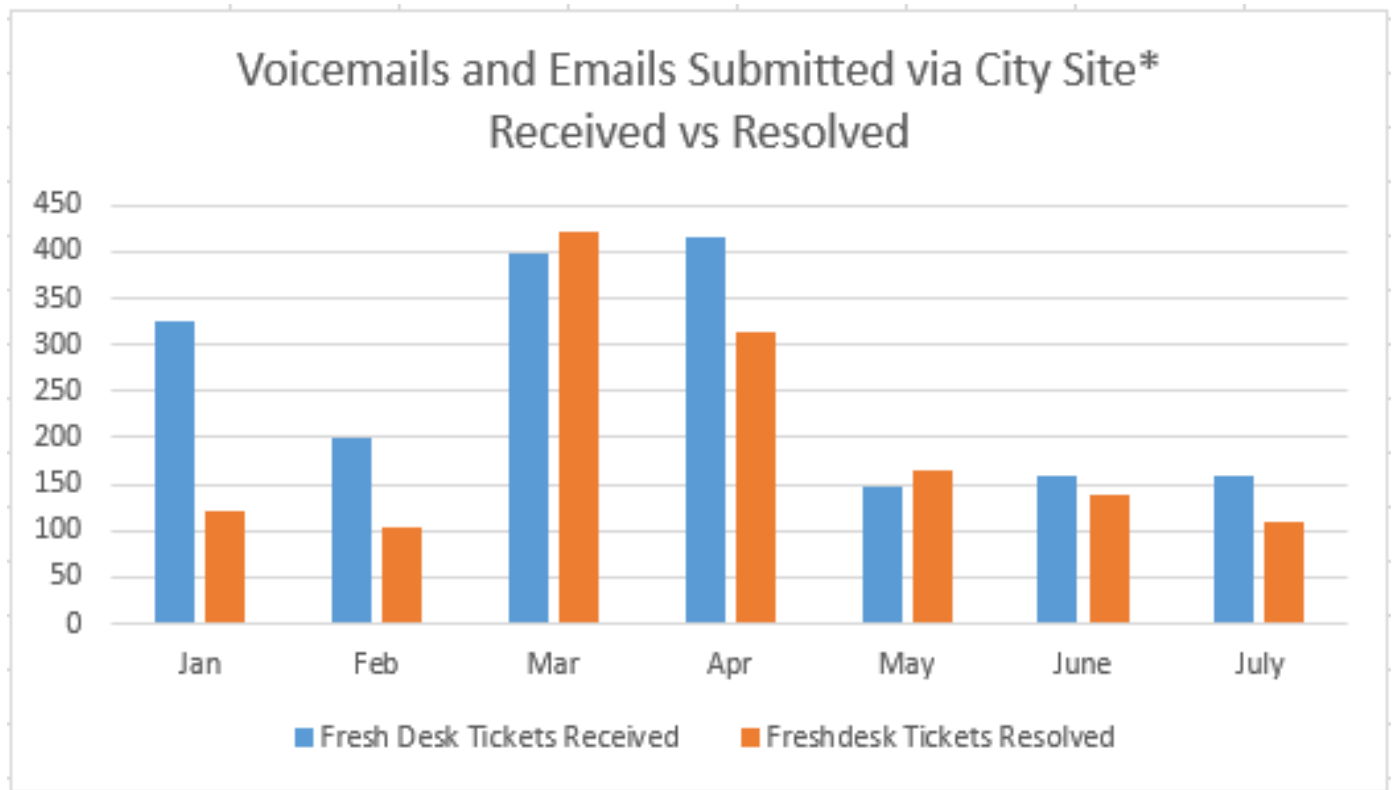
- ## Private and Development Activities

Historic permitted removals and required planting								
Year	Permitted removals	Removal of upper	Removal of lower	Replanting Required	Replanting of upper	Replanting of lower	Replanting %	Applications processed
2021	204	81	123	135	81	54	66.18%	213
2022	149	82	67	85	48	37	57.05%	155
2023*	219	156	61	161	121	40	73.52%	246
*Year To Date								



City Forestry, Parks, and Beach Activities





* Numbers only represent correspondences received via the City's website and do not include live calls, voicemails, drop-in visitors, and emails sent directly to employees from residents, nor return calls and emails from staff.



CITY OF CARMEL-BY-THE-SEA FOREST AND BEACH COMMISSION Staff Report

August 10, 2023
ORDERS OF BUSINESS

TO: Forest and Beach Commissioners

SUBMITTED BY: Robert M. Harary, P.E., Director of Public Works

SUBJECT: Public Works Director's Report for June 2023, including the Forestry Division Report.

RECOMMENDATION:

Receive the Public Works Director's Report for June 2023, including the Forestry Division Report.

BACKGROUND/SUMMARY:

The Public Works Director's Report for June 2023 will include:

- A. City Council actions related to Forestry, Parks, and Beach issues
- B. Forestry Division Report
- C. Forestry, Parks, and Beach-related Capital Improvement Projects
- D. Climate Action and Climate Adaptation Plan implementation
- E. Update on Volunteer Organizations
- F. Miscellaneous Forestry, Parks, and Beach-related Public Works items

FISCAL IMPACT:

None.

ATTACHMENTS:

Attachment #1 - Public Works Director's Report for June 2023



CITY OF CARMEL-BY-THE-SEA

Public Works Department

June 2023 Monthly Report

TO:	Honorable Mayor and City Council Members
SUBMITTED BY:	Robert M. Harary, P.E., Director of Public Works
SUBMITTED ON:	July 5, 2023
APPROVED BY:	Chip Rerig, City Administrator

City Council Meeting of June 6, 2023

- Adopted Resolution 2023-058, approving Change Orders #1 to three on-call tree service contractors, for a net increase of \$33,236 to complete Fiscal Year (FY) 2022/23, and authorizing CCOs #2 for FY 2023/24 for \$175,000 to each, for a total of \$525,000.
- Adopted Resolution 2023-060, awarding a Professional Services Agreement to Ono Consulting for on-call arborist services for a not-to-exceed fee of \$100,000.
- Adopted Resolution 2023-063, awarding a Professional Services Agreement to Indigo Architects for a functional program report, concept plans, and cost estimates for the Police Building Project for a not-to-exceed fee, with contingency, of \$300,000.
- Adopted Resolution 2023-064, authorizing a 3.71% fee increase by GreenWaste Recovery for hauling solid waste, recycling, and organics for FY 2023/24, and approving Amendment No. 2 with ReGen Monterey for member agency cost sharing associated with SB 1383 programs.
- Adopted Resolution 2023-067, approving the Operating Budget for FY 2023/24, which includes \$5.41M for Public Works operations and a record \$10.9M Capital Improvement Program (CIP) covering 41 projects – many of which were consolidated for efficiency in the CIP this year.
- Following Public Hearing #2 for the Scout House renovation, activities programming, and facility management RFP, adopted Resolutions 2023-040 and 2023-042 in accordance with the Surplus Lands Act.

Forest and Beach Commission Meeting of June 8, 2023

- Tree pruning permit Application 23-051 was withdrawn by the Applicant.
- At Casanova Street, 2 southeast of Palou Avenue, approved application to remove one significant Santa Lucia fir tree in poor condition.
- At Scenic Road near the southwest corner of Tenth Avenue, approved the removal of a dying pine tree located in the pedestrian pathway. Denied removal of three significant Monterey cypress trees along the Scenic Pathway, but directed these trees be appropriately pruned of deadwood to maintain their aesthetic shapes, and that their crowns be inspected by a drone, under the direction of an arborist, to ensure safety and stability.
- At Junipero Street, 3 northeast of Twelfth Avenue, approved the removal of one significant eucalyptus tree located too close to the structure, denied removal of a healthy Japanese maple tree, and required planting of one new upper canopy tree.
- Mr. Bill Taormina introduced the Urban Forest Citizen's Advisory Group which he leads.
- Based on anonymous responses to applications for public members to serve on a Steering Committee, as an extension of the Forest & Beach Commission, to guide development of the

Urban Forest Master Plan (UFMP), the Commissioners selected five public members: Bill Taormina, Donna Jett, Linda Smith, Maria Sutherland, and Peter Quintanilla.

- Presented the Public Works Report, including the Forestry Division update, for May 2023.

Administration

- The new City Forester, Justin Ono, will begin on July 17th.
- Updated the department's organizational chart. Eight changes were made in just one year!
- All Public Works staff attended a site safety training session in Carpenter Hall.
- Sent a letter supporting TAMC's initiatives regarding the Safe Streets Program to the U.S. Secretary of Transportation.
- Prepared materials for upcoming training sessions for City staff, to be conducted by the Director, regarding consistent contracting terminology, preparing RFPs, selecting consultants, and developing Professional Services Agreements.

Carmel Cares

- Purchased redwood lumber and materials, and scheduled construction of the Scenic Pathway Guardrail Repair Project.
- Worked with an architect to develop a revised ADA path of travel plans to proposed picnic table areas in Forest Theater.
- The "Downtown Detail" continued to improve and beautify sidewalks and tree wells along Mission, San Carlos, and Dolores Streets in the downtown area.
- The "Median Minders" program continues to expand with more volunteers caring for "adopted" median islands than ever before.
- Refinished marquees and installed "Keep Carmel Beach Clean" signs along the beach.
- Created a wooden equipment box for audio equipment at Forest Theater's back stage.
- Cleared the hillside next to the Lincoln Street trestle bridge.
- Picked up illegal fire remains and other debris along the beach.
- Identified locations of high cigarette butt droppings, and proposed new cigarette butt containers to replace the existing, smaller "Butt Stops Here" containers.

Environmental Programs

- Completed a Professional Services Agreement with Denise Duffy & Associates for North Dunes Habitat Restoration and on-call environmental services for a not-to-exceed fee of \$111k. Prepared staff report for Council award at the July 11th meeting.
- Submitted Used Oil Recovery program from County Environmental Health for Council approval on July 11th.
- Met with Coastal Commission staff to review their comments to our draft Stormwater Ordinance Updates. Changes needed to meet their stringent ocean protection requirements.
- Reviewed revised application for a non-competitive Coastal Commission LCP grant, requesting the maximum amount of \$500k, for future phases of the Coastal Engineering Study. Grant application to be submitted to Council for approval at the August 1st meeting.
- For the Coastal Engineering Study, prepared Amendment No. 1 to the Agreement with EMC/Integral/HKA to advance an LCP Policy Review task and temporarily defer part of an Adaptation Strategic Planning task, both for Phase I. No fee increases for these changes.
- Received shipment of seven new metal ribbon-style trash and recycling containers. Most will be installed around Sunset Center.
- Began to assess invasive hemlock growing rapidly in Mission Trail Nature Preserve (MTNP), coordinated with Friends of MTNP and an arborist, and developed contracting options.
- Began to prepare the annual Cal Recycle report for e-waste disposal.

- Submitted webinar announcements for inclusion in Friday Letters regarding water conservation, organics recycling laws and tips, and avoiding the use of plastics.

Facility Maintenance

- ADA-compliant railings were installed and painted at Piccadilly Park and at the Harrison Memorial Library (HML), completing the 5th consecutive year of ADA Upgrades Projects.
- Painting contractors painted the exteriors and interiors of park restrooms in lower Forest Hill Park, upper Forest Hill Park, and at Devendorf Park.
- Plumber replaced a corroded cast iron sewer lateral exiting Flander's Mansion.
- Vendor replaced the deteriorated flooring in the Police dispatch room.
- Vendor repaired a displaced gutter and downspout at Vista Lobos.
- Vendor replaced an exhaust fan motor in the Public Works Garage.
- Restored electrical wiring around the reconstructed planter wall at City Hall, saving \$6k.
- Supported the renovation of the Administrative Offices at City Hall with furniture moving, electrical upgrades, and new blinds.
- Purchased new acoustic ceiling tiles for City Hall – to be replaced room-by-room over time.
- Purchased three ADA-accessible portable toilets and two sinks for the Forest Theater as a cost-cutting measure versus continuing to rent them.
- Purchased a flexible snake/video camera to reduce the cost of hiring outside plumbers.
- Obtained quotes to repair the mahogany Scenic Restroom doors, replace deteriorated doors in several park restrooms, and address steamy-looking windows at the Park Branch Library.

Project Management for the Capital Improvement Program

4 Leaf Projects:

- For the Police Building Project, presented the \$300k Professional Services Agreement with Indigo Architects to Council for approval. The Agreement was executed, Notice to Proceed was issued, and a kickoff meeting is scheduled for July 7th.

Ausonio, Inc. Projects:

- The Facility Condition Assessments Report for four City buildings: City Hall, Fire Station, Public Works, and Vista Lobos, was accepted as final.
- For the \$213,600 City Hall Retaining Wall Repair Project, contractor Rehak General Engineering completed the concrete building foundation, reconstructed the redwood planter, and completed punch list items. A Notice of Completion is being recorded. The project was completed over one month ahead of schedule and on budget.
- Plans and specifications were completed for the bundled City Hall Roof Replacement, Sunset Center Exterior Painting for the north wing, and Cottage Windows Repairs, and HML Exterior/Interior Painting Projects. A building permit was also approved. Will advertise for bids in July.
- Amendment No. 1 to the Professional Services Agreement with Ausonio was prepared and submitted for Council approval in July. The \$125k amendment will cover Ausonio's bidding and construction management services for the four facility renovation projects identified above, oversee the design of the FY 2023/24 Sunset Center portico and retaining wall repair projects, design of the San Antonio Pathway restoration project, and on-call project management services.

Wallace Group Projects:

- The Storm Drain Master Plan Update, which evaluated the entire City storm drainage system for 20-year storm events, rather than 10-year storms, was accepted as final.

- Despite extensive advertising, only one bid was received for the MTNP Well Abandonment and Tank/Pump House Removal Project, and was nearly three times the cost estimate. Bid proposal under review with bid award scheduled for the August 1st Council meeting.
- For the FY 22/23 Concrete Streets Repair Project, due to anticipated significant cost increases associated with restoring the cross streets along Ocean Avenue, between Monte Verde Street and San Antonio Avenue, additional treatment options are being evaluated. May need to limit removal of only structurally-damaged areas of concrete street and potentially resurfacing the street.
- For the FY 23/24 City-wide Paving Project, the 5 selected streets for overlays and 20 for slurry seals were reviewed in the field, and adjustments were made to the tentative rehabilitation strategies as recommended by the Street Saver program. Wallace Group is preparing a fee and schedule proposal to perform the engineering and design work.

Additional Projects:

- Bidding and contract documents are being finalized to supplement the recently-revised FY 2019/20 Paving Project plans and technical specifications. Bid advertising delayed to July.
- Amendment No. 1 to the Professional Services Agreement with Neill Engineers was completed for design of four priority drainage improvement projects identified in the Storm Water Master Plan Update. Staff report prepared for Council to award the \$159k Amendment on July 11th.
- A Professional Services Agreement, with a fee of \$80k, was completed with Advance Design Consultants for Electrical Panel Upgrades, Sunset Center Meter Replacement Projects, and EV Charging Stations at Vista Lobos. Staff report prepared for award by Council on July 11th.
- Met with Cal American Water to review the scope of their new 8-inch waterline to be installed along Dolores Street, between Santa Lucia and Eighth Avenues. Impacts and tentative special conditions of approval were outlined.
- Local preference language was incorporated into the construction contract document template in accordance with the City's new Purchasing Ordinance.

Street Maintenance

- Prepared for the busy July 4th holiday extended weekend by providing parking restriction signage for Police, additional staffing, trash bins, portable toilets, and supporting events.
- Continued to meet with and provide backup information for potential FEMA reimbursement for damages resulting from the January storms. FEMA representative toured damaged sites.
- Removed and patch-paved damaged areas of asphalt in the City Hall south parking lot. Additional paving surfacing, re-striping, and installation of new bike racks remain.
- Removed failed portions of grape stake fencing along the San Antonio Pathway, between Second and Fourth Avenues. Filled in crevices with decomposed granite.
- Installed a new storm drain cover over the cistern in Piccadilly Park.
- Repaired the irrigation vault lids behind the HML.
- Cleared out more piles of fire fuel and debris from MTNP.
- Continued the Annual Traffic Painting Program with white crosswalks, stripes, STOPs, and other legends, and red curbs.

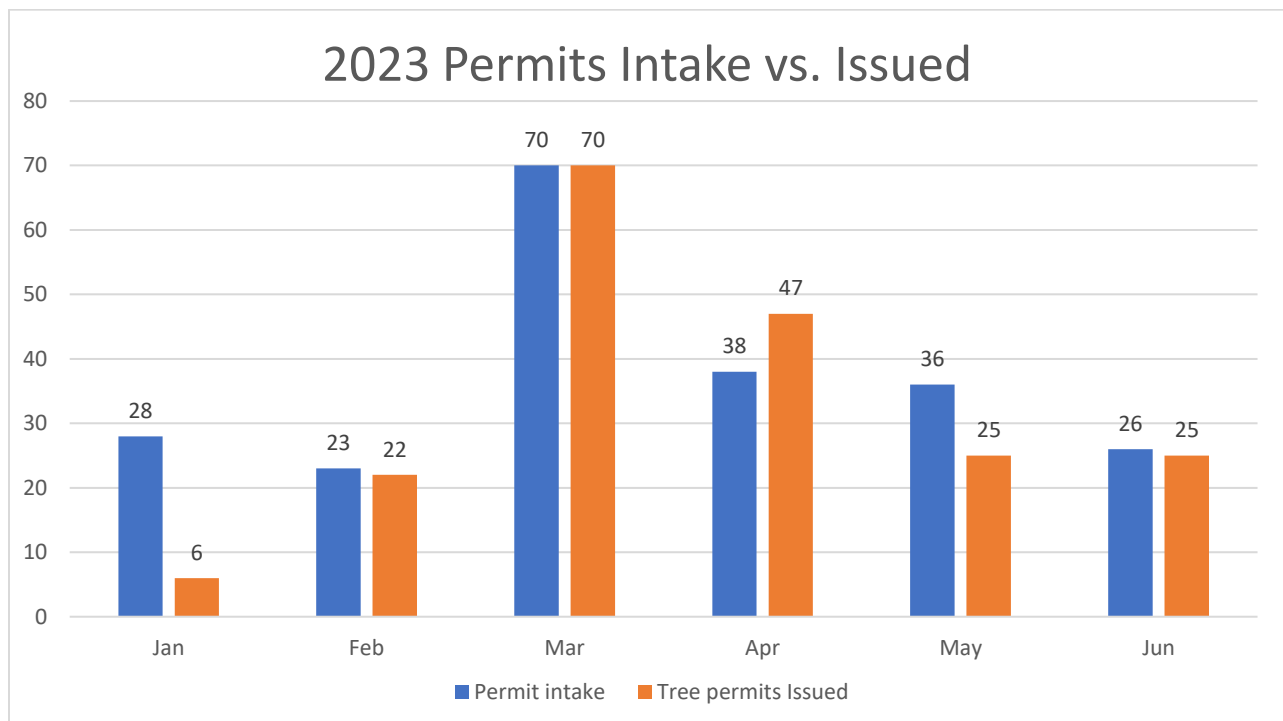
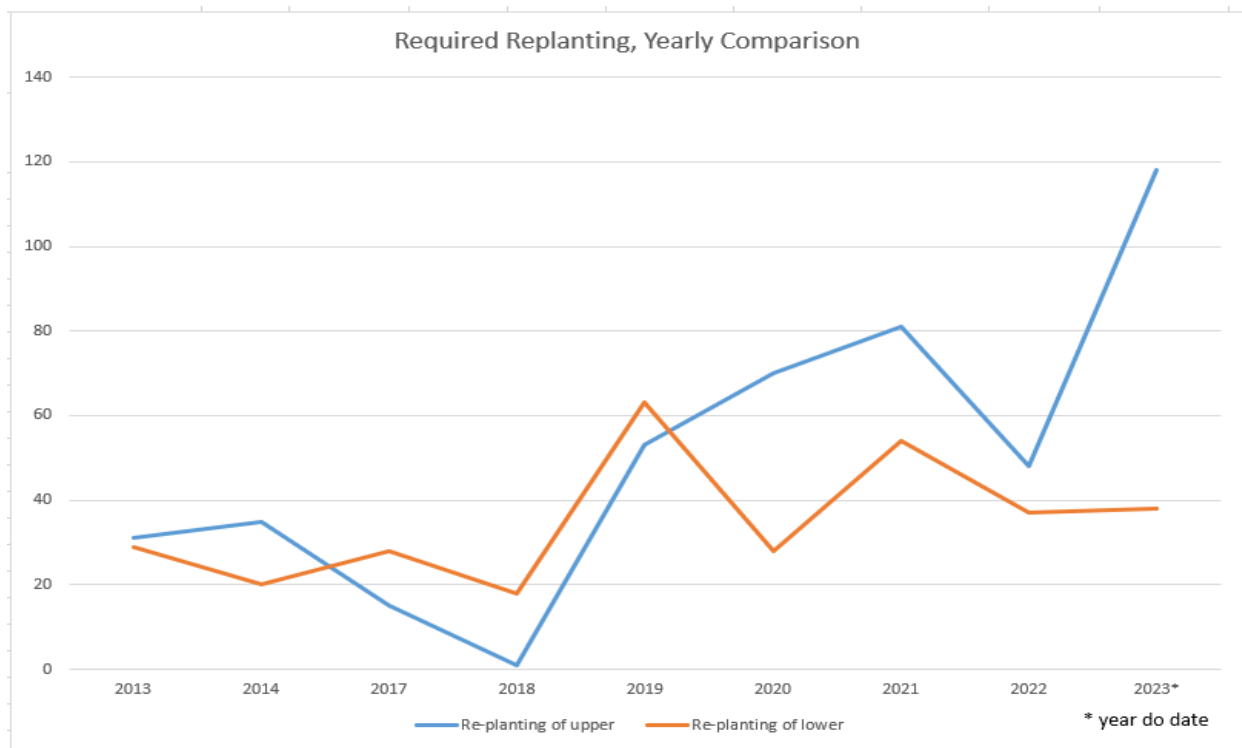
Forestry, Parks, and Beach

- As approved by Council, issued CCO #1 to on-call tree contractors Community Tree Service, Tope's Tree Service, and West Coast Arborist for the remainder of FY 2023=2/23, and CCO #2 for FY 2023/24.

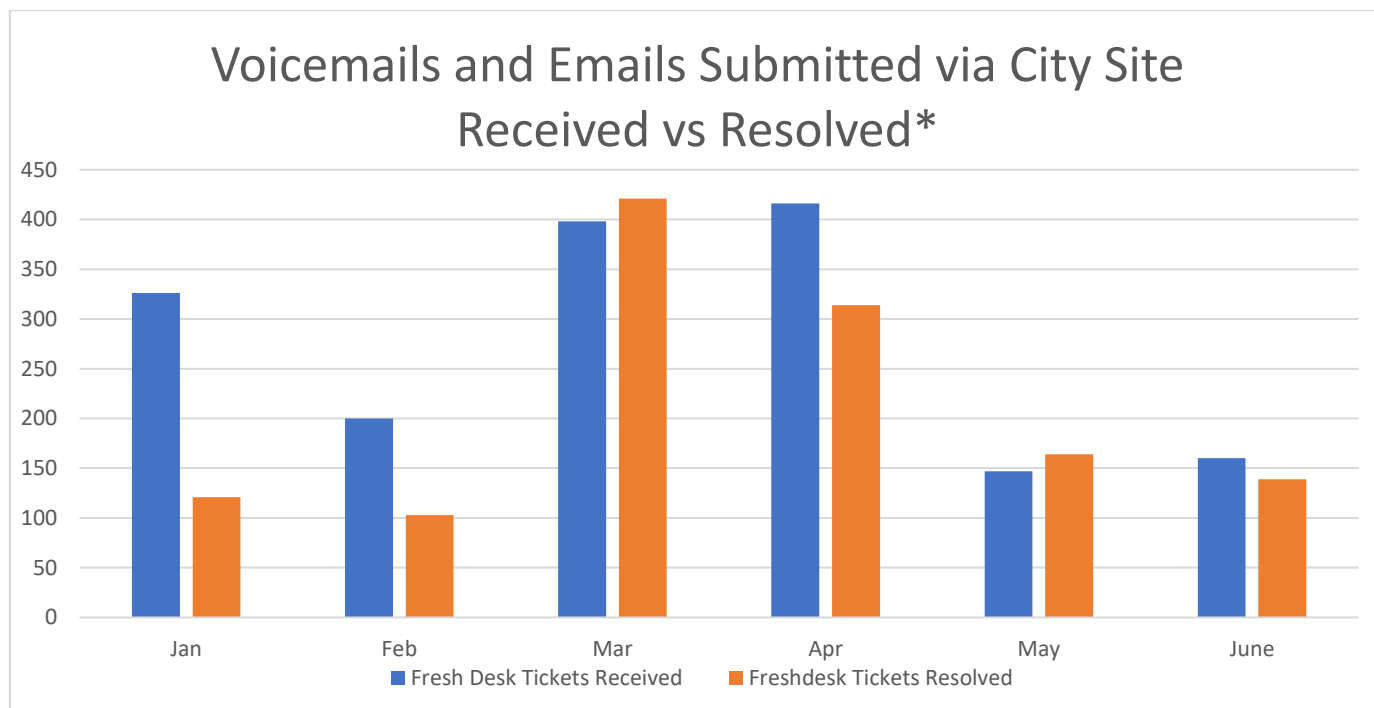
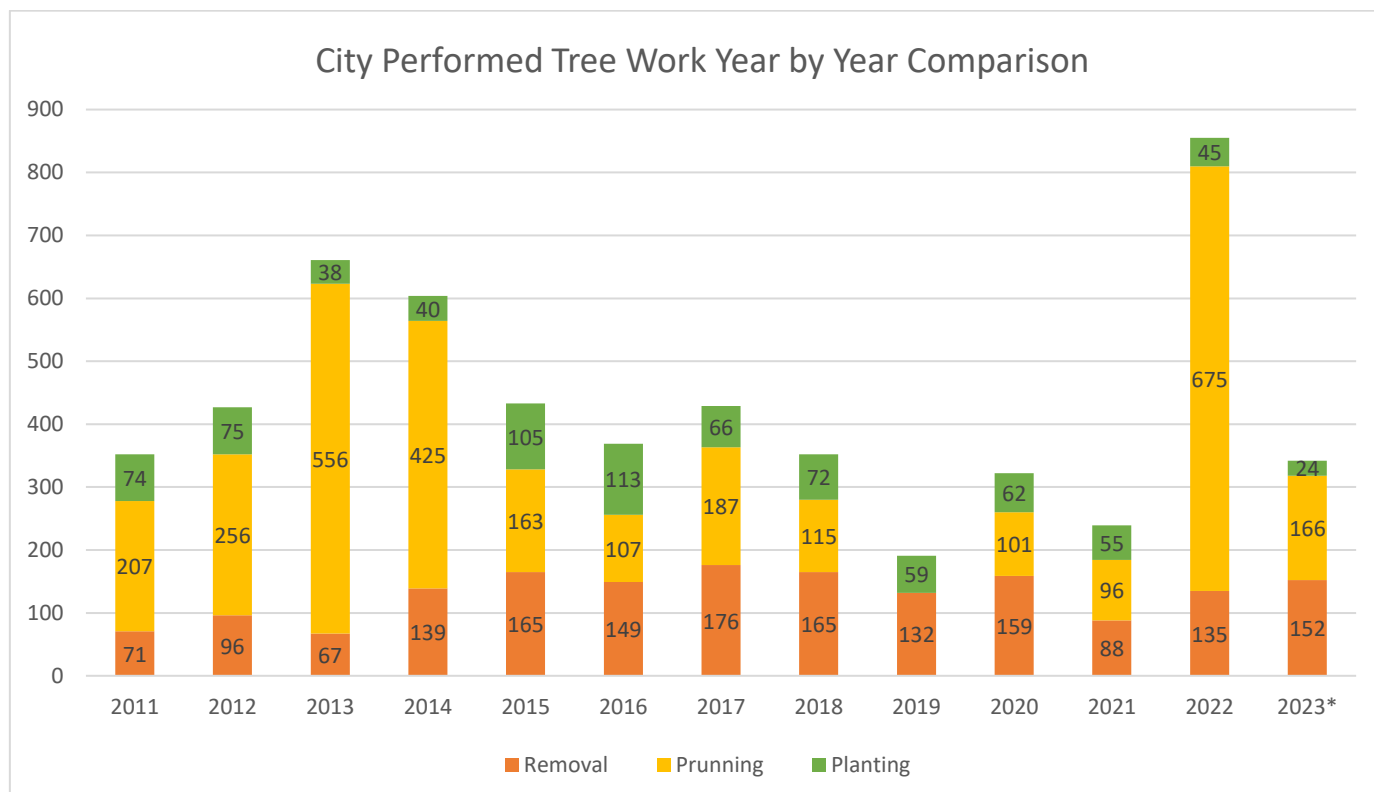
- Prepared Amendment No. 1 to the Professional Services Agreement with Davey Resource Group was completed for additional services associated with the UFMP. Staff report prepared for Council to award the \$45k Amendment on July 11th.
- Set up the first Community Workshop for the UFMP, to be hosted by the Forest & Beach Commission/Steering Committee, Davey Resource Group, and Public Works. Workshop will be held on Wednesday 7/12 from 6:00-8:00 pm. Created notification flyer and questionnaire.
- Preparing 3 quarterly progress reports to submit to Cal Fire for reimbursement of the \$150k grant for the UFMP. Reports were required from the time the grant was approved even before the City incurred costs.
- Issued 30 potential Task Orders to on-call landscape maintenance contractor, Town & Country, for services to be provided in FY 2023/24.
- Cleared weeds around Flander's Mansion and mowed Martin Meadow to reduce fuel loads.
- Purchased/assembled a new a stump grinder, obtained training, and began using the grinder. With a backlog of 500+ stumps, grinder will quickly pay for itself versus hiring contractors.
- Forestry crews continued with removals of dangerous trees, pruning limbs, clearing debris, and wood chipping. Large logs and stumps were also hauled away.
- Provided information for numerous tree-related claims resulting from the winter storms.

Private and Development Activities

2023 Permitted removals, pruning, and required planting											
	Tree permits received	Tree permits Issued	Total Prunings	Total Removals	Removal of Upper	Removal of Lower	Required to Plant Upper	Required to Plant Lower	No room for new tree	Meets Density Rec.	Total Number of Trees Required
January	28	6	0	12	3	7	5	1	0	2	5
February	23	22	1	24	15	9	15	10	0	0	25
March	70	70	21	71	47	24	32	14	1	7	46
April	38	47	16	53	49	4	32	3	2	2	35
May	36	25	9	26	20	6	18	4	4	7	22
June	26	25	14	26	17	9	16	6	0	4	22
July											
August											
September											
October											
November											
December											
2023 totals	221	195	61	212	151	59	118	38	7	22	155



City Forestry, Parks, and Beach Activities



* Numbers only represent correspondences received via the City's website and do not include live calls, voicemails, drop-in visitors, and emails sent directly to employees from residents, nor return calls and emails from staff.

August 10, 2023

Forest & Beach Commission
Carmel-by-the-Sea, CA

Subject: Ocean Avenue Medians Landscaping

Dear Members of the F&B Commission,

In 2022, the "City Council made beautification of the downtown a priority". I was the citizen member of the January 2022 pilot project to renovate the median between Monte Verde and Lincoln. The plants chosen by the City Forester and Assistant CF were California natives. When the plants were installed, they deviated from the plan. Decorative plants were put in and failed, for they require regular attention and maintenance.

The published plan called out "seasonal color displays at the bullnoses" with the CRA "possibly donating a split rail style fence to rundown the center of the island." The fence proposal has been dropped. The seasonal display as depicted in the published plan is out of character with Carmel, would require regular maintenance and is reflective of seasonal displays of bedding plants in climates worldwide where winters are harsh and public gardens are the focus of city living each spring.

Therefore, I would not endorse or support the 2022 median restoration plan.

Thomas Church was the premier landscape architect of his day. His plans for the enhancement of Ocean Avenue were based on a continuation of the forest character at that time. The wide steps from the north sidewalk of Ocean Avenue into Devendorf Park were, and still are, masterful in design, as was his use of native granite creating the raised planters. However, his plant selections were limited, thus his use of Junipers to create the color continuation he sought are outdated today. With the emergence of the popularity and use of California native plants for drought tolerant landscaping, a better choice would be varieties of low growing ceanothus, manzanitas and the like.

Therefore, I would not endorse or support the use of Thomas Church's original plant selections.

Consultant Alan Wheat has provided a detailed and horticulturally based scientific plan that has taken into consideration the deterioration of the trees and plants currently in the medians. The medians are large containers and subject to the constraints of all potted plants that become root bound and need replacing or root pruning. The last iteration of landscaping in the medians featured all CA native plants. They looked wonderful for a long time but are now tired and haggard. They need a big, challenging makeover.

Alan Wheat's assessment of the ill health of the trees in the medians and his recommendation for their removal would require educating the public prior to removal. Taking down a tree in Carmel, particularly a tree growing in the heart of town, could cause public outcry....and we don't want that. What we want, and need, is a new landscape design implemented as presented by Mr. Wheat, based on science and the choice of California native plants.

I support and endorse Consultant Alan Wheat's plans with the recognition that it would be the best long-term solution that would enhance the heart of Carmel's commercial district, creating a classic welcome to residents and visitors alike, one envisioned by Thomas Church. I recognize that Mr. Wheat's plan could incorporate public suggestions and input, but his academic and horticultural credentials speak for his credibility.

Thank you,

Cindy Lloyd
(831) 236-1935

Bruce and Patricia Westphal
0 SW Corner of Sante Fe and Mountain View
Carmel, CA

August 10, 2023

Good Morning,

We are Bruce and Patti Westphal. We have enjoyed a second home in Carmel for over 39 years. We plan on making this our permanent home.

We have been members and I was a counselor for the Save the Redwoods league for over 20 years, I am an Eagle Scout and always loved and respected the natural outdoors.

It is unfortunate that the two trees in question are a hazard to our home and lives. One tree holds the other tree from falling on the house. Neither tree would stand without the other, they both lean at opposite angles, the rope is the critical element of support.

Two other very large trees have fallen on this property, since we bought it 15 months ago. Our garage and part of the house has been demolished by the second tree to fall. Damage and destruction was done our fence and pergola by the first tree to fall.

Two tree experts, one of whom installed the rope holding these trees from falling, have advised us that the trees are a hazard to our personal safety and our home and must be removed.

These people work with trees daily, they have given real time assessments. Previously no one ever advised us that the two large trees would come down, so at this point we are very concerned and anxious for our safety.

If one examines the site, one will see the $\frac{3}{4}$ inch rope holding the trees together. One tree is holding tree holding the other back. That is not natural or sustainable.

We, as owners, have a responsibility for our own safety and the safety of our property. We have no choice, the risk mitigation here is our responsibility.

A vote in favor of tree removal lets us to move on with our Carmel residency in safety.

A vote against creates and continues an untenable life and property safety issue for us, as Carmel residents.

Thank you for your consideration.

Bruce and Patricia Westphal

From: **John Kern** <jkern@mpc.edu>
Date: Thu, Aug 10, 2023 at 2:41 PM
Subject: Carmel by the Sea Landscaping
To: <yoblender@ci.carmel.ca.us>

Attachment 1

To Whom It Concerns,

I support the proposal by my colleague Alan Wheat for replanting the Ocean Avenue islands. Junipers can make fine landscape plants in certain situations but a diverse, more colorful, site appropriate plant palette is in keeping with best practices of 2023. Landscape architecture as well as public appreciation have moved toward including ecological services in landscapes - things such as habitat restoration and support of wildlife (such as pollinators and songbirds).

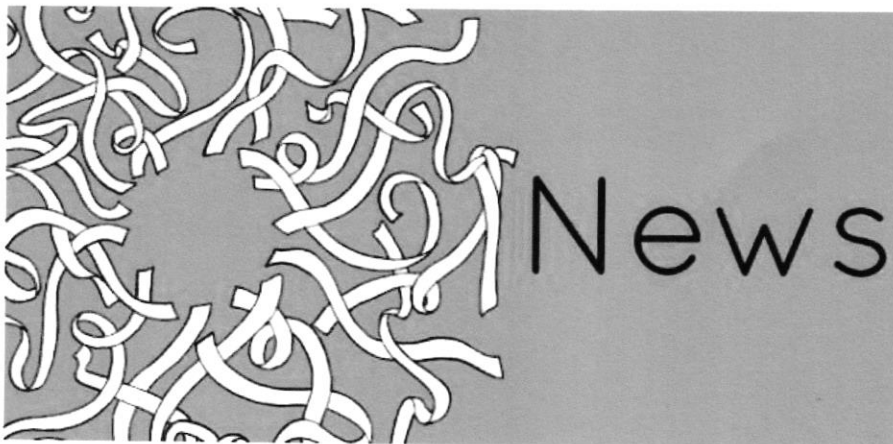
Thank you.

John Kern, Adjunct Instructor
MPC Horticulture

Explaining Pine Tree Scent's Potential to Slow Climate Change

BY IONA TWADDELL - MARCH 1, 2014

POSTED IN: FEATURED NEWS, NEWS



Scientists have unravelled the mechanism by which the strong scent produced by pine trees turns into aerosols. These aerosol particles have a cooling effect by aiding cloud formation and reflecting sunlight back into space, so could slow climate change.

Current climate change models cannot predict how many of these particles will form, but this new research, published in *Nature*, has helped to fill a large gap in our understanding. The team of researchers have found an extra step in the process by which the pine smell (made of volatile organic compounds) turns into aerosols. It has long been known that the pine smell reacts with the oxygen in the forest canopy to form the particles. The extra step is the discovery of ultra-low volatility organic vapours in the air that condense (irreversibly) onto any surface or particle they come into contact with, and so bind to the smallest scent particles, helping them grow and become aerosols.

The discovery is important because the vapours emitted by the pine trees make up around half the aerosols in the forest, so knowing how they form can aid predictions about their behaviour and how they will reduce temperatures. This cooling effect will likely increase in the future as well: in a warmer world with rising CO₂ photosynthesis will be faster, leading to more trees and more emission of these vapours. This, in turn, should slow global temperature rises. However, it is not a long-lasting solution: if forests become too stressed from heat or lack of water, they will stop emitting these vapours.

Nevertheless, they could be beneficial in the medium-term, as Dr Mikael Ehn from the University of Helsinki says: "If you go into a pine forest and notice that pine forest smell, that could be the smell that actually limits climate change."

To find out more, please visit the original publication at: <http://www.nature.com/nature/journal/v506/n7489/full/nature13032.html>

TAGS: aerosol, climate change, pine, scent

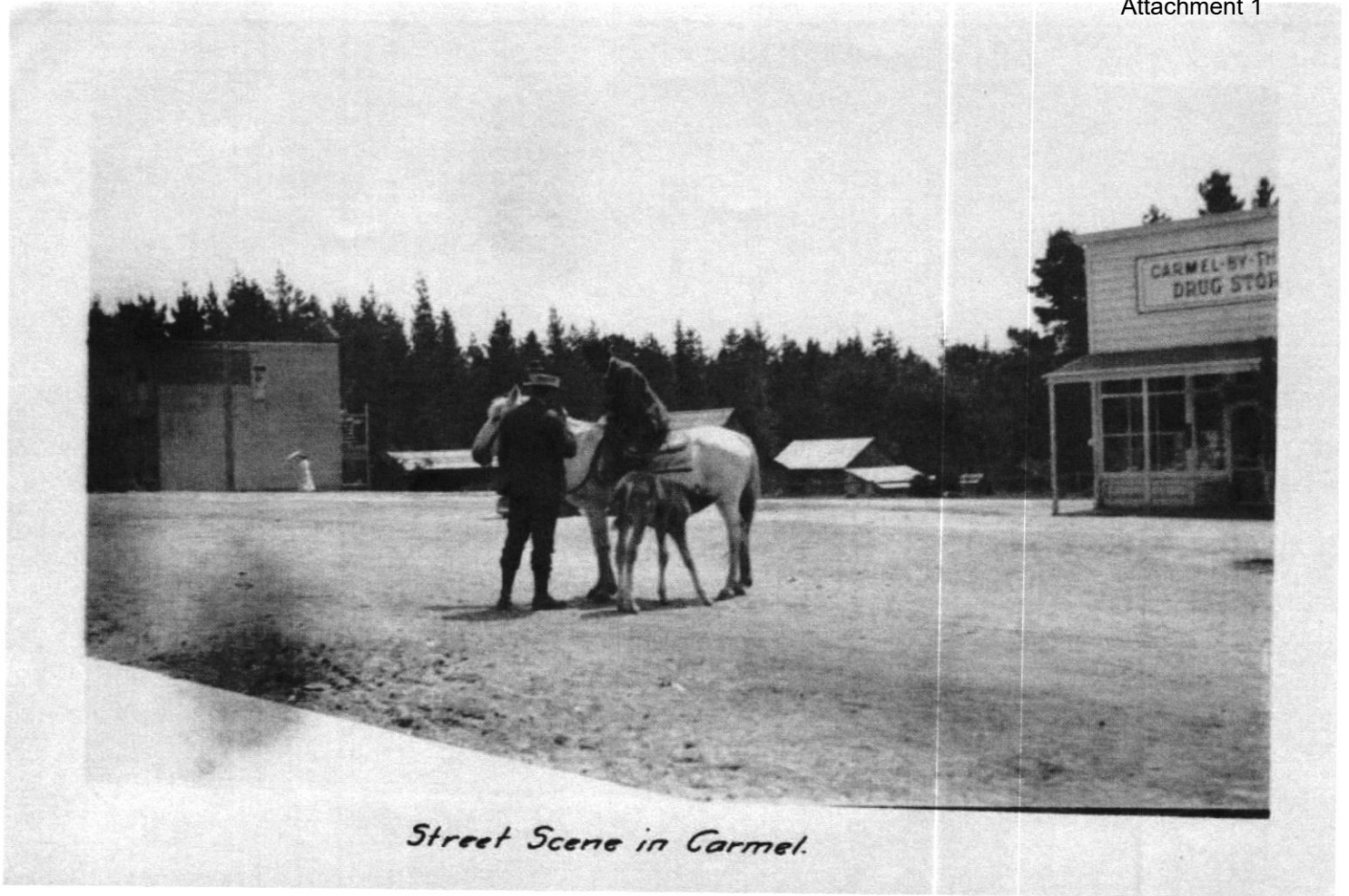
ABOUT IONA TWADDELL

Iona is a third year undergraduate studying psychology at Wadham.

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-  Why Do Some Barks Peel?
-  10 Reasons Why Octopuses Are Awesome
-  The Birds and the Bees
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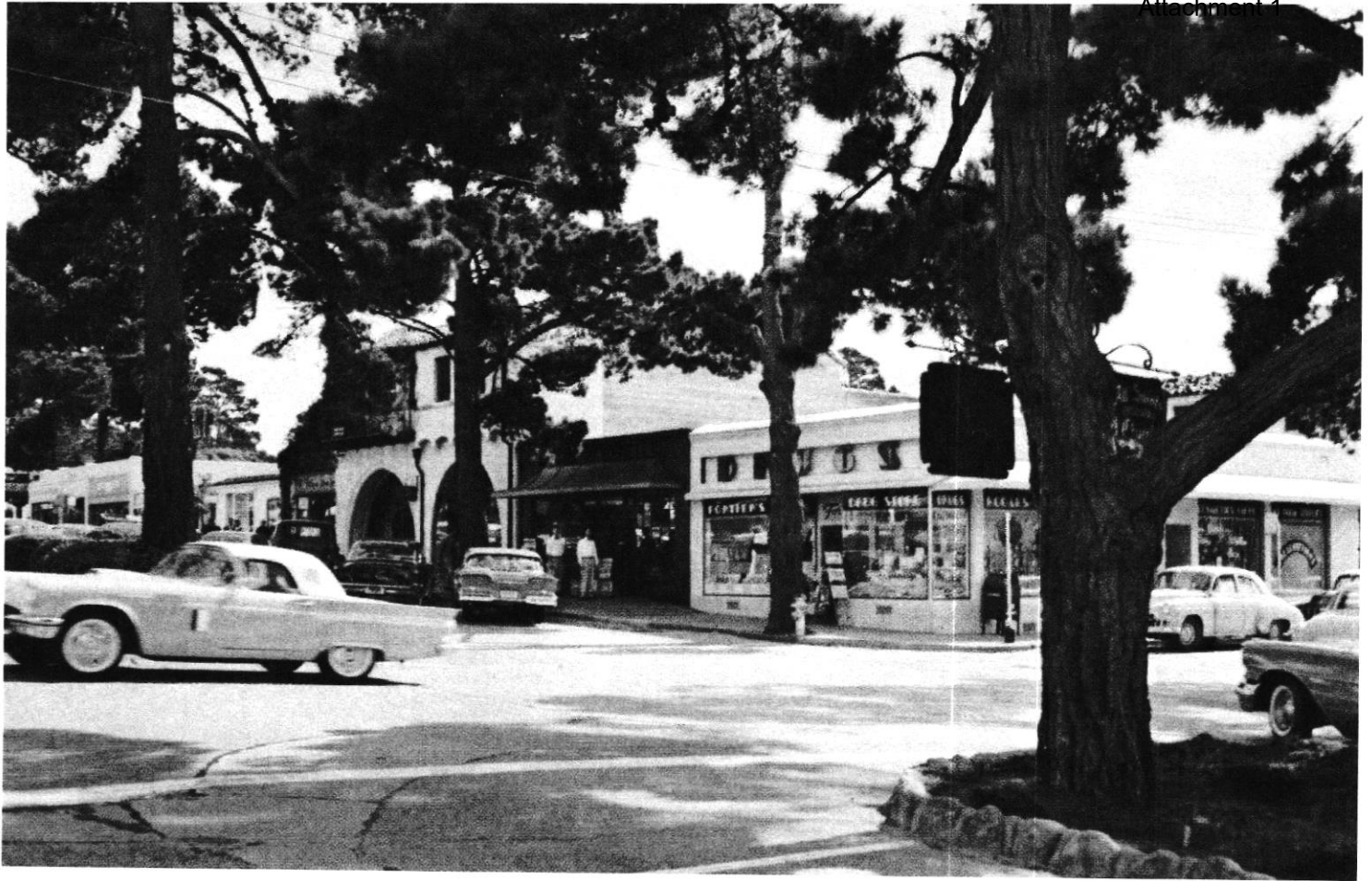
















Shots

YOUR HEALTH

California Trees Nailed As The Source Of Mystery Infections

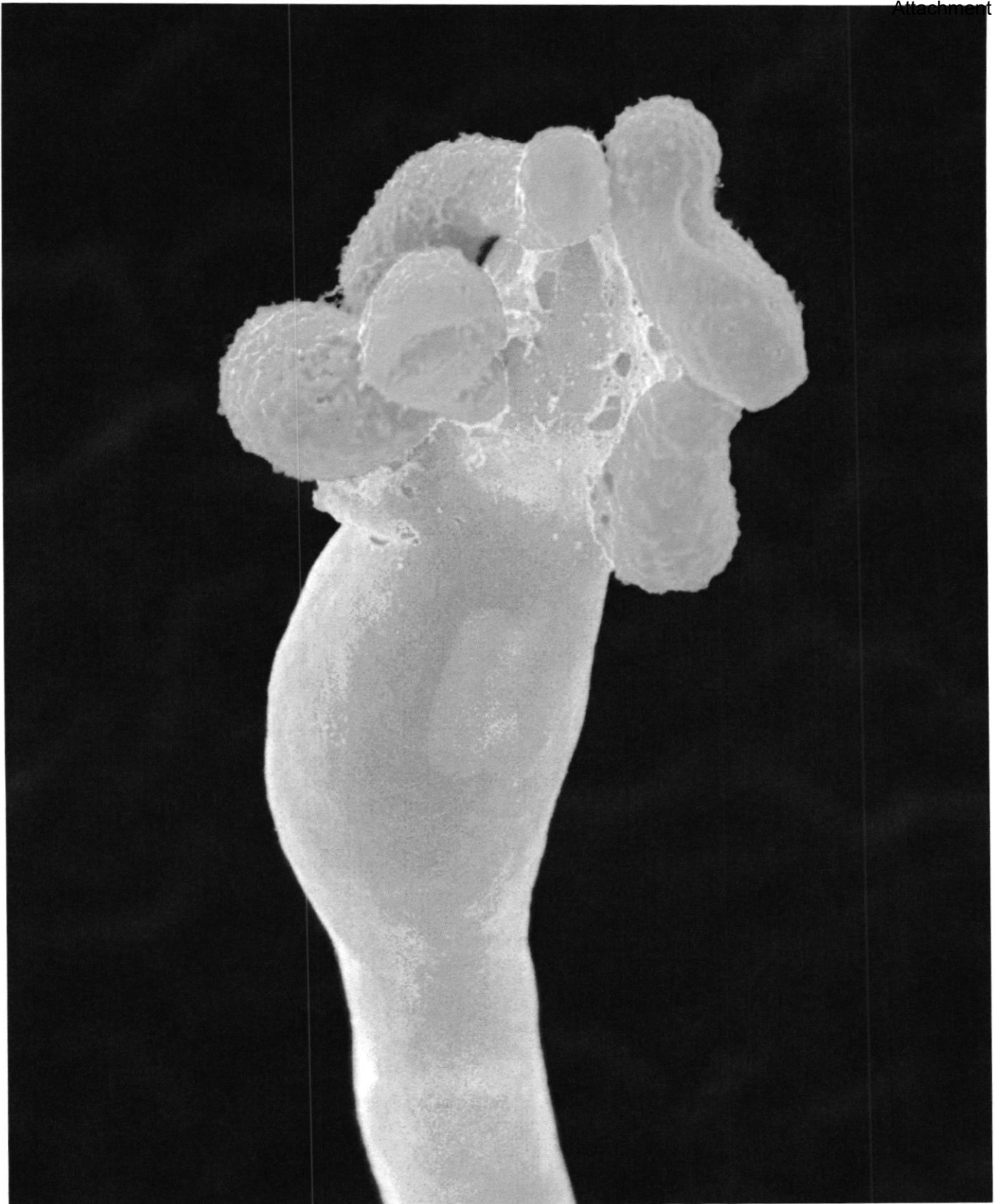
August 22, 2014 • 3:32 PM ET

By Nancy Shute



The Canary Island pine is one tree species that hosts a fungus that causes disease in humans.

Shamanic Shift Center/UC Davis/Wikimedia



A false-color electron microscope image of the fungus *Cryptococcus gattii*, which can cause fatal illnesses in humans. The yellow areas are spores.

Microbial Pathogenesis/Duke University

A fungus called *Cryptococcus gattii* can cause life-threatening infections, especially in

people with compromised immune systems. One-third of AIDS-related deaths are thought to be caused by the fungus.

But though people in Southern California have been getting sick from *C. gatti* for years, nobody knew how.

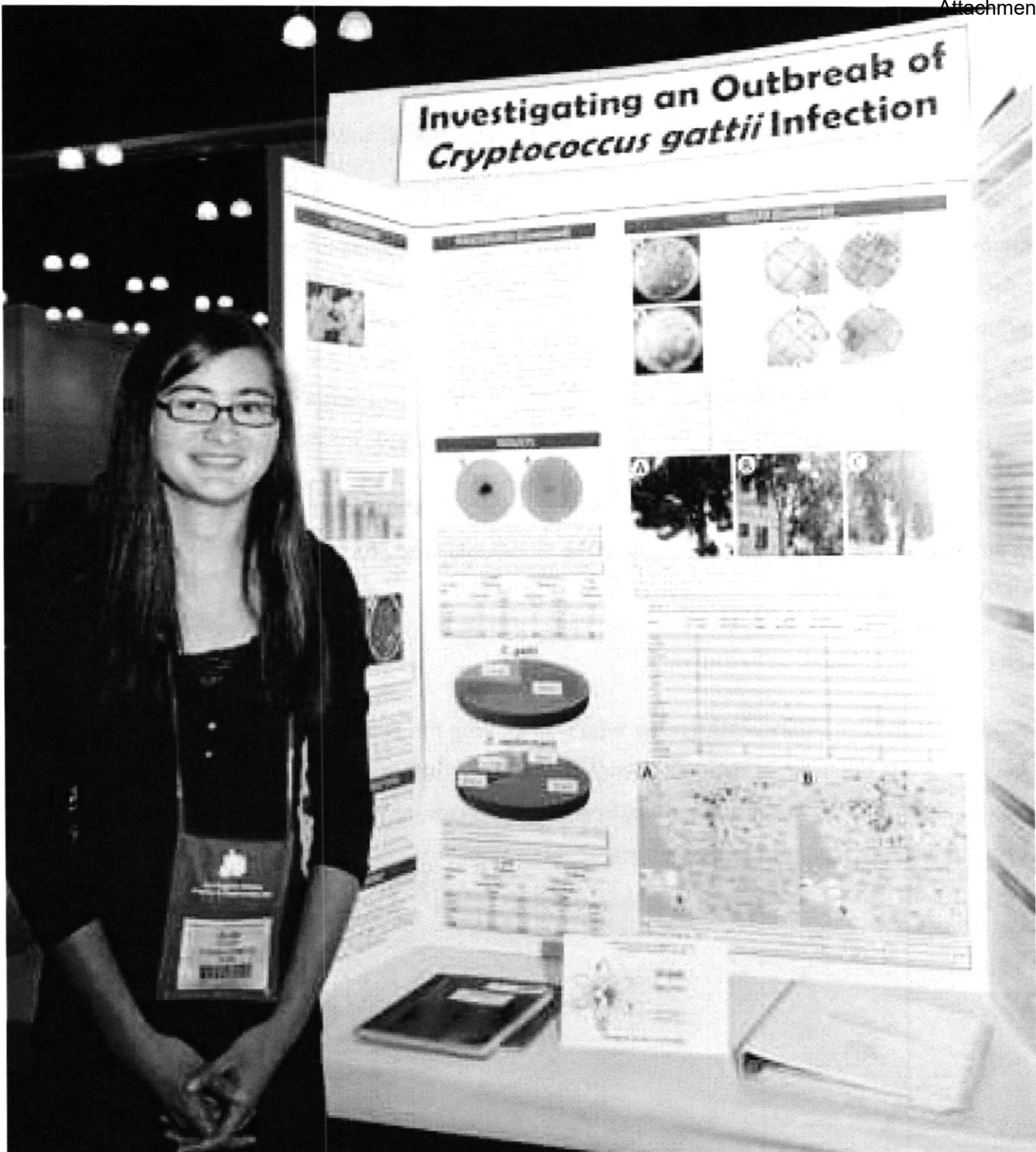
Eucalyptus trees were a prime suspect, since they harbor the fungus in Australia. But even though eucalyptus trees grow like crazy in Southern California, the fungus hasn't been found on eucalyptus there.

A different form of the fungus has been making people sick in the Pacific Northwest, where it grows on Douglas fir trees. But there are no Doug firs in Los Angeles.

"We had a good idea that the fungus was going to be associated with trees," says Deborah Springer, a postdoctoral fellow at Duke University who studies *C. gatti*. "We just didn't know what trees."

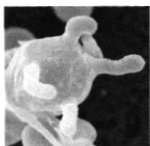
And she didn't have the time to find out.

But someone did: Elan Filler, a 7th grader who was looking for a science fair project. Her dad, Dr. Scott Filler, an infectious disease specialist at the University of California, Los Angeles, ran into Dr. Joseph Heitman, Springer's advisor, at a conference, and told him about Elan. Heitman told Springer.



Elan Filler at the LA County Science and Engineering Fair with her project on *Cryptococcus gattii*.

Anne Maben/Courtesy of LA County Science & Engineering Fair



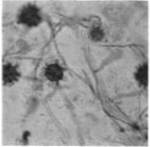
HEALTH

Fungal Disease Spreads Through Pacific Northwest

Elan Filler and Springer connected on email and figured out a plan. Soon Elan was

making her way around greater Los Angeles, swabbing tree trunks and growing out the fungus in Petri dishes. None of the eucalyptus trees in the first batch she gathered tested positive for *C. gattii*, so she expanded her tests to include more types of trees.

Springer analyzed the genetic fingerprints of fungi in the samples that Elan sent to North Carolina.



SHOTS - HEALTH NEWS

Dangerous Fungus Makes A Surprise Appearance In Montana

Bingo! *C. gattii* from three trees, Canary Island pine, New Zealand pohutukawa and American sweet gum, matched almost exactly with *C. gattii* from infected patients. And the tree samples matched not just those from recent patients but from people who were sick 10 to 12 years ago. Thus this strain of *C. gattii* has been causing health problems in California for at least that long.

The results were published Thursday in *PLOS Pathogens*.



SHOTS - HEALTH NEWS

Cases Of Mysterious Valley Fever Rise In American Southwest

People living or traveling in California should be aware of the risk of cryptococcosis from *C. gattii*, Springer tells Shots, especially if they have HIV/AIDS, cancer, or other illnesses that can suppress the immune system. "When you travel and you're exposed to these reservoirs, you have the potential to be vulnerable to these infections."

Early treatment helps reduce the risk of death or disability, according to the Centers for Disease Control and Prevention.

Elan Filler is named as an author on the study; not a bad credit for someone who just turned 16. "I was very lucky that she was interested in doing this and that she did a fantastic job," Springer says of her junior colleague.

Indeed. This spring Filler, now a high school junior, won the Los Angeles County science fair for another project on pathogenic fungi, and attended the big daddy of science fairs, the Intel International Science and Engineering Fair.

medical research infectious disease hiv/aids

More Stories From NPR



Dr. Deborah Rogers' recommendations to me in 2019 regarding idea of replacing Monterey pines with another pine species to populate Carmel's urbanized Monterey pine forest:

1. Most reasonable hierarchy of decision-making would be to select other individuals within the same, native, local, known species (Monterey pine) rather than jumping to an entirely new species (with its own risks, unknowns)
2. There is much genetic diversity within Monterey pine and there is considerable potential for selecting trees with more desirable characteristics (e.g., more disease resistant trees - Pebble Beach Company efforts and Greenspace efforts, etc.; straighter trees, different branch architecture -- as shown by work done in Australia and New Zealand)
3. Individual tree characteristics can be further 'trained' or modified by management by a qualified arborist
4. No tree (or plant) species are absolutely risk-free (from all disease, all dropping of leaf, pollen, seeds, or needles, etc.)
5. Where possible, there is a better tree-pedestrian relationship when more space is allowed between tree openings and sidewalk use (i.e., allow for more open ground to allow water to penetrate to roots, leaves or seeds to fall in this space rather than sidewalk, etc.)
6. Of course, it is better for the native vegetation in surrounding parks, open spaces, and forests if native plants are used for street trees -- especially to avoid extreme pollen contamination (e.g., hybridization of native and non-native pines)

Principles and Recommendations Concerning Conservation of the Amount, Structure, and Integrity of Genetic Diversity of native Monterey Pines at Carmel-by-the-Sea and Environs

Prepared: October 25, 2001

Introduction

Genetic diversity is important to the ability of Monterey pine to inhabit different environments and to its longterm survival as a species. Genetic diversity provides the potential for persistence of a species through various changes in the environment. For example, with changes in climate or introductions of new insects or diseases, there is more potential in a genetically diverse and healthy forest to accommodate and survive these influences, than in a genetically impoverished or stressed forest. The maintenance of genetic diversity is also a relatively inexpensive management tool, as genetically based traits are inherited from one generation to another, without requiring the constant input of resources to maintain them.

In Carmel and surrounding areas, Monterey pine grows in contrasting contexts including native forests, transportation corridors, planted greenbelt areas, and natural and planted residential settings. Each of these uses has implications for the genetic and ecological well-being of the native forests, in addition to the value of the specific use. For example, planted Monterey pines in urban environments will influence the genetic composition of the nearby native forests through pollen and seed movement. Depending on specific choices, planted trees can either complement or undermine the local adaptations and longterm viability of Monterey pine forests. Similarly, planted trees can either complement or detract from other processes and values of the native forests (e.g., wildlife habitat, soil composition, disease dynamics) depending on the specific decisions involved in planting projects. Because of the interconnections via genetic exchange, disease transfer, and ecological processes among the native Monterey pine forests and the various extended and introduced uses of Monterey pine, it is recommended that science-based information pertaining to the pines and other forest species and processes be appropriately considered and incorporated into decisions at the various scales (e.g., city, county, regional, state) and with the various constituencies (e.g., private, NGO, public) that influence Monterey pine forest health. Furthermore, it is recommended that any practice that involves selective removal of Monterey pine trees, or planting of trees, be carefully planned and reviewed in the context of the overall and longterm ecological and genetic consequences for Monterey pine forests.

Provided here are some principles and recommendations to assist in genetic conservation of Monterey pine. As there isn't much specific information on spatial structure of genetic diversity in the (former or current), Carmel-area forests or on distances of pollen travel within this region, the recommendations are mostly based on genetic principles and rules of thumb for genetic conservation.

General Genetic Principles

In general, it is best to maintain as much of the natural genetic diversity in Monterey pine as possible. Activities that can reduce genetic diversity include removing individual trees, harvesting/converting forested areas, planting clonal material, planting many seedlings from one parent tree or a narrow genetic base, etc.

The integrity or local adaptations of Monterey pine should be maintained. Activities that can compromise genetic integrity, over the long run, include planting trees from nonlocal or unknown sources.

The natural genetic diversity of Monterey pine may have spatial patterns. That is, the remaining (or former) trees in one geographic area (e.g., along the coast) may have some different types of genetic diversity or different adaptations than trees in other areas (e.g., further inland, higher elevation, different soil type, etc.). It is important, to the extent possible, to respect these patterns; maintaining the structure of genetic diversity.

Activities that tend to support the native levels and structure of genetic diversity in Monterey pine are the using seeds from local (native) trees in replanting programs, planting more seedlings than are desired at maturity, and allowing for natural selection to play a role in determining which trees survive, which remain healthy, and which reproduce.

Recommendations

1. Keep records on individual trees and forested areas that identifies, if possible, whether the trees are native or have been planted. For all current or future planting efforts, keep record of the genetic source of the seedlings (i.e., not just the nursery, but the geographic area from which the seeds were collected).
2. For any planting projects of Monterey pine (individual pines or reforesting areas):
 - a. Use seeds collected from trees in a similar ecological/geographic area (i.e., rather than seeds from a distant or different area, from a different region of Monterey pine (e.g., Cambria), or imported seeds (e.g., from New Zealand). Be sure to match the characteristics of the source tree's environment with the planting environment. That is, until/unless there is further genetic information available at that time to warrant lumping, I would take the approach of keeping the seedlings segregated by 'site type' and using only those site-matched seedlings for replanting events.
 - b. To the extent possible, allow natural screening by planting several seedlings and allowing for some to die or be removed later.
 - c. Plant seedlings rather than clonal material, thereby maintaining more genetic diversity, unless there is a well-supported reason to plant clonal material.
3. Maintain seedbanks, if possible, of local native Monterey pine. To develop these seedbanks, the following principles should be employed:
 - a. Avoid collecting from any non-native or planted trees (as the latter may not be local in origin).
 - b. Sample from a range of tree sizes, as a proxy for tree age (and thus getting different pollen mixes and natural selection pressures, etc.). One could also sample the same tree in different years to get some variation.
 - c. Sample from many native trees over the full natural range that they occur in the region. If possible, don't collect from immediate neighbors as they may be closely related and have similar genetic compositions.
 - d. Avoid sampling from trees that are isolated by long distances from other Monterey pines. These trees, because of their distance from others, may have high levels of inbreeding in their seeds.
 - e. Collect cones from several heights and different aspects of the tree. By collecting from different sites within the crown, you will again be increasing the chance that you're sampling from different pollen donors, different selection pressures (e.g., amount of heat due to differences in aspect) on the seeds (determining differential survival of seed, etc.), etc.

- f. Keep records on the location and site characteristics of each tree from which seed were collected.
- g. Maintain the identity (i.e., parent tree location/information) of the seed collected from each tree or area to allow proper matching for planting needs.
- h. In the absence of direct information on how genetic diversity is structured (or spatially arranged) in the Carmel area, use proxies such as: elevation, soil type, riparian or other habitat type, differences in associated vegetation, distance from the ocean, etc. That is, select trees from a range of these categories over the entire (Carmel) area.

4. If individual native trees, or forested areas, have to be removed (e.g., for safety or other reasons), collect seeds from these trees and deposit them in the seedbank prior to removal.

- 5. Avoid applying unnecessary filters in seed collecting, seedling development, or planting decisions. Rather, try to sample the native genetic diversity as broadly as possible and allow natural selection to play a role in determining which trees survive and reproduce in the long run. Strongly selecting for certain traits (e.g., fast growth, insect resistance) could have the inadvertent impact of removing some genetic diversity that could have been useful to Monterey pine in surviving future influences.

Related Issues

Education: There is a need to increase the genetic literacy among the general public as it pertains to the conservation and management of Monterey pine. There is lack of understanding of the long-term consequences of using a small genetic base (which is superficially appealing because of uniformity) for planting purposes. This lack of understanding may reduce the suite of options for conservation-related management. For example, one possible manifestation of genetic illiteracy could be public intolerance of diversity in planting stock and/or intolerance to accepting some survival risk (e.g., in the seedlings) by using an array of individuals rather than clones. Although it may be appealing to plant clonal Monterey pines that have some particular feature, doing so may—if planted in many copies over a broad area for a long period of time—contribute to lower genetic diversity in natural Monterey pine forests because of the lower genetic diversity in the pollen and seeds of these clonal trees. There is considerable evidence for inbreeding depression in Monterey pine. The public could assist in good genetic conservation strategies by using locally-adapted Monterey pine planting stock (rather than trees from a different geographic area or an unknown geographic source), by using seedlings rather than clonal material, and by planting a larger number of trees each with some survival risk rather than trying to install a few trees with perhaps lower individual survival risk but with less genetic diversity. This would allow more opportunity for natural selection, maintenance of genetic-environmental relationships, and maintenance of genetic diversity.

Pitch canker resistance: Introduced diseases stimulate debate and research concerning the most appropriate, if any, management response. Currently, the nature and genetic basis of resistance to pitch canker are not well understood. As a species, Monterey pine is one of the least resistant among the 23 pine species studied for resistance to pitch canker (in one study). Results of controlled studies may vary according to the source of genetic material for the pines, the type of fungal isolates used, the infection protocol, and how resistance is measured. One greenhouse study found little resistance to pitch canker among samples from the native mainland and Cedros populations of Monterey pine. In other studies, variability in susceptibility among individual trees of Monterey pine suggests there may be some genetic basis. The diversity within the fungus (measured in one system as vegetative compatibility groups, VCGs), coupled with evidence for recombination between VCGs of the fungus in the laboratory, suggest

that there is the potential for a dynamic relationship between host and pathogen. Furthermore, there is the possibility that different genotypes of Monterey pine may have different susceptibilities to infection by different strains of the pathogen, although there is no evidence of this to-date for pathogen strains resident in California. However, exotic strains (from México and Florida) have been found that are more virulent than resident strains, based on growth chamber inoculations. Such strains could compromise genetic resistance in some Monterey pine genotypes.

Numerous laboratory, nursery, and field trials are in progress and planned which should elucidate genetic relationships. Any breeding and delivery program aimed at providing disease-resistant trees for use within the genetic sphere of influence for native Monterey pine populations should be well-informed about the genetic basis of resistance for that disease, the inheritance of the desired trait, its interaction with the environment, and the overall impact of artificially selected genotypes on the genetic diversity and population viability of Monterey pine. Any such program should not unnecessarily screen out potentially valuable genetic diversity. Deployment of propagules from such programs should proceed only when and if their use is well reasoned and well informed. Natural regeneration and selection processes should be encouraged and accommodated as much as possible, and unnecessary artificial selection should be avoided. Given the long-lived nature of Monterey pine and the uncertainty of how any resistance may play out over the lifetime of an individual tree, the potential for complex interactions between the pines and new variants of an introduced pathogen, and the potential to inadvertently screen out valuable genetic diversity, a cautious and conservative approach to any genetic manipulation motivated by introduced biotic influences is indicated. A crucial factor is that disease resistance is almost always just one of many components of fitness, and any selection for resistance is likely to incur a cost in the selection differential for other fitness components. A large palette of genetic diversity, expressed in good levels of regeneration, will allow scope for strong natural selection to operate in a biotic crisis.

Deborah L. Rogers, Ph.D.
Conservation geneticist, Genetic Resources Conservation Program
Founding Director, Monterey Pine Forest Ecology Cooperative
University of California

**Dr. Deborah Rogers, Conservation Geneticist, Genetic Resources Conservation Program
 Founding Director, Monterey Pine Forest Ecology Cooperative, University of California, Davis
 Comments on Carmel General Plan/LUP, December 8, 2002**

Comments on the Importance of Using Science-Based Information in the Development of the Carmel Local Coastal Plan

1. The first stated goal of the California Coastal Act of 1976 is to “protect, maintain, and where feasible, enhance and restore the overall quality of the coastal zone environment and its natural and artificial resources.” Two meaningful measures of the quality of the coastal zone environment are the level of its biodiversity and the health of ecosystems. We do not have comprehensive information on the full extent of biodiversity on the Monterey Peninsula—which includes diversity from the genetic level to species to ecosystems. So we rely on general principles and studies that examine the patterns of biodiversity. Such studies and principles indicate a pattern of biological diversity that is based on the history of soil development on the peninsula and also follows a gradient inland from the coast inland. We are aware of two such studies in the scientific literature—one in 1976 (McBride and Stone) and one more recent (Cylinder 1995). The first study is restricted to the sand dunes and the second continues further inland. They both show a correlation between soil development and plant species composition. This is an expected feature of the peninsula because of the well-established ecological principles and because this has also been demonstrated further north along the coast in an ecological staircase that was recognized as having great ecological value and was designated as a state reserve (i.e., Jug Handle State Reserve). The principle authors of these studies are still in practice and available to discuss their results (Dr. Paul Cylinder, Jones & Stokes, Sacramento; Dr. Joseph McBride, University of California, Berkeley).
2. In addition to the patterns of biodiversity, we also need indicators of species degradation or ecosystem decline if we are to protect the coast’s natural resources as indicated in the California Coastal Act. Again, we do not have comprehensive monitoring programs in place to track changes. We do have the California Endangered Species Act but this only comes into effect when species are in extremely serious condition, perhaps after it is too late to effectively rescue them and then, only at great cost. Another tool that is more effective in identifying species in peril, but at a somewhat earlier stage when there is still an opportunity to reverse the trend with more feasible management practices such as those delineated in is the Rare Plant Program of the California Native Plant Society (CNPS). This program identifies California plant species that are rare or endangered based on objective criteria and science-based information. The program—now in effect for 30 years—has a reputation for scientific accuracy and integrity. It is managed by scientific staff, including botanists and other scientific professionals, and its staff are available for consultation (e.g., David Tibor, Rare Plant Botanist; Dr. Pam Muick, Director, CNPS). The information provided by the Rare Plant Program of CNPS is used by many state and federal agencies to inform their decisions, and in fact, operates under a Memorandum of Understanding with the California Department of Fish and Game. Consulting the CNPS inventory, we see that Monterey pine is listed as “1B”, meaning rare or endangered in California.

 Although this CNPS system may be the most useful one because it is local, there are other classification systems internationally that also serve to alert us to species that may be declining and need assistance. For example, specialists in the International Union of Conservation of Nature and Natural Resources (IUCN) maintain a red list of species. As one example, Monterey pine is classified in this list as ‘conservation dependent’, meaning that if conditions worsen or the current conservation activities cease, it would likely become a threatened species (according to their definitions) within five years (Hilton-Taylor 2000).
3. General principles, also, suggest that patterns of diversity are to be expected on the Peninsula. There is considerable diversity in the general environment on the Monterey peninsula, including diversity in underlying soil types and history of soil development, topography, distance from the

ocean, microclimate, etc. These and other environmental patterns are often correlated with changes in species and even changes in genetic diversity within species. For example, while the spread of pollen and seeds would tend to move genes around, effectively 'homogenizing' the genetic diversity of a species, other natural forces can counteract this trend. This movement of pollen and seeds in plant species is just ONE of several natural forces that shape the genetic diversity of species. Others include natural selection and genetic drift—which generally have OPPOSITE effects from that of the pollen and seed movement. So, for example, even though the pollen and seed from some Peninsula tree species may move quite some distance from their source trees, there could still be a significant pattern of genetic differences ~~one~~ from one site on the Peninsula to another—the result of local adaptation if the environmental differences are strong enough. This feature—of tree species with pollen that can move long distances yet showing genetic differences within fairly short distances—has been demonstrated for numerous species including white fir (reference), bishop pine (reference), Monterey cypress (reference), and coast redwood (reference). These patterns of species diversity and genetic diversity are important guidelines for conservation decisions—pointing out areas of high biodiversity and unique entities.

4. To best serve the goals of the California Coastal Act, decisions should be science-based. This means, where possible, using information that is part of the scientific literature. This is information that has been provided by scientists, developed following the scientific method, and peer-reviewed for legitimacy prior to publication in a scientific journal. Information that has gone through this process has rarely been discredited—but rather, built upon. Political commentaries are not a valid substitute or response to research and scientific publication.
5. Some of the natural resources of the Monterey Peninsula have international value and significance. This is true for Monterey pine—which grows in plantation culture on over **10 million acres** internationally (Lavery and Mead 1998, Rogers 2002). The 'birthplace' of these highly valuable plantations is, for the most part, the Monterey pines of the Monterey Peninsula and Año Nuevo area. Those associated with this plantation industry continue to value the native forests of Monterey pine in California as being a place where the genetic diversity of the species is conserved in a natural context and can continue to be shaped by natural forces over time, allowing it to adapt to changing environmental conditions. Regardless of the Monterey pines, they currently have in their country, they place great value in the native forests. At a workshop in Australia in 1998 among foresters and scientists to discuss the management of their own Monterey pine genetic resources, they raised the question "as to whether appropriate authorities in the USA would consider conservation *in situ* [i.e., of the native forests in California] a responsibility." (Spencer 1998).
6. Finally, it is critical in serving the goals of the California Coastal Act to use a conservative standard where absence of information suggests caution in destroying or changing the natural landscape or natural resources. Given the general principle that species diversity will mimic environmental diversity, there is good overall reason to believe that the rich biological diversity of the Monterey peninsula can only be effectively conserved if its pattern is recognized. This means using the best available scientific information and reasonable proxies to determine this pattern. Once landscapes have been destroyed or converted to other uses, the opportunity to study this pattern is lost. Logic suggests and integrity demands that the classroom not be destroyed unless there is overwhelming scientific evidence that it contains nothing that is biologically unique or valuable.

**From the General Plan/Coastal Land Use Plan
Coastal Resource Management Element
Carmel-by-the-Sea
Adopted June 3, 2003**

Coastal Resource Management Background

Environmental Setting (Pages 5-1 to 5-2)

The City of Carmel-by-the-Sea is located in a region of California's central coast that is known for its diversity of plants and plant communities. The region surrounding the city supports several different climatic, topographic, and soil conditions, resulting in a wide variety of habitats. This diversity of conditions supports many native plants and wildlife species. As an example of this diversity, 146 plant species reach their most southern and 156 plant species reach their most northern distributional limits in Monterey County, and at least 34 plant species are found only in Monterey County. (LUP)

Residential development occurs on almost all land in the city, except for seven parks, several mini-parks, a compact centralized commercial area and some privately owned parcels in Pescadero Canyon. Approximately 68 acres of public open space and approximately 10 acres of privately owned undeveloped land are under the City's jurisdiction. Most of the parks in the City are developed to support passive and active recreational activities. Of the City's public lands, Carmel Beach, Mission Trail Nature Preserve, and the proposed Rio Park (outside City boundaries), support the most intact and highest quality natural resources. The lower portion of Forest Hill Park also supports natural habitat but has been substantially altered by past activities and continues to be maintained for public recreational uses. The privately owned properties in Pescadero Canyon are part of a larger watershed for Pescadero Creek that extends into Del Monte Forest and supports Monterey Pine forest. (LUP)

The landform of the Monterey Peninsula is an ascending staircase or series of six marine terraces of increasing geologic age, rising inland from the seashore. These marine terraces reflect the changes in sea level and the general uplift of underlying bedrock along the central coast in roughly the last half-million years or more. The city is built on the first five of the six marine terraces. The marine sediment of the first four terraces is covered by sand dunes, which also are of increasing age with ascending elevation and distance from the ocean. The greater degree of soil development in the older dunes, such as organic matter accumulation, and clay and iron weathering and translocation to the subsoil, reflect the age of the dunes. (LUP)

Drainages have cut through the dunes and marine terraces of Pescadero Canyon and Mission Trail Nature Preserve to expose the underlying bedrock. Shale from marine deposits is exposed in Pescadero Canyon, and granitic bedrock is exposed in the lower slopes and stream channel in Mission Trail Nature Preserve. Uplifted alluvial terraces formed by the Carmel River are found along the southern boundary of the City. (LUP)...

Urbanized Forest, Parks and Open Spaces (Pages 5-5 to 5-7)

Since the early 1900s Carmel's forest has been carefully nurtured and enhanced. Monterey pines, Coast Live oaks and other trees were often planted when lots were first sold or developed in an effort to extend the forest cover and range. Over time,

the resident's ongoing interest in the forest and natural environment resulted in the adoption of ordinances, resolutions, policies and a Master Plan relating to trees. Taken together, these documents have successfully guided the City's tree program over the years. However, since the measures were adopted at different times to address separate concerns, they lacked a sense of overall cohesion. In order to meld these documents together, the first Forest Management Plan for the City of Carmel-by-the-Sea was adopted in 1971. In early 2001, the City updated the Forest Management Plan and incorporated it into the Local Coastal Program. (LUP)

Carmel's forest is an "urbanized" Monterey pine forest rather than an "urban" forest. "Urban" forests are planted after development and typically consist of single species, regularly spaced trees planted in a row between the sidewalk and the street. An "urbanized" forest exists before development and is characterized by its diversity in species, age and randomness in tree location resulting in meandering streets of varying width. (LUP)

To many, the "urbanized" forest is the character-defining feature that makes Carmel-by-the-Sea so unique. The forest, along with the beach and ocean, is the City's largest and most visible natural resource. Homes are nestled into the native Monterey pine and Coast Live oak on a grid of streets that yields to trees more than to engineering expediency. Upper canopy trees impart a distinctive ambiance and identity to the City. Lower canopy trees soften and provide screening of development. Together the mix of upper and lower canopy trees establishes a powerful sense of place. (LUP)

In a city with few formal street improvements or drainage systems, the "urbanized" forest also serves to convey runoff from the watershed to the beach and Carmel Bay through a variety of natural drainages, swales, and creeks. The forest performs the important functions of absorbing water from the soil, reducing runoff, filtering pollutants, and minimizing erosion. As such, the "urbanized" forest reduces the amount of polluted runoff and in large part, helps the City comply with the National Pollutant Discharge Elimination System (NPDES) Phase II Storm Water permit regulations. (LUP)

In recent years, the Monterey Pine forest has suffered from a severe outbreak of pitch canker disease spreading throughout much of the City. The initial findings of a survey of the east side of town (east of Junipero Avenue) revealed that 50% of Carmel's pines were infected with pitch canker and 2% of the standing trees were dead. The City has responded in the past by removing dead and dying trees and disposing of the infected materials. During the years of 1999 to 2001, the Forestry Department removed roughly 180 pitch canker-infected pines. Roughly 70% of those trees (125) were young trees 12" or less in diameter. Up to 70% of the younger trees east of Junipero Avenue now appear to be infected. Older trees are less susceptible to infection and only 30% of these are infected. (LUP)

The City's Forest, Parks and Beach Department has an ongoing program of replacing dead and diseased pines on public property. The City also has been working on developing a disease-resistant pine and has been successful in planting 15 pines that have so far proved to be completely resistant to the disease. However, the loss of Monterey Pines due to pine pitch canker and other causes on private property continues to be an issue. (LUP)

The City of Carmel maintains an ongoing survey of trees by species and size, started in 1971. Since that time, the numbers of Monterey pines on public property declined roughly 2%, while the decline on private property has reached 10%. It is unclear whether pine pitch canker is entirely responsible for the decline on private property; there are many other factors including disease, development impacts, and old age. Though many large mature trees can probably survive pitch canker, given the age of the City's Monterey pine forest, coupled with the susceptibility of young trees to the disease, the overall health of the City's pine forest may be in jeopardy. As the number of Monterey Pines declined since 1971, the number of Coast Live Oaks increased 17% on private property and 40% on public property. The increase in oaks, dramatic as it may be, cannot offset the loss of Monterey pines, which impart a very different sense of place for the village. (LUP)

Steps must be taken to minimize the threat to existing healthy Monterey pines and new seedlings to ensure continued diversity in species, age, and location. This document includes policies to respond to this issue. Disturbance and/or removal of mature and disease resistant trees during construction or other development activities should be avoided. Permit conditions requiring replacement trees for those removed from private land should be monitored and enforced to ensure that the trees are healthy and reach maturity. Replacements should also be in like kind. It is essential that these and other policy directives be carried out to ensure that the Monterey pine forest landscape is protected so that the forested character of this unique coastal village is preserved. (LUP)

Goals, Objectives and Policies

Urban Forests, Parks and Open Spaces (Pages 5-23 to 5-30)

G5-3 Protect, conserve and enhance the unique natural beauty and irreplaceable natural resources of Carmel and its Sphere of Influence, including its biological resources, water resources, and scenic routes and corridors. (LUP)

O5-8 Protect, conserve and enhance designated open space, the urban Monterey pine forest, beach and shoreline, the sensitive habitats and the hillside areas, and acquire additional open space as deemed appropriate. (LUP)

P5-43 Maintain and preserve the shoreline in a manner that will ensure its availability for public use and enjoyment and preserve the natural condition in conformance with the adopted Carmel Shoreline Management Plan. (LUP)

P5-44 Maintain a Park Overlay District to ensure that development of private property adjacent to parks and open spaces is compatible with their continued enjoyment. (LUP)

P5-45 Maintain a Beach Overlay District for the purpose of providing a method of review and control for private property that is adjacent to public beach lands. Ensure that the development of private property is compatible with public enjoyment of the beach as a coastal resource. (LUP)

P5-46 Preserve and protect areas within the City's jurisdiction, which due to their outstanding aesthetic quality, historical value, wildlife habitats or scenic viewsheds, should be maintained in permanent open space to enhance the quality of life. Such acquired areas would be left in a natural state or restored for aesthetic and/or

wildlife purposes. (LUP)

P5-47 Continue Carmel's tree preservation program and encourage the use of indigenous or native plants. (LUP)

P5-48 New development shall protect areas of unique scenic quality (e.g. Scenic Road, Junipero Ave, Torres & 3rd, etc.). Development in these areas shall be sited to protect public views to and along the coast, minimize impacts via landform alteration, and be visually compatible with the character of surrounding areas. (LUP)

G5-4 Preserve and enhance the City's legacy of an urbanized forest of predominantly Monterey pine, coast live oak and Monterey Cypress. (LUP)

O5-9 Maintain a Forest and Beach Commission and a Forest, Parks and Beach Department that have specific responsibility and jurisdiction for the health and well-being of the forest, parks and beach. (LUP)

P5-49 Review periodically all existing tree-related ordinances and policies in the Forest Management Plan/LCP. Propose changes to bring them into alignment with new advances in urbanized forest management practice. (LUP)

P5-50 Conduct the forest program in accordance with a coherent body of laws, goals, policies and guidelines. (LUP)

P5-51 Coordinate all functions of the urban forest program through the City Forester. (LUP)

P5-52 Commit resources necessary to support the forest, parks and beach programs. (LUP)

O5-10 Maintain a Citywide map and database of trees and landscaped areas to support tree planting and maintenance programs. (LUP)

P5-53 Complete a Citywide survey and database update every four years. Compile the data by size of tree and species in an electronic format. Also survey replacement trees required by permit conditions of approval. Report survey information and the status of replacement trees to the Forest and Beach Commission and Planning Commission at the conclusion of each yearly survey. Continue to monitor replacement trees for at least one survey cycle (i.e., 4 years). (LUP)

P5-54 Require more open space on sites with significant forest resources based on site conditions as warranted to preserve the integrity of the urbanized forest. (LUP)

O5-11 Maintain, restore and enhance the upper and lower tree canopy of Carmel's urbanized forest. (LUP)

P5-55 Implement adopted tree density policies for private and public property as appropriate to each site taking into consideration neighborhood characteristics and site constraints. (LUP)

P5-56 Establish and implement tree canopy policies for the commercial district. (LUP)

P5-57 Maintain a list of tree species that could qualify as indigenous upper and lower canopy trees, for the purposes of meeting tree density and replacement policies. (LUP)

P5-58 Maintain, restore and enhance a predominantly indigenous forest of native Monterey pines and coast live oaks. (LUP)

P5-59 Avoid encroachment within the root protection zone of significant trees. Removal of significant live Monterey pine trees to facilitate residential development is prohibited unless necessary to provide a viable economic use or protect public health and safety. (LUP)

P5-60 Review all projects involving an increase in lot coverage or tree removal and apply the adopted tree density policy as appropriate to each neighborhood and site conditions. Preserve upper and lower canopy trees classified as significant when planning and implementing residential and commercial development. (LUP)

P5-61 Promote natural regeneration of the forest and retention of seedlings by maintaining natural ground surfaces. (LUP)

P5-62 Use tree species and sizes well adapted for each planting site. (LUP)

P5-63 Manage the tree-planting program to achieve an uneven-aged, healthy forest with particular emphasis on native Monterey pines and coast live oaks. (LUP)

P5-64 New development shall be sited and designed to avoid or minimize significant adverse effects to the forest. Avoid projects that significantly increase building footprint to the detriment of trees. No grading, compaction of soils, construction of building walls or placement of impermeable surfaces within six feet of trees classified as significant shall be permitted. (LUP)

O5-12 Implement policies, standards and procedures to regulate removal, pruning, and replacement of trees on private property. (LUP)

P5-65 Permit the City Forester to act on requests for the removal and pruning of all trees growing on public and private property. (LUP)

P5-66 Report sites that are non-conforming with standards for permeable surface lot coverage when applications for tree removal or pruning permits are filed. (LUP)

P5-67 Permit the City Forester to apply special procedures for tree removal and pruning during emergencies. (LUP)

P5-68 Record and monitor replacement trees to ensure their establishment and growth to maturity. (LUP)

P5-69 Require ample and appropriate landscaping and tree plantings on all sites. Determine what is appropriate for each site by consulting the recommended tree density as appropriate to each neighborhood. Special emphasis must be paid to construction sites. Required replacement trees shall be of substantial size, caliper and height to produce an immediate visual impact and to reduce the incidence of unauthorized removal. (LUP)

P5-70 Require a documented site assessment, or meeting between a planner, City Forester, and the property owner/developer, on each proposed construction site to discuss tree preservation and planting. Establish tree protection zones and suitable locations for development through this process. This shall be done before plans have been drawn. (LUP)

P5-71 Evaluate, protect and preserve all trees (and their root zones) on sites prior to, during, and after construction. Ensure that all building sites abide by appropriate tree protection and preservation standards and guidelines provided in the Forest Management Plan. (LUP)

O5-13 Perform all tree work and landscaping within the City in accordance with City codes and policies and uniform planting practices that reflect the best current knowledge of tree and plant care. (LUP)

P5-72 Maintain close cooperation among all public agencies, tree services, arborists, landscape architects, gardeners and utility companies affecting the urban forest. (LUP)

P5-73 Require that all City departments, utility companies, tree service companies, arborists, landscapers and gardeners adhere to the adopted Tree Maintenance Standards policies and guidelines. (LUP)

P5-74 Provide a comprehensive training program for City staff and encourage employees to become Certified Arborists or Certified Tree Workers under the standards of the International Society of Arboriculture. (LUP)

P5-75 Negotiate with the Public Utilities Commission and utility companies to adopt minimal line clearance standards to give special attention to Carmel's urbanized forest. (LUP)

D5-14 Maintain a healthy forest

P5-76 Work in concert with other area foresters and arborists, the Monterey Pine Forest Ecology Cooperative, the Pitch Canker Task Force, Oak Mortality Task Force and university researchers to address acute concerns to the health of the forest. (LUP)

P5-77 Monitor tree pest and disease problems and take appropriate measures to minimize their impact. (LUP)

P5-78 Foster healthy and disease resistant trees and avoid widespread application of pesticides. (LUP)

P5-79 Investigate ways to discourage large trucks from using streets with low tree limbs. (LUP)

P5-80 Plant native Monterey pine seedlings of different genotypes to maximize resistance to diseases and make these seedlings available to the public. (LUP)

P5-81 Minimize risk to trees by regulating the use of heavy equipment. (LUP)

P5-82 Properly dispose of diseased trees and recycle tree waste. (LUP)

P5-83 Avoid disturbance and fragmentation of large intact stands of Monterey pine. (LUP)

P5-84 Minimize the spread of pitch canker through appropriate methods (sterilize equipment, appropriate disposal of cuttings, etc.). (LUP)

P5-85 Conduct most City pruning activities on Monterey Pine and other conifers during winter months when insect populations are less active and when bird, raptor and mammal populations are not nesting. (LUP)

D5-15 Educate and involve the public in tree issues. (LUP)

P5-86 Undertake an active program of community outreach and education. (LUP)

P5-87 Publish timely tree care articles in local news media. (LUP)

P5-88 Encourage monetary and other contributions in support of the urbanized forest program. (LUP)

P5-89 Provide the City Council, Planning Commission and Forest and Beach Commission with information on an annual basis from the ongoing tree survey regarding projected changes in the composition of the forest and recommendations for policy amendments. (LUP)

P5-90 Involve citizen groups in forestry programs so that forest-related subjects are seen as community issues that require broad based involvement and support. (LUP)

G5-5 Maintain and enhance the informality of streetscapes. (LUP)

D5-16 Remove or reduce unnecessary or excessive hardscape and other nonconforming encroachments on City parklands and within street right-of-way to provide for and promote planting of trees and native vegetation. (LUP)

P5-91 Require at the issuance of a building permit, the abatement or retroactive approval of any nonconforming encroachments in the public rights-of-way. (LUP)

P5-92 Look for opportunities to reduce or eliminate hardscape areas Citywide on public and private lands. Identify hardscape in the public rights-of-way and on-site that does not meet current policies or codes during preliminary site assessments and/or design review for all projects in the R-1 District. Require that project landscaping plans include the public rights-of-way. (LUP)

P5-93 Continue the practice of painting only the vertical portion of the curb on the west side of Scenic Road for traffic control. (LUP)

O5-17 Use mini-parks and islands for planting trees, with an emphasis on native Monterey Pines, oaks, and other native vegetation. (LUP)

P5-94 Identify opportunities for new trees, removal of invasive plants and landscaping to enhance streetscapes during planning for street reconstruction projects. (LUP)

P5-95 Recognize the City's narrow street paving, roadside vegetation and overarching canopy as important elements contributing to the streetscape, pedestrian circulation, traffic calming, community aesthetics and environmental enhancement. Identify characterdefining features of roadways and retain and enhance these features when planning and implementing street improvements, repairs and reconstructions. (LUP)

O5-18 Incorporate adequate landscaping and trees of the urbanized forest in all public construction projects. (LUP)

P5-96 The City staff member responsible for any public project shall involve the Forest, Parks and Beach Department through the planning and implementation stages of the project. (LUP)

P5-97 Include funding for the design and installation of landscaping as part of each public project. (LUP)

G5-6 Preserve and acquire open space and parks. (LUP)

O5-19 Maximize the amount of open space in the City and sphere of influence by establishing development fees and/or other methods to fund open space acquisition. (LUP)

P5-98 Resist the transfer of open space to other uses. (LUP)

P5-99 Encourage rezoning to open space. (LUP)

P5-100 Actively pursue the preservation of existing open space within the City's sphere of influence. (LUP)

O5-20 Restore and maintain open space to its natural state. (LUP)

P5-101 Establish and implement a procedure for removal of invasive vegetation. (LUP)

P5-102 Minimize removal of native vegetation. (LUP)

P5-103 Identify and protect environmentally sensitive habitat areas against any significant disruption of habitat values. Only uses dependant upon those resources shall be allowed. For private lots of record within ESHA, establish a transfer of development rights program using credits of water, floor area, density or some other development parameter to relocate development to less sensitive areas. (LUP)

P5-104 Preserve and protect wetlands. (LUP)

To be added between slides 8 and 9 in Attachment 3 in the Ocean Avenue Medians agenda item (Item 9):

CA AB 1573 Impact

- California passed AB1573 on May 31, 2023 to help statewide goals for biodiversity, water usage, and urban greening.
- Requires at least 25% native species for public and commercial landscaping by 2026. This percentage increases over several steps up to 75% in 2035.
- **Why we needed this bill?**
Urban areas don't have many places left to increase biodiversity. A recent study from UC Davis, determined that a population of chickadees needs 70% biomass of native plants to sustain a population. Further, most birds eat insects for 1/3 of their diet. Those insects have very specific native plants to survive. Without those plants to attract those insects, there is none to support a healthy population of birds and we lose species.
- Biodiversity is in peril, and we all depend on it for survival.