RESPONSE TO COMMENTS

This Response to Comments document contains agency comments received during the public review period of the Lots 4-12 Oddstad Way project (proposed project) Initial Study/Mitigated Negative Declaration (IS/MND).

Background

The City of Pacifica Planning Department, as lead agency, released the IS/MND for public review beginning on November 5, 2018 and ending on December 5, 2018, pursuant to California Environmental Quality Act (CEQA) Guidelines Section 15105. The IS/MND and supporting documents were made available at the public counter of the City of Pacifica Planning Department located at 1800 Francisco Boulevard, Pacifica, California 94044, and also online at the City's website at http://www.cityofpacifica.org. According to CEQA Guidelines Sections 15073 and 15074, the lead agency must consider the comments received during consultation and review periods together with the negative declaration. However, unlike with an Environmental Impact Report, comments received on a negative declaration are not required to be attached to the negative declaration, nor must the lead agency make specific written responses to public agencies. Nonetheless, the City has chosen to provide responses to the comments received during the public review process for the IS/MND.

List of Commenters

The City of Pacifica received seven comment letters during the open comment period on the IS/MND for the proposed project:

Letter 1 ..... Susan Miller, Resident
Letter 2 ..... Gillian Briley Resident
Letter 3 ..... Gayle Totton, Native American Heritage Commission
Letter 4 ..... Hal Bohner, Resident
Letter 5 ..... T Kevin Casey, Resident
Letter 6 ..... Joanne Wilson, Resident
Letter 7 ..... Ron Maykel, Resident

Response to Comments

The Response to Comments below includes responses to the comment letters submitted regarding the proposed project. The letters are numbered and bracketed with assigned comment numbers. The bracketed comment letters are followed by numbered responses corresponding to each bracketed comment. Where revisions to the IS/MND text were made, new text is double underlined and deleted text is ~~struck through~~.

All such revisions to the IS/ND are relatively minor, and do not affect the adequacy of the conclusions presented therein. CEQA Guidelines Section 15073.5 states the following regarding recirculation requirements for negative declarations:

> (c) Recirculation is not required under the following circumstances:
>
> (1) Mitigation measures are replaced with equal or more effective measures pursuant to Section 15074.1.
>
> (2) New project revisions are added in response to written or verbal comments on the project's effects identified in the proposed negative declaration which are not new avoidable significant effects.
>
> (3) Measures or conditions of project approval are added after circulation of the negative declaration which are not required by CEQA, which do not create new significant environmental effects and are not necessary to mitigate an avoidable significant effect.
>
> (4) New information is added to the negative declaration which merely clarifies, amplifies, or makes insignificant modifications to the negative declaration.

Based on the above, pursuant to CEQA Guidelines Section 15073.5, recirculation of the IS/MND is not warranted.

Appendices

Appendix 1: Construction Noise Control
Appendix 2: Supplemental Traffic Impact Analysis

Letter 1

From: Susan Miller [mailto:millersusan50@comcast.net]
Sent: Thursday, November 15, 2018 10:10 PM
To: Wehrmeister, Tina
Cc: Susan Miller
Subject: Email via City Web Site

114 Bay View Rd

Pacifica, Ca

650 465 5528

November 14, 2018

Dear Tina Wehrmeister,

1-1 I am concerned about the planned house on Oddstad Way in Rockaway Beach. My concerns are regarding the lack of a general plan for our small valley. As you know that roads in Rockaway are in very poor shape, and we often have drainage difficulties in heavy rain years as the roadside drainage is very poor. We have also had mudslides in the area.

The planned housing is in a sensitive creek bed area and housing will impact the wildlife corridor and undermine the creek structure by removing many of the stabilizing trees and shrubs which could also cause unstable hillside.

1-2 In addition, during this particular time of high fire danger housing in the very thick brush area seems ill advised.

It seems a moratorium on building in this area needs to happen until further planning is complete.

Thank you for considering my concerns,

Susan A Miller RN

"What I'm after isn't flexible bodies, but flexible minds and to restore each person to their human dignity." Moshe Feldenkrais

LETTER 1: SUSAN MILLER, NOVEMBER 15, 2018

Response to Comment 1-1

Buildout of the City of Pacifica, including the Rockaway Beach neighborhood, has been anticipated per the City's 1980 General Plan and analyzed in the associated EIR.

Issues related to drainage are discussed in Section IX, Hydrology and Water Quality, of the IS/MND. As noted therein, because the proposed project would comply with applicable C.3 standards, the proposed project would not substantially alter the existing drainage pattern of the site or area in a manner which would result in flooding on- or off-site, create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems, or provide substantial additional sources of polluted runoff. With implementation of Mitigation Measure IX-1, impacts were determined to be less than significant.

As noted on page 48 of the IS/MND, the proposed project would serve as an extension of the existing residential neighborhood, and would not substantially inhibit the movement of wildlife. The undeveloped areas to the west and south of the project site would continue to allow for movement of wildlife species, and would not be fragmented or degraded as a result of the project. Thus, impacts related to wildlife corridors were determined to be less than significant. Furthermore, as noted on page 55 of the IS/MND, with implementation of Mitigation Measure VI-1, impacts related to landslides would be less than significant. Mitigation Measure VI-1 requires that all improvement and building plans are reviewed and approved by the City of Pacifica Building Division prior to issuance of grading and building permits to ensure that all geotechnical recommendations specified in the Geotechnical Investigation prepared for the proposed project, including the proposed debris walls, are properly incorporated and utilized in the project design.

Response to Comment 1-2

Issues related to wildfire hazards are discussed on pages 64 and 65 of the IS/MND. As noted therein, the IS/MND includes Mitigation Measure VIII-2, which requires that the proposed buildings comply with all applicable regulations and requirements within Chapter 7A, Materials and Construction Methods for Exterior Wildfire Exposure, of the California Building Code. In addition, Mitigation Measure VIII-3 requires that the project applicant and any/all subsequent owners and residents shall maintain 100 feet of 'defensible space' around all proposed structures, consistent with the requirements of the North County Fire Authority (NCFA). With implementation of Mitigation Measures VIII-2 and VIII-3, impacts related to exposure of people or structures to the risk of loss, injury, or death involving wildland fires were determined to be less than significant. Furthermore, the proposed Oddstad Way roadway extension, which would provide primary access to the project site, would be 20 feet or greater in width, in compliance with the roadway access standards established in the 2019 California Fire Code. The project would also include a California Fire Code compliant fire apparatus turnaround. Thus, emergency vehicles, including fire trucks, would be provided unimpeded access to the proposed residence.

Letter 2

From: Gillian Briley [mailto:gbriley63@gmail.com]
Sent: Friday, November 16, 2018 1:00 PM
To: Wehrmeister, Tina <wehrmeistert@ci.pacifica.ca.us>
Subject: Oddstad Way Development

Dear Ms. Wehrmeister,

2-1 As a resident of Rockaway Beach for the past 18 years, I am quite familiar with our neighborhood. With our narrow streets and surrounding brush, we are all keenly aware of the potential risks in the event of the need for a quick, safe, orderly exit from the neighborhood. These fears have only escalated with the recent events across our country. If we are to continue to develop this small valley, I feel very strongly that we must have a comprehensive discussion (moratorium) about how we can address the safety concerns of our current residents, before we give additional access to the undeveloped areas surrounding us.

I thank you for your consideration of this matter.

Sincerely,

Gillian Briley

106 Bay View Rd.

(650) 355-0897

LETTER 2: GILLIAN BRILEY, NOVEMBER 16, 2018

Response to Comment 2-1

Issues related to emergency access are discussed on pages 95 through 97 of the IS/MND. As noted therein, circulation and access improvements associated with the proposed project would include extension of Oddstad Way to the project frontage. The extended roadway would be at least 20 feet wide, consistent with applicable 2019 California Fire Code standards, and would include an attached three-foot-wide sidewalk on the east side of the road. At the project frontage, the roadway would terminate in an inverted hammerhead, which would allow for turnaround of fire trucks and other emergency vehicles. All roadway improvements would be designed consistent with existing City standards and guidelines. Thus, sufficient emergency access would be provided for both the proposed project and the Westerly Lots.

In addition, the proposed project and future development of the Westerly Lots would not alter the existing circulation system within the Rockaway Beach neighborhood. The construction of up to five single-family homes along the proposed Oddstad Way extension would not conflict with existing evacuation routes or otherwise impact emergency access for existing homes. Nonetheless, the commenter's concerns related to existing emergency access issues within the Rockaway Beach neighborhood have been forwarded to the decision-makers for their consideration.

It should be noted that the project applicant does not own any of the Westerly or Easterly Lots, and evidence does not exist to suggest that all of the lots along Oddstad Way would be developed immediately upon completion of the proposed project, or even within the reasonably foreseeable future after completion of the proposed project. Rather, the more likely scenario is that the Westerly and Easterly Lots would be developed one-by-one based on market trends, with each development subject to discretionary review by the City as part of its review of a Site Development Permit, which is a discretionary permit that must be approved prior to issuance of a building permit in the R-1-H zoning district. As such, the IS/MND, which provides analysis of buildout of the Westerly Lots in conjunction with the proposed project, provides a reasonable and conservative worst-case approach.

Letter 3

STATE OF CALIFORNIA — Edmund G. Brown Jr., Governor

NATIVE AMERICAN HERITAGE COMMISSION
Environmental and Cultural Department
1550 Harbor Blvd., Suite 100
West Sacramento, CA 95691
Phone (916) 373-3710
Fax (916) 373-5471

RECEIVED
NOV 2 6 2018
City of Pacifica

November 21, 2018

Christian Murdock, Senior Planner
City of Pacifica
170 Santa Maria Avenue
Pacifica, CA 94044

Also sent via e-mail: murdockc@ci.pacifica.ca.us

Re: SCH# 2018112017, Lots 4-12 Oddstad Way Residential Project, City of Pacifica; San Mateo County, California

Dear Mr. Murdock:

The Native American Heritage Commission (NAHC) has reviewed the Mitigated Negative Declaration (MND) prepared for the project referenced above. The review included the Introduction and Project Description; and the CEQA Environmental Checklist, section V, Cultural Resources, and section XVII, Tribal Cultural Resources prepared by Raney Consulting/ Tom Origer & Associates for City of Pacifica. We have the following concerns:

3-1

1. While consultation requirements under AB-52 have technically been met, the NAHC recommends that consultation outreach to the tribes on the NAHC list is consistent with Best Practices. Please refer to: http://nahc.ca.gov/wp-content/uploads/2015/04/AB52TribalConsultationRequirementsAndBestPractices_Revised_3_9_16.pdf

3-2

2. Cultural Resource assessments are incomplete. Only literature reviews are documented.

3-3

3. There are no mitigation measures/ conditions specifically addressing Tribal Cultural Resources separately and distinctly from Archaeological Resources. Mitigation measures must take Tribal Cultural Resources into consideration as required under AB-52, **with or without consultation** occurring. Mitigation language for archaeological resources is not always appropriate for measures specifically for handling Tribal Cultural Resources. Sample mitigation measures for Tribal Cultural Resources can be found in the CEQA guidelines at http://opr.ca.gov/docs/Revised_AB_52_Technical_Advisory_March_2017.pdf

3-4

4. The Most Likely Descendant (MLD) timeline in the Mitigation Measure V-1 is incorrect. Public Resources Code 5097.98 specifies that an MLD has **48 hours after being allowed access to the site** to make recommendations for disposition of the remains and associated grave goods.

Please contact me at gayle.totton@nahc.ca.gov or call (916) 373-3714 if you have any questions.

Sincerely,

Gayle Totton

Gayle Totton, B.S., M.A., Ph.D.
Associate Governmental Project Analyst

Attachment

cc: State Clearinghouse

Letter 3
cont'd

ADDITIONAL INFORMATION
The California Environmental Quality Act (CEQA)[1], specifically Public Resources Code section 21084.1, states that a project that may cause a substantial adverse change in the significance of a historical resource is a project that may have a significant effect on the environment.[2] If there is substantial evidence, in light of the whole record before a lead agency, that a project may have a significant effect on the environment, an environmental impact report (EIR) shall be prepared.[3] In order to determine whether a project will cause a substantial adverse change in the significance of a historical resource, a lead agency will need to determine whether there are historical resources with the area of project effect (APE).

CEQA was amended in 2014 by Assembly Bill 52. (AB 52).[4] **AB 52 applies to any project for which a notice of preparation or a notice of negative declaration or mitigated negative declaration is filed on or after July 1, 2015.** AB 52 created a separate category for "tribal cultural resources"[5], that now includes "a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment.[6] Public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource.[7] Your project may also be subject to **Senate Bill 18 (SB 18)** (Burton, Chapter 905, Statutes of 2004), Government Code 65352.3, if it also involves the adoption of or amendment to a general plan or a specific plan, or the designation or proposed designation of open space. **Both SB 18 and AB 52 have tribal consultation requirements**. Additionally, if your project is also subject to the federal National Environmental Policy Act (42 U.S.C. § 4321 et seq.) (NEPA), the tribal consultation requirements of Section 106 of the National Historic Preservation Act of 1966[8] may also apply.

3-5

Consult your legal counsel about compliance with AB 52 and SB 18 as well as compliance with any other applicable laws.

Agencies should be aware that AB 52 does not preclude agencies from initiating tribal consultation with tribes that are traditionally and culturally affiliated with their jurisdictions before the timeframes provided in AB 52. For that reason, we urge you to continue to request Native American Tribal Consultation Lists and Sacred Lands File searches from the NAHC. The request forms can be found online at: http://nahc.ca.gov/resources/forms/. Additional information regarding AB 52 can be found online at http://nahc.ca.gov/wp-content/uploads/2015/10/AB52TribalConsultation_CalEPAPDF.pdf, entitled "Tribal Consultation Under AB 52: Requirements and Best Practices".

The NAHC recommends lead agencies consult with all California Native American tribes that are traditionally and culturally affiliated with the geographic area of your proposed project as early as possible in order to avoid inadvertent discoveries of Native American human remains and best protect tribal cultural resources.

A brief summary of portions of AB 52 and SB 18 as well as the NAHC's recommendations for conducting cultural resources assessments is also attached.

Pertinent Statutory Information:

Under AB 52:
AB 52 has added to CEQA the additional requirements listed below, along with many other requirements:
Within fourteen (14) days of determining that an application for a project is complete or of a decision by a public agency to undertake a project, a **lead agency** shall provide formal notification to a designated contact of, or tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice.
A **lead agency** shall begin the consultation process within 30 days of receiving a request for consultation from a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project.[9] and **prior to the release of a negative declaration, mitigated negative declaration or environmental impact report**. For purposes of AB 52, "consultation shall have the same meaning as provided in Gov. Code § 65352.4 (SB 18).[10]
The following topics of consultation, if a tribe requests to discuss them, are mandatory topics of consultation:

a. Alternatives to the project.
b. Recommended mitigation measures.
c. Significant effects.[11]

1. The following topics are discretionary topics of consultation:
   a. Type of environmental review necessary.
   b. Significance of the tribal cultural resources.

[1] Pub. Resources Code § 21000 et seq.
[2] Pub. Resources Code § 21084.1; Cal. Code Regs., tit.14, § 15064.5 (b); CEQA Guidelines Section 15064.5 (b)
[3] Pub. Resources Code § 21080 (d); Cal. Code Regs., tit. 14, § 15064 subd.(a)(1); CEQA Guidelines § 15064 (a)(1)
[4] Government Code 65352.3
[5] Pub. Resources Code § 21074
[6] Pub. Resources Code § 21084.2
[7] Pub. Resources Code § 21084.3 (a)
[8] 154 U.S.C. 300101, 36 C.F.R. § 800 et seq.
[9] Pub. Resources Code § 21080.3.1, subds. (d) and (e)
[10] Pub. Resources Code § 21080.3.1 (b)
[11] Pub. Resources Code § 21080.3.2 (a)

2

Letter 3 cont'd

3-5 cont'd

c. Significance of the project's impacts on tribal cultural resources.

If necessary, project alternatives or appropriate measures for preservation or mitigation that the tribe may recommend to the lead agency. [12]

With some exceptions, any information, including but not limited to, the location, description, and use of tribal cultural resources submitted by a California Native American tribe during the environmental review process **shall not be included in the environmental document or otherwise disclosed by the lead agency or any other public agency to the public, consistent with Government Code sections 6254 (r) and 6254.10.** Any information submitted by a California Native American tribe during the consultation or environmental review process shall be published in a confidential appendix to the environmental document unless the tribe that provided the information consents, in writing, to the disclosure of some or all of the information to the public.[13]

If a project may have a significant impact on a tribal cultural resource, **the lead agency's environmental document shall discuss** both of the following:

a. Whether the proposed project has a significant impact on an identified tribal cultural resource.
b. Whether feasible alternatives or mitigation measures, including those measures that may be agreed to pursuant to Public Resources Code section 21082.3, subdivision (a), avoid or substantially lessen the impact on the identified tribal cultural resource.[14]

Consultation with a tribe shall be considered concluded when either of the following occurs:

a. The parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists, on a tribal cultural resource; or
b. A party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached.[15]

Any mitigation measures agreed upon in the consultation conducted pursuant to Public Resources Code section 21080.3.2 **shall be recommended for inclusion in the environmental document and in an adopted mitigation monitoring and reporting program**, if determined to avoid or lessen the impact pursuant to Public Resources Code section 21082.3, subdivision (b), paragraph 2, and shall be fully enforceable.[16]

If mitigation measures recommended by the staff of the lead agency as a result of the consultation process are not included in the environmental document or if there are no agreed upon mitigation measures at the conclusion of consultation, or if consultation does not occur, and if substantial evidence demonstrates that a project will cause a significant effect to a tribal cultural resource, **the lead agency shall consider feasible mitigation** pursuant to Public Resources Code section 21084.3 (b).[17]

An environmental impact report **may not be certified**, nor may a mitigated negative declaration or a negative declaration be adopted unless one of the following occurs:

a. The consultation process between the tribes and the lead agency has occurred as provided in Public Resources Code sections 21080.3.1 and 21080.3.2 and concluded pursuant to Public Resources Code section 21080.3.2.
b. The tribe that requested consultation failed to provide comments to the lead agency or otherwise failed to engage in the consultation process.
c. The lead agency provided notice of the project to the tribe in compliance with Public Resources Code section 21080.3.1 (d) and the tribe failed to request consultation within 30 days.[18]

This process should be documented in the Tribal Cultural Resources section of your environmental document.

Under SB 18:

Government Code § 65352.3 (a) (1) requires consultation with Native Americans on general plan proposals for the purposes of "preserving or mitigating impacts to places, features, and objects described § 5097.9 and § 5091.993 of the Public Resources Code that are located within the city or county's jurisdiction. Government Code § 65560 (a), (b), and (c) provides for consultation with Native American tribes on the open-space element of a county or city general plan for the purposes of protecting places, features, and objects described in Sections 5097.9 and 5097.993 of the Public Resources Code.

- SB 18 applies to **local governments** and requires them to contact, provide notice to, refer plans to, and consult with tribes prior to the adoption or amendment of a general plan or a specific plan, or the designation of open space. Local governments should consult the Governor's Office of Planning and Research's "Tribal Consultation Guidelines," which can be found online at: https://www.opr.ca.gov/docs/09_14_05_Updated_Guidelines_922.pdf
- Tribal Consultation: If a local government considers a proposal to adopt or amend a general plan or a specific plan, or to designate open space it is required to contact the appropriate tribes identified by the NAHC by requesting a "Tribal Consultation List." If a tribe, once contacted, requests consultation the local government must consult with the tribe on the plan proposal. **A tribe has 90 days from the date of receipt of notification to request consultation unless a shorter timeframe has been agreed to by the tribe.**[19]
- There is no Statutory Time Limit on Tribal Consultation under the law.

[12] Pub. Resources Code § 21080.3.2 (a)
[13] Pub. Resources Code § 21082.3 (c)(1)
[14] Pub. Resources Code § 21082.3 (b)
[15] Pub. Resources Code § 21080.3.2 (b)
[16] Pub. Resources Code § 21082.3 (a)
[17] Pub. Resources Code § 21082.3 (e)
[18] Pub. Resources Code § 21082.3 (d)
[19] (Gov. Code § 65352.3 (a)(2)).

3

Letter 3 cont'd

- Confidentiality: Consistent with the guidelines developed and adopted by the Office of Planning and Research,[20] the city or county shall protect the confidentiality of the information concerning the specific identity, location, character, and use of places, features and objects described in Public Resources Code sections 5097.9 and 5097.993 that are within the city's or county's jurisdiction.[21]
- Conclusion Tribal Consultation: Consultation should be concluded at the point in which:
  - The parties to the consultation come to a mutual agreement concerning the appropriate measures for preservation or mitigation; or
  - Either the local government or the tribe, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached concerning the appropriate measures of preservation or mitigation.[22]

NAHC Recommendations for Cultural Resources Assessments:

- Contact the NAHC for:
  - A Sacred Lands File search. Remember that tribes do not always record their sacred sites in the Sacred Lands File, nor are they required to do so. A Sacred Lands File search is not a substitute for consultation with tribes that are traditionally and culturally affiliated with the geographic area of the project's APE.
  - A Native American Tribal Contact List of appropriate tribes for consultation concerning the project site and to assist in planning for avoidance, preservation in place, or, failing both, mitigation measures.
    - The request form can be found at http://nahc.ca.gov/resources/forms/.
- Contact the appropriate regional California Historical Research Information System (CHRIS) Center (http://ohp.parks.ca.gov/?page_id=1068) for an archaeological records search. The records search will determine:
  - If part or the entire APE has been previously surveyed for cultural resources.
  - If any known cultural resources have been already been recorded on or adjacent to the APE.
  - If the probability is low, moderate, or high that cultural resources are located in the APE.
  - If a survey is required to determine whether previously unrecorded cultural resources are present.
- If an archaeological inventory survey is required, the final stage is the preparation of a professional report detailing the findings and recommendations of the records search and field survey.
  - The final report containing site forms, site significance, and mitigation measures should be submitted immediately to the planning department. All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum and not be made available for public disclosure.
  - The final written report should be submitted within 3 months after work has been completed to the appropriate regional CHRIS center.

3-5 cont'd

Examples of Mitigation Measures That May Be Considered to Avoid or Minimize Significant Adverse Impacts to Tribal Cultural Resources:

- Avoidance and preservation of the resources in place, including, but not limited to:
  - Planning and construction to avoid the resources and protect the cultural and natural context.
  - Planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria.
- Treating the resource with culturally appropriate dignity, taking into account the tribal cultural values and meaning of the resource, including, but not limited to, the following:
  - Protecting the cultural character and integrity of the resource.
  - Protecting the traditional use of the resource.
  - Protecting the confidentiality of the resource.
- Permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or utilizing the resources or places.
- Please note that a federally recognized California Native American tribe or a non-federally recognized California Native American tribe that is on the contact list maintained by the NAHC to protect a California prehistoric, archaeological, cultural, spiritual, or ceremonial place may acquire and hold conservation easements if the conservation easement is voluntarily conveyed.[23]
- Please note that it is the policy of the state that Native American remains and associated grave artifacts shall be repatriated.[24]

The lack of surface evidence of archaeological resources (including tribal cultural resources) does not preclude their subsurface existence.

- Lead agencies should include in their mitigation and monitoring reporting program plan provisions for the identification and evaluation of inadvertently discovered archaeological resources.[25] In areas of identified

[20] pursuant to Gov. Code section 65040.2,
[21] (Gov. Code § 65352.3 (b)).
[22] (Tribal Consultation Guidelines, Governor's Office of Planning and Research (2005) at p. 18).
[23] (Civ. Code § 815.3 (c)).
[24] (Pub. Resources Code § 5097.991).
[25] per Cal. Code Regs., tit. 14, section 15064.5(f) (CEQA Guidelines section 15064.5(f)).

4

Letter 3 cont'd

3-5 cont'd

archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American with knowledge of cultural resources should monitor all ground-disturbing activities.

- Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the disposition of recovered cultural items that are not burial associated in consultation with culturally affiliated Native Americans.
- Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the treatment and disposition of inadvertently discovered Native American human remains. Health and Safety Code section 7050.5, Public Resources Code section 5097.98, and Cal. Code Regs., tit. 14, section 15064.5, subdivisions (d) and (e) (CEQA Guidelines section 15064.5, subds. (d) and (e)) address the processes to be followed in the event of an inadvertent discovery of any Native American human remains and associated grave goods in a location other than a dedicated cemetery.

5

LETTER 3: GAYLE TOTTON, NATIVE AMERICAN HERITAGE COMMISSION, NOVEMBER 21, 2018

Response to Comment 3-1

Issues related to tribal cultural resources are discussed in Section XVII of the IS/MND. Given that the consultation requirements of Assembly Bill (AB) 52 have been met for the proposed project, additional consultation outreach is not required pursuant to CEQA Guidelines. Nonetheless, the commenter's concerns have been forwarded to the decision-makers for their consideration.

Response to Comment 3-2

As noted on page 51 of the IS/MND, the Historical Resources Study conducted by Tom Origer and Associates for the proposed project included a field survey of the project site, in addition to archival research and literature review. The Historical Resources Study and the accompanying analysis presented in Sections V and XVII of the IS/MND were made available during the public review period for the IS/MND.

Response to Comment 3-3

Mitigation Measures V-1 and V-2 in the IS/MND specifically address potential impacts to Native American remains and grave goods, as well as prehistoric and historic artifacts. As noted within Section XVII, Tribal Cultural Resources, of the IS/MND, with implementation of both mitigation measures, impacts to tribal cultural resources were determined to be less than significant. Thus, modification of either mitigation measure is not necessary.

Response to Comment 3-4

In response to the commenter's concerns, Mitigation Measure V-1 on page 51 of the IS/MND is hereby revised as follows:

> *V-1.* *In the event of the accidental discovery or recognition of any human remains, further excavation or disturbance of the find or any nearby area reasonably suspected to overlie adjacent human remains shall not occur until compliance with the provisions of CEQA Guidelines Section 15064.5(e)(1) and (2) has occurred. The Guidelines specify that in the event of the discovery of human remains other than in a dedicated cemetery, no further excavation at the site or any nearby area suspected to contain human remains shall occur until the County Coroner has been notified to determine if an investigation into the cause of death is required. If the Coroner determines that the remains are Native American, then, within 24 hours, the Coroner must notify the Native American Heritage Commission, which in turn will notify the most likely descendants who may recommend treatment of the remains and any grave goods. If the Native American Heritage Commission is unable to*

> *identify a most likely descendant or most likely descendant fails to make a recommendation within ~~24~~48 hours after notification by the Native American Heritage Commission, or the landowner or his authorized agent rejects the recommendation by the most likely descendant and mediation by the Native American Heritage Commission fails to provide a measure acceptable to the landowner, then the landowner or his authorized representative shall rebury the human remains and grave goods with appropriate dignity at a location on the property not subject to further disturbances. If human remains are encountered, a copy of the resulting County Coroner report noting any written consultation with the Native American Heritage Commission shall be submitted as proof of compliance to the City of Pacifica Planning Department.*

The foregoing revision amends the requirements of Mitigation Measure V-1, but does not alter the conclusions presented in the IS/MND.

Response to Comment 3-5

The comment does not specifically address the adequacy of the IS/MND.

Letter 4

Hal Bohner
Attorney
115 Angelita Avenue • Pacifica, CA 94044
650-359-4257
hbohner@earthlink.net

Sent via email to murdockc@ci.pacifica.ca.us and
wehrmeistert@ci.pacifica.ca.us December 4, 2018

City of Pacifica Planning Department
Attn: Christian Murdock and Tina Wehrmeister
1800 Francisco Boulevard
Pacifica
California 94044

Re: Proposed INITIAL STUDY AND MITIGATED NEGATIVE DECLARATION FOR THE LOTS 4-12 ODDSTAD WAY PROJECT and construction in Rockaway Valley at Oddstad Way, Lots 6-12 (formerly 50 and 60 Oddstad Way) APNS 022-056-060, 022-056-080 and 022-056-090

Dear Christian and Tina:

4-1 I am representing Christine Coppola concerning the proposed project identified above. To summarize, we object to the adoption of the proposed INITIAL STUDY AND MITIGATED NEGATIVE DECLARATION (IS/MND or MND) for this project. As we pointed out in a letter to you dated February 7, 2017, an Environmental Impact Report (EIR) must be prepared for the project. After studying your proposed IS/MND we remain of the belief that a full EIR must be prepared. In our February 7 letter we provided many reasons why an EIR is necessary, and we will not repeat all of those arguments here. Instead, in this letter we incorporate those arguments by reference and will address certain of those arguments and additional arguments in light of your proposed IS/MND.

1. THERE IS AT LEAST A REASONABLE POSSIBILITY THAT THE PROJECT MAY HAVE SIGNIFICANT ENVIRONMENTAL IMPACTS AND THEREFORE AN EIR MUST BE PREPARED.

4-2 The California Environmental Quality Act (CEQA) provides that an MND is not adequate and an EIR must be prepared when there is a reasonable possibility that a project may have at least one significant environmental impact. The courts have stated that this "fair argument" standard requires government agencies to err on the side of protecting the environment. In the present case it is clear that the project would cause a number of significant environmental impacts as will be discussed below.

Letter 4 cont'd

4-2 cont'd

In your letter of March 7, 2017 to Javier Diaz-Masias concerning this project you concluded, "Based on substantial evidence in the record, I have determined your project will require environmental review as it does not qualify for an exemption from environmental review under CEQA." In your letter you identified the bases for your conclusion which included issues of noise and aesthetics. Concerning noise you concluded:

> In light of the existing substandard street infrastructure within the Rockaway Beach neighborhood and close proximity of development to the street along Rockaway Beach Avenue, and in light of the potential noise, dust, vibrations, and emissions generated by dump trucks and grading equipment used for the project, there is a reasonable possibility the intensity of grading will have a significant effect on the environment related to noise and air quality.

Concerning aesthetics you concluded:

> In light of the size of the project, the existing undeveloped character in the vicinity of the project site, and the nearly 40 trees proposed to be removed on the project site and street extension, there is a reasonable possibility the unusually large size of the proposed project will substantially degrade the existing visual character or quality of the site and its surroundings, and as a result will have a significant effect on the environment related to aesthetics. (p. 3 of 4)

The MND addresses these issues and concludes that proposed mitigation measures will reduce these significant impacts to a level of insignificance. We disagree with those conclusions.

2. NOISE

A traffic noise study titled "Lots 6-12 Oddstad Way Noise Analysis" dated May 24, 2017 was conducted by j.c. brennan and associates. (Hereinafter, "Brennan Noise Analysis"). The Brennan Noise Analysis addresses "Increase in Traffic Noise Due to Construction Traffic on the Roadway System" and states:

4-3

> The data in Table 10 indicate that the predicted increased traffic noise levels will exceed the existing suggested 1980 General Plan standard of 60 dB Ldn. The levels will comply with the "Conditionally Acceptable" range of the City of Pacifica Draft General Plan Update exterior noise level criteria. Construction traffic along Rockaway Beach Avenue will lead to a 7 dB increase in peak hour traffic noise levels and a 3 dB increase in average traffic noise levels along the roadway system. Based upon the FICON guidelines in Table 8, the peak hour traffic noise level increases are considered to be significant. (p. 19)

There are a number of points in this statement which demonstrate that the MND is fatally flawed and that an EIR must be prepared.

Letter 4 cont'd

4-4 1) The fact that the predicted increased traffic noise levels will exceed the existing 1980 General Plan standard of 60 dB Ldn proves that the increased traffic noise is a significant effect of the project which by itself is sufficient to require an EIR. To call the standard in the 1980 General Plan "suggested" is not accurate; the MND recognizes it to be a Pacifica standard. (See MND at e.g. pp. 76, 79 and 82). Moreover, even if it were "suggested" it would still be sufficient to prove that there is a reasonable possibility of a significant impact.

4-5 2) The fact that the levels will comply with the "Conditionally Acceptable" range of the City of Pacifica Draft General Plan Update exterior noise level criteria is sufficient to prove that the increased traffic noise is a significant effect of the project which by itself is sufficient to require an EIR. "Conditionally Acceptable" is, of course, not "Acceptable" and means that "New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design." (Table 4: Proposed General Plan Update Land Use Compatibility For Community Noise Environments at p. 11 of the Brennan Noise Study). However, in this case there has been no "detailed analysis" and no inclusion of insulation features and therefore the conditions necessary for conditional acceptability have not been met.

4-6 3) The fact that the peak hour traffic noise level increases are significant based upon the FICON guidelines in Table 8 is sufficient to prove that the increased traffic noise is a significant effect of the project which by itself is sufficient to require an EIR.

4-7 The MND fails to adequately address or mitigate the three significant impacts discussed above.

Furthermore, the MND discusses "construction noise associated with the proposed project and future development of the Westerly Lots" on pp. 79-83 and concludes:

4-8

> [G]iven the potential for the project and future development of the Westerly Lots to generate substantial increases in ambient noise due to construction traffic, as well as the proximity of the nearby residential buildings to the proposed construction activities, noise levels at nearby noise-sensitive receptors could substantially increase above existing levels without the project, and a potentially significant impact could occur (p. 82).

The MND further concludes that implementation of six "criteria" in Mitigation Measure XII-2 would reduce the impact to a less than significant level. (p. 83) However, neither the MND nor the Brennan Noise Analysis provides any evidence for such conclusion. In fact the Brennan Noise Analysis discusses none of the mitigation criteria listed in Mitigation Measure XII-2.

4-9 Furthermore, the MND does not discuss any of the significant effects listed in the three numbered paragraphs above. That is a fatal flaw of the MND. CEQA requires full public disclosure and does not allow an agency to bury important information in a technical report, especially when the information contradicts information in the MND.

Letter 4 cont'd

3. AESTHETICS

The MND discusses aesthetic impacts on pages 21-27. There are number of fundamental flaws in the analysis of visual impacts in the MND. The MND purports to address cumulative impacts including impacts of development on Lots 1-3 (standard lot); Lots 1-3 (flag lot); Lots 146-149; and Lots 150-156, which are collectively referred to as the four "Westerly lots" (see e.g. page 16) and 12 "Easterly lots" (see e.g. page 18.) However, the MND fails to consider the aesthetic impacts of development of any of those 16 lots. When development of those lots is considered it becomes clear that there would be significant aesthetic impacts for multiple reasons.

4-10

First, the MND concludes that much of the project would be obscured from view by vegetation.[1] (See Figures 6-9 on pages 23-25 which are before and after photo simulations.) However, this conclusion ignores development of the Westerly lots which would undoubtedly involve removal of significant vegetation and thereby expose much of the project to view from the neighborhood. In other words, the photo simulations are extremely misleading. If the photo simulations were properly done they would likely show significant effect which would require an EIR.

Second, there are no photo simulations of development of any of the 16 lots comprising the Easterly or Westerly lots. The MND offers no justification for the failure to include such photo simulations, and it is obvious that such photo simulations would demonstrate significant visual impacts. Since applications for development of those lots are not pending it is, of course, not possible to provide photo simulations of the exact projects. However, to provide the basis for photo simulations, reasonable assumptions can be made about those projects as is done in other sections of the MND. The MND analyzes impacts of development of the Westerly lots in eleven impact areas, but Aesthetics is not one of those impact areas. (See p. 18 of the MND.)

4-11

Third, the project is unusually large for the neighborhood and it is also quite visually prominent due to its location on the hillside. Such a large project would set a precedent for the neighborhood. Moreover, the opening of Oddstad Way to such large development in a visually prominent location on a hillside above the existing neighborhood would set a strong precedent for future development in the area. The failure to provide adequate photo simulations exacerbates this flaw in the MND and deprives the neighbors of necessary information. Furthermore, the failure to include relevant information about the unusually large size of the project is a fatal flaw in the MND.[2]

4-12

[1] The MND states: "Views of the main home from other residences in the project area would also likely be obscured by such vegetation." (p. 24)

[2] In your letter dated March 7, 2017 referred to above you wrote, "The subject project, proposed at 4,318 sq. ft. living area, would be the largest residence in the Rockaway Beach neighborhood by a margin of 668 sq. ft. (+18 percent). Additionally, the project would be nearly four standard deviations larger than the median-sized residence in the neighborhood, a strong statistical indication the proposed project would be significantly larger than other residences in the vicinity."

Letter 4 cont'd

4-13 Fourth, the project would include removal of many Heritage trees and at least some of the Heritage trees that are not removed could be killed or injured by construction within the driplines of the trees.[3] There is no indication that the photo simulations accounted for removal or loss of Heritage trees although they should have done so.

4-14 Fifth, not only is the proposed structure unusually large for the neighborhood, the lot is also.[4] The whole lot around the structure would probably be cleared and grubbed and then be landscaped, and it probably would include a large lawn. Therefore the project site would be considerably different from the present, undeveloped and densely wooded hillside. The same is true for the 16 Westerly and Easterly lots; many are mergers of multiple standard lots.[5] This is not reflected in the photo simulations and is another significant impact that necessitates an EIR.

4. TRAFFIC

4-15 The MND discusses Transportation and Circulation and concludes that, "the proposed project would not conflict with an applicable plan, ordinance, policy or congestion management plan for the area related to traffic, and a less-than-significant impact would occur." P. 95. This is not true, and it is clear that the project would have a significant impact on traffic.

4-16 The primary basis for the conclusion of less than significant impact is the assertion that, "the Fassler Avenue/SR-1 intersection currently operates at LOS C or better." (MND, p. 92) However, this is simply not true. In fact the intersection currently operates at a very poor level of service. During both the AM and PM peak periods the intersection operates at LOS F. The Draft Environmental Impact Report / Environmental Assessment for State Route 1/Calera Parkway/ Highway 1 Widening Project dated August 2011 (hereinafter the "Draft EIR/EA") states:

> [T]he existing signalized intersection LOS condition at SR 1/Fassler Avenue/Rockaway Beach Avenue operates at LOS F during both the AM and PM peak hours (see Table 1.1). (Page 5 of the Draft EIR/EA, which is included in the attached Exhibit A.)

The Draft EIR/EA concerns a proposal by Caltrans to widen and add two lanes to Highway One between Fassler Avenue and Reina del Mar Avenue, and the purpose of the project is explained in the Draft EIR/EA as follows (emphasis added):

> The project segment [SR-1 between the Fassler Avenue intersection and the Reina del Mar intersection] currently acts as a bottleneck to through travel on northbound and southbound SR 1. The current morning (AM) peak period

[3] See the discussion of Heritage Trees below. Also, discussed above, you have written that, "nearly 40 trees [are] proposed to be removed on the project site and street extension."
[4] The lot is a merger of 9 standard lots.
[5] This is shown in Appendix A of the MND - Rockaway Beach Subdivision Map No. 1 (RS M 6/53)

Letter 4 cont'd

4-16 cont'd

> congestion along SR 1 occurs between 7:00 am and 9:00 am, primarily in the northbound direction with traffic queues extending up to 1.15 miles from the Reina Del Mar Avenue intersection south to Crespi Drive. Morning queues also extend east on Fassler Avenue as much as 2,500 feet and east on Reina Del Mar Avenue as much as 1,000 feet for local traffic trying to enter SR 1 from these cross streets. The evening (PM) peak period congestion occurs between 4:00 pm and 6:00 pm, primarily in the southbound (SB) direction with traffic queues extending up to 2.06 miles on SR 1 from the Fassler Avenue/Rockaway Beach Avenue intersection to north of Sharp Park Road. (Draft Environmental Impact Report / Environmental Assessment for State Route 1/Calera Parkway/ Highway 1 Widening Project at p. i)

Thus it is clear that, contrary to the MND, traffic problems in the area are presently severe and construction related traffic would make those traffic problems worse. Even after construction is complete the added traffic from the new residences would make the existing problems worse.

The underlined portions of the quote above make it clear that the MND is seriously misleading. The MND states (emphasis added):

> It should be noted that SR-1 may experience vehicle queuing between the signalized intersections through the Pacifica corridor during peak periods. Traffic flow rates on SR 1 through the Fassler Avenue/SR-1 intersection during such times are reduced due to vehicle congestion extending from the signalized intersections to the north and south. Nonetheless, the congestion experienced to the north and south of the Fassler Avenue/SR-1 intersection does not result in unacceptable LOS operations at any of the study intersections. (p. 92)

This statement is extremely misleading. First, the extent of the queues is not stated in the MND, although the extent of the queues is well documented elsewhere. Second, the statement that SR-1 "may experience queuing" is plain false since significant queuing occurs regularly and is well documented.

4-17

The MND states:

> [T]he proposed project is consistent with the General Plan land use designation and zoning designation for the site. As such, buildout of the site has already been assumed in cumulative buildout traffic forecasts that have been used in the design of roadway and freeway facilities in the area. (p. 95)

This statement is extremely misleading and irrelevant. First, the MND does not cite any evidence for the contention that the roadway was designed to accommodate the traffic it is currently handling, and more importantly it is obvious that the road has inadequate capacity to handle current traffic regardless of how it may have been designed many years ago.

Letter 4 cont'd

Furthermore, one potential measure to somewhat mitigate the traffic impact was not even considered in the MND. Specifically, the traffic consultant noted:

4-18

> [T]he City could also consider restricting hauling activity to the hours between 9:00 a.m. and 4:00 p.m. to avoid adding any trips to the commute periods of the day. (p. 12 of Omni-Means Engineers & Planners. Traffic Impact Analysis of Construction Truck Trips for the Proposed Oddstad Way Residential Project, Pacifica, CA. September 12, 2017.)

5. BIOLOGICAL RESOURCES

5.1 HERTIAGE TREES

The treatment of Pacifica Heritage trees in the MND is not adequate for a number of reasons. First of all it should be recognized that Pacifica ordinances require protection of Heritage trees. The MND acknowledges:

4-19

> Per Sections 4-12.07 and 4-12.08 of the Municipal Code, tree protection plans are required when engaging in new construction within the drip-line of a heritage tree. The plan must be prepared by a qualified arborist, horticulturist, landscape architect or other qualified person. (p. 48)

However, the MND disregards the requirements of Section 4-12.07 of the Municipal Code.

1) The MND acknowledges that the impact of the project on Heritage trees is potentially significant. The MND states:

4-20

> As shown in Table 6 below, eight of the heritage trees are within the proposed project footprint and would require removal. Of the eight Heritage trees to be removed, five are not native. Given that the proposed project would require the removal of eight heritage trees protected by the City's Municipal Code, a potentially significant impact could occur. (p. 48)

In addition to this acknowledged potentially significant impact, the MND fails to mention that the project would likely have adverse impacts on Heritage trees that are not removed. Construction within the dripline of a Heritage tree can adversely affect the tree even if the tree is not removed.[6] However, the MND does not indicate whether the project will be constructed within the dripline of any unremoved Heritage trees and which Heritage trees they will be.[7]

[6] Pacifica Municipal Code 4-12.07 requires a tree protection plan whenever development is proposed within the dripline of a Heritage tree.

[7] The MND indicates that 12 Heritage trees would be retained. (p. 13) However those trees are not identified. A cursory comparison of the plans for the project in the MND with the Appendix B of the Arborist's report indicates that many Heritage trees will be affected by the project, but it is impossible to determine from publicly available

Letter 4 cont'd

2) The Pacifica Municipal Code is clear that a Tree Protection Plan must be prepared now, not later.

> Any development proposal which requires a discretionary permit or other land use approval as set forth in Title 9 of this Code, and which includes a proposal to cut down, destroy, remove, move, or engage in construction within the dripline of a heritage tree, must be accompanied by a tree protection plan which shall insure the preservation of trees where possible and the protection of trees during construction so as to maximize chances for their survival. (PMC 4-12.07 (a), emphasis added.)

4-21

Similarly, the Arborist's report for the project states: "Development projects involving heritage trees which require approval from the Planning Commission must be accompanied by a tree protection plan, which is processed with planning permits." (WRA, Inc. Tree Survey Report, Oddstad Way New Residence Development, Pacifica, San Mateo County, California. p. 1) The developer has already submitted a development proposal and therefore the developer should have already submitted a Tree Protection Plan, but apparently they have not done so. Moreover, the MND acknowledges that the project will require a Site Development permit which is granted by the Planning Commission. A Tree Protection Plan must be considered by the Planning Commission along with the Site Development permit. However, in disregard of these legal requirements, Mitigation Measure IV-6 allows deferral of preparation of the Tree Protection Plan until commencement of construction. (MND p. 49). CEQA does not allow such deferral of mitigation measures.

4-22

Furthermore PMC 4.12.07(a) provides that when a Tree Protection Plan is prepared, a tree removal permit should not be done. The obvious purpose of this requirement its to insure that a qualified arborist prepares a complete plan for protection of the Heritage trees that will be affected by a project. However, Mitigation Measure IV-6 requires that the project applicant obtain a tree removal permit which apparently would allow removal of Hertiage Trees before a Tree Protection Plan is prepared, which would obviously thwart the intent of PMC 4-12.07.

5.2 LOGGING

4-23

The arborist's Report for the project states:

> Logging operations within the City of Pacifica are defined as any removal, destruction or harvesting of 20 or more trees within one year from any parcel or contiguous parcel in the same ownership. In reference to logging regulations, a tree is defined as any tree 6 inches in diameter as measured 12 inches from the

information which trees will be removed and which will not be removed but will be affected by construction within their driplines.

Letter 4 cont'd

ground. City of Pacifica Ordinance No. 636-C.S. prohibits logging operation unless one of the following conditions is met:

(a) Said operations are in conjunction with a city permit(s) requiring planning commission and/or city council approval, at which time said operations shall be evaluated and approved or denied at a duly noticed public hearing by the commission and /or council, concurrently with the other permit(s). (WRA, Inc. Tree Survey Report, Oddstad Way New Residence Development, Pacifica, San Mateo County, California, p. 2)

4-23 cont'd

The MND indicates that more than 20 trees will be removed as part of the project and therefore Pacifica Ordinance No. 636-C.S. clearly applies. The fact that the project includes a logging operation subject to Pacifica Ordinance No. 636-C.S. was not addressed in the MND. This is a fatal flaw in the MND, and a logging operation in an urban environment obviously involves significant environmental impacts warranting an EIR. Similarly, construction on at least some of the Easterly and Westerly lots likely would involve logging operations as well, and that subject must be addressed in an EIR.

5.3 IMPROPER DEFERRAL OF MITIGATION

4-24

Mitigation Measures IV-5(a), (b) and (c) merely state that mitigation measures shall be developed later. However, CEQA does not allow mitigation measures to be deferred and requires that mitigation measures must be enforceable e.g. by permit conditions. Therefore Mitigation Measures IV-5(a), (b) and (c) are not sufficient to satisfy the requirements of CEQA.

6. GREENHOUSE GAS EMISSIONS

MND section VII. GREENHOUSE GAS EMISSIONS is not adequate. It is apparent that the analysis of greenhouse gas emissions failed to consider the fact that the project includes a logging operation as discussed above. The MND includes Appendix B – "Roadmod Air Quality and Greenhouse Gas Modeling Outputs" and Appendix C – "CalEEMod Air Quality and Greenhouse Gas Modeling – Outputs." On page 1 of 32 of Appendix C the project is identified as "Single Family Housing" and there is no analysis of the logging operation. Similarly, the modeling did not consider probable logging operations on the Westerly or Easterly lots.

4-25

It is clear that greenhouse gas emissions related to logging operations, including small operations in an urban environment like the present one, must be addressed under CEQA. An example of this is "Environmental Impact Report UCSF Mount Sutro Management - State Clearinghouse No. 2010122041". For reference some excerpts from the EIR relevant to greenhouse gas emissions are attached as Exhibit B.

The Mount Sutro EIR summarizes the project as follows:

Letter 4 cont'd

4-25 cont'd

> UCSF proposes to implement a number of management activities in the UCSF Mount Sutro Open Space Reserve ("Reserve") at its flagship campus site at Parnassus Heights. Proposed management activities include forest-thinning and removal of understory vegetation to reduce the risk of a wildfire and to improve forest health; native plant restoration and enhancement; conversion planting (removal of non-native trees and plants and conversion to native species); and the creation of new trails. (p. 1-2)

The EIR addresses greenhouse gas emissions in Section 4.6 and states:

> Carbon sequestration is the process by which atmospheric carbon dioxide is absorbed by trees through photosynthesis and stored as carbon in trunks, branches, foliage, roots and soils. Carbon sequestration in terrestrial ecosystems is defined as the net removal of carbon dioxide from the atmosphere into long-lived stocks of carbon (Shaw et al 2009). Forests serve as large reservoirs of sequestered carbon as well as potential carbon sinks4 and sources to the atmosphere. In the United States, forest carbon sinks have been estimated to offset up to 24 percent of the fossil fuel source (Bosquet et al 2000). (p. 4.6-14)

The EIR concludes that the impact of the project on carbon sequestration and its effect on GHG emissions must be quantified:

> [A]ccumulation of carbon through tree growth and the release of carbon from timber harvest, including from decay of dead material constitutes the primary accounting focal points (Wayburn et al 2000). This sink must be quantified to determine how a project will impact GHG emissions. (p. 4.6-14)

Concerning standards of significance applicable to the project the EIR states:

> As discussed previously, there are no quantitative standards of significance established by regulatory agencies that would apply to the proposed project. Therefore, for purposes of this analysis, the proposed project is considered to have a significant effect on the environment if it would (1) substantially affect the ability of the Reserve to sequester GHGs, (2) generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment, or (3) conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing emissions of GHGs. (p. 4.6-17)

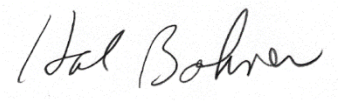
In view of the potential significant impacts UCSF conducted a detailed and comprehensive analysis of the greenhouse impacts of the project, and the EIR describes the analysis. (See pp. pp. 4.6-16-4.6-21.) Based on the analysis the EIR concludes that the impacts of the project would be less than significant.

7. CONCLUSION

Letter 4 cont'd

4-26 We look forward to the preparation of an EIR, which would inform the Planning Commission, City Council, and the public about the project's significant environmental effects and ways to reduce them, demonstrate a commitment to environmental protection, and ensure accountability through full disclosure.

Sincerely,



Hal Bohner

Attachments: Exhibits A and B

Copy: Christine Coppola

Letter 4 cont'd

State Route 1/Calera Parkway/ Highway 1 Widening Project (from South of Fassler Avenue to North of Reina Del Mar Avenue in the City of Pacifica)

San Mateo County, California
04-SM-1
PM 41.7/43.0
EA 04-254600
Project ID: 0400000715

DRAFT ENVIRONMENTAL IMPACT REPORT/ ENVIRONMENTAL ASSESSMENT

State Clearinghouse Number 2010022042

Prepared by the
State of California Department of Transportation

The environmental review, consultation, and any other action required in accordance with applicable Federal laws for this project is being, or has been, carried out by Caltrans under its assumption of responsibility pursuant to 23 U.S.C. 327.

Caltrans

EXHIBIT A

August 2011

AR00146

Letter 4 cont'd

SUMMARY

S.1 OVERVIEW OF PROJECT AREA

The California Department of Transportation ("Department" or "Caltrans"), in conjunction with the San Mateo County Transportation Authority (SMCTA) and the City of Pacifica, proposes to widen Highway 1/State Route 1/Calera Parkway (hereinafter referred to as "SR 1") in the city of Pacifica from four lanes to six lanes through the project limits. The portion of SR 1 proposed for widening is located between 400 feet and 3,200 feet east of the Pacific Ocean within the city of Pacifica and extends from approximately 1,500 feet south of Fassler Avenue to approximately 2,300 feet north of Reina Del Mar Avenue, a distance of approximately 1.3 miles.

The segment of SR 1 proposed for widening operated as a two-lane highway until 1965, when it was widened to a four-lane conventional highway with no median. In 1993, a median barrier was installed as a safety improvement. The existing roadway is four lanes with four-foot minimum outside shoulders, and a six-foot wide median with a concrete barrier.

S.2 PURPOSE AND NEED FOR THE PROJECT

The purpose of the proposed project is to improve traffic operations by decreasing traffic congestion and improving peak-period travel times along a congested segment of SR 1 within the city of Pacifica.

The project segment currently acts as a bottleneck to through travel on northbound and southbound SR 1. The current morning (AM) peak period congestion along SR 1 occurs between 7:00 am and 9:00 am, primarily in the northbound direction with traffic queues extending up to 1.15 miles from the Reina Del Mar Avenue intersection south to Crespi Drive. Morning queues also extend east on Fassler Avenue as much as 2,500 feet and east on Reina Del Mar Avenue as much as 1,000 feet for local traffic trying to enter SR 1 from these cross streets.

The evening (PM) peak period congestion occurs between 4:00 pm and 6:00 pm, primarily in the southbound (SB) direction with traffic queues extending up to 2.06 miles on SR 1 from the Fassler Avenue/Rockaway Beach Avenue intersection to north of Sharp Park Road.

With no improvements to the project area, the traffic projections forecast that by year 2035 the peak period maximum queues will grow from 1.15 miles to 2.28 miles in the AM peak period and from 2.06 miles to 2.80 miles in the PM peak period. The increased magnitude of the congestion will also increase the duration of both the AM and PM peak periods.

Regional and vicinity maps of the project area are shown in Figures 1.1, and 1.2, respectively, in the following section. An aerial photograph showing the site and surrounding land uses, is shown on Figure 1.3.

Letter 4 cont'd

1.2 PURPOSE AND NEED FOR THE PROPOSED PROJECT

1.2.1 Purpose of the Proposed Project

The proposed project has the following purpose:

- The purpose of the proposed project is to improve traffic operations by decreasing traffic congestion and improving peak-period travel times along a congested segment of SR 1 within the city of Pacifica.

1.2.2 Need for the Proposed Project

1.2.2.1 Current Conditions

The latest traffic analysis (July 2008) shows that the current morning (AM) peak period congestion along SR 1 occurs between 7:00 am and 9:00 am, primarily in the northbound (NB) direction with traffic queues extending up to 1.15 miles from the Reina Del Mar Avenue intersection south to Crespi Drive. Morning queues also extend east on Fassler Avenue as much as 2,500 feet and east on Reina Del Mar Avenue as much as 1,000 feet for local traffic trying to enter SR 1 from these cross streets.

The evening (PM) peak period congestion occurs between 4:00 pm and 6:00 pm, primarily in the southbound (SB) direction with traffic queues extending up to 2.06 miles on SR 1 from the Fassler Avenue/Rockaway Beach Avenue intersection to north of Sharp Park Road.

The signalized intersections within the city of Pacifica are operated by Caltrans, however it has traditionally been Caltrans' policy to adhere to locally adopted operational performance standards. The City of Pacifica has adopted a standard of LOS D[1] or better for signalized intersections. The existing signalized intersection LOS condition at SR 1/ Reina Del Mar Avenue operates at LOS E during the AM peak hour and LOS F during the PM peak hour, while the existing signalized intersection LOS condition at SR 1/Fassler Avenue/Rockaway Beach Avenue operates at LOS F during both the AM and PM peak hours (see Table 1.1). Therefore these intersections currently operate unacceptably, based on the City of Pacifica's performance standards.

TABLE 1.1
EXISTING PEAK-HOUR INTERSECTION LEVELS OF SERVICE

	Peak-Hour	Delay	LOS
SR1 @ Reina Del Mar Avenue	AM	66	E
	PM	138	F
SR1 @ Fassler Avenue	AM	195	F
	PM	117	F

Source: SR 1/Calera Parkway Project Traffic Operations Report, 2008.

[1] Roadway performance is typically measured using the "level of service" (LOS) concept, whereby traffic demand is evaluated in the context of capacity. Level of service is a graded scale and ranges from "LOS A," representing free-flow conditions, to "LOS F," representing jammed/over-saturated conditions. Refer also to Table 2.2 in Section *2.6, Traffic and Transportation/Pedestrian and Bicycle Facilities*, for LOS definitions.

Letter 4 cont'd

DRAFT

Environmental Impact Report
UCSF Mount Sutro Management

State Clearinghouse No. 2010122041

University of California
San Francisco

UCSF

Financial and Administrative Services
Campus Planning

EXHIBIT B

Letter 4
cont'd

UCSF MOUNT SUTRO MANAGEMENT

DRAFT ENVIRONMENTAL IMPACT REPORT

Draft EIR Publication Date:	January 18, 2013
Draft EIR Public Review Period:	January 18, 2013 through March 4, 2013
Draft EIR Public Hearing Date:	February 25, 2013

Letter 4 cont'd

TABLE OF CONTENTS

ENVIRONMENTAL IMPACT REPORT
UCSF MOUNT SUTRO MANAGEMENT

LIST OF TABLES

Letter 4 cont'd

CHAPTER 1

INTRODUCTION

1.1 PURPOSE OF THIS DOCUMENT

This Draft Environmental Impact Report (EIR) has been prepared in accordance with the California Environmental Quality Act, Public Resources Code Sections 21000, et seq. ("CEQA") to provide an assessment of the potentially significant environmental effects of the proposed Mount Sutro Management project (hereinafter the proposed project). As required by CEQA, this Draft EIR (1) assesses the potentially significant environmental effects of the proposed project, including cumulative impacts of the proposed project in conjunction with past, present, and reasonably foreseeable future development; (2) identifies feasible means of avoiding or substantially lessening significant adverse impacts; and (3) evaluates a range of reasonable alternatives to the proposed project, including the No Project alternative. The University of California (the University) is the "lead agency" for the project evaluated in this Draft EIR. The Board of Regents of the University of California (The Regents) or its delegated committee or administrative official, has the principal responsibility for approving this project.

The University of California, San Francisco (UCSF) has prepared this EIR on the proposed project for the following purposes:

- To inform the general public, the local community, and public agencies of the nature of the proposed project, its potentially significant environmental effects, feasible measures to mitigate those effects, and its reasonable and feasible alternatives;

- To enable the University to consider the environmental consequences of approving the proposed project; and

- To satisfy CEQA requirements.

As described in CEQA and the *State CEQA Guidelines*, public agencies are charged with the duty to avoid or substantially lessen significant environmental effects of proposed projects, where feasible. In discharging this duty, a public agency has an obligation to balance the proposed project's significant effects on the environment with its benefits, including economic, social, technological, legal, and other benefits. This EIR is an informational document, the purpose of which is to: identify the potentially significant effects of the proposed project on the environment; identify mitigation measures that would avoid or reduce those significant effects; identify any significant and unavoidable adverse impacts that cannot be mitigated to a less-than-significant level; and identify reasonable and feasible alternatives to the proposed project that

Letter 4 cont'd

would eliminate any significant adverse environmental effects or reduce the impacts to a less-than-significant level.

The lead agency is required to consider the information in the EIR, along with any other relevant information, in making its decision on the proposed project. Although the EIR does not determine the ultimate decision that will be made regarding implementation of the proposed project, CEQA requires the University to consider the information in the EIR and make findings regarding each significant effect identified in the EIR before it can approve the proposed project. The Regents or its delegated committee or administrative official would certify the Final EIR prior to taking any action approving the proposed project.

1.2 SUMMARY OF THE PROPOSED PROJECT

UCSF proposes to implement a number of management activities in the UCSF Mount Sutro Open Space Reserve ("Reserve") at its flagship campus site at Parnassus Heights. Proposed management activities include forest-thinning and removal of understory vegetation to reduce the risk of a wildfire and to improve forest health; native plant restoration and enhancement; conversion planting (removal of non-native trees and plants and conversion to native species); and the creation of new trails.

1.3 ENVIRONMENTAL REVIEW PROCESS

UCSF has filed a Notice of Completion (NOC) with the Governor's Office of Planning and Research, State Clearinghouse indicating that this Draft EIR has been completed and is available for review and comment by agencies and the public.

This Draft EIR has been made available for review by agencies, organizations, the public and interested parties for a public review period of 45 days, as mandated by California law. In reviewing the Draft EIR, reviewers should focus on the document's adequacy in identifying and analyzing significant effects on the environment and ways in which the significant effects of the proposed project might be avoided or mitigated. To ensure inclusion in the Final EIR and full consideration by the lead agency, comments on the Draft EIR must be received during the public review period at the following address:

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4.6 GREENHOUSE GAS EMISSIONS

This section describes the existing global, national, and statewide conditions for greenhouse gases (GHG) and global climate change and evaluates the potential impacts on global climate change from implementation of the proposed project based upon thresholds of significance under CEQA.

Comments related to greenhouse gas emissions received during the Initial Study/EIR scoping process included concerns about the following:

- Release of greenhouse gas emissions due to tree removals

4.6.1 ENVIRONMENTAL SETTING

Background

Global climate change refers to any significant change in climate measurements, such as temperature, precipitation, or wind, lasting for an extended period (i.e., decades or longer) (U.S. EPA 2008b). Climate change may result from:

- Natural factors, such as changes in the sun's intensity or slow changes in the Earth's orbit around the sun;
- Natural processes within the climate system (e.g., changes in ocean circulation, reduction in sunlight from the addition of GHG and other gases to the atmosphere from volcanic eruptions); and
- Human activities that change the atmosphere's composition (e.g., through burning fossil fuels) and the land surface (e.g., deforestation, reforestation, urbanization, desertification).

The natural process through which heat is retained in the troposphere[1] is called the "greenhouse effect." The greenhouse effect traps heat in the troposphere through a threefold process as follows: (1) short-wave radiation in the form of visible light emitted by the Sun is absorbed by the Earth as heat; (2) long-wave radiation is re-emitted by the Earth; and (3) Certain gases termed greenhouse gases (GHGs) in the upper atmosphere absorb or trap the long-wave radiation and re-emit it back towards the Earth and into space. This third process is the focus of current climate change actions.

While water vapor and carbon dioxide (CO_2) are the most abundant GHGs, other trace GHGs have a greater ability to absorb and re-radiate long-wave radiation. To gauge the potency of GHGs, scientists have established a Global Warming Potential (GWP) for each GHG based on its ability to absorb and re-emit long-wave radiation over a specific period. The GWP of a gas is determined using CO_2 as the reference gas, which has a GWP of 1 over 100 years (IPCC 1996). For

[1] The troposphere is the bottom layer of the atmosphere, which varies in height from the Earth's surface to 10 to 12 kilometers).

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example, a gas with a GWP of 10 is 10 times more potent than CO_2 over 100 years. The use of GWP allows GHG emissions to be reported using CO_2 as a baseline. The sum of each GHG multiplied by its associated GWP is referred to as "carbon dioxide equivalents" (CO_2e). This essentially means that 1 metric ton of a GHG with a GWP of 10 has the same climate change impacts as 10 metric tons of CO_2.

Greenhouse Gases

State law defines GHGs to include the following six compounds:

- **Carbon Dioxide (CO_2).** Carbon dioxide primarily is generated by fossil fuel combustion from stationary and mobile sources. Due to the emergence of industrial facilities and mobile sources over the past 250 years, the concentration of carbon dioxide in the atmosphere has increased 35 percent. (U.S. EPA 2008c). Carbon dioxide is the most widely emitted GHG and is the reference gas (GWP of 1) for determining the GWP of other GHGs. In 2004, 82.8 percent of California's GHG emissions were carbon dioxide (CEC 2007).

- **Methane (CH_4).** Methane is emitted from biogenic sources (i.e., resulting from the activity of living organisms), incomplete combustion in forest fires, landfills, manure management, and leaks in natural gas pipelines. In the United States, the top three sources of methane are landfills, natural gas systems, and enteric fermentation (U.S. EPA n.d.b.). Methane is the primary component of natural gas, which is used for space and water heating, steam production, and power generation. The GWP of methane is 21.

- **Nitrous Oxide (N_2O).** Nitrous oxide is produced by natural and human-related sources. Primary human-related sources include agricultural soil management, animal manure management, sewage treatment, mobile and stationary combustion of fossil fuel, adipic acid production, and nitric acid production. The GWP of nitrous oxide is 310.

- **Hydrofluorocarbons (HFCs).** HFCs typically are used as refrigerants in both stationary refrigeration and mobile air conditioning. The use of HFCs for cooling and foam-blowing is growing particularly as the continued phase-out of chlorofluorocarbons (CFCs) and hydrochlorofluorocarbons (HCFCs) gains momentum. The GWP of HFCs ranges from 140 for HFC-152a to 6,300 for HFC-236fa.

- **Perfluorocarbons (PFCs).** Perfluorocarbons are compounds consisting of carbon and fluorine. They are primarily created as a byproduct of aluminum production and semiconductor manufacturing. Perfluorocarbons are potent GHGs with a GWP several thousand times that of carbon dioxide, depending on the specific PFC. Another area of concern regarding PFCs is their long atmospheric lifetime (up to 50,000 years) (EIA n.d.). The GWPs of PFCs range from 5,700 to 11,900.

- **Sulfur Hexafluoride (SF_6).** Sulfur hexafluoride is a colorless, odorless, nontoxic, nonflammable gas. It is most commonly used as an electrical insulator in high voltage

equipment that transmits and distributes electricity. Sulfur hexafluoride is the most potent GHG that has been evaluated by the Intergovernmental Panel (IPCC) on Climate Change with a GWP of 23,900. However, its global warming contribution is not as high as the GWP would indicate due to its low mixing ratio, as compared to carbon dioxide (4 parts per trillion [ppt] in 1990 versus 365 parts per million [ppm] of CO_2) (U.S. EPA n.d.a).

The primary GHGs of concern are CO_2, CH_4, and N_2O, which are generally emitted from combustion activities. As forests have the potential to sequester CO_2, the impacts analysis in this chapter assesses potential changes to CO_2 sequestration as a result of the proposed project. The other GHGs listed above are related to specific industrial uses and not anticipated to be emitted in measurable or substantial quantities by the proposed project.

Contributions to Greenhouse Gas Emissions

Global

Worldwide anthropogenic (man-made) GHG emissions are tracked for industrialized nations and developing nations. Man-made GHG emissions from industrialized and developing nations are available through 2007 and 2005, respectively. The sum of these emissions totaled approximately 43,363 million metric tons of CO_2 equivalents ($MMTCO_2e$).[2] It should be noted that global emissions inventory data are not all from the same year and may vary depending on the source of the emissions inventory data. Emissions from the top five countries and the European Union accounted for approximately 59 percent of the total global GHG emissions, according to the most recently available data. (See Table 4.6-1, Top Five GHG Producer Countries and the European Union). The GHG emissions presented in Table 4.6-1 are representative of currently available global inventory data.

[2] The CO_2 equivalent emissions commonly are expressed as "million metric tons of carbon dioxide equivalent ($MMTCO_2E$)." The carbon dioxide equivalent for a gas is derived by multiplying the tons of the gas by the associated GWP, such that $MMTCO_2E$ = (million metric tons of a GHG) x (GWP of the GHG). For example, the GWP for methane is 21. This means that the emission of one million metric tons of methane is equivalent to the emission of 21 million metric tons of CO_2.

Table 4.6-1
Top Five GHG Producer Countries and the European Union

Emitting Countries	GHG Emissions ($MMTCO_2e$)
China	7,265
United States	7,217
European Union (EU), 27 Member States	5,403
Russian Federation	2,202
India	1,877
Japan	1,412
Total	**25,376**

Source: World Resources Institute, "Climate Analysis Indicators Tool (CAIT)," http://cait.wri.org/. 2010. Excludes emissions and removals from land use, land-use change and forestry (LULUCF).
Note: Emissions for Annex I nations are based on 2007 data. Emissions for Non-Annex I nations (e.g., China, India) are based on 2005 data.

United States

As noted in Table 4.6-1, the United States was the number two producer of global GHG emissions as of 2005. The primary GHG emitted by human activities in the United States was CO_2, representing approximately 85 percent of total GHG emissions. Carbon dioxide from fossil fuel combustion, the largest source of U.S. GHG emissions, accounted for approximately 80 percent of GHG emissions (U.S. EPA 2010).

State of California

The California Air Resources Board (CARB) compiles GHG inventories for the State of California. Based upon the 2008 GHG inventory data (i.e., the latest year for which data are available) for the 2000-2008 greenhouse gas emissions inventory, California emitted 474 $MMTCO_2e$ ***including*** emissions resulting from imported electrical power in 2008. Based on the CARB inventory data and GHG inventories compiled by the World Resources Institute, California's total statewide GHG emissions rank second in the United States (Texas is number one) with emissions of 417 $MMTCO_2e$ ***excluding*** emissions related to imported power (CARB 2010a).

Between 1990 and 2008, the population of California grew by approximately 8.1 million (from 29.8 to 37.9 million), or 27.2 percent (California Department of Finance 2010a, U.S. Census Bureau 2010). In addition, the California economy, measured as gross state product, grew from $788 billion in 1990 to $1.8 trillion in 2008 representing an increase of approximately 128 percent (California Department of Finance 2010b). Despite the population and economic growth, California's net GHG emissions only grew by approximately 11 percent. The CEC attributes the slow rate of growth to the success of California's renewable energy programs and its commitment to clean air and clean energy (CEC 2006a).

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Effects of Global Climate Change

The primary effect of global climate change has been a rise in the average global tropospheric temperature of 0.2° Celsius per decade, determined from meteorological measurements worldwide between 1990 and 2005 (IPCC 2007). Climate change modeling using 2000 emission rates suggests that further warming is likely to occur, which would induce further changes in the global climate system during the current century (IPCC 2007). Changes to the global climate system and ecosystems, and to the proposed project site, could include:

- Declining sea ice and mountain snowpack levels, thereby increasing sea levels and sea surface evaporation rates with a corresponding increase in tropospheric water vapor due to the atmosphere's ability to hold more water vapor at higher temperatures (IPCC 2007);
- Changing weather patterns, including changes to precipitation, ocean salinity, and wind patterns, and more energetic aspects of extreme weather including droughts, heavy precipitation, heat waves, extreme cold, and the intensity of tropical cyclones (IPCC 2007);
- Declining Sierra snowpack levels, which account for approximately half of the surface water storage in California, by 70 percent to as much as 90 percent over the next 100 years (CalEPA 2006);
- Increasing the demand for electricity by 1 to 3 percent by 2020 due to rising temperatures resulting in hundreds of millions of dollars in extra expenditures (CalEPA 2006); and
- Summer warming projections in the first 30 years of the 21st century ranging from about 0.5 to 2 degrees Celsius (°C) (0.9 to 3.6 °F) and by the last 30 years of the 21st century, from about 1.5 to 5.8 °C (2.7 to 10.5 °F) (CalEPA 2006).

4.6.2 REGULATORY CONSIDERATIONS

Intergovernmental Panel on Climate Change

The World Meteorological Organization (WMO) and United Nations Environmental Program (UNEP) established the IPCC in 1988. The goal of the IPCC is to evaluate the risk of climate change caused by human activities. Rather than performing research or monitoring climate, the IPCC relies on peer-reviewed and published scientific literature to make its assessment. The IPCC assesses information (i.e., scientific literature) regarding human-induced climate change, impacts of human-induced climate change, and options for adaptation and mitigation of climate change. The IPCC reports its evaluations in special reports called "assessment reports," the latest of which was published in 2007.[3] In its 2007 report, the IPCC stated that global temperature increases since the mid-20th century were "very likely" attributable to man-made activities (greater than 90 percent certainty).

[3] The IPCC's Fourth Assessment Report is available online at http://www.ipcc.ch/.

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State of California

Key state laws and regulations related to GHG emissions are described below.

Executive Order S-3-05 and the Climate Action Team

In June 2005, Governor Schwarzenegger established California's GHG emissions reduction targets in Executive Order S-3-05. The Executive Order established the following goals: GHG emissions should be reduced to 2000 levels by 2010, 1990 levels by 2020, and 80 percent below 1990 levels by 2050. The Secretary of Cal EPA is required to coordinate efforts of various agencies in order to collectively and efficiently reduce GHGs. Some of the agency representatives involved in the GHG reduction plan include the Secretary of the Business, Transportation and Housing Agency, the Secretary of the Department of Food and Agriculture, the Secretary of the Resources Agency, the Chairperson of CARB, the Chairperson of the CEC, and the President of the Public Utilities Commission.

Representatives from each of the aforementioned agencies comprise the Climate Action Team. The Cal/EPA secretary is required to submit a biannual progress report from the Climate Action Team to the governor and state legislature disclosing the progress made toward GHG emission reduction targets. In addition, another biannual report must be submitted illustrating the impacts of global warming on California's water supply, public health, agriculture, coastline, and forests, and reporting possible mitigation and adaptation plans to combat these impacts. The Climate Action Team has prepared annual reports to Governor Schwarzenegger and the Legislature from 2006 (Cal EPA 2006) through 2010. Some strategies currently being implemented by state agencies include CARB introducing vehicle climate change standards and diesel anti-idling measures, the Energy Commission implementing building and appliance efficiency standards, and the Cal/EPA implementing their green building initiative. The Climate Action Team also recommends future emission reduction strategies, such as using only low-GWP refrigerants in new vehicles, developing ethanol as an alternative fuel, reforestation, solar power initiatives for homes and businesses, and investor-owned utility energy efficiency programs. According to the report, implementation of current and future emission reduction strategies have the potential to achieve the goals set forth in Executive Order S-3-05.

Senate Bill 97 (CEQA Guidelines)

On August 24, 2007, California Senate Bill No. 97 was signed into law. The bill required the Governor's Office of Planning and Research to develop, and the Natural Resources Agency to adopt, amendments to the CEQA guidelines addressing the analysis and mitigation of GHG emissions. These guidelines included, among others, that lead agencies must analyze the GHG emissions of proposed projects, and must reach a conclusion regarding the significance of those emissions (CCR§ 15064.4). In addition, when a project's GHG emissions may be significant, lead agencies must consider a range of potential mitigation measures to reduce those emissions (CCR§ 15126.4(c)).

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The March 2010 revisions to the CEQA guidelines drafted and issued by the California Natural Resources Agency require that all projects that are subject to CEQA review must include an analysis of climate change and GHG impacts. This analysis must include a determination as to whether the project's impacts are significant and, if they are significant, must include mitigation. The California Air Resources Board (ARB) has not published significance thresholds for GHGs.

Assembly Bill 32

In furtherance of the goals established in Executive Order S-3-05, the legislature enacted Assembly Bill 32 (AB 32, Nuñez and Pavley), the California Global Warming Solutions Act of 2006, which Governor Schwarzenegger signed on September 27, 2006. AB 32 represents the first enforceable statewide program to limit GHG emissions from all major industries with penalties for noncompliance. AB 32 requires the State to undertake several actions – the major requirements are discussed below:

In addition to CEQA guidance, the California Environmental Protection Agency Climate Action Team (CAT) and the California ARB have developed several reports to achieve the Governor's GHG targets that rely on voluntary actions of California businesses, local government and community groups, and State incentive and regulatory programs. These include the CAT's annual "*Report to Governor Schwarzenegger and the Legislature*," ARB's 2007 "*Expanded List of Early Action Measures to Reduce Greenhouse Gas Emissions in California*," and ARB's "*Climate Change Proposed Scoping Plan: a Framework for Change*" (Scoping Plan). The reports identify strategies to reduce California's emissions to the levels proposed in Executive Order S-3-05 and California Assembly Bill 32 (hereafter AB 32), the Global Warming Solutions Act.

Pursuant to the requirements of AB 32, ARB prepared the Scoping Plan to demonstrate how the 2020 reduction target can be met. The Scoping Plan was adopted in December 2008 and defined broad goals and measures to achieve the objectives for various industry sectors (CARB 2008). Multiple sectors are identified in the plan including transportation, electricity, and industry; the sector relevant to this project is the forest sector. The forest sector is unique in that it is the only sector that removes CO_2 from the atmosphere and sequesters it over the long-term. However, several factors, such as large wildfires and forest land conversion, may cause a decline in the amount of carbon removed from the atmosphere (Cal EPA 2006). The forest sector strategy is a "No Net Loss" target, which would achieve reductions equivalent to the current statewide forest carbon budget (5 million metric tons of CO_2e emissions), by preserving forest sequestration through sustainable management practices (CARB 2008).

The Scoping Plan provides policies, guidelines and recommendations to manage fuels and protect wildlands in a manner consistent with State strategies and long-term climate goals. While some of these activities (e.g., tree removal and prescribed burning) may appear to conflict with short-term GHG emission reduction goals, the State and District expect that implementation of the Scoping Plan recommendations will reduce long-term emissions (e.g., emissions associated with catastrophic and damaging wildfires) and result in larger net gains in vegetation health

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(California Board of Forestry and Fire Protection 2008). Tree removal and thinning or brush clearing may cause short term emissions (through the use of vehicles to transport personnel and mechanical equipment) and loss of some carbon sequestered in vegetation, but these emissions are expected to be offset by the growth promotion and regeneration of native and (generally) low fire hazard vegetation. However, quantifying the specific GHG benefits associated with avoiding wildfire through fuels treatment is speculative because of the unpredictable nature of fire.

AB 32 Climate Change Scoping Plan

As indicated above, AB 32 requires CARB to adopt a scoping plan indicating how reductions in significant GHG sources will be achieved through regulations, market mechanisms, and other actions. After receiving public input on their discussion draft of the *Climate Change Proposed Scoping Plan* released in June 2008, CARB released the *Climate Change Proposed Scoping Plan* in October 2008 that contains an outline of the proposed state strategies to achieve the 2020 greenhouse gas emission limits. The CARB Governing Board approved the *Climate Change Scoping Plan* on December 11, 2008. Key elements of the Scoping Plan include the following recommendations:

- Expanding and strengthening existing energy efficiency programs as well as building and appliance standards;
- Achieving a statewide renewable energy mix of 33 percent;
- Developing a California cap-and-trade program that links with other Western Climate Initiative partner programs to create a regional market system;
- Establishing targets for transportation-related greenhouse gas emissions for regions throughout California and pursuing policies and incentives to achieve those targets;
- Adopting and implementing measures pursuant to existing state laws and policies, including California's clean car standards, goods movement measures, and the Low Carbon Fuel Standard; and
- Creating targeted fees, including a public goods charge on water use, fees on high global warming potential gases, and a fee to fund the administrative costs of the state's long-term commitment to AB 32 implementation.

Under the Scoping Plan, approximately 85 percent of the state's emissions are subject to a cap-and-trade program where covered sectors are placed under a declining emissions cap. The emissions cap incorporates a margin of safety whereas the 2020 emissions limit will still be achieved even in the event that uncapped sectors do not fully meet their anticipated emission reductions. Emissions reductions will be achieved through regulatory requirements and the option to reduce emissions further or purchase allowances to cover compliance obligations. It is expected that emission reduction from this cap-and-trade program will account for a large portion of the reductions required by AB 32.

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Table 4.6-2, AB 32 Scoping Plan Measures (SPMs), lists CARB's preliminary recommendations for achieving greenhouse gas reductions under AB 32 along with a brief description of the requirements and applicability.

Table 4.6-2
AB 32 Scoping Plan Measures (SPMs)

Scoping Plan Measure	Description
SPM-1: California Cap-and-Trade Program linked to Western Climate Initiative	Implement a broad-based cap-and-trade program that links with other Western Climate Initiative Partner programs to create a regional market system. Ensure California's program meets all applicable AB 32 requirements for market-based mechanisms. Capped sectors include transportation, electricity, natural gas, and industry. Projected 2020 business-as-usual emissions are estimated at 512 $MTCO_2e$; preliminary 2020 emissions limit under cap-and-trade program are estimated at 365 $MTCO_2e$ (29 percent reduction).
SPM-2: California Light-Duty Vehicle GHG Standards	Implement adopted Pavley standards and planned second phase of the program. AB 32 states that if the Pavley standards (AB 1493) do not remain in effect, CARB shall implement equivalent or greater alternative regulations to control mobile sources.
SPM-3: Energy Efficiency	Maximize energy efficiency building and appliance standards, and pursue additional efficiency efforts. The Scoping Plan considers green building standards as a framework to achieve reductions in other sectors, such as electricity.
SPM-4: Renewables Portfolio Standard	Achieve 33 percent Renewables Portfolio Standard by both investor-owned and publicly owned utilities.
SPM-5: Low Carbon Fuel Standard	CARB identified the Low Carbon Fuel Standard as a Discrete Early Action item and the final regulation was adopted on April 23, 2009. In January 2007, Governor Schwarzenegger issued Executive Order S-1-07, which called for the reduction of the carbon intensity of California's transportation fuels by at least 10 percent by 2020.
SPM-6: Regional Transportation-Related Greenhouse Gas Targets	Develop regional greenhouse gas emissions reduction targets for passenger vehicles. SB 375 requires CARB to develop, in consultation with metropolitan planning organizations (MPOs), passenger vehicle greenhouse gas emissions reduction targets for 2020 and 2035 by September 30, 2010. SB 375 requires MPOs to prepare a sustainable communities strategy to reach the regional target provided by CARB.
SPM-7: Vehicle Efficiency Measures	Implement light-duty vehicle efficiency measures. CARB is pursuing fuel-efficient tire standards and measures to ensure properly inflated tires during vehicle servicing.
SPM-8: Goods Movement	Implement adopted regulations for port drayage trucks and the use of shore power for ships at berth. Improve efficiency in goods movement operations.
SPM-9: Million Solar Roofs Program	Install 3,000 MW of solar-electric capacity under California's existing solar programs.
SPM-10: Heavy/Medium-Duty Vehicles	Adopt heavy- and medium-duty vehicle and engine measures targeting aerodynamic efficiency, vehicle hybridization, and engine efficiency.

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Scoping Plan Measure	Description
SPM-11: Industrial Emissions	Require assessment of large industrial sources to determine whether individual sources within a facility can cost-effectively reduce greenhouse gas emissions and provide other pollution reduction co-benefits. Reduce greenhouse gas emissions from fugitive emissions from oil and gas extraction and gas transmission. Adopt and implement regulations to control fugitive methane emissions and reduce flaring at refineries.
SPM-12: High Speed Rail	Support implementation of a high-speed rail (HSR) system. This measure supports implementation of plans to construct and operate a HSR system between Northern and Southern California serving major metropolitan centers.
SPM-13: Green Building Strategy	Expand the use of green building practices to reduce the carbon footprint of California's new and existing inventory of buildings.
SPM-14: High GWP Gases	Adopt measures to reduce high global warming potential gases. The Scoping Plan contains 6 measures to reduce high-GWP gases from mobile sources, consumer products, stationary sources, and semiconductor manufacturing.
SPM-15: Recycling and Waste	Reduce methane emissions at landfills. Increase waste diversion, composting, and commercial recycling. Move toward zero-waste.
SPM-16: Sustainable Forests	Preserve forest sequestration and encourage the use of forest biomass for sustainable energy generation. The federal government and California's Board of Forestry and Fire Protection have the regulatory authority to implement the Forest Practice Act to provide for sustainable management practices. This measure is expected to play a greater role in the 2050 goals.
SPM-17: Water	Continue efficiency programs and use cleaner energy sources to move water. California will also establish a public goods charge for funding investments in water efficiency that will lead to as yet undetermined reductions in greenhouse gases.
SPM-18: Agriculture	In the near-term, encourage investment in manure digesters and at the five-year Scoping Plan update determine if the program should be made mandatory by 2020. Increase efficiency and encourage use of agricultural biomass for sustainable energy production. CARB has begun research on nitrogen fertilizers and will explore opportunities for emission reductions.

Source: California Air Resources Board, Climate Change Scoping Plan, (2008).

California Air Resources Board

CARB is responsible for carrying out and developing the programs and requirements necessary to achieve the goal of AB 32—the reduction of California's GHG emissions to 1990 levels by 2020. The first action under AB 32 resulted in CARB's adoption of a report listing three specific early action greenhouse gas emission reduction measures on June 21, 2007. On October 25, 2007, CARB approved an additional six early action GHG reduction measures under AB 32. CARB has adopted regulations for all early action measures. The early action measures are divided into three categories:

- Group 1 – GHG rules for immediate adoption and implementation
- Group 2 – Several additional GHG measures under development
- Group 3 – Air pollution controls with potential climate co-benefits

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The original three adopted early action regulations meeting the narrow legal definition of "discrete early action GHG reduction measures" include:

- A low-carbon fuel standard to reduce the "carbon intensity" of California fuels;
- Reduction of refrigerant losses from motor vehicle air conditioning system maintenance to restrict the sale of "do-it-yourself" automotive refrigerants; and
- Increased methane capture from landfills to require broader use of state-of-the-art methane capture technologies.

The additional six early action regulations adopted on October 25, 2007, also meeting the narrow legal definition of "discrete early action GHG reduction measures," include:

- Reduction of aerodynamic drag, and thereby fuel consumption, from existing trucks and trailers through retrofit technology;
- Reduction of auxiliary engine emissions of docked ships by requiring port electrification;
- Reduction of perfluorocarbons from the semiconductor industry;
- Reduction of propellants in consumer products (e.g., aerosols, tire inflators, and dust removal products);
- The requirement that all tune-up, smog check and oil change mechanics ensure proper tire inflation as part of overall service in order to maintain fuel efficiency; and
- Restriction on the use of sulfur hexafluoride (SF6) from non-electricity sectors if viable alternatives are available.

In addition to the 1990 emissions inventory, CARB also adopted regulations requiring the mandatory reporting of GHG emissions for large facilities on December 6, 2007. The mandatory reporting regulations require annual reporting from the largest facilities in the state, which account for approximately 94 percent of point source greenhouse gas emissions from industrial and commercial stationary sources in California. About 800 separate sources fall under the new reporting rules and include electricity-generating facilities, electricity retail providers and power marketers, oil refineries, hydrogen plants, cement plants, cogeneration facilities, and industrial sources that emit over 25,000 tons of carbon dioxide each year from on-site stationary combustion sources. Transportation sources, which account for 38 percent of California's total greenhouse gas emissions, are not covered by these regulations but will continue to be tracked through existing means. Affected facilities will begin tracking their emissions in 2008, to be reported beginning in 2009, with a phase-in process to allow facilities to develop reporting systems and train personnel in data collection. Emissions for 2008 may be based on best available emission data. Beginning in 2010, however, emissions reporting requirements will be more rigorous and will be subject to third-party verification. Verification will take place annually or every three years, depending on the type of facility.

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State of California Greenhouse Gas Inventory and 2020 Limit

As required under AB 32, on December 6, 2007, CARB approved the 1990 greenhouse gas emissions inventory, thereby establishing the emissions limit for 2020. The 2020 emissions limit was set at 427 $MMTCO_2e$. CARB also projected the state's 2020 GHG emissions under "business as usual" (BAU) conditions—that is, emissions that would occur without any plans, policies, or regulations to reduce GHG emissions. CARB used an average of the State's GHG emissions from 2002 through 2004 and projected the 2020 levels based on population and economic forecasts. The projected net emissions totaled approximately 596 $MMTCO_2e$. Therefore, the state must reduce its 2020 BAU emissions by approximately 29 percent in order to meet the 1990 target.

The inventory revealed that in 1990, transportation, with 35 percent of the state's total emissions, was the largest single sector, followed by industrial emissions, 24 percent; imported electricity, 14 percent; in-state electricity generation, 11 percent; residential use, 7 percent; agriculture, 5 percent; and commercial uses, 3 percent (these figures represent the 1990 values, compared to Table 4.6-2, which presents 2006 values). AB 32 does not require individual sectors to meet their individual 1990 GHG emissions inventory; the total statewide emissions are required to meet the 1990 threshold by 2020.

Regional and Local

Bay Area Air Quality Management District

The Bay Area Air Quality Management District (BAAQMD), the regional air quality board presiding over San Francisco, has jurisdiction over GHG emissions in the Bay Area. BAAQMD's CEQA guidelines, finalized in May 2011, set a threshold for operational emissions of 10,000 metric tons of CO2 equivalent (or $MTCO_2e$) per year for stationary sources and a 1,100 $MTCO_2e$ per year threshold for other land use projects. On March 5, 2012 the Alameda County Superior Court issued a judgment finding that the Air District had failed to comply with CEQA when it adopted the thresholds. The court did not determine whether the thresholds were valid, but found that the adoption of the thresholds was a project under CEQA. The court issued a writ of mandate ordering the District to set aside the thresholds and cease dissemination of them until the Air District had complied with CEQA (BAAQMD 2012). At present, the thresholds are not being recommended for use by the BAAQMD.

University of California Policy on Sustainable Practices

The University of California Policy on Sustainable Practices is a system-wide commitment to minimize the University of California's impact on the environment and reduce the University's dependence on non-renewable energy sources. The University of California Policy on Sustainable Practices promotes the principles of energy efficiency and sustainability in the areas of Green Building Design; Clean Energy Standard; Climate Protection Practices; Sustainable Transportation Practices; Sustainable Operations; Recycling and Waste Management;

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Environmentally Preferable Purchasing Practices; and Food, all of which help reduce GHG emissions from University operations.

The Policy notes "these guidelines currently recommend that University operations:

- Incorporate the principles of energy efficiency and sustainability in all capital projects, renovation projects, operations and maintenance within budgetary constraints and programmatic requirements.
- Minimize the use of non-renewable energy sources on behalf of the University's built environment by creating a portfolio approach to energy use, including the use of local renewable energy and purchase of green power from the grid as well as conservation measures that reduce energy consumption.
- Incorporate alternative means of transportation to/from and within the campus to improve the quality of life on campus and in the surrounding community. The campuses will continue their strong commitment to provide affordable on-campus housing, in order to reduce the volume of commutes to and from campus. These housing goals are detailed in the campuses' Long Range Development Plans.
- Track, report and minimize greenhouse gas emissions on behalf of University operations.
- Minimize the amount of University-generated waste sent to landfill.
- Utilize the University's purchasing power to meet its sustainability objectives."

UCSF Climate Action Plan

UCSF published its Climate Action Plan (CAP) in December of 2009 in order to comply with the UC Policy on Sustainable Practices as well as meet the requirements of the American Colleges and University Presidents Climate Commitment (ACUPCC), of which the UC system is a signatory. The UCSF CAP includes the UCSF GHG emissions baseline and projected inventories, sustainability efforts to date, and future reduction efforts. The CAP informs practices throughout the campus including procurement, building operation and design, transportation, recycling and education. Through its participation in the ACUPCC, UCSF is committed to reduce its GHG emissions from all of its operations to the 1990 level by 2020, with the eventual goal of achieving carbon neutrality for the campus. As part of this emissions reduction effort, UCSF regularly reports to the ACUPCC its emissions, progress towards reduction goals, and measures used or proposed to meet these goals.

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4.6.3 BIOTIC CARBON SEQUESTRATION

Carbon sequestration is the process by which atmospheric carbon dioxide is absorbed by trees through photosynthesis and stored as carbon in trunks, branches, foliage, roots and soils. Carbon sequestration in terrestrial ecosystems is defined as the net removal of carbon dioxide from the atmosphere into long-lived stocks of carbon (Shaw et al 2009). Forests serve as large reservoirs of sequestered carbon as well as potential carbon sinks[4] and sources to the atmosphere. In the United States, forest carbon sinks have been estimated to offset up to 24 percent of the fossil fuel source (Bosquet et al 2000).

Forests store carbon in virtually all of their components: soils, litter (forest floor), and understory, as well as trees (Wayburn et al 2000). Forest-soil carbon is a large, stable pool, accounting for some 50% of the total forest carbon and changing very slowly over hundreds of years (Kimmons 1997). For timeframes of 100 years and less, forest accounting can ignore this pool and focus on changes to more labile forest carbon components. The vast majority of forest carbon accumulation is from photosynthesis by trees, with understory accounting for 5% or less (Kimmons 1997). Therefore, accumulation of carbon through tree growth and the release of carbon from timber harvest, including from decay of dead material constitutes the primary accounting focal points (Wayburn et al 2000). This sink must be quantified to determine how a project will impact GHG emissions.

Methodology and Setting

The current above-ground carbon sink associated with the vegetation in the project area was measured using ground-based data for the entire 61 acre Reserve. The carbon content was investigated for the live tree, dead standing tree, and fallen log (i.e., downed woody debris or DWD) carbon pools.

The Reserve is covered by a dense stand of trees, with the exception of the Rotary Meadow at the summit clearing. The Reserve is dominated (82%) by blue-gum eucalyptus (*Eucalyptus globulus*), planted in the late 1800s. Other tree species include Monterey pine (*Pinus radiata*), Monterey cypress *(Cupressus macrocarpa*), blackwood acacia (*Acacia melanoxylon*), and coast redwood (*Sequoia sempervirens*) (Hortscience 1999, UCSF 2010). The understory is thick with Himalayan blackberry, other nonnative and native shrubs and vines, many of which grow on tree trunks. Though largely undeveloped, the Reserve is adjacent to the main developed portion of the campus and surrounds the UCSF's Aldea Housing complex as well as the Chancellor's residence (UCSF 2010).

To investigate the above-ground carbon stored in the Reserve, forest stand structure and stand composition were measured. To capture the variability across the Reserve, variable slopes, aspects and topographies were sampled across the geographic spread of the project area (see

[4] A carbon sink is any reservoir that can accumulate and store carbon in the form of a chemical compound for an indefinite period of time. Trees are carbon sinks, as they sequester carbon in the form of biomass synthesized from atmospheric CO_2.

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Appendix F, Figure 1). Field surveys were conducted on March 28th, March 29, April 4th and April 14th, 2012.

Six fixed area plots with an area of one-tenth acre and a radius of 37.2 feet were established. Diameter and species for all live and dead standing stems greater than five inches diameter at breast height (DBH) were taken outside of the bark. Downed logs were located, identified to species (when possible), and their length (as a proxy for height) and diameter were measured. Slope, aspect, and elevation were recorded at plot center. Panoramic photos of the six plots were taken from plot center (see Appendix ~~A~~ F, Figure 2).

Tree species found in the six vegetation plots were: blue-gum eucalyptus, Monterey cypress, blackwood acacia, and ornamental *Prunus* sp. Other trees species observed in the Reserve, but that did not fall into the vegetation plots, were coast redwood, Monterey pine, and coast live oak (*Quercus agrifolia*).

Volume, biomass and carbon calculations to estimate carbon sequestration across the Reserve can be found in Appendix F.

A total of 38,918 tons of CO_2e (35,306 metric tons of CO_2e), or 639 tons per acre of CO_2e (579 metric tons of CO_2e per acre), is sequestered in the above-ground live and dead tree biomass of the Mount Sutro Open Space Reserve. Of this, approximately 98.76% is sequestered in the Reserve's live blue-gum eucalyptus trees. Dead standing and dead fallen logs, all of which were identified as blue-gum eucalyptus, comprised less than 1% (0.23% and 0.39%, respectively) of the CO_2e in the Reserve.

The average DBH of all live trees measured was 14.2 inches; the average for blue-gum eucalyptus was slightly higher at 14.6 inches. Forty five percent of all live trees were measured at greater than 12 inches DBH, with the remaining 55% between 5 and 12 inches DBH.

Overall, these results constitute a conservative estimate of above-ground carbon sink within the Reserve as they do not factor the shrub or forest floor layer (e.g. duff and litter); these pools, however, constitute less than 5% of the average forest carbon pool. Consistent with other studies, carbon stored in the soil (greater than 50% of the Reserve's total carbon pool) was not measured; it was assumed to be at equilibrium over time and unaffected by the Alternatives.

4.6.4 EQUIPMENT OPERATIONS

In addition to the reduction of the biotic carbon sink within the Reserve, some of the equipment operation activities would be potential sources of GHGs. To accomplish the proposed tree thinning, UCSF would employ a single Brontosaurus mower, a chipper, and a yarder. Work would commence first in the four Demonstration projects (see Section 3.5 Project Description for a discussion of Demonstration projects); each of the Demonstration projects would be completed in 2-10 days. When funding becomes available, the proposed management activities across the entire Reserve would follow in phases.

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This analysis of GHG emissions considers the impacts associated with the proposed project during project implementation. Pursuant to Section 15064.4 of the CEQA Guidelines, the significance of the project's GHG emissions has been determined based on whether the proposed project's emissions would exceed levels outlined in any applicable GHG-reduction plans, policies, or regulations.

Vegetation management-related effects on GHG emissions relate strictly to direct and indirect impacts that could occur during management activities, such as the removal of dead, dying, unhealthy or hazardous trees. Implementation-related GHG emissions were analyzed using the California Air Resources Board (CARB) OFFROAD model. Only CO_2e were estimated, because CH4 and N2O emissions from diesel-fueled equipment account for approximately 2% of total emissions, even when converted to carbon dioxide equivalent (EPA 2012b).

Due to the nature of the project, there are no operational impacts associated with the project. There would be no new emission sources added; therefore, operation-related effects on air quality are not analyzed further. For the purposes of the document, it was assumed that any maintenance activities planned following the proposed project would be minimal and would not raise emissions beyond a significant level.

4.6.5 SIGNIFICANCE STANDARDS AND ANALYSIS METHODOLOGY

This section evaluates impacts to greenhouse gas (GHG) sources and sinks associated with the proposed management activities across the 61 acre forested portion of the UCSF Mount Sutro Open Space Reserve. It includes a description and analysis of 1) proposed vegetation management activities (e.g. tree thinning) and, 2) source emissions associated with vegetation management activities. Where appropriate, it identifies feasible mitigation measures to reduce potentially significant impacts to a less than significant level. Section 4.6.3 Biotic Carbon Sequestration, and Section 4.6.4, Equipment Operations, provide the basis for the assessment of these impacts.

Significance Criteria

In accordance with Senate Bill (SB) 97, the Natural Resources Agency adopted amendments to the State CEQA Guidelines on December 30, 2009 (effective March 2010), which include criteria for evaluating GHG emissions[5]. According to the amended Appendix G of the State CEQA Guidelines, a project would have a significant effect on the environment if it would:

- Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment; or

[5] http://ceres.ca.gov/ceqa/guidelines/

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- Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

The amended *State CEQA Guidelines* include a new Section 15064.4, which states that, when making a determination of the significance of GHG emissions, a lead agency shall have discretion to determine whether to: (1) Use a model or methodology to quantify greenhouse gas emissions resulting from a project, and which model or methodology to use; and/or (2) Rely on a qualitative analysis or performance based standards.

Section 15064.4 also states that a lead agency should consider the following factors when assessing the significance of GHG emissions on the environment: (1) The extent to which the project may increase or reduce greenhouse gas emissions as compared to the existing environmental setting; (2) Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project; and (3) The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions.

As discussed previously, there are no quantitative standards of significance established by regulatory agencies that would apply to the proposed project. Therefore, for purposes of this analysis, the proposed project is considered to have a significant effect on the environment if it would (1) substantially affect the ability of the Reserve to sequester GHGs, (2) generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment, or (3) conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing emissions of GHGs.

With regard to equipment operations during project implementation, the BAAQMD thresholds of significance include a threshold for operational GHG emissions but none for construction-related GHG emissions. BAAQMD recommends the significance of GHG construction-related emission impacts be determined in relation to meeting AB 32 GHG reduction targets. BAAQMD further recommends, and encourages lead agencies to incorporate best management practices (BMPs) to reduce GHG emissions during construction, when it is feasible and applicable. BMPs could include, but are not limited to: adhering to BAAQMD idling regulations for diesel, composting of removed vegetation on-site, ensuring that equipment is properly maintained, providing that at least 15 percent of the operational fleet be comprised of alternatively fueled (e.g., biodiesel, electric) vehicles and equipment, using at least 10 percent local building materials, or recycling or reusing at least 50 percent of waste or demolition materials.

Methodology

UCSF proposes to incrementally thin portions of the Reserve's forest. Thinning is proposed where trees are particularly dense, except on western slopes where the terrain is too steep or otherwise inaccessible. Based on these parameters, thinning would occur on 46 of the 61 acres of the project area; the remaining 15 acres of terrain are too steep to thin (UCSF 2010).

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Projected thinning would achieve an average of 30 foot spacing between trees; the priority for removal would be dead, dying, unhealthy, and hazardous trees. Where trees must be removed to achieve desired spacing, the next priority would be trees smaller than 12 inches in diameter. In addition, all nonnative shrubs (and the native poison oak) would be removed from the understory throughout the entire Reserve (UCSF 2010).

UCSF proposes to keep much of the vegetation removed through thinning and clearing on-site. Large felled trees would be left on-site and smaller trees would be used on-site as mulch. Little, if any, material would be taken to landfill (UCSF 2010).

Both a short-term (1 year post-thinning) and long-term (30 year post-thinning) scenario is evaluated. While impacts associated with short-term scenarios have been quantified, long-term scenarios, by virtue of being 30 years in the future, are more speculative.

Currently, approximately 38,918 tons of CO_2e is sequestered in the live tree, standing dead tree, and downed tree carbon pools (see Section 4.6.3 Biotic Carbon Sequestration).

Short-term Scenario

Under short-term conditions with the proposed project, the Reserve's above-ground carbon sink would be reduced by a maximum of 29%, or 11,286 tons of CO_2e (10,239 metric tons). See Appendix F for calculations.

Long-term Scenario

Under long-term conditions with the proposed project, the Reserve is expected to sequester more carbon and eventually recoup much of the carbon lost in the thinning treatment. Additional carbon sequestration would occur through release from competition (driven by the decreased density of standing trees) of trees that are left post-treatment. It would also occur through increased regeneration from the understory as saplings and small trees left post-treatment are released from competition for light, water, and nutrients. Finally, the risk of fire would be reduced with the proposed project as compared to existing conditions or doing nothing (the No Project Alternative – see Chapter 6). Forest fires contribute to reductions in carbon sequestration and result in the release of substantial amounts of sequestered carbon.

Assumption #1: Standing trees are projected to be 'released' and to experience increased growth due to the substantial decrease in tree density. In addition, reduced tree mortality would be expected compared to doing nothing (the No Project Alternative).

Young, healthy forests absorb carbon more rapidly than older, dense forests (Wayburn 2010). A stand's average yearly growth since stand initiation is referred to as its mean annual increment (MAI); MAI is a function of tree age, density, and site characteristics (Rinehart and Standiford 1983). The Reserve is dominated by mature blue-gum eucalyptus forest that was planted in the late 1800's (Hortscience 1999). At young ages, blue-gum eucalyptus is one of the fastest growing eucalypts. A three-year-old tree has been recorded at 46 feet high and 0.74 feet in diameter. At 30

years, it has been recorded at 164 feet high and 3.28 to 6.56 feet in diameter (McClatchie 1902). However, it is assumed here that the age of the Reserve's largest trees (>115 years old) exceeds the age at which eucalypts continues to add significant annual increment or diameter (or height), particularly in the absence of tree density changes that might affect a release from competition. Though numerous articles document growth and yield curves for blue-gum eucalyptus (McClatchie 1902, Borough et al 1978, Rinehart and Standiford 1983), none do so for blue-gum greater than 40 years in age (Rinehart and Standiford 1983). Such research papers are timber- and harvest-oriented and advise harvest of blue-gum between 12 to 30 years of age. These lines of evidence suggest that the Reserve's mature eucalyptus are well past peak growth, and are no longer sequestering much if any additional carbon. As the forest is predominantly comprised of eucalyptus species (82%), it is assumed that predominantly eucalyptus species will be felled. The reduced growth rate of these mature/dying trees implies that the annual sink 'deferential', representing the opportunity cost of additional carbon that would have been sequestered each year by the growth of trees that were instead felled, would be more than compensated by the additional growth of remaining trees and understory recruitment as a result of thinning efforts.

At this time, reports suggest that ongoing mortality is occurring in the Reserve, and that mortality can be expected to continue and potentially increase as the stand age of the forest increases. One such line of evidence is that the current forest in the Reserve contains a significant volume of downed wood. The 1999 HortScience report states that:

> "tree failures by uprooting were observed across the site. Failures among all tree species except for coast redwood were observed but the greatest number of root failures were blue gum. Failures appeared to be caused by windthrow that lifted the root placate and soil out of the ground. Tim Lipinski noted that a series of failures had occurred on the south slope of Mount Sutro several years ago. We observed numerous fallen trees on all slope aspects."

This suggests that tree mortality is occurring, and even if the rate of mortality remains constant, additional trees would be expected to die over the 30 year-period. As trees die, they cause a decrease in forest carbon sequestration releasing carbon to the atmosphere through decay (Harmon et al 1990).

In addition, pest and disease outbreaks slow growth and therefore slow carbon accumulations. If mortality results, they lead to increased decomposition, which releases carbon into the atmosphere. In the Reserve, outbreaks by the eucalyptus snout beetle (*Gonipterus scutellatus*) have been recorded the last three summer and fall seasons in the Reserve (J. Sutton pers comm). Larvae and adult beetles consume eucalyptus leaves, weakening the trees. Pest (as well as a pathogen) outbreaks are density-dependent; that is, they cause more harm in dense forests where trees tend to be stressed through competition for water, nutrients, and light. Mortality from pests such as the snout beetle is therefore expected to be lowered with the thinned forest as proposed by the project, compared to existing conditions.

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Assumption #2: More understory recruitment would be expected due to the reduction in tree density post-thinning and the incumbent reduction in competition for light, water and nutrients. In addition, UCSF proposes to remove some or all of the understory ground cover (e.g. blackberry, ivy) which directly competes with and reduces the colonizable surface available to tree seedlings (Hortscience 1999).

The Hortscience arboriculture report states the following:

> "Regeneration in the existing tree canopy is limited and may be problematic for the future. While we observed many saplings of blue gum, their overall condition was poor. Most of the standing dead trees observed in our study were less than 6" in diameter. The rampant growth of English ivy, blackberry, and other groundcover species appears to be impeding regeneration of blue gum and its recruitment into the overstory. There appeared to be little regeneration in gaps in the canopy created by tree failure. Among tree species other than blue gum, only blackwood acacia appeared to be regenerating[6]."

In the absence of thinning, recruitment patterns would be expected to be similarly limited at 30 years compared to the short-term scenario. Some regeneration into the tree canopy may occur in tree-fall gaps left by dying trees, for instance in areas where beetle or pathogen outbreaks kill additional trees. Due to the complications of plant interactions and the uncertainty of future mortality, it is difficult to quantify the amount of recruitment expected. However, more recruitment into the understory is projected with the project compared to existing conditions.

Assumption #3: The proposed project would reduce tree density and remove dead standing snags, both of which would reduce the risk of fire in the Reserve compared to existing conditions or doing nothing. As the majority of felled trees would be left as either logs or mulch on the forest floor, there will be an increase in the forest floor fuel load. However, on balance, the proposed project is expected to have a reduced impact on fire potential compared to existing conditions or doing nothing.

In California, blue-gum eucalyptus stands are highly susceptible to fire during the dry season. The bark, which hangs in strips from the stems, readily carries fire into the crowns, and the leaves contain volatile oils that produce a hot fire (FAO 1979). Though San Francisco's climate is moister than in most parts of California, this is still a factor in fire probability. As described in Assumption #1, a denser forest can result in increased tree mortality through both pest and pathogen outbreaks and increased stress of standing trees due to inter-specific competition for light, water and nutrients. The downed wood that results can increase fuel loading in the Reserve, increasing the chances of a fire event. This suggests that the probability of fire would be reduced with the proposed project compared to existing conditions or doing nothing, which is consistent with the project's objective of reducing fire risk through tree-thinning. However, because felled large trees and mulched smaller trees would be retained on-site under the

[6] See Appendix F for CO_2e sequestered in lb/acre by species.

proposed project, fuel load will be increased across the Reserve, thus maintaining some degree of fire risk.

4.6.6 IMPACTS AND MITIGATION MEASURES

Impact GHG-1: Proposed vegetation management activities would affect the ability of the Reserve to sequester GHGs, but not at levels that would result in a significant impact on the environment. (Less than Significant)

The proposed project would result in the short-term reduction of 29%, or 11,286 tons of CO_2e (10,239 metric tons) of the Reserve's above-ground carbon sink compared to the baseline. As discussed in Section 4.6.2 (Regulatory Considerations), the BAAQMD GHG significance thresholds under CEQA have been challenged, and even if those thresholds were approved for analysis again, they would not apply to the proposed project (personal communication with Alison Kirk, BAAQMD). However, of the regulated categories of emissions, from stationary sources or from land use sources, this project most resembles the land use source and is evaluated based on the threshold values associated with land use (i.e., 1,100 metric tons of CO_2). The requirements for stationary sources are not used in the analysis because the project does not meet the definition of a stationary source, which is defined as a non-moving source or fixed-site producer of pollution (e.g. power plants, chemical plants, oil refineries, manufacturing facilities, and other facilities [EPA 2012a]).

To compare the reduction in the above-ground carbon sink to land use thresholds, the removal of the sink must be considered over the 30-year lifespan of the project. This is because the land use thresholds are developed for annual emissions while the removal of the sink is a one-time activity as opposed to emissions over a project's life-time. In order to compare a one-time activity to operational thresholds, the GHG emissions associated with land use, the impacts of the removal of the carbon sink must be amortized over the lifespan of the project (30 years). This decreases annual impacts from the sink removal to 376 tons, 341 metric tons, per year (11,286 tons divided by 30 years), which is less than the land use threshold of 1,100 metric tons.

In addition, under the long term scenario, the projected increased growth of trees left post-thinning, the net gains in forest health (e.g. associated with reduced pest or pathogen infestations) leading to reduced tree mortality, and the increased probability for understory tree recruitment would be expected to offset much or all of the short-term carbon loss. The proposed project appears to conflict with short-term GHG emission goals but the larger gains in the long-term scenario are expected to offset much or all of the short-term loss. Given these factors, the level of reduction of GHG sequestration that would occur under the proposed vegetation management activities is considered less than significant.

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Impact GHG-2: Proposed vegetation management activities would not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions. (Less than Significant)

As discussed above, the reduction in the carbon sink when amortized over the life of the project would be less than the proposed BAAQMD land use emissions thresholds. Given the discussion presented above, the proposed project's GHG emissions under CEQA are determined to be less than significant.

With regards to AB-32 Scoping Plan Measure 16, which addresses sustainable forests, the proposed project would not conflict with the sustainable management practices under the Forest Act, as the Act is targeted more towards larger-scale logging practices. No significance thresholds have been adopted for vegetation management projects under Executive Order S-3-05 and the State's AB 32 goals at this time. Section 4.6.2 outlines the stated goals for these two documents. The proposed project would not conflict with either Executive Order S-3-05 or the State's AB 32 goal and associated Scoping Plan estimates of reducing GHG emissions to 1990 levels by 2020, and the proposed project's GHG emissions are found to be less than significant.

Impact GHG-3: Equipment operations associated with project implementation would generate GHG emissions, but not at levels that would result in a significant impact on the environment. (Less than Significant)

Exhaust emissions from off-road equipment are expected to contribute minimally to long-term regional increases in GHGs. Table 4.6-3 presents the project's estimated total implementation-related emissions for 2012 and 2013. As indicated in the table, implementation activities associated with the project would generate up to an estimated 5.7 MT of CO2e during the implementation of the project (assumed to be sometime in 2013). Emissions associated with equipment operation during implementation would be extremely small, representing less than 0.1 percent of total annual GHG emissions for the entire San Francisco Bay Area.[7] If amortized over the 30-year lifespan for the project, these one-time emissions represent an even smaller fraction of San Francisco Bay Area emissions.

In addition, best management practices (BMPs) to reduce GHG emissions would be implemented, when it is feasible and applicable. BMPs could include, but are not limited to: adhering to BAAQMD idling regulations for diesel, composting of removed vegetation on-site, ensuring that equipment is properly maintained, providing that at least 15 percent of the operational fleet be comprised of alternatively fueled (e.g., biodiesel, electric) vehicles and equipment, using at least 10 percent local building materials, or recycling or reusing at least 50 percent of waste or demolition materials.

[7] BAAQMD reported regional Bay Area GHG emissions in 2007 at approximately 95.8 MMTCO2e (88.7 MMTCO2e were emitted within the San Francisco Bay Area Air District and 7.1 MMTCO2e were indirect emissions from imported electricity).

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With the small anticipated emissions from equipment operations and the implementation of BMP to minimize these emissions, this impact would be less than significant.

Table 4.6-3
Estimated GHG Emissions During Vegetation Removal Activities

Years: 2012-2013	CO_2
2012 Emissions	3.9
2013 Emissions	1.8
Total CO_2e (Metric Tons)	**5.7**
Notes: GHG = greenhouse gas	

Impact GHG-4: Project implementation would not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions. (Less than Significant)

As discussed above under Impact GHG-1, the project's GHG emissions would not exceed the adopted BAAQMD GHG significance thresholds. Given that only small operational GHG emissions will be emitted as a result of the proposed project, the proposed project would not conflict with the State's AB 32 goal and associated scoping plan estimates of reducing GHG emissions to 1990 levels by 2020.

The proposed project would increase the activity onsite due to activities related to vegetation management but would comply with state and regional GHG plans. No long-term GHG emissions would occur after completion of vegetation management activities. For these reasons, the project would result in a ***less than significant*** impact with respect to GHG emissions during project implementation.

Cumulative Impacts

The GHG impacts of the proposed project, as described above are the short-term reduction of 11,286 tons of CO2e (10,239 metric tons) of the Reserve's above-ground carbon sink and an increase of 5.7 metric tons of CO2e during the implementation of the project. These impacts, along with similar impacts in the region resulting from other projects, contribute to cumulative GHG impacts.

Other projects in the San Francisco area were reviewed to assess whether the contributions of impacts from the proposed project would result in a significant impact on GHG emissions or carbon sequestration. Recently released environmental documents list a number of projects in the San Francisco area, including projects from National Park Service, Golden Gate National Recreation Area, San Francisco Planning Department, San Francisco Redevelopment Agency, San Francisco Recreation and Park Department, San Francisco Public Works Department, Port of San Francisco, and San Francisco County Transportation Authority (AECOM 2012, SFCTA 2011). Project listed in these documents were reviewed to assess cumulative impacts.

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Impact GHG-5: The proposed vegetation management activities would contribute to cumulative impacts, but not at levels that would result in a significant impact on the environment. (Less than Significant)

As described above, the proposed vegetation management activities would result in a less than significant, short-term reduction in the Reserve's carbon sink. In addition, implementation of the project would result in a less than significant contribution to GHG emissions.

No other similar large vegetation removal projects in San Francisco were identified. All projects reviewed consisted of infrastructure development (e.g., road and bike lane improvements, housing, hospital facilities).The majority of other on-going and proposed projects would occur in developed areas of the city, and as such, would have limited impacts on vegetation and carbon storage. There is potential for minor reductions in carbon storage associated with other development projects, some of which may be replaced through planted landscaping. With the limited impacts to carbon storage associated with other nearby projects and the less than significant impacts of the proposed project, the cumulative impact of the proposed project from vegetation management activities would also be less than significant.

The construction of other San Francisco projects would contribute to GHG emissions through the operation of construction vehicles and equipment. Many of the projects proposed in San Francisco are routine operations necessary to maintain infrastructure, and as such contribute to background level of emissions in the City. The contributions the proposed project's implementation emissions are negligible in comparison to this background. The minor contribution of emissions contributed by the proposed project in combination with emissions from other local projects would be less than significant.

Overall, contributions of the proposed project to cumulative GHG impacts would be less than significant.

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Personal communication

Personal communication between Avanti Tamhane, URS Senior Scientist, Letty Brown, URS Senior Forester, and Alison Kirk, Senior Environmental Planner, Bay Area Air Quality Management District. Email and phone calls on 7.30 and 7.31.2012.

Personal communication with Julie Sutton (via Diane Wong). Email correspondence on August 3, 2012 between Julie Sutton, Supervisor Landscaping and Grounds at UCSF, and Dr. Brown, Senior Forester at URS Corp (via Diane Wong, Senior Planner and Environmental Coordinator at UCSF).

LETTER 4: HAL BOHNER, DECEMBER 4, 2018

Response to Comment 4-1

The comment is an introductory statement and does not address the adequacy of the IS/MND.

Response to Comment 4-2

Without referencing any supporting evidence, the comment voices disagreement with the conclusions presented in the IS/MND related to noise, air quality, and aesthetics. It should be noted that the comment quotes text from the City's 2017 letter to the project applicant, explaining the reasons why City staff was not comfortable finding the proposed project exempt from CEQA, and why it believed that preparation of an Initial Study was needed to determine whether an ND, MND or EIR was required. While the letter identified potential issue areas related to the proposed project, the letter did not include any formal significance determinations regarding such issues. The 2017 letter was based on staff's preliminary analysis, and predated the much more in-depth technical studies and analysis later summarized in the IS/MND. Responses to specific issues raised by the commenter are addressed below.

Response to Comment 4-3

The comment introduces the following comments.

Response to Comment 4-4

As noted on page 75 of the IS/MND, operational traffic associated with the proposed project would be limited to one peak hour trip and 10 daily trips, while future development of the Westerly Lots would generate an estimated 38 total daily trips, with three trips during the AM peak hour and four trips during the PM peak hour. Such relatively modest increases in vehicle traffic would not result in a substantial long-term increase in ambient noise levels, and the commenter has not provided any substantial evidence to the contrary.

As noted on page 79 of the IS/MND, the proposed construction activities would result in a 7 dB increase in peak hour traffic noise levels and a 3 dB increase in average daily traffic noise levels along Rockaway Beach Avenue, and construction traffic noise levels would exceed the established General Plan noise level threshold of 60 Ldn dB for residential single-family land uses. However, the project would not result in substantially more severe construction traffic noise beyond what has been previously anticipated by the City. Furthermore, Mitigation Measure XII-2 from the IS/MND includes standards to reduce construction noise to the maximum extent feasible. Thus, as noted on page 82 of the IS/MND, with implementation of Mitigation Measure XII-2, impacts related to construction noise were determined to be less than significant.

Response to Comment 4-5

The comment references the Draft General Plan Update exterior noise level criteria. Given that the Draft General Plan Update has not been adopted by the City of Pacifica at this time, the noise level criteria and associated standards provided therein are not applicable to the proposed project. Such standards were discussed in the Noise Analysis prepared for the proposed project, but were not incorporated into the IS/MND. Similarly, the IS/MND does not refer to the City's 1980 General Plan noise standards as "suggested". Operational noise level increases associated with the proposed project were determined to be less than significant, and temporary construction noise is mitigated to a less-than-significant level with implementation of Mitigation Measure XII-2.

Response to Comment 4-6

It is assumed that the commenter is referring to Table 8, Significance of Changes in Noise Exposure, of the Noise Analysis prepared for the proposed project by j.c. brennan & associates, Inc., the results of which are incorporated into Section XII, Noise, of the IS/MND. With regard to construction traffic noise, please see Responses to Comments 4-4 and 4-5 above.

Response to Comment 4-7

Please see Response to Comment 4-4 above.

Response to Comment 4-8

Page 82 of the IS/MND states the following regarding construction noise impacts:

> Project-generated construction traffic on Oddstad Way would not exceed any applicable noise-level thresholds. However, project construction traffic on Rockaway Beach Avenue, combined with existing traffic volumes, could result in noise levels exceeding the established 60 L_{dn} dB standard for single-family residential uses. In addition, on-site operation of heavy-duty construction equipment could generate excessive noise level increases at nearby residences. Furthermore, while specific construction-related noise levels cannot be estimated at this time in the absence of detailed development plans, future development of the Westerly Lots could generate excess noise levels associated with construction traffic and on-site operation of heavy-duty construction equipment.

With regard to construction traffic noise on Rockway Beach Avenue east of Buel Avenue, as shown in Table 10 of the IS/MND, the 60 dB L_{dn} Existing Plus Project noise contour (i.e., the distance at which construction traffic noise would comply with the City's 60 dB L_{dn} threshold) is located approximately 16 feet from the roadway centerline. The exteriors of the existing residences located along the segment of Rockaway Beach Avenue east of Buel Avenue in the project vicinity are generally located further from 16 feet from the roadway centerline. Therefore, the City has concluded that with implementation of Mitigation Measure XII-2, which requires construction equipment to be equipped with functioning mufflers, in addition to imposed limits on idling, further mitigation is not necessary in order to meet the City's 60 dB L_{dn} standard at the existing residences along Rockaway Beach Avenue.

With regard to construction noise associated with on-site operation of heavy-duty construction equipment for the proposed project, as well as construction traffic and on-site operation of heavy-duty construction equipment associated with future development of the Westerly Lots, Mitigation Measure XII-2 has been included in the IS/MND to ensure that such construction noise is reduced to a less-than-significant level. In response to the commenter's concerns, Mitigation Measure XII-2 on page 83 of the IS/MND is hereby revised as follows, consistent with the recommendations of j.c. brennan & associates, Inc. (see Appendix 1):[1]

Proposed Project and Westerly Lots

XII-2. The following criteria shall be included in ~~the grading plan~~ Construction Management Plan, to be submitted by the project applicants for review and approval by the City of Pacifica Planning Department prior to issuance of grading permits:

- *All equipment driven by internal combustion engines shall be equipped with mufflers which are in good working condition and appropriate for the equipment;*
- *The construction contractor shall utilize "quiet" models of air compressors (i.e., electric powered, rotary screw compressors such as the Eagle Silent Series Compressors or similar) and other stationary noise sources where the technology exists;*
- *At all times during project grading and construction, stationary noise-generating equipment shall be located as far as practical from noise-sensitive receptors;*
- *Use of jackhammers and vibratory compactors shall be prohibited. All compaction shall be performed with hand rollers;*
- *Use of the most noise-intensive pieces of equipment shall be staggered when being used in the vicinity of noise-sensitive receptors, so that multiple noise-intensive pieces of equipment do not operate simultaneously;*
    - ***Excavation of Foundations and Building Footprints:*** *backhoes, dump trucks, and flat-bed trucks shall not operate simultaneously for more than eight hours per day.*
    - ***Foundation Framing:*** *pneumatic equipment (impact equipment, nail guns), compressors, and delivery trucks shall not operate simultaneously for more than two hours per day. Alternatively, if an exhaust muffler is used for the compressed air exhaust and pneumatic tools are equipped with tool mufflers and/or jackets, such equipment may operate simultaneously for up to eight hours per day.*
    - ***Concrete Pours:*** *compressors, concrete mixing trucks, and concrete pump trucks shall not operate simultaneously for more than seven hours per day.*
    - ***Residential Framing:*** *pneumatic equipment (impact*

[1] j.c. brennan & associates, Inc. *Oddstad Way Construction Noise Control*. May 9, 2020.

equipment, nail guns), compressors, cranes, delivery trucks, and other equipment such as table saws, shop saws, and sawzalls shall not operate simultaneously for more than one hour per day. Alternatively, if an exhaust muffler is used for the compressed air exhaust and pneumatic tools are equipped with tool mufflers and/or jackets, such equipment may operate simultaneously for up to eight hours per day.

- ***Final Grading:*** *delivery trucks, front end loaders, and tractors shall not operate simultaneously for more than four hours per day. Alternatively, a tractor may be operated alone for four hours per day, with other equipment (front end loaders and delivery trucks) operating for an additional four hours, so long as tractor operations do not overlap with front end loader and delivery truck operations.*

- *Unnecessary idling of internal combustion engines shall be prohibited;*
- *A noise barrier shall be constructed around all stationary noise sources associated with construction, consisting of either hay bales stacked two feet above each of the pieces of equipment on three sides or a similar barrier of sufficient effectiveness to reduce noise levels by 7 dB;*
- *Eight-foot-tall sound blankets (SONEX Curtains or similar technology) shall be installed along the edge of the on-site excavation areas located closest to the existing residences in the project area, as well as along the property lines of the existing residences located adjacent to the proposed roadway extension;*
- *All construction activities shall be limited to a total of eight hours per day;*
- *Construction crews shall not arrive at the project site or off-site improvement areas before 7:00 AM;*
- *Owners and occupants of residential properties located with 1,000 feet of the construction site shall be notified of the construction schedule in writing; and*
- *The construction contractor shall designate a "noise disturbance coordinator" who shall be responsible for responding to any local complaints about construction noise. The disturbance coordinator would determine the cause of the noise complaint (e.g., starting too early, bad muffler, etc.) and institute reasonable measures as warranted to correct the problem. A telephone number for the disturbance coordinator shall be conspicuously posted at the construction site.*

Through implementation of the measures listed above, the Construction Management Plan shall demonstrate project compliance with the City's 60 decibel (dB) noise level standard at nearby sensitive receptors during construction activities.

The foregoing revisions provide additional specificity to the requirements of Mitigation Measure XII-2, but do not affect the overall analysis or conclusions within the IS/MND. Per j.c. brennan & associates, Inc., based on modeling of the noise control measures included in Mitigation Measure XII-2, as revised, all potential construction noise would comply with the City's 60 dB L_{dn} noise level standard at the nearest residences.

Response to Comment 4-9

Potentially significant effects associated with construction noise and operational noise are discussed throughout Section XII, Noise, of the IS/MND and in Responses to Comments 4-3 through 4-8 above. The noise analyses prepared for the proposed project by j.c. brennan and associates, Inc. supports the conclusions presented therein.

Response to Comment 4-10

With regard to the Easterly Lots, page 20 of the IS/MND states the following:

> […] this IS/MND will consider certain project-level impacts wherever possible for development of the Westerly Lots; will consider certain cumulative impacts where it is not possible to consider project-level impacts for development of the Westerly Lots; and, will not consider project-level or cumulative impacts from development of the Easterly Lots because such impacts are speculative and not as reasonably foreseeable/probable as the Westerly Lots.

Based on the above, analysis of aesthetic impacts associated with development of the Easterly Lots is not presented in the IS/MND and is not required per the CEQA Guidelines. With regard to project-level analysis of aesthetic impacts associated with future development of the Westerly Lots, page 104 of the IS/MND states the following:

> Because development plans for the Westerly Lots are not currently available, a project-level analysis of the remaining CEQA issue areas cannot be provided. Rather, for such issue areas, including aesthetics, a program-level analysis is included herein with the knowledge that additional environmental analysis would be conducted prior to issuance of building permits for the Westerly Lots.

Thus, the photo simulation presented in Figures 7 and 9 of the IS/MND do not reflect buildout of the Westerly Lots. Future environmental analysis would account for removal of vegetation required to develop the Westerly Lots when the details of such development are known with greater certainty, including but not limited to the extent of any parcel consolidation undertaken to comply with existing General Plan density standards or the size of proposed structures. Until such time, attempting to ascertain potential aesthetic impacts would be speculative.

As discussed previously, the project applicant does not own any of the Westerly or Easterly Lots, and evidence does not exist to suggest that all of the lots along Oddstad Way would be developed immediately upon completion of the proposed project, or even within the reasonably foreseeable future after completion of the proposed project. Rather, the more likely scenario is that the Westerly and Easterly Lots would be developed one-by-one based on market trends, with

each development subject to discretionary review by the City as part of its review of a Site Development Permit, which is a discretionary permit that must be approved prior to issuance of a building permit in the R-1-H zoning district. As such, the IS/MND, which provides analysis of buildout of the Westerly Lots in conjunction with the proposed project, provides a reasonable, worst-case approach.

Response to Comment 4-11

In the absence of specific development plans for the Westerly Lots, any attempt to provide a project-level analysis of aesthetic impacts associated with such development at this time would be inherently speculative. Rather, as noted in Response to Comment 4-10 above, additional environmental analysis, including analysis of issues related to aesthetics, would be conducted prior to issuance of building permits as part of the Site Development Permit and potential General Plan Amendment review processes for the Westerly Lots. A program-level analysis of potential impacts to aesthetic resources associated with buildout of the Westerly Lots is provided on page 104 of the IS/MND. Furthermore, given that the project area was anticipated for development with residential uses per the 1980 General Plan, the City has previously considered potential impacts to aesthetic resources at a program level.

As noted previously, future development of the Easterly Lots is not analyzed in the IS/MND, as such development is speculative and not as reasonably foreseeable or probable as the Westerly Lots.

Response to Comment 4-12

With regard to photo simulations for future development of the Westerly Lots, please see Response to Comment 4-11 above. The size of the proposed project has been evaluated throughout the IS/MND, and is reflected in the photo simulations presented in Figures 7 and 9.

Response to Comment 4-13

The photo simulations presented in Figure 7 and Figure 9 of the IS/MND account for all tree removal activity that would occur as a result of development of the proposed project, including removal of heritage trees. The site plans shown in Figure 3 and Figure 4 of the IS/MND were used to determine which trees would be removed.

Response to Comment 4-14

While the proposed project would require removal of approximately eight of the existing heritage trees in order to construct the on-site improvements, as well as the off-site roadway and infrastructure improvements, a number of existing trees on the project site would be retained as part of the proposed project, including 12 heritage trees and various other trees not protected by the City's Municipal Code. Tree removal and landscaping associated with the proposed project has been analyzed throughout the IS/MND.

As noted on page 26 of the IS/MND, implementation of the proposed project would result in noticeable changes to the visual character of the area; however, modifications to the visual character of the site and surrounding area as a result of the proposed project would not constitute a substantial degradation of such character. The proposed project would be consistent with the level of development anticipated for the site per the City's 1980 General Plan. With implementation of Mitigation Measure I-1, impacts related to degradation of visual character and quality were determined to be less than significant.

With regard to photo simulations for future development of the Westerly Lots, please see Response to Comment 4-11.

Response to Comment 4-15

The comment disagrees with the quoted statement, but does not specifically provide a comment on the adequacy of the IS/MND or any substantial evidence of the commenter's claimed significant traffic impacts. As noted on page 95 of the IS/MND, the proposed project would not cause any of the study intersections to exceed any applicable City, County, or State standards. In addition, the proposed project is consistent with the General Plan land use and zoning designations for the site. As such, buildout of the site has already been assumed in cumulative buildout traffic forecasts that have been used in the design of roadway and freeway facilities in the area. Therefore, the proposed project would not conflict with an applicable plan, ordinance, policy or congestion management plan for the area related to traffic.

Response to Comment 4-16

As noted on page 90 of the IS/MND, the number of vehicle trips that would be generated by the proposed single-family residence would be relatively low (one peak hour trip and 10 daily trips). As such, during operation, project-related traffic would not adversely affect streets and intersections in the project vicinity. However, vehicle trips would be generated during construction of the proposed project, consisting primarily of vehicle truck trips associated with site preparation and grading activities. It should be noted that existing traffic conditions, such as existing congestion along State Route 1, are considered part of the CEQA baseline. The focus of the IS/MND is whether traffic generated by the proposed project, combined with existing traffic volumes, would result in new conflicts with applicable operations standards.

The analysis of traffic impacts presented in the IS/MND is based primarily on the Traffic Impact Analysis of Construction Truck Trips prepared for the proposed project by Omni-Means Engineers & Planners in September 2017. During construction, up to three truck trips plus two additional employee trips were assumed during the peak hour for the site clearing and excavation process (five vehicles total). The level of service (LOS) operations analysis treated the trucks as the equivalent of two passenger vehicles (six trips), due to their size and slower acceleration characteristics, for a total of eight peak hour trips.

The traffic volume counts used for the operations analysis were conducted at the SR 1/Fassler Avenue intersection in 2017 (2,510 AM and 3,497 PM peak hour trips). LOS calculations based on those volumes identified LOS C conditions. The calculations are based on volumes. However,

other factors influence vehicle delays; most notably vehicle queues along the SR 1 corridor. As a result, operating conditions/delays at the SR 1/Fassler Avenue intersection, and other intersections along the SR 1 corridor, can fluctuate from relatively efficient traffic flows (LOS C) to stop-and-go conditions (LOS F).

A previous LOS analysis was conducted of the SR 1/Fassler Avenue intersection a number of years earlier by Caltrans as part of the "State Route 1/Calera Parkway/Highway 1 Widening Project DEIR" (dated 2011). The operating conditions based on the volumes and queuing conditions obtained at that time reflected LOS F conditions. Given that the Draft Environmental Impact Report/Environmental Assessment for State Route 1/Calera Parkway/Highway 1 Widening Project was released in August 2011, approximately six years prior to preparation of the aforementioned Traffic Impact Analysis for the proposed project, the existing intersection LOS operations presented in the IS/MND provide a more recent representation of current traffic conditions at the Fassler Avenue/SR-1 intersection.

Nonetheless, in order to provide a conservative, worst-case analysis, GHD has provided an updated Supplemental Traffic Impact Analysis (see Appendix 1) that analyzes effects of the project's construction trips during prevailing conditions reflecting increased congestion with lower flow rates and longer delays,[2] based on volume counts derived from the State Route 1/Calera Parkway Project Final Traffic Operations Report prepared by Fehr & Peers in 2008, which included traffic volumes based on 2007 counts. The volumes surveyed at that time (3,883 AM and 4,264 PM peak hour trips) are higher than the traffic volumes counted for the 2017 Traffic Impact Analysis prepared for the proposed project. In addition, the LOS calculations were calibrated based on travel-time surveys to reflect lower traffic flow rates resulting from vehicle queuing through the SR 1 corridor. Based on the counts and calibrations utilized at that time, the SR 1/Calera Parkway Traffic Operations Report identified existing LOS conditions at the SR 1/Fassler Avenue intersection of LOS F (with 195 seconds of delay) during the AM peak hour, and LOS F (with 117 seconds of delay) during the PM peak hour.

The table below provides a summary of intersection operations under "Existing" conditions (based on the March 2007 traffic volumes), as well as operations with the addition of construction traffic associated with the proposed project. As shown in the table, Existing conditions at the SR 1/Fassler Avenue intersection match the previous report, operating at LOS F with 195 seconds delay during the AM period and 117 seconds during the PM period. The Fassler Avenue/Rockaway Beach Avenue intersection operates at LOS B and the Rockaway Beach Avenue/Buel Avenue intersection operates at LOS A during both peak hours under Existing conditions.

The LOS delays with the addition of the proposed project's eight (adjusted) peak hour construction trips would remain unchanged during the AM peak hour and would increase by one second during the PM peak hour. The project's contribution of trips to the SR 1/Fassler Avenue intersection during construction would represent a contribution of 0.2 percent to the intersection volumes. The changes in vehicle delays and the percent contribution of the project trips to the

[2] Supplemental Traffic Impact Analysis of Construction Truck Trips for the Proposed Oddstad Way Residential Project, Pacifica, CA. May 4, 2020.

overall volumes at the SR 1/Fassler Avenue intersection indicate the project trips would not have a significant impact at the intersections, whether traffic flows are relatively efficient or congested on the SR 1 corridor. Accounting for the potential variation in conditions on SR 1, the project trips would not result in a substantial increase in delay. It should be noted that if the SR 1/Calera Parkway improvements are implemented, LOS and delays at Fassler Avenue and other intersections through the SR1 corridor will improve compared to Existing conditions.

Intersection LOS: Existing Plus Project Construction Traffic
State Route 1/Calera Parkway Project Final Traffic Operations Report Volumes

Intersection	Condition	AM Peak Hour		PM Peak Hour	
		LOS	Delay	LOS	Delay
1. Fassler Ave/SR 1	Existing	F	195	F	117
	Existing Plus Project	F	195	F	118
2. Fassler Ave/Rockaway Beach Ave	Existing	B	14	B	11
	Existing Plus Project	B	14	B	11
3. Rockaway Beach Ave/Buel Ave	Existing	A	7	A	7
	Existing Plus Project	A	7	A	7

Notes:
- Listed LOS represents vehicle delay expressed in seconds.
- Existing volumes and delays based on State Route 1/Calera Parkway Project Final Traffic Operations Report (July, 2008)

Source: GHD, 2020.

With regard to queue lengths, page 92 of the IS/MND states the following:

> The TIA included a vehicle queuing analysis of the three area intersections based on the LOS calculations. Currently, westbound Fassler Avenue has a calculated 95th percentile queue length during the AM peak hour of approximately six cars (125 feet). The southbound Rockaway Beach Avenue approach to Fassler Avenue has a calculated queue length of approximately two vehicle lengths (39 feet), and the Rockaway Beach Avenue approaches to Buel Avenue have a calculated queue length of one to two cars (22 to 47 feet).

As noted on page 94 of the IS/MND, vehicle queues at the study intersections with the added construction trips would remain essentially unchanged from existing conditions. Specifically, during the AM peak hour, the westbound Fassler Avenue approach to SR 1 would remain approximately six cars long. As such, construction traffic associated with the proposed project would not substantially contribute to the existing congestion issues north and south of the Fassler Avenue/SR 1 intersection. The southbound Rockaway Beach Avenue queue from Fassler Avenue would remain approximately two cars long. The Rockaway Beach Avenue/Buel Avenue intersection approach queues would remain approximately one to two vehicles long.

Based on the above, the IS/MND contains an appropriate level of detail regarding potential vehicle queuing impacts.

Response to Comment 4-17

The referenced text from the IS/MND reflects the fact that the 1980 General Plan accounted for buildout of the project area, including general roadway facilities. Given that traffic volumes within the City have changed substantially since adoption of the General Plan, the IS/MND acknowledges that project-level analysis of roadway facilities is necessary in order to appropriately plan for trips occurring during construction and operation of the proposed project. Thus, the ability of local roadway facilities to accommodate traffic from the proposed project, in addition to existing traffic volumes, is evaluated throughout Section XVI, Transportation and Circulation, of the IS/MND.

Response to Comment 4-18

Per the CEQA Guidelines Section 15126.4(a)(3), mitigation is only required when a potentially significant impact has been identified for a proposed project. As noted on page 95 of the IS/MND, the proposed project would not conflict with an applicable plan, ordinance, policy or congestion management plan for the area related to traffic, and a less-than-significant impact would occur. Thus, consistent with CEQA Guidelines Section 15126.4(a)(3), mitigation to limit hauling activity is not required in the IS/MND. Such restrictions may be considered by the City as a condition of approval for the proposed project, and will be forwarded to the decision-makers.

Response to Comment 4-19

The IS/MND does not disregard the requirements of Section 4-12.07 of the Municipal Code related to protection of Heritage Trees. The proposed project's compliance with such requirements is discussed in the responses below.

Response to Comment 4-20

Mitigation Measure IV-6 in the IS/MND requires the project applicant to prepare and submit a tree protection plan prior to the approval of tree removal permits in accordance with the City Municipal Code, Sections 4-12.02 through 4-12.11. In addition, prior to commencement of any construction activity, the project applicant is required to implement any tree protection measures identified to protect trees which will not be removed during construction. Implementation of Mitigation Measure IV-6 would ensure that any heritage trees to be preserved would be protected from the proposed development activity.

However, Mitigation Measure IV-6 does not reflect the correct procedure for review of a tree protection plan and authorization of heritage tree removal for the proposed project. Pursuant to the City Municipal Code, Section 4-12.07 *et seq.*, any development proposal which requires a discretionary permit as set forth in Title 9 of the Municipal Code and which also includes a proposal to remove or engage in construction within the drip line of a heritage tree, must be accompanied by a tree protection plan which shall insure the preservation of trees where possible and the protection of trees during construction so as to maximize the chances for their survival. Projects which require a discretionary permit are exempt from obtaining a separate tree removal

permit, and instead the body authorized to grant the underlying discretionary permit shall implement the provisions related to authorizing heritage tree removal and protection of heritage trees during construction.

Therefore, in order to include the appropriate procedure for matters related to heritage trees, Mitigation Measure IV-6 on page 49 of the IS/MND is hereby revised as follows, consistent with Section 4-12.07 *et seq.* of the Municipal Code:

> *IV-6.* *Prior to issuance of a grading permit or building permit, the project applicant shall obtain approval of a tree protection plan and authorization for heritage tree removal ~~permits~~ from the City of Pacifica Planning Commission as required by City Municipal Code Section 4-12.07 et seq~~Department for any heritage trees to be removed~~.*
>
> *~~p~~Prior to commencement of any construction, and throughout the duration of construction activity, the project applicant shall implement any tree protection measures identified in the approved tree protection plan to protect trees which will not be removed during construction.*
>
> *Prior to issuance of a certificate of occupancy, the project applicant shall complete planting of any replacement trees required as part of the tree protection plan or any other condition of approval imposed by the Planning Commission~~removal permit. In addition, the project applicant shall prepare and submit a tree protection plan prior to the approval of tree removal permits in accordance with the City Municipal Code, Sections 4-12.02 through 4-12.11, and prior to commencement of any construction activity shall implement any tree protection measures identified to protect trees which will not be removed during construction~~.*

Response to Comment 4-21

As noted above, per Mitigation Measure IV-6, the project applicant would be required to submit and obtain approval of a tree protection plan prior to the removal of any heritage trees. Receipt of authorization from the Planning Commission to remove heritage trees is required prior to issuance of a grading permit or building permit. Therefore, contrary to the commenter's assertion, the IS/MND does not defer preparation of a tree protection plan until the commencement of construction. Rather, the City's Municipal Code specifically requires the tree protection plan to be prepared prior to approval of the proposed project by the Planning Commission. It should be noted that a tree protection plan has already been submitted by the project applicant as part of the project application process.

Response to Comment 4-22

Please see Response to Comment 4-21 above.

Response to Comment 4-23

City of Pacifica Ordinance Number 636-C.S. prohibits logging operations unless one of the following conditions is met:

(a) Said operations are in conjunction with a city permit(s) requiring Planning Commission and/or City Council approval, at which time said operations shall be evaluated and approved or denied at a duly noticed public hearing by the commission and/or council, concurrently with the other permit(s).
(b) Said operations are necessary immediately for the safety of life or property, as determined by the director of Public Works or his/her designee.
(c) Said operations occur on city-owned property and are necessary immediately to maintain public health and safety.

It should be noted that the intent of Ordinance Number 636-C.S. was to prohibit extensive tree removal activities that had not been subject to review by the City, rather than to limit tree removal occurring in conjunction with a development proposal. Based on the above, given that the proposed tree removal activity would occur in conjunction with a City permit requiring Planning Commission approval, the proposed project is exempt from the logging prohibitions established by Ordinance Number 636-C.S. The proposed tree removal activity would be evaluated and approved or denied by the City concurrently with other permits requested for the proposed project. Similar review would be required for future development of the Westerly Lots if such development surpassed the threshold for tree removal contained in Ordinance Number 636-C.S.

Response to Comment 4-24

Mitigation Measures IV-5(a), (b), and (c) provide specific timelines for implementation. Each mitigation measure would be implemented prior to initiation of construction activities associated with the proposed project. In addition, each of the aforementioned mitigation measures includes specific performance standards that specify what the mitigation would achieve, as well as the types of potential actions that can feasibly achieve the performance standards. Therefore, consistent with the CEQA Guidelines Section 15126.4(a)(1)(B), the IS/MND does not inappropriately defer mitigation. Nevertheless, Mitigation Measures IV-5(b) and (c) are hereby revised as follows for clarification purposes.

IV-5(a) *<u>Notify USACE.</u> Prior to initiation of construction activities, the applicant shall obtain permit authorization to fill wetlands under Section 404 of the federal CWA (Section 404 Permit) from USACE. The Section 404 Permit application shall include an assessment of directly impacted, avoided, and preserved acreages to waters of the U.S. Mitigation measures shall be developed as part of the Section 404 Permit to ensure no net loss of wetland function and values. Mitigation for direct impacts to waters of the U.S. associated with the proposed outfall structure at Rockaway Creek would occur at a minimum of 1:1 ratio for direct impacts; however, final mitigation requirements shall be developed in consultation with USACE. In addition, a Water Quality Certification or*

waiver pursuant to Section 401 of the CWA must be obtained for Section 404 permit actions.

IV-5(b) *Notify Regional Water Quality Control Board. Prior to initiation of construction activities, the project applicant shall submit to the San Francisco Bay Regional Water Quality Control Board an application for Clean Water Act Section 401 Water Quality Certification and/or Waste Discharge Requirements for Projects Involving Discharge of Dredged and/or Fill Material to Waters of the State. Written verification of the Section 404 permit and the Section 401 water quality certification shall be submitted to the City of Pacifica. The project applicant shall be responsible for conducting all project activities in accordance with the permit provisions outlined in the applicable San Francisco Water Board permit.*

IV-5(c) *Notify CDFW. The CDFW maintains jurisdiction over the bed and bank of the bed, channel, and banks of any river, stream, or lake (Fish and Game Code Section 1602) and impacts to these areas may require a Lake or Streambed Alteration Agreement. Prior to initiating construction activities, the project applicant shall notify CDFW of the intentions of the project to determine if a Lake or Streambed Alteration Agreement is required. The information provided shall include a description of all of the activities associated with the proposed project, not just those closely associated with the drainages and/or riparian vegetation. Impacts shall be outlined in the application and are expected to be in substantial conformance with the impacts to biological resources outlined in this IS/MND. Impacts for each activity shall be broken down by temporary and permanent, and a description of the proposed mitigation for biological resource impacts shall be outlined per activity and then by temporary and permanent. Information regarding project-specific drainage and hydrology changes resulting from project implementation shall be provided as well as a description of stormwater treatment methods. Minimization and avoidance measures shall be proposed as appropriate and may include: preconstruction species surveys and reporting, protective fencing around avoided biological resources, worker environmental awareness training, seeding disturbed areas adjacent to open space areas with native seed, and installation of project-specific stormwater BMPs. The project applicant shall be responsible for conducting all project activities in accordance with the permit provisions outlined in the applicable CDFW Lake or Streambed Alteration Agreement.*

The foregoing revisions do not affect the analysis or conclusions presented in the IS/MND.

Response to Comment 4-25

Regarding logging operations, see Response to Comment 4-23.

The referenced EIR analyzes extensive forest thinning and removal of understory vegetation on a 61-acre open space reserve; analysis of such a large tree removal operation is on a scale much larger than the proposed single-family residential home located on the 38,928-square foot (0.894 acres) project site that is the subject of the IS/MND. CalEEMod inherently accounts for site clearing and grubbing associated with construction activities, including tree removal. However, given the relatively modest scale and intensity of the proposed residential development, effects of the proposed project on carbon sequestration would be insignificant. In addition, the project would include the planting of replacement trees, which would provide on-site carbon sequestration as the trees mature.

Response to Comment 4-26

The comment is a concluding statement requesting preparation of an EIR. Per the CEQA Guidelines, an EIR is only required when a project's potentially significant impacts cannot be mitigated to a less-than-significant level. The IS/MND includes feasible and detailed mitigation measures sufficient to reduce all potential impacts to less-than-significant levels, and provides full public disclosure and substantial evidence to document the conclusions presented therein. The comment does not make a fair argument supported by substantial evidence to demonstrate that one or more of the project's potentially significant impacts will not be reduced to a less-than-significant level in support of the request that the City prepare an EIR. Thus, an EIR is not required, and the comment does not address the adequacy of the IS/MND.

It should be noted that Letter 4 includes two attachments (Exhibits A and B). Neither attachment is specific to the IS/MND and all comments referencing those Exhibits have been adequately responded to above.

Letter 5

December 4, 2018

Christian Murdock
Senior Planner
City of Pacifica Planning Department
1800 Francisco Blvd.
Pacifica, CA 94044

Re: Lots 6-12 Oddstad Way New Residence

Dear Mr. Murdock,

As you are aware, my home while addressed as 598 Rockaway Beach, is actually located on the current paper street called Oddstad Way, and will be the most affected by the proposed development of Lots 6-12. **5-1**

As far as the proposed home is concerned, it seems to comply with the City's Very Low Density zoning. Since it complies, my focus in this letter is on the road to the proposed home rather than the proposed residence. Here are my concerns:

Road Placement

The current plans as I see them have a 20 foot wide road going as close to my home as possible. I am in favor of the plan to continue the road at a 20 foot width. The city has a 40 foot wide easement for a road. There are no other homes along this paper street, yet the plan is to put the paved portion of the road on my side of the easement just a few feet from the side of my home. I think that it is a reasonable request to have the road and infrastructure placed on the side of the easement where there will be no existing structures. **5-2**

Oddstad Tributary to Rockaway Creek

There is an existing tributary or drainage ditch along the south side of the current unpaved portion of the Oddstad Way beginning about where lots 6-12 are located. The area was illegally bulldozed by an earlier developer (before the current owner developer purchased any of the lots). After the bulldozing, the following winter water no longer entered the creek and began flowing down the dirt road onto the paved portion of Oddstad in front of my home. It also seeped its way down the lot besides my home. Fortunately, someone redirected the flow back into the tributary. And the over flows have stopped. I appreciate that the current developer has thought to put into the plans a way to keep water flow away from my property and the lots next to my home. However, it seems that adding a water treatment area between my home and the road **5-3**

Letter 5
cont'd

5-3 cont'd is unnecessary. The existing tributary is sufficient to manage the flow of water during storms. It was only because the original origin of the tributary was bulldozed that we were having an issue. If water is directed into the existing tributary from where lots 6-12 are located, then building a water treatment structure becomes unnecessary. I would prefer that the road infrastructure be as far away as possible from my home.

5-4 **Rockaway Creek**
I am appreciative of the plans to capture any sediment run off from going into Rockaway Creek during construction. Past developments in the valley led to sediment building up in the creek. This has been especially evident in the culvert where Rockaway Creek runs under Oddstad Way. Sediment had built up inside and was a cause of concern for potential flooding.(I still owe you a video of the water running at its highest point. I will work on finding that video for you.) The sediment build up is something that should be monitored during construction. Also thank you for making sure that run off is directed west of the culvert.

5-5 **Street Lighting**
The current paved portion of road leading to my home is only lit by the two lighted pillars at my driveway's entrance. For safety reasons, consideration needs to be given to some street lighting, especially if a pedestrian/bike path is part of the new road way. I do request if street lighting is added to the project, that placement of this lighting be in a way that does not create light shining into neighboring homes.

5-6 **Street Parking**
I currently have plenty of street parking outside of my own driveway. It seems that I will lose much if not all of that area where guests can park. Would it be possible to consult with the planning department to create other parking options?

5-7 **The Giant Eucalyptus Tree**
There is a very large eucalyptus tree just to the north of my drive way entrance. This tree drops quite a bit of leaves and branches onto the road below anytime the wind blows. During big storms it has dropped its larger branches. I clean the debris on an almost weekly basis. If the road continues on beyond my driveway, this tree and its debris will be a safety issue. I recommend that this tree be removed as part of the road development.

5-8 **Street Cleaning**
While the City of Pacifica has street cleaners, they have stopped coming up to my home. The street cleaning vehicle just continues up Rockaway Beach Avenue and does not come my way. If the road is extended to lots 6-12 then the City need to clean the street all the way to the end of the road.

5-9 **Driveway Access**
To enter and exit my drive way I need to make a sharp turn in off the road. Backing out of the driveway is even trickier. Now I don't have to worry about oncoming traffic. My concern is that it will be dangerous for us to exit our drive way. Can we work with the City Planning Department and the developer to come up with a safe option?

Letter 5 cont'd

5-10 In addition, I notice that the current plans include the placement of drainage lines under the roadway in front of my driveway. Additionally, I suspect that the developer will need to tie into the utility vault below the manhole outside my driveway. Also I want to confirm that the underground utilities that lead up to my home will continue underground up to the new development.

I would like to know the steps that will be taken to minimize and mitigate the lack of access I will have to my own home. We also rent out a room in our house and fear the loss of rental income during construction.

Landscaping

5-11 I currently live in probably one of the most beautiful locations in all of Pacifica, if not the entire Peninsula. I have trees all around me. There is a creek besides my home. I am just a few blocks walk to the ocean. I can see why the developer thinks this is a perfect place for a home. I ask for some landscaping improvements to offset the loss of many of the trees around my home. One tree slated for removal is a large expensive palm tree.

I am especially concerned with how the new road rises quickly and will go directly past the master bedroom on my second floor, thus taking away our peace and privacy. I would like to know what will be done to lessen the impact of our loss, and the added disruption of vehicle and pedestrian traffic.

Street Name

5-12 Currently my home address is 598 Rockaway Beach Avenue. I suspect my home's address will have to change, once Oddstad Way is extended. There is a problem with the name. I have had emergency responders pull into my driveway looking for Oddstad Blvd., not to mention lost visiting team's parents looking for Terra Nova. Can the residents of Oddstad Way have the street name changed? (May I suggest Rockaway Beach Lane?)

Future Development

5-13 Again I thank the developer for presenting a plan the meets the City's very low density zoning. I request that any future developments keep within the current zoning guidelines.

Thank you for your time and effort on this project. Your professionalism has been appreciated.

Sincerely,

T Kevin Casey

T Kevin Casey
598 Rockaway Beach Avenue
Pacifica, CA 94044

LETTER 5: T KEVIN CASEY, DECEMBER 4, 2018

Response to Comment 5-1

The comment is an introductory statement and does not address the adequacy of the IS/MND. Responses to the commenter's specific concerns are provided below.

Response to Comment 5-2

The comment relates to a planning issue, and does not address the adequacy of the IS/MND. The commenter's concern and request have been forwarded to the decision-makers for their consideration.

Response to Comment 5-3

Pages 66 and 67 of the IS/MND state the following regarding treatment of stormwater runoff:

> All municipalities within San Mateo County (and the County itself) are required to develop surface water control standards for new development projects to comply with Provision C.3 of the RWQCB Municipal Regional Stormwater NPDES Permit order No. R2-2015-0049. The San Mateo Countywide Water Pollution Prevention Program developed a C.3 Stormwater Technical Guidance document for implementing the RWQCB Municipal Regional Stormwater NPDES Permit C.3 requirements, known as the C.3 Standards. The City of Pacifica has adopted the County C.3 Standards as part of the City's NPDES General Permit requirements, which require new development and redevelopment projects that create or alter 10,000 or more square feet of impervious area to contain and treat all stormwater runoff from the project site. Given that the proposed project would create approximately 15,952 square feet of impervious area, the project would be considered a C.3-regulated project and would be subject to the requirements of the RWQCB's C.3 Standards.

Based on the above, provision of stormwater treatment is necessary in order for the proposed project to comply with the applicable C.3 standards.

Response to Comment 5-4

The comment discusses existing sediment build-up issues within Rockaway Creek, but does not address the adequacy of the IS/MND. The project would discharge stormwater downstream of the referenced culvert where the commenter has observed sediment build-up, and the proposed project would not affect the existing condition described in the comment.

Response to Comment 5-5

The comment relates to a planning issue, and does not address the adequacy of the IS/MND. The commenter's request has been forwarded to the decision-makers for their consideration.

Response to Comment 5-6

The comment relates to a planning issue, and does not address the adequacy of the IS/MND. The commenter's request has been forwarded to the decision-makers for their consideration.

Response to Comment 5-7

The comment alleges existing hazards associated with a eucalyptus tree near the commenter's property. The comment relates to a planning issue, and does not address the adequacy of the IS/MND. Furthermore, the identified hazard is considered a part of the CEQA baseline, and would not be exacerbated by development of the proposed project. As noted on page 97 of the IS/MND, the proposed project and future development of the Westerly Lots would not substantially increase hazards due to design features. The commenter's concerns and suggestions for tree removal have been forwarded to the decision-makers for their consideration.

Response to Comment 5-8

Existing issues related to street cleaning are not the purview of CEQA. Thus, the comment does not address the adequacy of the IS/MND. However, the commenter's concerns have been forwarded to the decision-makers for their consideration.

Response to Comment 5-9

Issues related to roadway hazards are discussed within Section XVI, Transportation and Circulation, of the IS/MND. Nonetheless, the commenter's concerns have been forwarded to the decision-makers for their consideration.

As discussed on page 95 of the IS/MND, all roadway improvements associated with the proposed project would be designed consistent with existing City standards and guidelines. Compliance with such standards would ensure that the proposed roadway extension would not result in a traffic safety hazard for existing uses along Oddstad Way.

Response to Comment 5-10

All utility improvements required to serve the proposed single-family home would be undergrounded along the proposed Oddstad Way extension.

The proposed project would not obstruct access to existing residences along Oddstad Way. In addition, as noted on page 14 of the IS/MND, upon completion of the proposed Oddstad Way extension, construction employees would park on-site or along the extended roadway so as to avoid obstruction of the existing roadway network. Thus, use of street parking along Oddstad Way and Rockaway Beach Avenue would be limited to the maximum extent feasible.

Response to Comment 5-11

As discussed on page 24 of the IS/MND, private views are not typically considered to be protected under the CEQA Guidelines. Thus, the IS/MND is not required to analyze potential impacts to views from private residences along local roadways. Furthermore, as noted previously, the proposed extension of Oddstad Way has been previously anticipated per the City's 1980 General Plan. Thus, the City has accounted for changes to the visual character and quality of the area associated with the extension. Additionally, issues related to project-generated noise have been evaluated in Section XII, Noise, of the IS/MND. As noted therein, all identified impacts would be reduced to less-than-significant levels with implementation of mitigation. Nonetheless, the commenter's concerns have been forwarded to the decision-makers for their consideration.

Response to Comment 5-12

The comment relates to a planning issue, and does not address the adequacy of the IS/MND. Furthermore, because Oddstad Way currently exists, the naming of the roadway is considered part of the CEQA baseline. Nonetheless, the commenter's concerns and suggestions are appreciated, and have been forwarded to the decision-makers for their consideration.

Response to Comment 5-13

The comment does not address the adequacy of the IS/MND.

Letter 6

Joanne Wilson, AICP
671 Rockaway Beach Avenue
Pacifica, CA 94044

December 4, 2018

City of Pacifica Planning Department
Attn: Christian Murdock
1800 Francisco Boulevard
Pacifica, CA 94044

Re: Draft Initial Study and Mitigated Negative Declaration (IS/MND) for the Lots 4-12 Oddstad Way Project (File No. 2014-001)

Dear Mr. Murdock:

Thank you for the opportunity to provide comments on the above-referenced environmental review document for the proposed residential development in my neighborhood. I believe an environmental impact report (EIR) pursuant to the California Environmental Quality Act (CEQA) should be prepared because there is substantial evidence, based upon the whole record, that the proposed project may have a significant adverse effect on the environment. In addition to the numerous reasons in support of an EIR for the proposal stated in Mr. Hal Bohner's letter of February 7, 2017 on behalf of his client and the Rockaway Beach neighborhood, I would like to provide the following reasons.

6-1

1. **Analysis of Cumulative Effects of development of adjacent parcels is insufficient.** The draft IS/MND prepared for the proposed project includes analysis of some cumulative effects related to potential development of 4 lots to the west of the proposed project ("westerly") but rejects further analysis of 21 lots (or more[1]) to the east of the proposed project ("easterly") as *...speculative and not reasonably foreseeable/probable as the Westerly Lots*. I disagree with this assessment for the following reasons:

6-2

Development of both the westerly and easterly lots is not speculative due to General Plan requirements or other legislative actions, and is therefore, reasonably foreseeable. Page 17 of the draft IS/MND discusses the westerly lots and states that a General Plan amendment would be required to allow development of parcels that do not meet the minimum lot size or density requirements. It describes this as *...a legislative act requiring action by the City Council and which the City Council is not required to approve, renders uncertain the future development potential of these three lots.* On pages 19-20 of the draft IS/MND the following statement is made regarding the easterly lots: *Moreover, eight of the Easterly Lots would likely require approval of General Plan amendments due to insufficient lot area*

[1] The draft IS/MND seems to have omitted Lots 125-130 in the list of easterly lots identified on pages 18-19.

Letter 6 cont'd

relative to applicable land use designations, meaning the existing land use regulations applicable to the Easterly Lots render uncertain their future development potential....

These statements in the draft IS/MND are not supported by the whole record for the proposed project. According the Pacifica Planning Director, development of some kind cannot be disallowed under the General Plan. The administrative record for the proposed project includes a memorandum dated October 21, 2015 from the Rockaway Valley Neighborhood Association, Steering Committee to Tina Wehrmeister (Pacifica Planning Director) and Kathryn Farbstein (Assistant Planner) regarding a meeting to discuss the proposed project and neighborhood planning issues (copy attached)[2]. As described in item 6 on page 2 of the attached memorandum, Ms. Wehrmeister [r]*eported that pre-existing lots cannot become valueless through zoning or general plan policies. Thus, some kind of development must be allowed, but the City of Pacifica can set reasonable standards.* Ms. Wehrmeister supported her statement by citing case law from 1980 and 1992 in which the courts ruled that the economic value of property cannot be invalidated through a General Plan designation or zoning. I also recall that the City Attorney for Pacifica made a similar statement at a public hearing regarding the proposed project. According to statements made by the Pacifica Planning Director and City Attorney, development of substandard sized lots along Oddstad Way is not precluded by the requirements of the City's General Plan, provided that the developer seeks a General Plan amendment. Thus, development of the 4 westerly lots and 21 (or more) easterly lots in the draft IS/MND is not speculative based on General Plan requirements or legislative actions; it is reasonably foreseeable.

6-2 cont'd

Development of both the westerly and easterly lots is not speculative based on cost considerations, and is therefore, reasonably foreseeable. The draft IS/MND states on page 18: *This IS/MND recognizes there are an additional 21 vacant lots east of the proposed Oddstad Way roadway extension. Because of construction cost considerations for installation of future utilities extensions to these lots, it is reasonable to consider the future development potential of only 12 of these lots....* Page 19 of the draft IS/MND states: *It is beyond the scope of this IS/MND to consider potential permitting and construction costs of the additional roadway and utilities extensions necessary to reach each of the lots and then to perform financial modeling to determine at which point these lots would be induced to develop in consideration of these costs which were reduced in some incremental amount by the proposed project's roadway and utilities extensions.*

6-3

It seems to me that you cannot have it both ways. Either a sufficient financial analysis has been completed to support a statement that development of at least some of the 21 (or more) easterly lots is cost-prohibitive, or there is no basis to make such a conclusion. Since the draft IS/MND admits on page 19 that no such analysis exists, any statements regarding economic factors as precluding

[2] The attached memorandum was vetted and revised by Ms. Wehrmeister on 10/19/2018. Her revisions were included in the final attached memorandum.

Letter 6 cont'd

6-3 cont'd

development of any of the lots along Oddstad Way is not supported by the whole record for the proposed project. While it is probable that those easterly lots located closer to the proposed terminus of Oddstad Way extended roadway will have reduced costs based on proximity <u>if all parcels are developed simultaneously</u>, there is no basis to claim that development of other lots with less proximity would be cost prohibitive without a financial analysis that included construction costs, real estate market trends and profit margins. Even if the precise details of potential development are unknown (e.g., square footage, number of bedrooms/baths), analysis based on general characteristics and assumptions could be made in a program-level EIR. An EIR also presents an advantage to planners and the public by requiring an alternatives analysis, which could include various buildout scenarios. Moreover, as development progresses from west to east (including more road extensions), this argument of higher costs for lots located further east becomes invalid. Thus, development of the 4 westerly lots and 21 (or more) easterly lots in the draft IS/MND is not speculative based on cost considerations; it is reasonably foreseeable.

6-4

2. **The cumulative analysis is insufficient because it does not analyze the potentially significant impacts of "westerly" and "easterly" lots related to land use and planning.** The CEQA Initial Study Checklist asks whether the proposed project would [c]*onflict with any applicable land use plans, policies, or regulations of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?* As stated in the attached memorandum, the City of Pacifica acknowledges that the R-1-H zoning of the 1992 Zoning Map/Code conflicts with the 1980 Pacifica General Plan in terms of lot size and density allowed in this area. As you know, the California State Legislature adopted a "general plan consistency doctrine" in 1971 requiring that a city's zoning must be consistent with an adopted general plan.[3] As documented in the attached memorandum, the City of Pacifica admits that the Negative Declaration adopted for the 1992 Zoning Map/Code pursuant to CEQA did not including findings of conformance with the existing 1980 General Plan or there were general, unsubstantiated statements about conformance. The 1980 General Plan limits development density and requires much larger lot sizes compared to the 1992 Zoning Map/Code to avoid or minimize adverse environmental effects including (but not limited to) geology and unstable soils, visual or aesthetic values, habitat and natural features, *... as well as public safety hazards, such as limited emergency access and high potential for grass fires, ...*[4]

According to the draft IS/MND, development of 3 of the 4 westerly lots would conflict with the 1980 General Plan due to insufficient lot area for the land use designation. In addition, I calculate that approximately 14 of the 21 (or more) easterly lots likewise may not meet the minimum lot size and density requirements of the 1980 General Plan. (Please note that I used the map provided in Appendix A to make this

[3] *Curtin's California Land Use and Planning Law*, 2011 Thirty-First Edition, Cecily Talbert Barclay, pages 9-38.
[4] City of Pacifica General Plan, 1980, pages 43-45.

Letter 6 cont'd

calculation, and the lot dimensions are nearly illegible, possibly making my calculation imprecise. Nevertheless, many of the easterly lots are clearly substandard in size.) Thus, the development of these non-conforming lots would conflict with an applicable land use plan adopted for the purpose of avoiding an adverse environmental effect. This would be a potentially significant effect under CEQA. If it is not feasible to merge some of the existing substandard-sized lots along Oddstad Way to create larger parcels that conform to the 1980 General Plan, then this could be a significant impact that cannot be adequately mitigated to avoid an adverse environmental impact.

6-4 cont'd

I also note that further explanation is needed regarding "Lots 1 (standard lot)" and "Lot 1 (flag lot)" discussed on page 16 and described in Table 1 on page 17. The draft IS/MND states that these lots were "reconfigured" in 2008. Among the purposes of CEQA is the disclosure to the public of agency decision making processes utilized to approve discretionary projects through findings and statements of overriding consideration. The draft IS/MND should have disclosed the details of the "reconfiguration" of Lot 1 into 2 nonconforming, substandard-sized lots since they are discussed in the cumulative analysis.

According to the Governor's Office of Planning and Research (State of California):

> *The general plan is the basis for all local land use decisions. Zoning (except in most charter cities[5]), subdivisions, and public works projects can only be approved when they are consistent with the general plan. An action, program or project is consistent with the general plan if, considering all its aspects, it will further the goals, objectives and policies of the plan and not obstruct their attainment.*[6]

As you know, the R-1-H (Single-Family Residential Hillside District) zoning which requires a minimum lot size of 5,000 square feet is clearly in conflict with the 1980 Pacifica General Plan's "Open Space Residential" (OSR) designation which allows only one dwelling unit per more than five acres. Therefore, the 1992 Zoning Code/Map for R-1-H does not further the goals, objectives and policies of the 1980 General Plan for vacant lots with an OSR designation on undeveloped streets in Rockaway Beach.

In 2008 (or earlier), did the City of Pacifica amend its 1980 General Plan to allow the reconfiguration of these lots? Was a CEQA document prepared to support a General Plan amendment? If so, what were the findings and statements (if any) of overriding consideration? Can the public expect a similar process for the other undeveloped, substandard-sized parcels along Oddstad Way?

6-5

3. **The cumulative analysis is insufficient because it does not analyze the potentially significant impacts of "westerly" and "easterly" lots related to hydrology and water quality.** For your reference, I am including the following excerpts from Mr. Bohner's CEQA scoping letter of February 7, 2017.

[5] The City of Pacifica is not a charter city.

[6] *California Planning Guide: Planning in California*, Governor's Office of Planning and Research, Sean Walsh, Director, OPR, December 2005 Edition, page 4.

Letter 6 cont'd

6-5 cont'd

- First, as background information, the following excerpt is provided: *The administrative record for the proposed project includes correspondence to environmental consultants (Bill Wiseman, Kimley-Horn, et al.) regarding a Request for Proposals (RFP) for the preparation of a CEQA document. The first paragraph of the letter states: Due to the street improvements providing access into an undeveloped area, up to another six dwellings can be constructed from the proposed privately maintained street. The same letter identifies additional environmental issues, including ...traffic impacts for up to eight dwelling units and hydrology issues such as drainage from the nearby slopes and creek (neighbor concerns).*

- Second, the following excerpt describes potential environmental effects from the proposed project related to hydrology and water quality: *The construction of 6 to 8 additional residences could adversely affect hydrology and water quality by substantially altering existing drainage patterns, resulting in a significant increase in erosion or surface runoff and causing localized flood damage to surrounding properties. In addition, construction activities could result in erosive materials and debris being deposited into Rockaway Creek, degrading water quality and adding sediment to the already compromised culvert that transports water under the existing portion of Oddstad Way. Alteration of tributary flows and significant increase in impervious surfaces associated with the construction of 6 to 8 additional homes could significantly increase the velocity and volume of flow in Rockaway Beach Creek during the rainy season, resulting in property damage downstream from creek bank failure and/or inundation.*

The westerly and easterly lots described in the draft IS/MND should be included in a cumulative analysis for potentially significant impacts related to hydrology and water quality identified in the CEQA Initial Study Checklist, particularly item "d" noted on page 66 of the draft IS/MND (*Substantially alter the existing drainage pattern of the site...which would result in flooding on- or off-site[.]* Some developed properties on Oddstad Way and a portion of Rockaway Beach Avenue located northwest of the project site area (south side of Rockaway Beach Avenue between Buel and Oddstad Way, downstream of the Oddstad Way culvert/bridge) have experienced property damage from flooding and streambank erosion. The development of the 4 westerly and 21 (or more) easterly lots could exacerbate the problem by altering the drainage pattern and reducing permeable surfaces of this extensive hillside area. The City of Pacifica should be taking steps now to assess the condition of developed properties adjacent to Rockaway Beach downstream of the Oddstad Way culvert/bridge in anticipation of future hillside development. These steps should include interviewing residents about property damage related to flooding and erosion, photo-documentation of existing conditions, the installation of stream gauges (to measure stream flow) and erosion pins or metal rods into the stream bank (to measure soil/streambank loss), as well as other methods such as stream survey cross sections and the use of satellite imagery. This background information is necessary in order to establish baseline data or existing conditions and perform an adequate analysis of potentially significant erosion and flooding impacts from development of the westerly and easterly lots.

Letter 6 cont'd

6-5 cont'd

I note that the current proposal includes an outfall for stormwater into Rockaway Creek (after collecting or extracting sediment in a bio-retention facility). For a single residence, a simple riprap apron to reduce the velocity of flowing water into the stream would probably be adequate to prevent streambank erosion of downstream properties. But a cumulative analysis of stormwater collection and diversion to the proposed outfall from the westerly and easterly lots would possibly reveal that a stilling basin or plunge pool could be needed to adequately dissipate the energy of a much larger volume of water to avoid streambank erosion and protect downstream properties. A cumulative analysis of hydrology and water quality is needed to protect downstream properties from a potentially significant impact from streambank erosion.

6-6

4. **The cumulative analysis is insufficient because it does not analyze the potentially significant impacts of "westerly" and "easterly" lots related to biological resources.** As stated above, the draft IS/MND is flawed because it does not include a cumulative analysis of the undeveloped westerly and easterly lots on Oddstad Way. There has been no recent biological assessment of these parcels which are heavily vegetated and provide habitat, including potential habitat for special status species that are known to occur in the area. For the reasons stated above, the City of Pacifica has not made a sound argument for excluding these westerly and easterly parcels from the cumulative analysis for the proposed project. Therefore, it cannot be concluded that the proposed project and development of other undeveloped parcels on Oddstad Way would not have a potentially significant impact on biological resources.

6-7

5. **The cumulative analysis is insufficient because it does not analyze the potentially significant impacts of "westerly" and "easterly" lots related to aesthetics.** Similar to the insufficiency of the cumulative impact analysis for biological resources, the draft IS/MND contains no analysis of the visual impacts of developing the heavily vegetated westerly and easterly lots. There can be no doubt that the loss of vegetative cover, including what likely amounts to hundreds of trees on these undeveloped parcels, would drastically and adversely affect a scenic vista and degrade the visual character and quality of the neighborhood. In addition, the buildout of all undeveloped westerly and easterly lots would cumulatively produce a new and substantial source of light and glare adversely affecting day and nighttime views in the area. Due to steep slopes, build-out of the undeveloped westerly and easterly lots would likely require retaining walls and grading that would drastically alter the natural topography. The constructions of residences and other structures, including further extension of Oddstad Way, would substantially change the visual character of a scenic, natural area.

6-8

6. **The cumulative analysis for many impact areas is insufficient because it relies on a factually incorrect statement regarding anticipated development established in the 1980 General Plan, generalizations without substantiation, and omits analysis of the 21 (or more) "easterly" lots:** In several impact areas, the draft IS/MND asserts that the residential buildout of

Letter 6 cont'd

6-8 cont'd

undeveloped westerly parcels was anticipated in the 1980 General Plan. This is not correct. The 1980 General Plan did anticipate residential buildout, but on lots of a minimum size and density to ameliorate adverse environmental impacts. Three of the four westerly lots included in the cumulative analysis do not meet the 1980 General Plan standard for minimum lot size and density. The 1980 General Plan did not anticipate that the City of Pacifica would approve the 2008 "reconfiguration" of a substandard-sized lot into an even more substandard "Lot 1 (Standard Lot)" and "Lot 1 (Flag Lot)" as described on page 17 of the draft IS/MND. In 1980 when the Pacifica General Plan was adopted, the public might have anticipated that it would soon be followed by a revised zoning code and related documents to reflect the provisions of the new General Plan as required by State law. This did not occur, but rather, new zoning for this area was adopted in 1992 that conflicts with the 1980 General Plan. It is simply factually incorrect to state that residential development of substandard-sized lots was anticipated in the 1980 General Plan. To the contrary, the 1980 General Plan attempts to correct the problem of over-development of a sensitive hillside and riparian area with large lot/low density designations for undeveloped parcels along Oddstad Way. The majority of the westerly lots and possibly up to 14 of the easterly lots do not meet the standards of the 1980 General Plan.

6-9

Much of the cumulative analysis for the 4 westerly lots in the draft IS/MND is simply unsubstantiated or generalized, without meaningful analysis. Even at a program-level, the cumulative analysis for undeveloped parcels along Oddstad Way is unsupported by studies, existing literature, or other evidence. In particular, there is no substantial analysis of the cumulative impacts related to emergency access (item "e" under CEQA Checklist item "XVI. Transportation and Circulation"). On page 95, the draft IS/MND describes road improvements for the current proposal as meeting City standards and simply concludes the cumulative analysis by stating that there would be sufficient emergency access. There is no analysis of the state of current emergency access for the Rockaway Beach neighborhood and how it might be made worse by the buildout of the 4 westerly lots and 21 (or more) easterly lots. The draft IS/MND should describe in detail the single entry/exit to the neighborhood at Buel and Rockaway Beach Avenue and include a thorough discussion of the existing traffic circulation pattern. There should be a complete description of the lack of planned secondary ingress and egress on existing and Oddstad Way paper street and a substantial analysis of the impact of potential buildout of the hillside area (both westerly and easterly lots) on emergency access. As you know from previous letters and public hearings, emergency access is of critical concern to residents of Rockway Beach.

6-10

The cumulative analysis for the above-referenced impact areas does not include the 21 (or more) undeveloped easterly lots. For the reasons stated above (items no. 1), the cumulative analysis for the draft IS/MND is incomplete.

Letter 6 cont'd

7. **Analysis of Project-Specific Aesthetic Effects of the proposed development of Lots 4-12 is insufficient.** The draft IS/MND notes on page 22 that the proposed residence, at 4,318 square feet, would *...represent the largest residence in the Rockaway Beach neighborhood by a margin of 668 square feet (18 percent).* In addition to the proposed residence and road, the visual simulation shown in Figure 7 shows a series of retaining walls or terraces that range in height from 2.5 feet to ten feet that visually appear as a monolithic and massive structure against the hillside (east, west and south sides of the project site) topped by a secondary building. Obviously, the proposed buildings and walls are enormous, unprecedented in Rockaway Beach, and outsized for the neighborhood. Clearly there would be a significant adverse impact on scenic vistas from the neighborhood public view corridors, including public streets and the public open space and trail on Cattle Hill. I strongly disagree with the statement in the draft IS/MND on page 24 that visual character of the proposed project is consistent with the neighborhood. The proposed mitigation measure to match or blend the color of the retaining walls with the natural landscape is inadequate and would not reduce the aesthetic effect of the proposed project to a less than significant level. **6-11**

   There should be further analysis of whether the retaining walls and massing of the proposed structures can be reduced. For example, if the proposed recreational building on top of the retaining walls were eliminated or incorporated into the main structure, this would reduce the visual impact. In addition, the draft IS/MND should include a discussion of precisely how much of the site requires terraces or retaining walls to act as "debris walls" to *...protect the proposed structures from localized shallow surficial landslides* (page 26) as opposed to providing access to, and a suitable building site for, the proposed recreation building. Mitigation should include minimization of retaining walls to the extent feasible and reduction in the size and massing of structures to conform to the existing neighborhood character. Even with such mitigation, the proposed project would significantly impact scenic vistas and visual character of the site and its surroundings by transforming a heavily vegetated hillside (including the removal of mature trees) and constructing a series of retaining walls, structures, and a road extension.

   The draft IS/MND is inadequate because it does not include specific mitigation to reduce the visual impact of the proposed road. For example, mitigation could include a split road (i.e., two one-way, 10-foot wide traffic lanes divided by a generously-sized median with substantial landscaping and appropriate tree species). The landscaped median could also include pedestrian access to provide more of a trail experience as opposed to an urban sidewalk. A split roadway could result in the preservation of natural topography by using two levels of roadway that conform more easily to the natural contours of the land than a single, 20-foot wide roadway. The landscaped median could visually soften the proposed road by breaking up its mass and incorporating natural elements more appropriate to the setting. **6-12**

   I note here that I am unclear as to the ownership of Cattle Hill near the terminus of Bay View Road. I am not sure if it is owned by the City of Pacifica or the Golden **6-13**

Letter 6 cont'd

6-13 cont'd

Gate National Recreation Area (GGNRA), but I believe that the GGNRA may have funded erosion control projects and the creation of a trail with access from Bay View Road for this property. If that is the case, the GGNRA should have an opportunity to review the draft IS/MND and provide comments. In any event, visual simulations from this public open space and trail should be included in the analysis and the appropriate open space agency(ies) should be consulted.

6-14

Additional comments on the draft IS/MND are attached in a separate table; please consider them incorporated into this comment letter by reference.

Conclusion

First, I wish to commend the applicant for altering the proposal and acquiring additional parcels so that the proposed project conforms to the 1980 General Plan requirements for minimum lot size and density. I also wish to commend you and the Pacifica Planning Director Tina Wehrmeister for making yourselves available to me and my neighbors to discuss the proposed project and intelligently answer our questions. I appreciate that you required certain environmental background studies for the specific/current project (Lots 4-12) to be peer-reviewed (such as the biological resources study and geotechnical investigation). I respect and admire your planning expertise. In particular, I believe that Ms. Wehrmeister's ideas expressed in the attached memorandum for setting reasonable standards for development of substandard-sized lots on the hillsides above the Rockaway Beach neighborhood have merit and deserve further exploration and public discussion. If memory serves, I believe Ms. Wehrmeister also recommended to the Planning Commission the use of Transfer of Residential Development Rights (TDRs) for substandard-sized lots where it is not feasible to merge them with other lots for General Plan conformance. I agree with this approach because TDRs could be a useful tool to preserve the riparian corridor in Rockaway Beach, avoid over-development on hazardous slopes, and provide economic relief to property owners of substandard-sized lots.

6-15

Her suggested courses of action hold much promise as a way to resolve issues between prospective developers and neighborhood residents, while maintaining the stated purpose of the 1980 General Plan land use designations (including minimum lot size and density) for this area to reduce or avoid adverse environmental effects.

Inescapable, however, is the fact that the proposed pioneering project located on an undeveloped, natural hillside will set the precedent for future development. In addition, the construction of the Oddstad Way roadway extension will not only set the pattern for future hillside road development in this area, but certainly will encourage construction on the westerly and easterly undeveloped lots. While it is unfortunate that additional costs and time delays associated with the preparation of an EIR would be borne by the applicant, this could have been avoided if city officials had responded positively to the request of neighborhood residents for a moratorium on hillside development in the Rockaway Beach neighborhood until a specific plan for the area could be developed to address many of the planning and environmental issues described in this letter, particularly emergency access and traffic circulation. In light of the City of Pacifica's questionable past actions in the

Letter 6 cont'd

6-15 cont'd

Rockaway Beach area that were evidently contrary to State law, my neighbors and I agree that additional scrutiny of hillside development in our neighborhood is warranted. These questionable past actions were:

- Adoption of the R-1-H zoning of the 1992 Zoning Map/Code in conflict with the 1980 General Plan minimum lot size and density standards for hillside areas in Rockaway Beach;
- Failure to provide adequate (or any) findings of General Plan conformance in the Negative Declaration prepared for the 1992 Zoning Map/Code as required by CEQA; and
- Approval of the Lot 1 "reconfiguration" in 2008 in obvious conflict with the 1980 General Plan.

For the reasons stated in this letter, I urge the City of Pacifica to require a program-level EIR for the westerly and easterly lots, combined with a project-level EIR for the current proposal (development of Lots 4-2 Oddstad Way Project).

Thank you for considering these comments.

Sincerely,

Joanne Wilson

Joanne Wilson

Attachment: Memorandum dated October 21, 2015 from the Rockaway Valley Neighborhood Association, Steering Committee to Tina Wehrmeister (Pacifica Planning Director) and Kathryn Farbstein (Assistant Planner)

Table of Additional Comments on the Draft IS/MND for Lots 4-12 Oddstad Way Project

Letter 6 cont'd

Additional Comments
Re: Draft Initial Study and Mitigated Negative Declaration (IS/MND) for the Lots 4-12 Oddstad Way Project (File No. 2014-001)
Prepared by Joanne Wilson, 671 Rockaway Beach Avenue, Pacifica CA 94044

	IS/MND Page No.	IS/MND Text/Figure or Table No.	Comment
6-16	8	*Lots 4 and 5 within the subject property would not be developed as part of the proposed project.*	To protect natural resources, the City should consider placing a conservation easement on Lots 4 and 5 or otherwise restrict (through a deed restriction) further development of these lots.
6-17	11	*A 60-foot parking bay would be included within the Oddstad Way right-of way directly north of the proposed turnaround.*	Please describe the number of vehicles that can be accommodated in the proposed parking bay and whether parking spaces would be oriented parallel to the road extension or perpendicular.
6-18	11	*Runoff from a portion of the DMAs would be managed by routing stormwater to a new bio-retention facility. Treated stormwater would be routed through a new storm drain pipe and discharge, by way of a new outfall structure, at the downstream side of the existing culvert at Oddstad Way.*	Please describe the capacity of the proposed bio-retention facility (both the volume of the facility and the approximate storm-event intensity and duration it is designed to handle). Please provide more information regarding the outfall structure. In particular, the proposed outfall should be designed to reduce the flow velocities by dissipating the energy of flowing water into the creek to avoid streambank erosion. Typically, a riprap apron is used for this purpose, but it should be designed by a qualified hydrologist. The hydrologist should also oversee its installation.
6-19	13	*The proposed project site and off-site improvement areas contain 20 living trees considered 'heritage trees' per the City's Municipal Code…existing trees on the project site would be retained, including 12 heritage trees and various other trees not protected by the City's Municipal Code.*	Please quantify and describe all the mature trees to be removed from the project site. This is important to understand the visual effects of the proposed project. A table that identifies all mature trees to be removed would be helpful. The table should provide pertinent information such as 1) heritage tree status; 2) diameter measurement at breast height; 3) approximate height; 3) species type; 4) condition; and 5) notes or comments (e.g., observation of nesting birds, potential or known habitat for special status species, etc.)
6-20	18	*The impact areas affected by development of the Westerly Lots analyzed herein at the project-level are as follows:…Utilities & Service Systems.*	The impact areas should include 1) Hydrology and Water Quality; and 2) Biological Resources (see pages 4-6 of the attached letter).

Letter 6 cont'd

	IS/MND Page No.	IS/MND Text/Figure or Table No.	Comment
6-21	18	*Therefore, it is reasonable for this IS/MND to consider potential impacts from the future development of only the following 12 lots (collectively the "Easterly Lots"):*	Lots 125 – 130, located between Lot "121" and Lot "131", seems to be missing.
6-22	23	Figure 7: Proposed View of Project Site from Bayview Road looking South	It is difficult to distinguish the features of the proposed project in this figure; recommend an enlarged photo placed on a separate page.
6-23	23	Figure 7: Proposed View of Project Site from Bayview Road looking South	A visual simulation should be provided from the summit of Cattle Hill (a public open space) and at various points along the trail (located between the terminus of Bayview Road and the summit of Cattle Hill). This is a significant public view corridor.
6-24	23	Figure 7: Proposed View of Project Site from Bayview Road looking South	As part of the cumulative analysis, visual simulations of the buildout of the westerly and easterly lots should be included from the north side of Rockaway Beach Avenue and important public view corridors (including Cattle Hill and its public trails).
6-25	25	Figure 9: Proposed View of Project Site from Rockaway Beach Avenue Residence	As part of the cumulative analysis, visual simulations of the buildout of the westerly and easterly lots should be included from various residential properties on the south side of Rockaway Beach Avenue.
6-26	26	Mitigation Measure I-1: *Prior to issuance of building permits, all improvement and building plans for the proposed development shall demonstrate that the color and texture of the proposed buildings, retaining walls, and debris walls match or blend with the natural landscape….*	A mitigation measure should be included that requires a landscaping plan specifically for the retaining/debris walls with appropriately-sized tree species and trailing vegetation to visually soften the monolithic appearance of the proposed walls. The mitigation measure should also require maintenance of this vegetation as approved in the landscape plan for the lifetime of the project. This requirement should be recorded as a deed restriction for the property.
6-27	27	*The proposed on-site structures could potentially produce daytime glare as a result of light reflecting off of windows.*	In addition to windows, it appears that the proposed project may include deck railings with glass panels. The potential glare from glass panels should be included in the analysis.
6-28	40-49	General Comment	The analysis should include potential adverse environmental effects from bird mortality resulting bird strikes against reflective glass (windows and deck panels). A mitigation measure should be included to address potential bird strikes (such as the use of non-reflective glass or the application of a film or other product to glass to make it less reflective).

Letter 6 cont'd

	IS/MND Page No.	IS/MND Text/Figure or Table No.	Comment
6-29	40-49	General Comment	To protect trees and other natural resources on adjacent properties, a mitigation measure should be included that requires a temporary construction fence ("snow fence") around the project site (especially the north and east sides where there are developed residential properties with landscaped areas and mature trees).
6-30	44	Mitigation Measure IV-3(b): *If young San Francisco dusky-footed woodrats are encountered during the dismantling process….Nest material shall be moved to a suitable adjacent areas (woodland, scrub, or chaparral) that are outside of the disturbance area….*	Please clarify that the nests or habitat of special status species or any wildlife should not be re-located to adjacent properties with the property owner's permission. This is much different from animals moving on their own accord. In addition, even if nests are conscientiously removed, the woodrat may return to the construction site. A pre-construction "tailgate" training session on biological resources should be required mitigation
6-31	46	General Comment	Please describe the capacity of the proposed bio-retention facility (both the volume of the facility and the approximate storm-event intensity and duration it is designed to handle). Please provide more information regarding the outfall structure. In particular, the proposed outfall should be designed to reduce the flow velocities by dissipating the energy of flowing water into the creek to avoid streambank erosion. Typically, a riprap apron is used for this purpose, but it should be designed by a qualified hydrologist. The hydrologist should also oversee its installation.
6-32	48	Table 6: Heritage Trees within the Project Site and Off-Site Improvement Areas	Please quantify and describe all the mature trees to be removed from the project site. This is important to understand the visual effects of the proposed project. A table that identifies all mature trees to be removed would be helpful. The table should provide pertinent information such as 1) heritage tree status; 2) diameter measurement at breast height; 3) approximate height; 3) species type; 4) condition; and 5) notes or comments (e.g., observation of nesting birds, potential or known habitat for special status species, etc.)
6-33	51	*Given that the relatively steep slope of the proposed project site and the absence of a nearby perennial watercourse, ….*	According to neighborhood residents of properties on the south side of Rockaway Beach Avenue, the stream behind their houses (Rockaway Beach Creek) is a perennial stream. Water flow may slow to a trickle during the summer, but it still flows.

Letter 6 cont'd

	IS/MND Page No.	IS/MND Text/Figure or Table No.	Comment
6-34	52	Mitigation Measure V-2: *If any prehistoric or historic artifacts, or other indications of cultural deposits, such as historic privy pits or trash deposits, are found once ground disturbing activities are underway….*	How will construction workers (and perhaps the resident engineer onsite) recognize these artifacts? A mitigation measure should be included that requires a "tailgate" training session on cultural resources.
6-35	55	Mitigation Measure VI-3: *In addition, the project applicant shall stabilize any exposed …by seeding with native grasses selected by a qualified biologist….*	In addition to reviewing the seed mix, the qualified biologist should also review seed lot information to determine that the seed mix is of high quality with relatively few non-native seeds.
6-36	64	Mitigation Measure VIII-1: *Upon completion…shall require that the proposed emergency vehicle turnaround is kept clear in order to allow for unimpeded emergency vehicle access during construction activities….*	The emergency vehicle turnaround ("hammerhead") must be kept clear of non-emergency vehicles **at all times** for the lifetime of the project. The mitigation measure should be revised to make this clear. In addition, the mitigation measure should include a requirement for signage to this effect and to record this requirement as a deed restriction. This emergency access is not just for the proposed project; it protects all of us in Rockaway Beach from the spread of wildfire. The mitigation measure should include information for Rockaway Beach residents to report infractions and the consequences for the owner of the subject property. If this is not possible because the emergency vehicle turnaround is located on private property, then this would be potentially significant impact from a fire hazard. I do not want to see the emergency vehicle turnaround used for overflow parking when the owner of the subject property throws a party.
6-37	61-65	General Comment	There should be a cumulative analysis and mitigation for the build-out of the westerly and easterly lots and it should include an emergency evacuation plan.
6-38	83	General Comment re Mitigation Measure XII-2	The City of Pacifica currently allows construction to take place on Saturday and Sunday. Given the long duration of the proposed project, Mitigation Measure XII-2 should include a provision to restrict construction to weekdays only to allow residents respite from construction noise.
6-39	105	*…the project would not conflict with the long-term environmental goals of the General Plan.*	For the reasons stated in the attached letter, I strongly disagree with this statement because the cumulative analysis in the draft IS/MND is inadequate.

Letter 6 cont'd

	IS/MND Page No.	IS/MND Text/Figure or Table No.	Comment
6-40		Appendix A: Rockaway Beach Subdivision Map No. 1 (RSM 6/53)	The map is exceedingly difficult to read. Even when the digital version is viewed at 200%, the lot numbers are difficult to read, and the lot dimensions are impossible to read. In addition, some of the street names (i.e. "Hewitt") are not current or correct. A better graphic or map is needed.

Letter 6 cont'd

Memorandum

Date:	October 21, 2015
To:	Rockaway Valley Neighborhood Association, Steering Committee
C:	Tina Wehrmeister, Pacifica Planning Director Kathryn Farbstein, Assistant Planner
From:	Joanne Wilson and Chris Coppola, Rockaway Valley Neighborhood Association
Subject:	10/13/15 Meeting with Pacifica Planning Department re Proposed Oddstad Way Development in Rockaway Beach and Other Neighborhood Planning Issues
Attachments:	1) Timeline re Oddstad Way Proposed Development (Prepared by Joanne Wilson and Chris Coppola) 2) Current R-1-H Planning Code Requirements for Oddstad Way Proposed Development (Prepared by Chris Coppola)

This is to memorialize the information we received from the Pacifica Planning Department regarding the proposed project at 50-60 Oddstad Way fronting on an undeveloped street in Rockaway Beach (the "subject property"), as well as other planning issues in our neighborhood. The 10/13/15 meeting participants included Tina Wehrmeister (Director of Planning), Kathryn Farbstein (Assistant Planner), Joanne Wilson and Christine Coppola (Rockaway Valley Neighborhood Association).

Synopsis

1. Confirmed that the 1980 Pacifica General Plan designates the subject property, as well as other undeveloped lots on paper streets in Rockaway Beach (east of Highway 1/Coast Highway/Cabrillo Highway) as "Very Low Density" allowing one single-family dwelling per ½-acre (approximately 23,000 square feet).
2. Confirmed that under the 1992 Zoning Map/Code the subject property, and other undeveloped lots on paper streets (as described above) are zoned R-1-H, allowing one single-family dwelling per lot (minimum size of 5,000 square feet).
3. Acknowledged that there is a conflict between the requirements of the 1980 Pacifica General Plan and the 1992 Pacifica Zoning Code/Map.

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Letter 6 cont'd

4. Reported that the Pacifica Planning Director's cursory review of records and files indicate that the 1980 Pacifica General Plan was adopted after a public participation process (with proper notification) and adequate environmental review under the California Environmental Quality Act (CEQA). A review of records and files related to the adoption of the rezoning of lots to R-1-H in 1991 indicates that a Negative Declaration was adopted (i.e., the action will not create any adverse environmental impact). There were, however, either no findings of conformance with the existing general plan or there were general, unsubstantiated statements about general plan conformance.
5. Confirmed that the draft Pacifica General Plan Update Project includes "Very Low Density Residential" designations for the subject property, as well as other undeveloped parcels on paper streets in Rockaway Beach.
6. Reported that pre-existing lots cannot become valueless through zoning or general plan policies. Thus, some kind of development must be allowed, but the City of Pacifica can set reasonable standards.
7. Stated that the Pacifica Planning Director intends to pursue new development standards for undeveloped parcels on paper streets in Rockaway Beach (east of Highway 1) which may include limited building size (e.g. 500 to 800 square feet); but development of pre-existing lots would be allowed. In addition, the Planning Director stated that these new standards would be written to disfavor subdivision of ½-acre or larger lots. The development of new development standards would include proper notification of property owners and a public participation process.
8. Reported that the developer (Javier Diaz-Masias) submitted a site development permit application for the subject property that was deemed complete by the Pacifica Planning Department. Mr. Diaz-Masias was advised by planning staff that his application cannot be approved without an amendment of the 1980 Pacifica General Plan. A general plan amendment application would first be considered by the Pacifica Planning Commission (a "recommending body") and ultimately approved or disapproved by the Pacifica City Council.
9. Stated that the staff of the Pacifica Planning Department has been instructed to inform other owners of undeveloped parcels in Rockaway Beach that applications for development cannot be accepted without also including a General Plan Amendment application. Two property owners have recently expressed an interest in submitting a site development permit application.
10. Agreed that the Pacifica Planning Director would research whether the site development permit application submitted by Javier Diaz-Masias (owner/developer of the subject property) was actually complete (thus allowing him to proceed with a General Plan Amendment application if he so wishes).

Letter 6 cont'd

History and Applicability of Pacifica 1980 General Plan and 1992 Zoning Map/Code

According to Tina Wehrmeister, her cursory review of records and files for the adoption of the 1980 General Plan indicates that the process for Plan adoption appears to have been based on a properly noticed, public participation process and adequate environmental review pursuant to the California Environmental Quality Act (CEQA). The 1980 General Plan designates the subject property, as well as other undeveloped parcels on paper streets in the Rockaway Valley east of Highway 1 as Very Low Density areas requiring a minimum lot size of ½-acre (approximately 23,000 square feet) per single-family home. These undeveloped parcels are situated along the following paper streets: Portions of Oddstad Way on the southerly side of the valley, Troglia Terrace on the easterly side of the valley, and Santa Cruz Terrace and Calera Terrace on the northerly side of the valley. It was expected that owners of these hillside parcels would assemble their substandard parcels into developable parcels meeting the ½-acre lot size standard of the 1980 General Plan.

Tina stated that prior to mid-1990, the process for merging lots was much simpler because local government could facilitate this action. In anticipation of a change in the rules for merging lots, the City of Pacifica sent letters in about 1984-85 to the owners of these undeveloped lots to encourage merging while the process was still relatively simple. In 1995, the rules for merging lots[1] changed so that local jurisdictions could no longer facilitate the process as easily. Mergers initiated by cities could only occur if a lot's size is inconsistent with the zoning provisions. In the case of Oddstad, the zoning allows a minimum lot size of 5,000 square feet.

In November 1989 Council adopted an urgency ordinance establishing temporary development regulation for vacant lots with frontage on undeveloped streets. The findings for adoption of the urgency ordinance included discussion of: topography; limited traffic circulation; hillside design implications; the need for a discretionary review process; and conflict with contemplated development standards and design guidelines.

A workshop and study session was held to discuss permanent regulations. However, no additional progress was made to develop permanent standards or design guidelines. And the urgency ordinance expired on November 27, 1991.

In December 1991 with the interim ordinance expired and no standards developed, the City Council adopted a new zoning district R-1-H for certain hillside areas, including parts of the Rockaway neighborhood. The R-1-H district permits the same uses and development

[1] California Government Code, Article 1.5, Section 66451.10 - 66451.7, Merger of Parcels.

Letter 6 cont'd

standards as the R-1 district; the only difference is that Planning Commission review of a Site Development Permit is required. Specific standards or design guidelines for the R-1-H district were never prepared.

Under R-1-H (Single-Family Residential Hillside District) zoning[2], the standards for density and minimum lot size are the same as for R-1 (Single-Family Residential District)[3]. Thus, one single-family dwelling is allowed per lot; the minimum lot size (or "minimum building site area") is 5,000 square feet.[4]

We pointed out that the proposed draft Pacifica General Plan Update Project also includes a Very Low Density Residential designation for these parcels (as well as other undeveloped parcels in the valley east of Highway 1). This would seem to imply that the City of Pacifica, with support from its citizens, intends to continue this designation as policy.

Current Status of Proposed Development Project on Oddstad Way

Tina provided information on case law, discussed below from 1980 and 1992; the City of Pacifica cannot invalidate the economic value of existing parcels through a General Plan designation or zoning. According to Tina, some type of development must be allowed on the subject property. The City of Pacifica, however, can set reasonable standards for the development of these parcels. The developer could submit a General Plan Amendment application which would go to the Pacifica Planning Commission (for a recommendation) and then to the Pacifica City Council for review and a decision to approve or disapprove.

According to Tina, the developer is allowed to seek a General Plan Amendment because Pacifica Planning Department accepted his site development permit application and deemed it to be complete. If the City Council approves the General Plan Amendment, the developer would be allowed to build one house on each of his two lots as proposed or perhaps with design modification if required by the City Council (possibly based on recommendations from

[2] Article 9.5, R-1-H Single-Family Residential Hillside District, Code of Ordinances, Pacifica California (Supp. No. 40), Section 9-4.951 (Purpose): *The City Council finds and declares that certain hillside areas and certain areas of the City which are not located on developed public streets provide unique terrain features and add substantially to the character of the area such that the location, type, and visibility of development therein will affect the quality of the environment. The City Council finds that hillside development of sensitive areas should be regulated to ensure that any proposed development of houses and streets complies with the Pacifica Design Guidelines and preserves the natural terrain while allowing residential development compatible with the slope limitations of the development site. In addition, development proposal on currently undeveloped public streets present issues relative to grading, access, visibility, and neighborhood character. The objectives of the R-1-H District are to ensure that new structures and streets are designed to protect the visual and natural resource quality of the hillsides and to minimize adverse impacts on existing neighborhoods, drainage, traffic, land stability, and natural resources.*

[3] *Ibid.* Section 9-4.952 (Permitted and conditional uses.)

[4] *Ibid.* Sections 9-4.401 (Permitted and conditional uses.) and 9-4.402 (Development regulations.)

Letter 6 cont'd

Pacifica Planning Department staff and/or the Pacifica Planning Commission). Alternatively, the City Council has the discretion to disapprove the proposed General Plan Amendment.

The developer of the subject property was informed of the option to seek a General Plan Amendment last week.

We discussed whether the City of Pacifica was compelled to accept a General Plan Amendment application from the developer of the subject property. According to Tina, it is too late to adopt an "urgency ordinance" to effectively halt further action on the subject property pending further study and the adoption of design standards (see discussion below) because such an ordinance must be adopted within 30 days of accepting a site development permit application. We questioned whether the site development permit application for the subject property could be deemed complete when the proposed project does not conform to the City's general plan. Therefore in our opinion, the Pacifica Planning Department accepted the application in error. We referred to a well-known court case (*Lesher v. Walnut Creek*, 1990[5]) where the California Supreme Court upheld and reinforced that zoning in conflict with the general plan is invalid. In addition, we referred to another court case in Los Angeles[6] where the courts rejected an argument that a property owner was entitled to a certain use because of economic hardship caused by misrepresentations of Los Angeles city officials. The Schafer court gave heavy weight to the public's interest in the enforcement of land use laws and felt that this public interest outweighed any economic hardship suffered by the property owner. Tina agreed to discuss again the completeness of the site development permit application for the subject property with the Pacifica City Attorney. Tina was uncertain of the exact date that the application for the subject property was deemed complete, but believes it was several months ago. She also mentioned that although the site development application was deemed complete, other types of applications may be needed (presumably the General Plan Amendment application).

Finally, Tina informed us that the categorical exemption for the proposed development on Oddstad Way is no longer appropriate. The project sponsor has been informed that the proposed project will require an environmental review document pursuant to CEQA (beginning with a new initial study prepared by City of Pacifica's environmental consultants). The existing bridge on Oddstad Way has been deemed adequate for emergency response purposes by the local fire authority and will not require reinforcement or retrofit.

[5] *Lesher Communications, Inc., et al., Plaintiffs and Respondents, v. City of Walnut Creek, Defendant and Appellant*, 52 Cal.3d 531, No. S012604, Supreme Court of California, In Bank. Dec. 31, 1990.
[6] *Schafer v. City of Los Angeles*, No. B253935 (2nd App. Dist., May 20, 2015).

Letter 6 cont'd

Status of Other Undeveloped Parcels on Oddstad Way, Troglia, Santa Cruz, and Calera Terraces

The conflict between the very low density designation of the 1980 Pacifica General Plan and the R-1-H zoning designation adopted in 1992 is not limited to the proposed development project on the subject property at Oddstad Way. This conflict, and the Pacifica City Attorney's interpretation of case law (see below) also applies to all undeveloped parcels on paper streets in Rockaway Beach east of Highway 1 (i.e. all privately own, undeveloped land on the hillsides above our homes).

When asked whether she agreed that approval of a general plan amendment for the proposed development on Oddstad Way would open the door for similar proposals on other undeveloped lots in Rockaway Valley, Tina agreed that this would be possible. That is why she would like to study and adopt standards to limit the size of proposed houses on the existing lots on Rockaway Beach paper streets (east of Highway 1) to get ahead of other development proposals. She mentioned that the very low density designation could remain, but Pacifica could impose reasonable development standards (e.g., limiting the size of a proposed residential unit to 500-800 square feet). She expressed concern that standards should be adopted to prevent owners of larger lots (a ½-acre or more) from subdividing to increase density. We also discussed providing an incentive to property owners to merge lots into ½-acre parcels or more by allowing a small density bonus (possibly up to 1200 square feet for example). We also discussed the need for a process with extensive public outreach and participation, and we suggested that a specific plan for the valley in Rockaway Beach (east of Highway 1) would be appropriate due to a variety of planning issues, including:

- unstable hillside slopes / landslide hazards
- riparian setting / natural resources
- traffic and circulation
- emergency response capability
- drainage and storm run-off
- need for neighborhood-serving park development at the terminus of Rockaway Beach Avenue
- preservation of public view corridor / neighbor character

The Pacifica Planning Department staff have been instructed to tell prospective land developers and property owners that land use applications for the undeveloped lots on paper streets in Rockaway Beach east of Highway 1 cannot be accepted without also including a request for a General Plan amendment due to non-conformity with the 1980 Pacifica General Plan. Two property owners have recently expressed an interest in submitting a site development permit application.

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Letter 6 cont'd

Case Law from the 1980's and 1990's

In 1980 and 1992, there were two landmark court decisions ("case law") related to state and local regulations and ordinances associated with the "taking" of private property without just compensation. Per Tina Wehrmeister, the courts ruled that a county or city cannot zone so that there is no economic value of a parcel without providing appropriate compensation. For example, a City cannot zone a privately owned parcel as open space without buying the land. Tina forwarded synopses located on-line of the two court decisions, which we have summarized below:

- In *Agins v. City of Tiburon* (1980)[7], the Agins acquired 5 acres of unimproved property zoned for one single-family unit per acre. The City of Tiburon announced that it intended to acquire this land, and issued bonds to finance the taking. Tiburon filed an eminent domain action, but subsequently abandoned this process. Instead, Tiburon amended its zoning ordinance by placing the Agins' land in a zone that permitted construction of one to five homes, the exact number requiring discretionary review by the City of Tiburon. The Agins sued Tiburon, claiming that the city intended to convert the land into open space by preventing economically feasible development and completely destroying the land's value (resulting in a *regulatory taking* in violation of the fifth and fourteenth amendments of the US Constitution). The case was reviewed by the California Supreme Court who held that there was no regulatory taking and invalidated the property owner's claim of unjust compensation (but did allow that there may have been a denial of due process and seemed to suggest that the property owner should pursue this legal avenue). The US Supreme Court upheld the California Supreme Court decision because the ordinance in question substantially advanced legitimate governmental goals by discouraging premature and unnecessary conversion of open space to urban uses, and further determined that there was not an uncompensated taking. The Court found that the property owner could still build on the property[8], and thus would still be able to have a reasonable economic use of the land. But the US Supreme court, in its decision, also established a test for determining whether a zoning ordinance or governmental regulation would be considered a taking; that test is whether or not such an action would substantially advance a legitimate state interest.

[7] See https://en.wikipedia.org/wiki/Agins_v._City_of_Tiburon

[8] It took Ms. Agins over 30 years of administrative proceedings and litigation before she was finally permitted to build three houses on the subject property, which eventually became a 20-acre site.

Letter 6 cont'd

- In *Lucas v. South Carolina Coastal Council* (1992)[9], Mr. Lucas bought two residential lots on a South Carolina barrier island for the purpose of building single-family homes (as was previously allowed on the adjacent parcels). At that time, his lots were not subject to the State's coastal zone building permit requirements. Two years later, the state legislature enacted the Beachfront Management Act which prohibited new construction of "habitable structures". The court ruled that the State's requirements rendered Mr. Lucas' land "valueless" and awarded him more than $1.2 million. There were appeals and reversals, and eventually the case made its way to the US Supreme Court which upheld the original decision by the state trial court that the State's Beachfront Management Act rendered Mr. Lucas' property "valueless". Without appropriate compensation, the Court ruled that this action was a "taking of private property under the Fifth and Fourteenth Amendments" requiring payment of "just compensation".

[9] See https://www.law.cornell.edu/supremecourt/text/505/1003

LETTER 6: JOANNE WILSON, DECEMBER 4, 2018

Response to Comment 6-1

The comment is an introductory statement related to analysis of the Westerly and Easterly Lots discussed in the IS/MND. Responses to specific issues raised by the commenter are provided below.

Response to Comment 6-2

The requirement to obtain a General Plan Amendment to develop new residences within the Westerly Lots or the Easterly Lots does not necessarily render such lots valueless; rather, at such time as development is proposed, the process allows the City to ensure that the lots are developed consistent with desired community outcomes and development patterns in the project area. While the City may choose to deny a specific request for a General Plan Amendment, such a denial would not preclude any development of the subject property. Rather, a denial would necessitate alterations to the requested Amendment and a subsequent request to the City for approval. Additionally, the uncertainty surrounding approval of a General Plan Amendment may incentivize the consolidation of lots by a single owner in order to comply with applicable density standards, as with the proposed project, which would eliminate the need for a General Plan Amendment. It should be noted that any such General Plan Amendment, as a discretionary action, would trigger the need for additional environmental analysis under CEQA.

Furthermore, as stated on page 17 of the IS/MND, even if development of all four Westerly Lots was reasonably foreseeable, the details of each such development are unknown because of the discretionary permit process which they must undergo and because of the site-specific factors such as but not limited to biology, topography, and soils which must be evaluated prior to any permit approval and which would ultimately affect project design. The proposed project does not include removal of existing vegetation, grading activities, or any other activity preparatory to development on any of the Western Lots. The proposed project also does not include construction of sewer or water laterals needed to serve the Westerly Lots from the proposed utility extensions. Therefore, while future development of the Westerly Lots with up to four additional single-family residences has been anticipated by the City, the potential for the proposed project to directly enable such development is speculative, rather than a foregone conclusion.

As discussed on page 19 of the IS/MND, the proposed project would not provide a direct roadway or utilities connection to any of the Easterly Lots but rather would reduce the cost of ultimately reaching any of the lots with a roadway and utilities by some incremental amount. It is beyond the scope of this IS/MND to consider potential permitting and construction costs of the additional roadway and utilities extensions necessary to reach each of the lots, and then to perform financial modeling to determine at which point these lots would be induced to develop in consideration of these costs which were reduced in some incremental amount by the proposed project's roadway and utilities extensions. Rather, it is most appropriate to limit the analysis of impacts to that development which has the potential to be induced by the direct connection to

roadway and utilities improvements associated with the proposed project, which would be limited to such improvements abutting the Westerly Lots only.

Based on the above, the justification provided on pages 18 through 20 of the IS/MND regarding analysis of the Westerly and Easterly Lots remains valid. Specifically, the IS/MND considers certain project-level impacts wherever possible for development of the Westerly Lots; and considers certain cumulative impacts where it is not possible to consider project-level impacts for development of the Westerly Lots. The IS/MND does not consider project-level or cumulative impacts from development of the Easterly Lots because such impacts are speculative and not as reasonably foreseeable/probable as the Westerly Lots.

Response to Comment 6-3

The last residence to be constructed along the western section of Oddstad Way was developed in 1990, shortly after construction of the existing Oddstad Way roadway segment. Thus, it is reasonable to conclude that development within the vicinity of the existing Oddstad Way stub has been limited by the availability of infrastructure, specifically, roadway access. Were it not for the substantial cost necessary to further extend Oddstad Way beyond its existing terminus, additional residences would likely have been developed along the planned roadway alignment by this time. Therefore, upon completion of the proposed extension, any future development of the Easterly Lots would similarly require considerable investment in infrastructure, as well as additional environmental review to evaluate the potential impacts associated with construction of such infrastructure (as well as, potentially, a General Plan Amendment as discussed under Response to Comment 6-2). In addition, as discussed in the IS/MND, development of the Easterly Lots has been previously anticipated per the City's 1980 General Plan and public right-of-way has been available to access the Easterly Lots, either from Rockaway Beach Avenue or Troglia Terrace, since their original subdivision in 1908. Thus, even if the Easterly Lots are developed at some point in the future, such development would not necessarily be a direct consequence of, or triggered by, the proposed project.

Furthermore, the project applicant does not own any of the Westerly or Easterly Lots, and evidence does not exist to suggest that all of the lots along Oddstad Way would be developed immediately upon completion of the proposed project, or even within the reasonably foreseeable future after completion of the proposed project. Rather, the more likely scenario is that the Westerly and Easterly Lots would be developed one-by-one based on market trends, with each development subject to discretionary review by the City as part of its review of a Site Development Permit, which is a discretionary permit that must be approved prior to issuance of a building permit in the R-1-H zoning district. As such, the IS/MND, which excludes analysis of the Easterly Logs but provides analysis of buildout of the Westerly Lots in conjunction with the proposed project, provides a reasonable, worst-case approach.

Response to Comment 6-4

No inconsistency exists between the General Plan land use and zoning designations for the Westerly Lots. Pages 16 and 17 of the IS/MND discuss the General Plan land use and zoning designations applicable to the Westerly Lots. Three General Plan land use designations – Open Space Residential (OSR), Very Low Density Residential (VLDR), and Low Density Residential (LDR) – are applicable to certain Westerly Lots. All Westerly Lots are within the R-1-H (Single-Family Residential, Hillside) zoning district. The R-1-H zoning district establishes a minimum lot size and minimum lot area per dwelling unit of 5,000 square feet in Municipal Code Section 9-4.953 (by reference to Municipal Code Section 9-4.402(a) and (b)). The R-1-H zoning district does not include standards for maximum lot size or maximum lot area per dwelling unit.

A General Plan standard requiring a more restrictive standard than the underlying zoning district is not inherently inconsistent. The various General Plan land use designations applicable to the Westerly Lots set forth minimum densities of more than five acres per dwelling unit (OSR), 0.5 acres per dwelling unit (VLDR), and 4,840 square feet per dwelling unit (LDR). In the case of OSR and VLDR land use designations, the General Plan would require minimum lot sizes in excess of the 5,000 square feet required in the R-1-H zoning district in order for residential development to be consistent with the General Plan. Because the lot sizes would be required to comply with the minimum General Plan and zoning standards for lot area per dwelling unit, there is not an inconsistency between the R-1-H zoning district and the OSR and VLDR General Plan land use designations. A lot size of more than five acres (OSR) or more than 0.5 acres (VLDR) would both exceed the minimum 5,000 square foot requirement of the R-1-H zoning district.

Regarding the LDR General Plan land use designation, development would be permissible with a lot area as small as 4,840 square feet, which is less than the R-1-H zoning district minimum of 5,000 square feet. Any such lot of less than 5,000 square feet would be considered nonconforming and development may be permitted when consistent with Municipal Code Title 9, Chapter 4, Article 30 "Nonconforming Lots, Structures, and Uses" which requires, of note, approval of a Site Development Permit (and associated findings of General Plan consistency). Therefore, there is no inconsistency between the LDR land use designation in the General Plan and the R-1-H zoning district. It is important to note, however, that all Westerly Lots are greater than 5,000 square feet as demonstrated in Table 1 on p. 17 of the IS/MND, meaning there are no nonconforming lots among the Westerly Lots.

While all of the Westerly Lots comply with R-1-H minimum lot size and minimum lot area per dwelling unit standards, not all of the lots are large enough to achieve compliance with minimum density standards for residential development as set forth in their respective General Plan land use designations (see Table 1 on p. 17 of the IS/MND). This existing condition was not caused by the proposed project, and the proposed project would not alter the land use or zoning designations of such lots in such a way that a new inconsistency would be created. The comment contends that approval of the proposed project would lead to certain future residential development of the Westerly Lots, and thus, would cause a significant adverse environmental impact as described in Section X.b on p. 73 of the IS/MND for conflicts with applicable land use plans, policies, or regulations. The comment is factually unsupported.

The comment summarily concludes that future development of the Westerly Lots would occur with the lots in their current configurations, without potential consolidation which could increase their areas to comply with General Plan density standards for residential development. The comment also summarily concludes that future development would only be residential development, although other nonresidential land uses are permissible within the R-1-H zoning district pursuant to Municipal Code Section 9-4.952 (by reference to Municipal Code Section 9-4.401), including but not limited to churches or schools, parks and playgrounds, crop and tree farming, and bed and breakfast inns. None of these uses would include dwelling units and, thus, the minimum density standards would not apply.

More importantly, the comment incorrectly implies that the proposed project includes approval for development of the Westerly Lots, which it does not. Development of the Westerly Lots, while reasonably foreseeable as a result of the proposed project and thus analyzed to the maximum extent practicable in the IS/MND, is less than a certainty. Any such future development would be subject to the discretionary review processes for a Site Development Permit and potentially a General Plan Amendment, and requisite CEQA analysis. Because the configuration and uses associated with potential future development of the Westerly Lots is unknown, and because one or more discretionary approvals would be required prior to development of the Westerly Lots, there is no factual basis to support the comment's contention that a significant adverse environmental impact would occur as described in Section X.b of the IS/MND.

For reasons stated in the IS/MND, including but not limited to those on p. 18-20 of the IS/MND, potential impacts resulting from the development of the Easterly Lots have not been analyzed in the IS/MND because there is no factual basis to require performing such an analysis. As such, there could not be a potentially significant environmental impact from their potential future development which is attributable to the proposed project.

The 2008 lot line adjustment is unrelated to the proposed project or adequacy of the IS/MND.

Response to Comment 6-5

As discussed on page 104 of the IS/MND, because development plans for the Westerly Lots are not currently available, a project-level analysis of certain CEQA issue areas, including hydrology and water quality, cannot be provided. Rather, for such issue areas, a program-level analysis is included in the IS/MND. The IS/MND does not imply that development of the Westerly and Easterly Lots would not result in potential impacts related to hydrology and water quality, only that such impacts cannot be evaluated in the absence of project-specific information such as grading and drainage plans. The IS/MND acknowledges that further environmental review of hydrology and water quality issues would be conducted prior to issuance of building permits for the Westerly and Easterly Lots. Such review would include analysis of potential impacts, including erosion impacts, associated with increased stormwater discharge to Rockaway Creek. In addition, all future development would be required to comply with C.3 Standards related to water quality and flow control requirements, which would ensure that significant impacts to downstream waterways do not occur.

Response to Comment 6-6

Given that the project applicant does not own and thus that biological assessments have not been prepared for the Westerly or Easterly Lots, comprehensive analysis of potential impacts to biological resources associated with development of such lots cannot be included in the IS/MND. In addition, because the proposed project does not include a proposal to develop the Westerly or Easterly Lots, preparation of biological assessments for such development is not required in conjunction with the current development proposal. Rather, further environmental review of issues related to site-specific biological resources would be conducted in conjunction with development proposed for the Westerly and Easterly Lots. In the absence of development plans for the Westerly and Easterly Lots, a meaningful analysis of potential impacts to biological resources associated with buildout of the lots cannot be provided at this time. In addition, conditions at the Westerly and Easterly Lots could change by the time specific development proposals are submitted to the City.

Response to Comment 6-7

In the absence of specific development plans for the Westerly Lots, any attempt to provide a project-level analysis of aesthetic impacts associated with such development at this time would be inherently speculative. Rather, as noted in Response to Comment 4-10 above, additional environmental analysis, including analysis of issues related to aesthetics, would be conducted in conjunction with development proposed for the Westerly Lots. A program-level analysis of potential impacts to aesthetic resources associated with buildout of the Westerly Lots is provided on page 104 of the IS/MND. Furthermore, given that the project area was anticipated for development with residential uses per the 1980 General Plan, the City has previously considered potential impacts to aesthetic resources at a program level.

As noted previously, future development of the Easterly Lots is not analyzed in the IS/MND, as such development is speculative and not as reasonably foreseeable or probable as the Westerly Lots.

Response to Comment 6-8

Please see Response to Comment 6-4 above.

Response to Comment 6-9

Issues related to emergency access are discussed on pages 95 through 97 of the IS/MND. As noted therein, circulation and access improvements associated with the proposed project would include extension of Oddstad Way to the project frontage. The extended roadway would be approximately 20 feet wide, and would include an attached three-foot-wide sidewalk on the east side of the road. At the project frontage, the roadway would terminate in an inverted hammerhead, which would allow for turnaround of fire trucks and other emergency vehicles. All roadway improvements would be designed consistent with existing City standards and guidelines, including but not limited to California Fire Code standards. Thus, sufficient emergency access would be provided for both the proposed project and the Westerly Lots.

In addition, the proposed project and future development of the Westerly Lots would not alter the existing circulation system within the Rockaway Beach neighborhood. The construction of up to five single-family homes along the proposed Oddstad Way extension would not conflict with existing evacuation routes or otherwise impact emergency access for existing homes. Nonetheless, the commenter's concerns related to existing emergency access issues within the Rockaway Beach neighborhood have been forwarded to the decision-makers for their consideration.

Response to Comment 6-10

As noted previously, future development of the Easterly Lots is not analyzed in the IS/MND, as such development is speculative and not as reasonably foreseeable or probable as the Westerly Lots.

Response to Comment 6-11

While the proposed buildings, retaining walls, and debris walls would be visible from public viewpoints in the project vicinity, implementation of Mitigation Measure I-1 would ensure that such features would blend with the natural landscape in the project area, as well as the color palette of the existing residential development in the area. In response to the commenter's concerns, Mitigation Measure I-1 on page 26 of the IS/MND is hereby revised as follows:

> *I-1.* *Prior to issuance of building permits, all improvement and building plans for the proposed development shall demonstrate that the color and texture (including, but not limited to, landscaping, surface treatments, etc.) of the proposed buildings, retaining walls, and debris walls match or blend with the natural landscape in the project area, as well as the color palette of the existing residential development in the area. The final design of the buildings and retaining walls shall be reviewed and approved by the City of Pacifica Building Division.*

The foregoing revision is for clarification purposes only, and does not affect the conclusions of the IS/MND. With implementation of Mitigation Measure I-1, as revised, the final design of the buildings, retaining walls, and debris walls would be reviewed and approved by the City of Pacifica Building Division. Given that retaining walls and similar features are often necessary components of hillside development, and the proposed project includes measures to reduce the visual impacts of such features to a less-than-significant level, additional revision to Mitigation Measure I-1 is not warranted. In addition, as discussed throughout the IS/MND, the proposed project is consistent with the site's existing land use designation and, thus, changes to the visual character and quality of the project area associated with development of the project site have been previously anticipated by the City.

Response to Comment 6-12

The IS/MND does not identify any potentially significant impacts to aesthetic resources associated with development of the proposed roadway. As such, consistent with the CEQA Guidelines, the IS/MND is not required to include mitigation to address such impacts or analyze

alternatives to the currently proposed development. Furthermore, extension of Oddstad Way along the proposed alignment has been previously anticipated per the City's General Plan, and the proposed extension would comply with all applicable City design standards. Lastly, the roadway design suggested by the commenter would likely involve approximately twice the area of disturbance compared to the proposed project by requiring two 20-foot wide travel ways (one for each direction of traffic), rather than one 20-foot wide travel way, since the California Fire Code establishes a minimum 20 foot width for fire apparatus access roads.

Response to Comment 6-13

Cattle Hill is included within an area managed by the Golden Gate National Recreation Area (GGNRA) as part of the Sweeney Ridge trail system. The nearest segment of the Sweeney Ridge hiking trail, as mapped by the GGNRA, is located approximately 0.43-mile northeast of the project site. Thus, views of the proposed project from the hiking trail would be relatively distant compared to views of the project from Bayview Road. Views of the proposed project from Bayview Road are analyzed on pages 22 through 24 of the IS/MND. As noted therein, with implementation of Mitigation Measure I-1, impacts related to degradation of the visual character or quality of the site for public viewers on Bayview Road would be less than significant. Thus, potential impacts to views of the project site from the Sweeney Ridge hiking trail would similarly be considered less than significant and, consequently, analysis of such views was not required and thus was appropriately omitted from the IS/MND. The GGNRA did not elect to submit a comment letter during the public review period for the IS/MND.

Response to Comment 6-14

Please see Responses to Comments 6-16 through 6-40 below.

Response to Comment 6-15

The comment is a concluding statement summarizing the prior contents of the letter. Please see Responses to Comments 6-1 through 6-13 above.

Response to Comment 6-16

The comment suggests a conservation easement and does not address the adequacy of the IS/MND. Nonetheless, the commenter's suggestions have been forwarded to the decision-makers for their consideration.

Response to Comment 6-17

The comment requests information regarding parking and does not address the adequacy of the IS/MND. The proposed project does not include plans for striping parking spaces or otherwise specify the vehicle capacity for the proposed 60-foot parking bay. The exact orientation of vehicle parking within the parking bay would be determined at a later point at time in coordination with City Staff. It should be noted that analysis of issues related to parking is not required under the State CEQA Guidelines.

Response to Comment 6-18

As shown in Table 8 of the IS/MND, the proposed bio-retention basin would include a total area of 780 sf of treatment area. Additional information related to the capacity and design of the proposed stormwater treatment system is included in the Stormwater Control Plan prepared for the proposed project by Megan W. Stromberg Consulting. As noted on page 2 of the IS/MND, all of the technical reports and modeling results used in the preparation of the IS/MND are available upon request at the City of Pacifica Planning Department.

It should be noted that the proposed stormwater outfall into Rockaway Creek would discharge treated stormwater within an existing concrete apron, thereby limiting the potential for bank erosion within the channel. Furthermore, per Mitigation Measure IV-5(c) in the IS/MND, the project applicant would be required to notify the California Department of Fish and Wildlife (CDFW) of the intentions of the project to determine if a Lake or Streambed Alteration Agreement is necessary. In the event that a Lake or Streambed Alteration Agreement is deemed necessary for the proposed outfall, CDFW would work with the project applicant and the City to ensure that the outfall is engineered to prevent any adverse effects to Rockaway Creek.

Response to Comment 6-19

Figure 3 and Figure 4 of the IS/MND demonstrate the existing trees that are proposed for removal as part of the proposed residential development and the associated roadway extension, respectively. Table 6 of the IS/MND summarizes the heritage trees that would require removal as part of the proposed project:

Table 6
Heritage Trees within the Project Site and Off-Site Improvement Areas

Species	Number of Trees in the Project Site and Off-Site Improvement Areas	Number of Trees to be Removed by Project
Lollypop tree (non-native)	2	0
Monterey pine (non-native)	13 (1 dead)	3
Coast redwood (native)	0	0
Arroyo willow (native)	1	0
Toyon (native)	5	3
Pittosporum (non-native)	2	2

Source: WRA, Inc., 2017.

Additional information regarding the species, diameter, and condition of the existing trees located within the project area is included in the Tree Survey Report prepared for the proposed project by WRA, Inc. As noted on page 2 of the IS/MND, all of the technical reports and modeling results used in the preparation of the IS/MND are available upon request at the City of Pacifica Planning Department, and are available at the City's website at the following address:

https://www.cityofpacifica.org/depts/planning/environmental_documents/default.asp

Response to Comment 6-20

Please see Responses to Comments 6-5 and 6-6 above.

Response to Comment 6-21

Lots 45, 46, and 125 through 130, were merged into a single lot by the City of Pacifica in the 1980s (San Mateo County Recorder Instrument No. 85108344). The lot is developed with an existing residence and, thus, was not included in the Easterly Lots for the purposes of the IS/MND.

Response to Comment 6-22

Enlarged versions of Figure 6 and Figure 7 from the IS/MND are provided below. Please note that copies of figures included in the IS/MND are available from the City Planning Department upon request.

Response to Comment 6-23

Please see Response to Comment 6-13 above.

Response to Comment 6-24

Please see Response to Comment 4-11 above.

Response to Comment 6-25

Please see Response to Comment 4-11 above.

Response to Comment 6-26

Please see Response to Comment 6-11 above.

Response to Comment 6-27

As noted on page 26 of the IS/MND, development of the proposed project would introduce new sources of light and glare where none currently exist. Sources of light would include, but would not be limited to, exterior and interior lighting associated with the proposed single-family home and project-related traffic along Oddstad Way, which would be extended to the project frontage as part of the project. The proposed on-site structures could potentially produce daytime glare as a result of light reflecting off of windows. However, the proposed buildings, as well as the proposed retaining wall, would be located on a north-facing slope and, thus, the windows facing the Rockaway neighborhood would not be expected to reflect a substantial amount of direct sunlight for much of the year.

Figure 6
Existing View of Project Site from Bayview Road Looking South

Figure 7
Proposed View of Project Site from Bayview Road looking South

Furthermore, the commenter does not provide sufficient evidence to support the assertion that glare associated with construction of one single-family residence would cause a substantial adverse effect to the residences and public spaces to the north of the project site.

Response to Comment 6-28

The proposed project consists of one single-family home. The project does not comprise a sufficient scale or intensity of development such that specialized design features such as non-reflective glass would be required in order to limit potential adverse effects to birds. Rather, standard construction techniques would be used in development of the proposed project. Typically, specialized bird-safe design features are only required for much larger developments with location-related hazards (i.e., located inside of, or within a clear flight path of less than 300 feet from, an urban bird refuge) or feature-related hazards (structures with free-standing clear glass walls, skywalks, greenhouses on rooftops, and balconies that have unbroken glazed segments 24 square feet and larger in size).[3] Such circumstances would not apply to the proposed project.

Response to Comment 6-29

As noted on page 49 of the IS/MND, Mitigation Measure IV-6 requires preparation and submittal of a tree protection plan to the City prior to Planning Commission consideration of the project (see discussion under Response to Comment 4-20, above. The tree protection plan would include measures to limit adverse effects to existing trees in the project vicinity. The commenter's suggestion has been forwarded to the decision-makers for their consideration.

Response to Comment 6-30

The standards included in Mitigation Measure IV-3(b) of the IS/MND related to San Francisco Dusky-footed Woodrat are consistent with the recommendations of the Biological Resources Assessment prepared for the proposed project by WRA, Inc. Revision to the mitigation measure is not necessary.

Response to Comment 6-31

Please see Response to Comment 6-18 above.

Response to Comment 6-32

Please see Response to Comment 6-19 above.

Response to Comment 6-33

In response to the commenter's concerns, page 51 of the IS/MND is hereby revised as follows:

[3] San Francisco Planning Department. *Standards for Bird-Safe Buildings.* Adopted July 14, 2011.

> Per the Historical Resources Study, the region within which the proposed project is located could potentially contain prehistoric archaeological site indicators including, but not limited to, the following: obsidian and chert flakes and chipped stone tools; grinding and mashing implements; bedrock outcrops and boulders with mortar cups; and locally darkened midden soils containing some of the previously-listed items, plus fragments of bone, shellfish, and fire affected stones. However, archaeological resources, paleontological resources, and unique geologic features were not observed during the field survey conducted on the project site. Given the relatively steep slope of the proposed project site ~~and the absence of a nearby perennial watercourse~~, the proposed project area is not sensitive for buried archaeological deposits, and the probability of encountering such deposits is low.

In addition, page 98 of the IS/MND is hereby revised as follows:

> Given the relatively steep slope of the proposed project site ~~and the absence of a nearby perennial watercourse~~, the proposed project area is not sensitive for buried archaeological deposits, and the probability of encountering such deposits is low. However, the possibility exists that previously undiscovered tribal cultural resources could be uncovered during ground-disturbing activities associated with construction of the proposed project. Therefore, the proposed project could result in a substantial adverse change in the significance of a tribal cultural resource, and a ***potentially significant*** impact could occur.

The foregoing revisions are for clarification purposes only and do not affect the conclusions of the IS/MND.

Response to Comment 6-34

Given the absence of known cultural resources within the project area, the requirements of Mitigation Measure V-2 in the IS/MND are sufficient to ensure that potential impacts are reduced to less-than-significant levels. Nonetheless, in response to the commenters concerns, Mitigation Measure V-1 on page 52 of the IS/MND is revised as follows:

> *V-1.* *Prior to initiation of ground-disturbing activities at the project site, the project applicant shall retain a qualified cultural/tribal cultural expert to provide a cultural resource awareness training session to all construction workers involved in grading, trenching, or other ground-disturbing activities associated with the proposed project. The training session shall cover standard measures for identifying cultural resources and human remains, as well as measures to be taken if a potential cultural resource is identified on-site. The training coordinator shall distribute a sign-in sheet to event attendees, verifying completion of the training. The completed sign-in sheet shall be submitted to the City of Pacifica within two weeks of training completion.*
>
> *In the event of the accidental discovery or recognition of any human remains, further excavation or disturbance of the find or any nearby area reasonably suspected to overlie adjacent human remains shall not occur until compliance with the provisions of CEQA Guidelines Section*

15064.5(e)(1) and (2) has occurred. The Guidelines specify that in the event of the discovery of human remains other than in a dedicated cemetery, no further excavation at the site or any nearby area suspected to contain human remains shall occur until the County Coroner has been notified to determine if an investigation into the cause of death is required. If the Coroner determines that the remains are Native American, then, within 24 hours, the Coroner must notify the Native American Heritage Commission, which in turn will notify the most likely descendants who may recommend treatment of the remains and any grave goods. If the Native American Heritage Commission is unable to identify a most likely descendant or most likely descendant fails to make a recommendation within 24 hours after notification by the Native American Heritage Commission, or the landowner or his authorized agent rejects the recommendation by the most likely descendant and mediation by the Native American Heritage Commission fails to provide a measure acceptable to the landowner, then the landowner or his authorized representative shall rebury the human remains and grave goods with appropriate dignity at a location on the property not subject to further disturbances. If human remains are encountered, a copy of the resulting County Coroner report noting any written consultation with the Native American Heritage Commission shall be submitted as proof of compliance to the City of Pacifica Planning Department.

The foregoing revision adds additional performance standards to Mitigation Measure V-1, but does not affect the analysis or conclusions presented within the IS/MND.

Response to Comment 6-35

Mitigation Measure VI-3 already requires seeding of exposed slopes with native grasses and, thus, contains sufficient specificity to ensure that non-native seeds are not used on-site. Revision to Mitigation Measure VI-3 is not necessary.

Response to Comment 6-36

Provision of sufficient emergency access to the project site and continued availability of the proposed emergency vehicle turnaround would be ensured by the North County Fire Authority throughout the lifetime of the project. Per Section 4-3.125 of the Municipal Code, "no parking" signs or other appropriate notices prohibiting obstructions, as approved by the Fire Marshal, must be provided where fire lanes on private property have been designated by the Fire Marshal.

VIII-1 *Upon completion of the proposed roadway extension, the City of Pacifica shall require that the proposed emergency vehicle turnaround is kept clear in order to allow for unimpeded emergency vehicle access ~~during construction activities associated with the proposed project~~, consistent with the signage requirements established in Appendix D of the California Fire Code. All construction equipment and materials shall be staged on-site so as to prevent obstruction of Oddstad Way. In addition, the turnaround shall be deed restricted to provide clear disclosure to all future owners of the project site of the obligation to maintain the*

> *turnaround clear of obstructions/vehicles. The deed restriction shall clarify, to the City's satisfaction, circumstances under which parking restrictions may be lifted, such as if the Oddstad Way extension is converted to a through street.*

The foregoing revision provides additional specificity to Mitigation Measure VIII-1, but does not affect the analysis or conclusions presented in the IS/MND.

Response to Comment 6-37

With regard to provision of emergency access to the Westerly Lots, please see Response to Comment 2-1. With regard to the Easterly Lots, please see Responses to Comments 4-10 and 6-2 through 6-7 above.

Response to Comment 6-38

The IS/MND concluded that with implementation of Mitigation Measure XII-2, potential impacts related to construction traffic noise would be reduced to less-than-significant levels. Further mitigation to limit construction hours beyond the requirements established in the City's Municipal Code is not warranted per CEQA.

Response to Comment 6-39

The comment states that the cumulative analysis is inadequate, but does not cite specific deficiencies. Responses to individual issues raised by the commenter related to the cumulative analysis presented in the IS/MND are provided above.

Response to Comment 6-40

Assessor's Maps of the referenced lots with higher resolution lot dimension information are available online from the San Mateo County at the following web address:

https://www.smcacre.org/assessor-maps-0

However, the Assessor's Maps do not accurately reflect the underlying mergers of many of the lots in the area. Consult with Planning Department staff for information on lot mergers.

It should be noted that Letter 6 includes, as an attachment, a memorandum dated October 21, 2015 from the Rockaway Valley Neighborhood Association Steering Committee. The attachment is not specific to the IS/MND.

Letter 7

From: ron maykel
To: Murdock, Christian
Cc: Wehrmeister, Tina
Subject: Oddstad Way Lots 4-12 Development Project MND
Date: Wednesday, December 05, 2018 8:22:23 PM

Hi Christian

7-1 1. Visual impact.The project size appears to be out of character with the neighborhood.

7-2 2. Noise. The Rockaway Valley amplifies sound considerably. Operational Hours should be limited to 7:00pm to 5:00pm M-F, 9:00am to 5:00pm Sat. and no construction on Sundays.

7-3 3. Drainage Management. Maintain the day-lighted natural environment, by avoiding pipe routing of seasonal streams that flow to Rockaway Creek.

7-4 4. Heritage tree replacement. Consider tree replacement with regional and local native trees, such as Coast Live Oak, Toyon, Madrone, Wax Myrtle and Redwood.

7-5 5. The green belt between Rockaway Beach Ave and Fassler Ave is a well occupied wildlife area serving migratory and sedentary species. Although White tailed Kites, Dusky Footed Wood Rats, Monarch Butterflies and several species of bats. The Special Status Species designation is partly a result of habitat loss.

7-6 6. If and when a Dusky Footed Wood Rat nest/nests are dismantled, a biological monitor should be present to monitor the presence of rodents and other species that use the nests for shelter such as reptiles and amphibians, such as Pacifica rubber Boas and Red Legged Frogs that are seasonally present in the creek corridor.

7-7 6. As you may know this development will encourage additional development in the adjacent area. The need for a broader comprehensive development plan will be needed to address safety issues, most notably....emergency evacuation on a narrow street.

Thanks for Your Consideration

Ron Maykel
Rockaway Beach Valley

LETTER 7: RON MAYKEL, DECEMBER 5, 2018

Response to Comment 7-1

As noted on page 26 of the IS/MND, implementation of the proposed project would result in noticeable changes to the visual character of the area; however, modifications to the visual character of the site and surrounding area as a result of the proposed project would not constitute a substantial degradation of such character. With implementation of Mitigation Measure I-1, impacts related to degradation of visual character and quality were determined to be less than significant.

Response to Comment 7-2

It is assumed that the commenter is referring to construction hours, rather than the stated "operational hours". As discussed on page 82 of the IS/MND, noise associated with construction activities would occur intermittently, and would be limited to the hours of 7:00 AM to 7:00 PM, Monday through Friday, and 9:00 AM to 5:00 PM on Saturdays and Sundays per Section 8-7.5.07 of the City's Municipal Code. In addition, Mitigation Measure XII-2, as amended (see Response to Comment 4-8, above), includes specific measures to further limit construction noise. With implementation of Mitigation Measure XII-2, as amended, impacts related to construction noise were determined to be less than significant. However, the commenter's request has been forwarded to the decision-makers for their consideration.

Response to Comment 7-3

Issues related to drainage management are discussed in Section IX, Hydrology and Water Quality, of the IS/MND. As noted therein, the proposed project would require the construction of an underground stormwater drainage pipe to route treated runoff from the proposed bio-retention facility under Oddstad Way to a new outfall at Rockaway Creek. However, the proposed bio-retention facility itself, which would be located along the northern side of the proposed Oddstad Way extension, would be located aboveground.

Response to Comment 7-4

The comment does not address the adequacy of the IS/MND. Chapter 12, Preservation of Heritage Trees, of the City's Municipal Code does not specify the exact species of trees required for replacement tree plantings. Nonetheless, the commenter's request has been forwarded to the decision-makers for their consideration.

Response to Comment 7-5

Issues related to special-status wildlife are discussed on pages 40 through 45 of the IS/MND. As noted therein, the IS/MND includes mitigation for raptors and nesting birds, roosting bats, San Francisco dusky-footed woodrat, and monarch butterfly. With implementation of such mitigation measures, impacts to special-status species were determined to be less than significant.

Response to Comment 7-6

Mitigation Measure IV-3(a) from the IS/MND specifies that any stick nests within the construction area shall be flagged and dismantled under the supervision of a qualified biologist. Any special-status species potentially observed by the biologist during such dismantling activities would be reported by the biologist to the City of Pacifica, and appropriate action would be taken. Mitigation Measure IV-3(a) is hereby revised as follows to clarify the reporting requirements provided therein:

> *IV-3(a). Not more than 30 days prior to initiation of ground-disturbing activities, a qualified biologist shall conduct preconstruction surveys for all active woodrat stick nests that would be directly impacted by the proposed project. Surveys shall include all suitable habitat types within the ground disturbance footprint. Any stick nests within the construction area shall be flagged and dismantled under the supervision of the biologist. The results of the pre-construction surveys, including reports of any non-target special-status species observed by the biologist, shall be submitted to the City of Pacifica Planning Department and the CDFW. If San Francisco dusky-footed woodrats are not encountered during the dismantling process, further action is not required.*

The foregoing revision is for clarification purposes only, and does not affect the analysis or conclusions presented in the IS/MND.

Response to Comment 7-7

Issues related to emergency access are discussed on pages 95 through 97 of the IS/MND. As noted therein, circulation and access improvements associated with the proposed project would include extension of Oddstad Way to the project frontage. The extended roadway would be at least 20 feet wide, and would include an attached three-foot-wide sidewalk on the east side of the road. At the project frontage, the roadway would terminate in an inverted hammerhead, which would allow for turnaround of fire trucks and other emergency vehicles. All roadway improvements would be designed consistent with existing City standards and guidelines and California Fire Code requirements. Thus, sufficient emergency access would be provided for both the proposed project and the Westerly Lots.

In addition, the proposed project and future development of the Westerly Lots would not alter the existing circulation system within the Rockaway Beach neighborhood. The construction of up to five single-family homes along the proposed Oddstad Way extension would not conflict with existing evacuation routes or otherwise impact emergency access for existing homes. Nonetheless, the commenter's concerns related to existing emergency access issues within the Rockaway Beach neighborhood have been forwarded to the decision-makers for their consideration.

Appendix 1

Construction Noise Control

j.c. brennan & associates
consultants in acoustics
P.O. Box 6748 - Auburn, California 95604
p. 530.823.0960 – f. 530.823.0961

Memorandum

Date: May 9, 2020

To: Rod Stinson

Organization: Raney Planning & Management

From: Jim Brennan

Re: Oddstad Way Construction Noise Control

Dear Mr. Stinson

j.c. brennan & associates, Inc. has conducted an analysis of on-site construction equipment at the Oddstad Way project. The intent is to identify the equipment that can operated, the amount of time each piece of equipment can operate, and where appropriate, introducing additional noise mitigation. It is important that the construction does not exceed 60 dB Ldn at the nearest residences.

As a means of determining hourly average noise levels associated with each piece of equipment, the Federal Highway Administration Construction Noise Model (RCNM) was used. The RCNM assigns maximum noise levels to varying pieces of equipment, and assumes an average hourly operating time for each piece of equipment. The RCNM then calculates the contribution of overall noise from each individual piece of equipment, and then calculates the cumulative noise level at the nearest receiver.

The City of Pacifica noise level standard is an Ldn descriptor, which is a 24-hour average noise level which assigns a 10 dB penalty to any noise source which operates between the hours of 10:00 p.m. and 7:00 a.m. The City of Pacifica Municipal Code - Section 8-1.08 limits hours of construction to 7:00 a.m. to 7:00 p.m. on weekdays, and 9:00 a.m. to 5:00 p.m. on weekends. Therefore, it is not anticipated that construction will occur during the nighttime (penalty hours).

This analysis assumes that criteria contained in Mitigation Measure XII-2 will be incorporated in the Construction Mitigation Plan. It is important that Bullet # 7 of the Mitigation Measure XII-2 are a minimum of 8-feet in height. The following is the Bullet #7:

(Sound blankets (SONEX Curtains or similar technology) shall be installed along the edge of the on-site excavation areas located closest to the existing residences in the project area, as well as along the property lines of the existing residences located adjacent to the proposed roadway extension)

For this analysis, it is assumed that the construction of any residence will consist of 5 separate phases. They are as follows:

- Excavation of foundations and building footings;
- Foundation framing;
- Concrete pours;
- Residential building framing;
- Final Grading.

Analysis

Excavation of Foundations and Building Footings

The primary noise sources associated with the excavation at building sites will include a Backhoe, Dump Trucks and Flat Bed Trucks for delivery of equipment. Based upon the RCNM calculations, the typical hourly Leq is 64.1 dBA. Based upon the typical hourly Leq, the equipment can operate simultaneously for a period of 8-hours, and comply with an Ldn of 60 dBA. Appendix B shows the inputs and calculations for the excavation phase.

Foundation Framing

The primary noise sources associated with the foundation framing include Pneumatic Tools (impact equipment, nail guns), Compressors and Delivery Trucks. Based upon the RCNM calculations, the typical hourly Leq is 70.0 dBA. Based upon the typical hourly Leq, the equipment can operate simultaneously for a period of only 2-hours, and comply with an Ldn of 60 dBA. Appendix B shows the inputs and calculations for the foundation framing phase.

This may not be practical to keep a construction schedule. The primary noise source is the pneumatic tools. The contribution of noise due to the pneumatic tools is 69.1 dBA Leq, and is almost 10 dB higher than any other tools.

As a means of reducing noise levels from pneumatic tools, an exhaust muffler on the compressed air exhaust shall be used. This muffler can lower noise levels from the exhaust by up to about 10 dBA. External jackets on the tools themselves shall be used, where available. This could achieve a reduction of 5 to 6 dBA. Therefore, the pneumatic tool mufflers and/or jackets will be required, and all equipment may operate for a total of 8-hours, and achieve 60 dBA Ldn.

Concrete Pours

The primary noise sources associated with the foundation framing include Compressors, Concrete Mixing Trucks, and Concrete Pump Trucks. Based upon the RCNM calculations, the typical hourly Leq is 66.1 dBA. Based upon the typical hourly Leq, the equipment can operate simultaneously for a period of only 7-hours, and comply with an Ldn of 60 dBA. Appendix B shows the inputs and calculations for the concrete pour phase.

Residential Framing

The primary noise sources associated with the residential framing include Pneumatic Tools (impact equipment, nail guns), Compressors, a potential use of a Crane, Delivery Trucks, and Other Equipment such as table saws, chop saws, sawzalls, etc. Based upon the RCNM calculations, the typical hourly Leq is 72.7 dBA. Based upon the typical hourly Leq, the equipment can operate simultaneously for a period of only 1-hour, and comply with an Ldn of 60 dBA. Appendix B shows the inputs and calculations for the residential framing phase.

This may not be practical to keep a construction schedule. The primary noise sources are the pneumatic tools, saws and other stationary equipment. The contribution of noise due to the pneumatic tools is 69.1 dBA Leq and the saws and other equipment is 69.0. Both of these noise sources are approximately 10 dB higher than any other tools.

As a means of reducing noise levels from pneumatic tools, an exhaust muffler on the compressed air exhaust shall be used. This muffler can lower noise levels from the exhaust by up to about 10 dBA. External jackets on the tools themselves shall be used, where available. This could achieve a reduction of 5 to 6 dBA. Therefore, the pneumatic tool mufflers and/or jackets will be required. All other equipment shall follow Bullet #6 of Mitigation Measure XII-2, as follows:

> *A noise barrier shall be constructed around all stationary noise sources associated with construction, consisting of either hay bales stacked two feet above each of the pieces of equipment on three sides or a similar barrier of sufficient effectiveness to reduce noise levels by 7 dB*

All equipment may operate for a total of 8-hours, and achieve 60 dBA Ldn.

Final Grading

The primary noise sources associated with the final grading include Delivery Trucks, Front End Loaders and Tractors. Based upon the RCNM calculations, the typical hourly Leq is 68.6 dBA. Based upon the typical hourly Leq, the equipment can operate simultaneously for a period of four hours, and comply with an Ldn of 60 dBA. Appendix B shows the inputs and calculations for the residential framing phase. As an alternative, the tractor can operate alone for 4 hours of the day, and the remaining equipment can operate the additional 4 hours. This will comply with the 60 dBA Ldn standard.

Noise Control Recommendations

Based upon our modeling of noise control measures, all potential construction noise will comply with the City's 60 dB Ldn noise level standard at the nearest residences with the following recommendations included in the Construction Mitigation Plan.

1. Follow the Mitigation Measure XII-2 recommendations;
2. Sound blankets installed along the edge of excavation areas and building sites located closest to existing residences, and along residential property lines shall be 8-feet in height;
3. Follow all recommendations contained within this memorandum;
4. No vibratory compactors shall be used. All compaction shall be with hand rollers;

5. No jackhammers shall be used;
6. All construction shall be limited to 8-hours per day;
7. Construction crews shall not arrive before 7:00 a.m.;
8. A Construction Management Plan shall be submitted to the City for approval;
9. Designate a disturbance coordinator and conspicuously post this person's number around the project site and in adjacent public spaces. The disturbance coordinator will receive all public complaints about construction noise disturbances and will be responsible for determining the cause of the complaint, and implement any feasible measures to be taken to alleviate the problem.

If you have any questions, please contact me at JBrennan@jcbrennanassoc.com.

Respectfully submitted,
j.c. brennan & associates, Inc.

Jim Brennan
President
Member, Institute of Noise Control Engineering

Appendix A
Acoustical Terminology

Acoustics	The science of sound.
Ambient Noise	The distinctive acoustical characteristics of a given space consisting of all noise sources audible at that location. In many cases, the term ambient is used to describe an existing or pre-project condition such as the setting in an environmental noise study.
Attenuation	The reduction of an acoustic signal.
A-Weighting	A frequency-response adjustment of a sound level meter that conditions the output signal to approximate human response.
Decibel or dB	Fundamental unit of sound, A Bell is defined as the logarithm of the ratio of the sound pressure squared over the reference pressure squared. A Decibel is one-tenth of a Bell.
CNEL	Community Noise Equivalent Level. Defined as the 24-hour average noise level with noise occurring during evening hours (7 - 10 p.m.) weighted by a factor of three and nighttime hours weighted by a factor of 10 prior to averaging.
Frequency	The measure of the rapidity of alterations of a periodic signal, expressed in cycles per second or hertz (Hz).
L_{dn}	Day/Night Average Sound Level. Similar to CNEL but with no evening weighting.
L_{eq}	Equivalent or energy-averaged sound level.
L_{max}	The highest root-mean-square (RMS) sound level measured over a given period of time.
$L_{(n)}$	The sound level exceeded a described percentile over a measurement period. For instance, an hourly L_{50} is the sound level exceeded 50% of the time during the one hour period.
Loudness	A subjective term for the sensation of the magnitude of sound.
Noise	Unwanted sound.
NRC	Noise Reduction Coefficient. NRC is a single-number rating of the sound-absorption of a material equal to the arithmetic mean of the sound-absorption coefficients in the 250, 500, 1000, and 2,000 Hz octave frequency bands rounded to the nearest multiple of 0.05. It is a representation of the amount of sound energy absorbed upon striking a particular surface. An NRC of 0 indicates perfect reflection; an NRC of 1 indicates perfect absorption.
Peak Noise	The level corresponding to the highest (not RMS) sound pressure measured over a given period of time. This term is often confused with the AMaximum@ level, which is the highest RMS level.
RT_{60}	The time it takes reverberant sound to decay by 60 dB once the source has been removed.
Sabin	The unit of sound absorption. One square foot of material absorbing 100% of incident sound has an absorption of 1 Sabin.
SEL	Sound Exposure Level. SEL is s rating, in decibels, of a discrete event, such as an aircraft flyover or train passby, that compresses the total sound energy into a one-second event.
STC	Sound Transmission Class. STC is an integer rating of how well a building partition attenuates airborne sound. It is widely used to rate interior partitions, ceilings/floors, doors, windows and exterior wall configurations.
Threshold of Hearing	The lowest sound that can be perceived by the human auditory system, generally considered to be 0 dB for persons with perfect hearing.
Threshold of Pain	Approximately 120 dB above the threshold of hearing.
Impulsive	Sound of short duration, usually less than one second, with an abrupt onset and rapid decay.
Simple Tone	Any sound which can be judged as audible as a single pitch or set of single pitches.

Roadway Construction Noise Model (RCNM),Version 1.0

Report date 4/25/2020
Case Desc Oddstad Excavation

		Baselines (dBA)		---- Receptor #1 ----
Description	Land Use	Daytime	Evening	Night
Nearest Re	Residential	50	50	50

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Backhoe	No	40		77.6	100	7
Dump Truck	No	40		76.5	100	7
Flat Bed Truck	No	40		74.3	100	7

	Calculated (dBA)		Results	Noise Limits (dBA)		
			Day		Evening	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq
Backhoe	64.5	60.6	N/A	N/A	N/A	N/A
Dump Truck	63.4	59.5	N/A	N/A	N/A	N/A
Flat Bed Truck	61.2	57.3	N/A	N/A	N/A	N/A
Total	64.5	64.1	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.0

Report date 4/25/2020
Case Desc Oddstad Foundation Framing

		Baselines (dBA)		---- Receptor #1 ----
Description	Land Use	Daytime	Evening	Night
Nearest Re	Residential	50	50	50

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Flat Bed Truck	No	40		74.3	100	7
Compressor (air)	No	40		77.7	100	7
Pneumatic Tools	No	50		85.2	100	7

	Calculated (dBA)		Results	Noise Limits (dBA)		
			Day		Evening	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq
Flat Bed Truck	61.2	57.3	N/A	N/A	N/A	N/A
Compressor (air)	64.6	60.7	N/A	N/A	N/A	N/A
Pneumatic Tools	72.2	69.1	N/A	N/A	N/A	N/A
Total	72.2	70	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.0

Report date 4/25/2020
Case Desc Oddstad Residential Concrete Pour

		---- Receptor #1 ----		
	Baselines (dBA)			
Description	Land Use	Daytime	Evening	Night
Nearest Re	Residential	50	50	50

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Concrete Pump Truck	No	20		81.4	100	7
Concrete Mixer Truck	No	40		78.8	100	7
Compressor (air)	No	40		77.7	100	7

	Calculated (dBA)		Results	Noise Limits (dBA)		
			Day		Evening	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq
Concrete Pump Truck	68.4	61.4	N/A	N/A	N/A	N/A
Concrete Mixer Truck	65.8	61.8	N/A	N/A	N/A	N/A
Compressor (air)	64.6	60.7	N/A	N/A	N/A	N/A
Total	68.4	66.1	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.0

Report date 4/25/2020
Case Desc Oddstad Residential Framing

		---- Receptor #1 ----		
		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
Nearest Re	Residential	50	50	50

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Flat Bed Truck	No	40		74.3	100	7
Crane	No	16		80.6	100	7
All Other Equipment >	No	50	85		100	7
Compressor (air)	No	40		77.7	100	7
Pneumatic Tools	No	50		85.2	100	7

	Results					
	Calculated (dBA)		Noise Limits (dBA)			
			Day		Evening	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq
Flat Bed Truck	61.2	57.3	N/A	N/A	N/A	N/A
Crane	67.5	59.6	N/A	N/A	N/A	N/A
All Other Equipment >	72	69	N/A	N/A	N/A	N/A
Compressor (air)	64.6	60.7	N/A	N/A	N/A	N/A
Pneumatic Tools	72.2	69.1	N/A	N/A	N/A	N/A
Total	72.2	72.7	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.0

Report date 4/25/2020
Case Desc Oddstad Final Grading

		---- Receptor #1 ----		
	Baselines (dBA)			
Description	Land Use	Daytime	Evening	Night
Nearest Re	Residential	50	50	50

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Flat Bed Truck	No	40		74.3	100	7
Front End Loader	No	40		79.1	100	7
Tractor	No	40	84		100	7

	Calculated (dBA)		Results	Noise Limits (dBA)		
			Day		Evening	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq
Flat Bed Truck	61.2	57.3	N/A	N/A	N/A	N/A
Front End Loader	66.1	62.1	N/A	N/A	N/A	N/A
Tractor	71	67	N/A	N/A	N/A	N/A
Total	71	68.6	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Barricade
NOISE CONTROL PRODUCTS

NOISE BARRIER/SOUND ABSORBER COMPOSITE

Spec Data Sheet

BBC-SERIES
NOISE BARRIERS/SOUND ABSORBER COMPOSITES

BBC-EXT-N Sound Curtains

The barrier-backed configuration offers the benefits of both sound absorption and noise barrier products in one. A non-reinforced 1-LB psf loaded vinyl barrier is bonded to a 1" thick exterior grade vinyl-coated-polyester faced quilted fiberglass absorber. These economic modular sound curtains are typically constructed with grommets across the top and hook and exterior grade Velcro along the vertical edges.

- STC rating 27
- NRC rating 0.70
- Available facing colors on absorber side: gray, tan, or black
- Barrier color: black

Applications:
Typically used as an economic Sound Curtain on temporary construction projects. The exterior grade VCP facing is specifically formulated for outdoor applications. Composite products offer maximum noise reduction by both blocking and absorbing noise at job sites.

Product Data:

Description	1" HD VCP faced quilted fiberglass bonded to a 1 LB/SF non-reinforced loaded vinyl barrier
Nominal thickness	1.00"
Temperature range	-20° to +180° F
Standard panel width	54"
Weight	1.45 LB/SF

Acoustical Data:

Sound Transmission Loss:

	OCTAVE BAND FREQUENCIES (Hz)						
PRODUCT	**125**	**250**	**500**	**1000**	**2000**	**4000**	**STC**
BBC-EXT-N	11	16	24	30	35	35	27

ASTM E-90 & E 413

Sound absorption Data

	OCTAVE BAND FREQUENCIES (Hz)						
Product	**125**	**250**	**500**	**1000**	**2000**	**4000**	**NRC**
BBC-EXT-N	.12	.47	.85	.84	.64	.62	.70

ASTM C 423

VacMotion

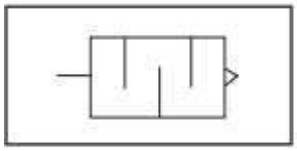
RESIN (POLYETHYLENE) MUFFLER

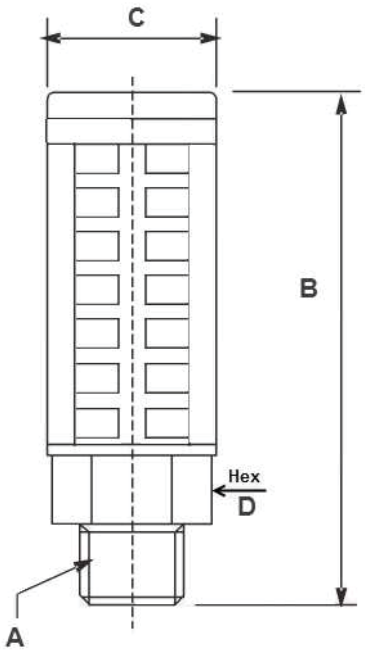
GS-Series

RM-Series mufflers uses rugged polyethylene housing with polyvinyl foam element. It is compact, light weight and highly effective for noise reduction without excessive back pressure. They are completely non-corrosive and highly resistant to water and oil. Elements can be easily cleaned with kerosene or similar cleaning solvent.

All models are furnished with standard male pipe threads range from **1/8**" to **3/4**" NPT; unit should be mounted in a protective position free from excessive vibration. Hand tighten only.

Symbol





SPECIFICATIONS

ITEM		MODEL	GS-18	GS-14L	GS-38	GS-12	GS-34
FLUID			AIR				
CONNECTION	A	NPTM	1/8"	1/4"	3/8"	1/2"	3/4"
OVERALL LENGTH	B	IN.	1-3/8"	2-7/16"	2-5/8"	2-3/4"	3.99"
DIAMETER	C	IN.	5/8"	13/16"	1"	1-7/64"	1.75"
HEX	D	IN.	9/16"	11/16"	1"	1"	1.28"
EFFECTIVE AREA		Cv	0.813	2.33	3.52	4.00	4.00
NOISE ELIMINATION EFFECT		dB	18	18	27	34	34
MATERIAL	BODY		POLYETHYLENE (PE)				
	ELEMENT		POLYVINYL FOAM (5 um)				
MAX OPERATING PRESSURE			130 PSI (9 kg/cm^2)				
OPERATING TEMPERATURE			41˚F TO 140˚F (5˚C to 60˚C)				
WEIGHT (APPROX.)		OZ.	0.16	0.18	0.42	0.77	0.86
UNIT PACK		EA.	5	5	5	5	5

WARNING: Clean mufflers with neutral cleaning agent or cleaning oil, DO NOT use paint thinner, benzine or other organic solvents.

VacMotion Inc. 208 South Meadow Rd., Plymouth, MA 02360

Ph. 866-554-2877 Fax 508-747-1469 Web: www.vacmotion.com Email: sales@vacmotion.com

Appendix 2

Supplemental Traffic Impact Analysis

SUPPLEMENTAL
TRAFFIC IMPACT ANALYSIS
OF CONSTRUCTION TRUCK TRIPS

FOR THE
PROPOSED ODDSTAD WAY
RESIDENTIAL PROJECT
PACIFICA, CA

PREPARED FOR THE
CITY OF PACIFICA

AT THE REQUEST OF
RANEY PLANNING & MANAGEMENT

May 4, 2020

Prepared by:
GHD Inc.
2300 Clayton Road, Suite 920
Concord, CA 94520

R2343TIA004 / 35-5676-15

1. STUDY BACKGROUND

The following report has been prepared to supplement a previous traffic impact analysis of the construction trips associated with a proposed residence on Oddstad Way in the City of Pacifica, California. The previous report, "Traffic Impact Analysis of Construction Truck Trips for the Proposed Oddstad Way Residential Project" (September 12, 2017), was prepared by Omni-Means Engineers & Planners which now operates as GHD Incorporated.

The previous report evaluated traffic operating conditions resulting from vehicle trips generated during construction of the project. The project was calculated to generate up to three truck trips plus two additional employee trips (five vehicles) during the peak hours. The analysis treated the trucks as the equivalent of two passenger vehicles, or equal to six trips, due to their size and slower acceleration characteristics, resulting in a total of 8 peak hour trips.

To establish existing volume conditions on the roadway network, traffic volume counts were conducted at the time of the study (June 2017) at the SR 1/Fassler Avenue intersection, as well as Fassler Avenue/Rockaway Beach Avenue and Rockaway Beach Avenue/Buel Avenue. The traffic counts were conducted during the AM and PM peak period commute times of the day and had recorded volumes of 2,510 AM & 3,497 PM peak hour trips at the SR 1/Fassler Avenue intersection. The Level-of-Service calculations based on those volumes identified acceptable LOS C conditions. However, as noted in the report, traffic flow rates on SR 1 through the Pacifica corridor are influenced by other factors, particularly vehicle queuing. As a result, operating conditions and delays can fluctuate at the SR1/Fassler Avenue intersection and other intersections along the SR1 corridor, ranging from relatively efficient traffic flows to stop-&-go conditions with longer delays.

In order to provide an analysis of the potential traffic impacts of the project's construction trips during prevailing conditions reflecting increased congestion with lower flow rates and longer delays, this supplemental analysis has evaluated operating conditions based on volume counts derived from a different study. The volumes in that study are higher than the volumes utilized in the original traffic analysis we conducted and reflect slowed/congested conditions.

2. SUPPLEMENTAL ANALYSIS

The volumes utilized for this supplemental analysis were conducted in conjunction with the State Route 1 / Calera Parkway / Highway 1 Widening Project. The volumes are provided in the report titled "State Route 1/Calera Parkway Project Final Traffic Operations Report" (Fehr & Peers, July 2008. Volume counts conducted in March 2007). The volumes surveyed at that time (3,883 AM and 4,264 PM peak hour trips) are higher than the traffic volumes counted for the Oddstad Way residential analysis. In addition, the level-of-service calculations were calibrated based on travel-time surveys to reflect lower traffic flow rates resulting from vehicle queuing through the SR 1 corridor.

Based on the counts and calibrations utilized at that time, the SR 1/Calera Parkway Traffic Operations Report identified existing level-of-service conditions at the SR 1/Fassler Avenue intersection of LOS F (with 195 seconds of delay) during the AM peak hour, and LOS F (with 117 seconds of delay) during the PM peak hour.

To conduct our supplemental analysis, the volumes from the SR 1 Traffic Operations Report were used to establish Existing conditions at the SR 1/Fassler Avenue intersection. The Fassler Avenue volumes east of SR 1 were also applied to the Fassler Avenue/Rockaway Beach Avenue intersection. Furthermore, the level-of-service calculations were evaluated using reduced saturation

flow rates on SR 1 that were calibrated to match the SR 1/Calera Parkway Traffic Operations Report vehicle delays.

As shown in Table 1, Existing Conditions at the SR 1/Fassler Avenue intersection match the previous report, operating at LOS F with 195 seconds delay during the AM period and 117 seconds during the PM period. The Fassler Avenue/Rockaway Beach Avenue intersection operates at LOS B and the Rockaway Beach Avenue/Buel Avenue intersection operates at LOS A during both peak hours.

Level-of-Service Standards

As noted, traffic operating conditions are measured by Level-of-Service (LOS), which applies a letter ranking to intersection traffic performance based on vehicle delays. LOS 'A' represents optimum conditions with free-flow travel and no congestion. LOS 'F' represents congested conditions with long delays. (The intersection LOS were determined using the Synchro software suite consistent with the Highway Capacity Manual methodology. LOS calculation worksheets are attached.)

Levels of service ranging from LOS A through D are generally considered acceptable, while LOS E or F typically represent "unacceptable" conditions. The City of Pacifica's level-of-service standards, identified in the Circulation Element of the City's General Plan, are based on a multi-modal level-of-service, but coincide with this general standard. The policy states "LOS D is typically considered acceptable for a peak hour in urban areas. LOS E is approaching capacity and LOS F represents conditions at or above capacity." The multi-modal level-of-service includes other qualitative factors, rather than exclusively vehicle delays, that may be used to prioritize improvements and evaluate projects. For this reason, a purely quantitative threshold of delay is not specifically established. But for intersections operating at LOS E or F, the City's policy is to limit further deterioration of traffic conditions by evaluating the significance of impacts of new development on highway congestion.

To measure potential impacts to level-of-service for an intersection operating at LOS F for "Without Project" conditions, a standard practice is to identify the project's contribution of vehicle trips to the intersection volumes. A conservative threshold is if a project contributes more than one percent to the intersection volumes, it is considered a significant impact. For vehicle delays, a conservative standard describes a project's trips as being significant if the project increases the intersection delay by more than five seconds.

Operating Conditions With The Project Construction Trips

As noted, the project is calculated to generate approximately six peak hour trips during construction. The level-of-service analysis applied eight trips to the calculations to account for larger and slower moving trucks. As shown in Table 1, the level-of-service delays with the construction trips would remain unchanged during the AM peak hour and increase by one second during the PM peak hour.

The project's contribution of trips to the SR 1/Fassler Avenue intersection during construction would represent a contribution of 0.2% (0.002) to the intersection volumes, or less than one percent.

The changes in vehicle delays and the percent contribution of the project trips to the overall volumes at the SR 1/Fassler Avenue intersection indicate the project trips would not have a significant impact whether traffic flows are relatively efficient or congested on the SR 1 corridor. Accounting for the potential variation in conditions on SR 1, the project trips would not result in a substantial increase within the daily fluctuations of traffic.

It is also noted that if the SR 1 / Calera Parkway improvements are implemented, levels-of-service and delays at Fassler Avenue and other intersections through the corridor would improve compared to existing conditions.

And as mentioned in the original traffic report for this project, although not necessary from a traffic operations standpoint, construction trips could be restricted to times outside of the AM and PM peak hours on SR 1 in order to avoid any influence on operations during peak times, no matter how small.

TABLE 1
CONSTRUCTION CONDITIONS: INTERSECTION LEVELS-OF-SERVICE
BASED ON SR 1/CALERA PARKWAY TRAFFIC REPORT VOLUMES AND DELAYS

			AM Peak Hour		PM Peak Hour	
#	**Intersection**		**LOS**	**Delay**	**LOS**	**Delay**
1	Fassler Ave. / State Route 1	Existing	F	195”	F	117”
		Construction	F	195”	F	118”
2	Fassler Ave. / Rockaway Beach Ave	Existing	B	14”	B	11”
		Construction	B	14”	B	11”
3	Rockaway Beach Ave. / Buel Ave.	Existing	A	7”	A	7”
		Construction	A	7”	A	7”

Listed LOS represents vehicle delay expressed in seconds.
Existing volumes and delays based on State Route 1/Calera Parkway Project Final Traffic Operations Report (July, 2008)

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	41	15	2	21	7	914	4	1708	10	434	687	40
Future Volume (veh/h)	41	15	2	21	7	914	4	1708	10	434	687	40
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.90	1.00		1.00	1.00		0.98	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1863	1900	1863	1863	1863	1162	1863	1863	1162	1863
Adj Flow Rate, veh/h	77	28	4	24	8	1051	4	1837	11	488	772	45
Adj No. of Lanes	0	1	1	0	1	2	1	2	1	2	2	1
Peak Hour Factor	0.53	0.53	0.53	0.87	0.87	0.87	0.93	0.93	0.93	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	77	28	83	79	26	664	25	1207	847	618	1573	1091
Arrive On Green	0.06	0.06	0.06	0.06	0.06	0.06	0.01	0.55	0.55	0.18	0.71	0.71
Sat Flow, veh/h	1318	479	1419	1347	449	2787	1774	2207	1548	3442	2207	1531
Grp Volume(v), veh/h	105	0	4	32	0	1051	4	1837	11	488	772	45
Grp Sat Flow(s),veh/h/ln	1797	0	1419	1795	0	1393	1774	1104	1548	1721	1104	1531
Q Serve(g_s), s	6.0	0.0	0.3	1.7	0.0	6.0	0.2	56.0	0.3	13.9	15.8	0.9
Cycle Q Clear(g_c), s	6.0	0.0	0.3	1.7	0.0	6.0	0.2	56.0	0.3	13.9	15.8	0.9
Prop In Lane	0.73		1.00	0.75		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	105	0	83	105	0	664	25	1207	847	618	1573	1091
V/C Ratio(X)	1.00	0.00	0.05	0.30	0.00	1.58	0.16	1.52	0.01	0.79	0.49	0.04
Avail Cap(c_a), veh/h	105	0	83	105	0	664	87	1207	847	874	1660	1152
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.2	0.0	45.5	46.2	0.0	39.0	49.9	23.2	10.6	40.2	6.5	4.4
Incr Delay (d2), s/veh	86.7	0.0	0.2	1.6	0.0	269.7	3.0	239.0	0.0	3.3	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.5	0.0	0.1	0.9	0.0	34.3	0.1	57.0	0.1	6.9	4.8	0.4
LnGrp Delay(d),s/veh	134.9	0.0	45.7	47.8	0.0	308.7	52.9	262.2	10.6	43.4	6.7	4.4
LnGrp LOS	F		D	D		F	D	F	B	D	A	A
Approach Vol, veh/h		109			1083			1852			1305	
Approach Delay, s/veh		131.7			301.0			260.2			20.4	
Approach LOS		F			F			F			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	22.4	60.0		10.0	5.4	77.0		10.0
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0
Max Green Setting (Gmax), s	25.0	55.0		5.0	4.0	76.0		5.0
Max Q Clear Time (g_c+I1), s	15.9	58.0		8.0	2.2	17.8		8.0
Green Ext Time (p_c), s	1.5	0.0		0.0	0.0	4.0		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	195.2
HCM 2010 LOS	F

Notes

Intersection	
Int Delay, s/veh	0.5

Movement	EBU	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations							
Traffic Vol, veh/h	8	8	443	910	0	2	24
Future Vol, veh/h	8	8	443	910	0	2	24
Conflicting Peds, #/hr	0	5	0	0	5	5	5
Sign Control	Free	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	-	None	-	None	-	None
Storage Length	-	0	-	-	-	0	-
Veh in Median Storage, #	-	-	0	0	-	0	-
Grade, %	-	-	0	0	-	0	-
Peak Hour Factor	80	80	80	91	91	69	69
Heavy Vehicles, %	2	2	2	2	2	2	2
Mvmt Flow	10	10	554	1000	0	3	35

Major/Minor	Major1		Major2		Minor2		
Conflicting Flow All	1000	1005	0	-	0	1327	510
Stage 1	-	-	-	-	-	1005	-
Stage 2	-	-	-	-	-	322	-
Critical Hdwy	6.44	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	-	5.84	-
Follow-up Hdwy	2.52	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	332	685	-	-	-	147	509
Stage 1	-	-	-	-	-	315	-
Stage 2	-	-	-	-	-	707	-
Platoon blocked, %			-	-	-		
Mov Cap-1 Maneuver	432	432	-	-	-	139	505
Mov Cap-2 Maneuver	-	-	-	-	-	139	-
Stage 1	-	-	-	-	-	299	-
Stage 2	-	-	-	-	-	704	-

Approach	EB	WB	SB
HCM Control Delay, s	0.5	0	14.4
HCM LOS			B

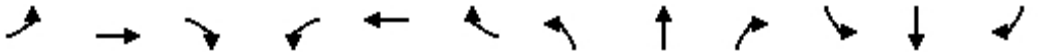
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	432	-	-	-	420
HCM Lane V/C Ratio	0.046	-	-	-	0.09
HCM Control Delay (s)	13.7	-	-	-	14.4
HCM Lane LOS	B	-	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.3

Intersection	
Intersection Delay, s/veh	7.1
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	12	0	0	26	0	1	0	0	0	0	1
Future Vol, veh/h	0	12	0	0	26	0	1	0	0	0	0	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	13	0	0	28	0	1	0	0	0	0	1
Number of Lanes	0	1	0	0	1	0	0	1	1	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	1	1
HCM Control Delay	7	7.1	7.8	6.5
HCM LOS	A	A	A	A

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1
Vol Left, %	100%	0%	0%	0%	0%
Vol Thru, %	0%	100%	100%	100%	0%
Vol Right, %	0%	0%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	1	0	12	26	1
LT Vol	1	0	0	0	0
Through Vol	0	0	12	26	0
RT Vol	0	0	0	0	1
Lane Flow Rate	1	0	13	28	1
Geometry Grp	7	7	2	2	5
Degree of Util (X)	0.002	0	0.014	0.031	0.001
Departure Headway (Hd)	5.108	4.607	3.959	3.948	3.507
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	703	0	908	911	1022
Service Time	2.823	2.323	1.966	1.952	1.523
HCM Lane V/C Ratio	0.001	0	0.014	0.031	0.001
HCM Control Delay	7.8	7.3	7	7.1	6.5
HCM Lane LOS	A	N	A	A	A
HCM 95th-tile Q	0	0	0	0.1	0



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	65	22	46	48	15	339	25	1016	15	956	1674	43
Future Volume (veh/h)	65	22	46	48	15	339	25	1016	15	956	1674	43
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.94	1.00		1.00	1.00		0.97	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1863	1900	1863	1863	1863	1297	1863	1863	1297	1863
Adj Flow Rate, veh/h	66	22	47	58	18	408	27	1116	16	1028	1800	46
Adj No. of Lanes	0	1	1	0	1	2	1	2	1	2	2	1
Peak Hour Factor	0.98	0.98	0.98	0.83	0.83	0.83	0.91	0.91	0.91	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	139	46	153	184	57	1220	48	824	514	1044	1505	933
Arrive On Green	0.10	0.10	0.10	0.13	0.13	0.13	0.03	0.33	0.33	0.30	0.61	0.61
Sat Flow, veh/h	1347	449	1481	1369	425	2787	1774	2464	1538	3442	2464	1528
Grp Volume(v), veh/h	88	0	47	76	0	408	27	1116	16	1028	1800	46
Grp Sat Flow(s),veh/h/ln	1795	0	1481	1794	0	1393	1774	1232	1538	1721	1232	1528
Q Serve(g_s), s	5.9	0.0	3.8	4.9	0.0	12.4	1.9	43.0	0.9	38.2	78.5	1.6
Cycle Q Clear(g_c), s	5.9	0.0	3.8	4.9	0.0	12.4	1.9	43.0	0.9	38.2	78.5	1.6
Prop In Lane	0.75		1.00	0.76		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	186	0	153	241	0	1220	48	824	514	1044	1505	933
V/C Ratio(X)	0.47	0.00	0.31	0.32	0.00	0.33	0.56	1.35	0.03	0.98	1.20	0.05
Avail Cap(c_a), veh/h	363	0	299	363	0	1409	69	824	514	1044	1505	933
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.3	0.0	53.4	50.3	0.0	23.8	61.8	42.8	28.8	44.5	25.0	10.0
Incr Delay (d2), s/veh	1.9	0.0	1.1	0.7	0.0	0.2	10.0	167.3	0.0	24.1	95.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	0.0	1.6	2.5	0.0	4.8	1.1	33.7	0.4	21.6	46.4	0.7
LnGrp Delay(d),s/veh	56.2	0.0	54.5	51.0	0.0	24.0	71.8	210.1	28.8	68.6	120.0	10.1
LnGrp LOS	E		D	D		C	E	F	C	E	F	B
Approach Vol, veh/h		135			484			1159			2874	
Approach Delay, s/veh		55.6			28.2			204.4			99.8	
Approach LOS		E			C			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	43.0	47.0		17.3	7.5	82.5		21.3
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0
Max Green Setting (Gmax), s	38.0	42.0		25.0	4.0	76.0		25.0
Max Q Clear Time (g_c+I1), s	40.2	45.0		7.9	3.9	80.5		14.4
Green Ext Time (p_c), s	0.0	0.0		0.4	0.0	0.0		1.9

Intersection Summary		
HCM 2010 Ctrl Delay		117.1
HCM 2010 LOS		F

Intersection	
Int Delay, s/veh	0.3

Movement	EBU	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations							
Traffic Vol, veh/h	7	24	962	383	4	1	12
Future Vol, veh/h	7	24	962	383	4	1	12
Conflicting Peds, #/hr	0	5	0	0	5	5	5
Sign Control	Free	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	-	None	-	None	-	None
Storage Length	-	0	-	-	-	0	-
Veh in Median Storage, #	-	-	0	0	-	0	-
Grade, %	-	-	0	0	-	0	-
Peak Hour Factor	90	90	90	84	84	65	65
Heavy Vehicles, %	2	2	2	2	2	2	2
Mvmt Flow	8	27	1069	456	5	2	18

Major/Minor	Major1		Major2		Minor2		
Conflicting Flow All	461	466	0	-	0	1074	241
Stage 1	-	-	-	-	-	464	-
Stage 2	-	-	-	-	-	610	-
Critical Hdwy	6.44	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	-	5.84	-
Follow-up Hdwy	2.52	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	733	1092	-	-	-	215	760
Stage 1	-	-	-	-	-	599	-
Stage 2	-	-	-	-	-	505	-
Platoon blocked, %			-	-	-		
Mov Cap-1 Maneuver	975	975	-	-	-	206	754
Mov Cap-2 Maneuver	-	-	-	-	-	206	-
Stage 1	-	-	-	-	-	576	-
Stage 2	-	-	-	-	-	503	-

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	10.9
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	975	-	-	-	626
HCM Lane V/C Ratio	0.035	-	-	-	0.032
HCM Control Delay (s)	8.8	-	-	-	10.9
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.1

Intersection	
Intersection Delay, s/veh	7.1
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	40	1	0	20	1	0	0	0	1	0	0
Future Vol, veh/h	0	40	1	0	20	1	0	0	0	1	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	43	1	0	22	1	0	0	0	1	0	0
Number of Lanes	0	1	0	0	1	0	0	1	1	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	1	1
HCM Control Delay	7.1	7	0	7.4
HCM LOS	A	A	-	A

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	0%	0%	0%	100%
Vol Thru, %	100%	100%	98%	95%	0%
Vol Right, %	0%	0%	2%	5%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	0	0	41	21	1
LT Vol	0	0	0	0	1
Through Vol	0	0	40	20	0
RT Vol	0	0	1	1	0
Lane Flow Rate	0	0	45	23	1
Geometry Grp	7	7	2	2	5
Degree of Util (X)	0	0	0.049	0.025	0.001
Departure Headway (Hd)	4.652	4.652	3.938	3.941	4.351
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	0	0	914	912	822
Service Time	2.38	2.38	1.942	1.948	2.378
HCM Lane V/C Ratio	0	0	0.049	0.025	0.001
HCM Control Delay	7.4	7.4	7.1	7	7.4
HCM Lane LOS	N	N	A	A	A
HCM 95th-tile Q	0	0	0.2	0.1	0

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	41	15	2	21	7	916	4	1708	10	440	687	40
Future Volume (veh/h)	41	15	2	21	7	916	4	1708	10	440	687	40
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.90	1.00		1.00	1.00		0.98	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1863	1900	1863	1863	1863	1162	1863	1863	1162	1863
Adj Flow Rate, veh/h	77	28	4	24	8	1053	4	1837	11	494	772	45
Adj No. of Lanes	0	1	1	0	1	2	1	2	1	2	2	1
Peak Hour Factor	0.53	0.53	0.53	0.87	0.87	0.87	0.93	0.93	0.93	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	77	28	83	79	26	668	25	1205	845	624	1574	1092
Arrive On Green	0.06	0.06	0.06	0.06	0.06	0.06	0.01	0.55	0.55	0.18	0.71	0.71
Sat Flow, veh/h	1318	479	1419	1347	449	2787	1774	2207	1548	3442	2207	1531
Grp Volume(v), veh/h	105	0	4	32	0	1053	4	1837	11	494	772	45
Grp Sat Flow(s),veh/h/ln	1797	0	1419	1795	0	1393	1774	1104	1548	1721	1104	1531
Q Serve(g_s), s	6.0	0.0	0.3	1.8	0.0	6.0	0.2	56.0	0.3	14.1	15.8	0.9
Cycle Q Clear(g_c), s	6.0	0.0	0.3	1.8	0.0	6.0	0.2	56.0	0.3	14.1	15.8	0.9
Prop In Lane	0.73		1.00	0.75		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	105	0	83	105	0	668	25	1205	845	624	1574	1092
V/C Ratio(X)	1.00	0.00	0.05	0.30	0.00	1.58	0.16	1.52	0.01	0.79	0.49	0.04
Avail Cap(c_a), veh/h	105	0	83	105	0	668	86	1205	845	872	1657	1149
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.3	0.0	45.6	46.3	0.0	39.0	50.0	23.3	10.7	40.2	6.5	4.3
Incr Delay (d2), s/veh	87.5	0.0	0.2	1.6	0.0	266.6	3.0	240.3	0.0	3.4	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.5	0.0	0.1	0.9	0.0	34.2	0.1	57.1	0.1	6.9	4.8	0.4
LnGrp Delay(d),s/veh	135.8	0.0	45.8	47.9	0.0	305.6	53.0	263.6	10.7	43.6	6.7	4.4
LnGrp LOS	F		D	D		F	D	F	B	D	A	A
Approach Vol, veh/h		109			1085			1852			1311	
Approach Delay, s/veh		132.5			298.0			261.7			20.5	
Approach LOS		F			F			F			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	22.6	60.0		10.0	5.4	77.2		10.0
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0
Max Green Setting (Gmax), s	25.0	55.0		5.0	4.0	76.0		5.0
Max Q Clear Time (g_c+I1), s	16.1	58.0		8.0	2.2	17.8		8.0
Green Ext Time (p_c), s	1.5	0.0		0.0	0.0	4.0		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	194.9
HCM 2010 LOS	F

Notes

Intersection	
Int Delay, s/veh	0.6

Movement	EBU	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations							
Traffic Vol, veh/h	8	14	443	910	0	2	26
Future Vol, veh/h	8	14	443	910	0	2	26
Conflicting Peds, #/hr	0	5	0	0	5	5	5
Sign Control	Free	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	-	None	-	None	-	None
Storage Length	-	0	-	-	-	0	-
Veh in Median Storage, #	-	-	0	0	-	0	-
Grade, %	-	-	0	0	-	0	-
Peak Hour Factor	80	80	80	91	91	69	69
Heavy Vehicles, %	2	2	2	2	2	2	2
Mvmt Flow	10	18	554	1000	0	3	38

Major/Minor	Major1		Major2		Minor2		
Conflicting Flow All	1000	1005	0	-	0	1343	510
Stage 1	-	-	-	-	-	1005	-
Stage 2	-	-	-	-	-	338	-
Critical Hdwy	6.44	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	-	5.84	-
Follow-up Hdwy	2.52	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	332	685	-	-	-	143	509
Stage 1	-	-	-	-	-	315	-
Stage 2	-	-	-	-	-	694	-
Platoon blocked, %			-	-	-		
Mov Cap-1 Maneuver	479	479	-	-	-	134	505
Mov Cap-2 Maneuver	-	-	-	-	-	134	-
Stage 1	-	-	-	-	-	295	-
Stage 2	-	-	-	-	-	691	-

Approach	EB	WB	SB
HCM Control Delay, s	0.6	0	14.4
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	479	-	-	-	422
HCM Lane V/C Ratio	0.057	-	-	-	0.096
HCM Control Delay (s)	13	-	-	-	14.4
HCM Lane LOS	B	-	-	-	B
HCM 95th %tile Q(veh)	0.2	-	-	-	0.3

Intersection	
Intersection Delay, s/veh	7.1
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	18	0	0	28	0	1	0	0	0	0	1
Future Vol, veh/h	0	18	0	0	28	0	1	0	0	0	0	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	20	0	0	30	0	1	0	0	0	0	1
Number of Lanes	0	1	0	0	1	0	0	1	1	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	1	1
HCM Control Delay	7.1	7.1	7.9	6.5
HCM LOS	A	A	A	A

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1
Vol Left, %	100%	0%	0%	0%	0%
Vol Thru, %	0%	100%	100%	100%	0%
Vol Right, %	0%	0%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	1	0	18	28	1
LT Vol	1	0	0	0	0
Through Vol	0	0	18	28	0
RT Vol	0	0	0	0	1
Lane Flow Rate	1	0	20	30	1
Geometry Grp	7	7	2	2	5
Degree of Util (X)	0.002	0	0.022	0.033	0.001
Departure Headway (Hd)	5.121	4.621	3.96	3.952	3.52
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	700	0	908	910	1016
Service Time	2.843	2.342	1.967	1.958	1.543
HCM Lane V/C Ratio	0.001	0	0.022	0.033	0.001
HCM Control Delay	7.9	7.3	7.1	7.1	6.5
HCM Lane LOS	A	N	A	A	A
HCM 95th-tile Q	0	0	0.1	0.1	0

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	65	22	46	48	15	345	25	1016	15	958	1674	43
Future Volume (veh/h)	65	22	46	48	15	345	25	1016	15	958	1674	43
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.94	1.00		1.00	1.00		0.97	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1863	1900	1863	1863	1863	1297	1863	1863	1297	1863
Adj Flow Rate, veh/h	66	22	47	58	18	416	27	1116	16	1030	1800	46
Adj No. of Lanes	0	1	1	0	1	2	1	2	1	2	2	1
Peak Hour Factor	0.98	0.98	0.98	0.83	0.83	0.83	0.91	0.91	0.91	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	139	46	153	187	58	1223	48	822	513	1041	1501	931
Arrive On Green	0.10	0.10	0.10	0.14	0.14	0.14	0.03	0.33	0.33	0.30	0.61	0.61
Sat Flow, veh/h	1347	449	1481	1369	425	2787	1774	2464	1538	3442	2464	1528
Grp Volume(v), veh/h	88	0	47	76	0	416	27	1116	16	1030	1800	46
Grp Sat Flow(s),veh/h/ln	1795	0	1481	1794	0	1393	1774	1232	1538	1721	1232	1528
Q Serve(g_s), s	6.0	0.0	3.8	4.9	0.0	12.7	1.9	43.0	0.9	38.4	78.5	1.6
Cycle Q Clear(g_c), s	6.0	0.0	3.8	4.9	0.0	12.7	1.9	43.0	0.9	38.4	78.5	1.6
Prop In Lane	0.75		1.00	0.76		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	186	0	153	245	0	1223	48	822	513	1041	1501	931
V/C Ratio(X)	0.47	0.00	0.31	0.31	0.00	0.34	0.56	1.36	0.03	0.99	1.20	0.05
Avail Cap(c_a), veh/h	362	0	299	362	0	1405	69	822	513	1041	1501	931
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.5	0.0	53.5	50.2	0.0	23.8	62.0	42.9	28.9	44.7	25.2	10.1
Incr Delay (d2), s/veh	1.9	0.0	1.1	0.7	0.0	0.2	10.0	168.8	0.0	25.2	96.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	0.0	1.6	2.5	0.0	4.9	1.1	33.8	0.4	21.8	46.6	0.7
LnGrp Delay(d),s/veh	56.4	0.0	54.6	50.9	0.0	24.0	72.0	211.7	28.9	69.9	121.4	10.2
LnGrp LOS	E		D	D		C	E	F	C	E	F	B
Approach Vol, veh/h		135			492			1159			2876	
Approach Delay, s/veh		55.8			28.2			205.9			101.2	
Approach LOS		E			C			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	43.0	47.0		17.3	7.5	82.5		21.6
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0
Max Green Setting (Gmax), s	38.0	42.0		25.0	4.0	76.0		25.0
Max Q Clear Time (g_c+I1), s	40.4	45.0		8.0	3.9	80.5		14.7
Green Ext Time (p_c), s	0.0	0.0		0.4	0.0	0.0		1.9

Intersection Summary		
HCM 2010 Ctrl Delay		118.2
HCM 2010 LOS		F

Intersection	
Int Delay, s/veh	0.4

Movement	EBU	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations							
Traffic Vol, veh/h	7	26	962	383	4	1	18
Future Vol, veh/h	7	26	962	383	4	1	18
Conflicting Peds, #/hr	0	5	0	0	5	5	5
Sign Control	Free	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	-	None	-	None	-	None
Storage Length	-	0	-	-	-	0	-
Veh in Median Storage, #	-	-	0	0	-	0	-
Grade, %	-	-	0	0	-	0	-
Peak Hour Factor	90	90	90	84	84	65	65
Heavy Vehicles, %	2	2	2	2	2	2	2
Mvmt Flow	8	29	1069	456	5	2	28

Major/Minor	Major1		Major2		Minor2		
Conflicting Flow All	461	466	0	-	0	1078	241
Stage 1	-	-	-	-	-	464	-
Stage 2	-	-	-	-	-	614	-
Critical Hdwy	6.44	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	-	5.84	-
Follow-up Hdwy	2.52	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	733	1092	-	-	-	213	760
Stage 1	-	-	-	-	-	599	-
Stage 2	-	-	-	-	-	502	-
Platoon blocked, %			-	-	-		
Mov Cap-1 Maneuver	979	979	-	-	-	203	754
Mov Cap-2 Maneuver	-	-	-	-	-	203	-
Stage 1	-	-	-	-	-	574	-
Stage 2	-	-	-	-	-	500	-

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	10.7
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	979	-	-	-	660
HCM Lane V/C Ratio	0.037	-	-	-	0.044
HCM Control Delay (s)	8.8	-	-	-	10.7
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.1

Intersection	
Intersection Delay, s/veh	7.2
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	42	1	0	26	1	0	0	0	1	0	0
Future Vol, veh/h	0	42	1	0	26	1	0	0	0	1	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	46	1	0	28	1	0	0	0	1	0	0
Number of Lanes	0	1	0	0	1	0	0	1	1	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	1	1
HCM Control Delay	7.2	7.1	0	7.4
HCM LOS	A	A	-	A

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	0%	0%	0%	100%
Vol Thru, %	100%	100%	98%	96%	0%
Vol Right, %	0%	0%	2%	4%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	0	0	43	27	1
LT Vol	0	0	0	0	1
Through Vol	0	0	42	26	0
RT Vol	0	0	1	1	0
Lane Flow Rate	0	0	47	29	1
Geometry Grp	7	7	2	2	5
Degree of Util (X)	0	0	0.051	0.032	0.001
Departure Headway (Hd)	4.668	4.668	3.944	3.949	4.366
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	0	0	912	910	819
Service Time	2.397	2.397	1.949	1.956	2.395
HCM Lane V/C Ratio	0	0	0.052	0.032	0.001
HCM Control Delay	7.4	7.4	7.2	7.1	7.4
HCM Lane LOS	N	N	A	A	A
HCM 95th-tile Q	0	0	0.2	0.1	0