CHAPTER 5
Draft SEIR Revisions

Commented [WW(1]: FYI, Jeanie and I will review this chapter in RTC-2.

This chapter presents text changes for the Balboa Reservoir Project SEIR ~~initiated by planning department staff. The following changes to the text of the draft SEIR are made in response to comments on the draft SEIR or are included to clarify the draft SEIR text~~. The revisions reflect changes identified in Chapter 4, Comments and Responses, or staff-initiated text changes, all of which clarify, expand, or update information and/or graphics presented in the draft SEIR. Staff-initiated changes to clarify information presented in the draft SEIR are highlighted with an asterisk (*) in the margin to distinguish them from text changes in response to comments. For each change, new language is double underlined, while deleted text is shown in ~~strikethrough~~. The changes are organized in the order of the draft SEIR and initial study table of contents.

These revisions do not result in any changes in the analysis or conclusions prepared pursuant to CEQA, and thus do not constitute "new information of substantial importance" within the meaning of CEQA Guidelines section 15162(a)(3). Therefore, recirculation of the draft SEIR is not required.

5.A Summary

* **To be consistent with the revisions made under the applicable resource topics in response to comments, the following revisions are made to Table S-2, Summary of Impacts of the Proposed Project—Disclosed in this SEIR including the Initial Study.**

* **In Table S-2, the sixth bullet point of Mitigation Measure M-NO-1 on SEIR p. S-18 is revised as follows (deleted text is shown in ~~strikethrough~~ and new text is shown in double underline):**

(REVISED) TABLE S-2: SUMMARY OF IMPACTS OF THE PROPOSED PROJECT–DISCLOSED IN THIS SEIR INCLUDING THE INITIAL STUDY [EXCERPT]

Environmental Impact	Level of Significance prior to Mitigation	Improvement/Mitigation Measures	Level of Significance after Mitigation
SEIR Section 3.C, Noise [EXCERPT]			
Impact NO-1: Project construction would cause a substantial temporary or periodic increase in ambient noise levels at noise-sensitive receptors above levels existing without the project.	S	**Mitigation Measure M-NO-1: Construction Noise Control Measures.** … Undertake the noisiest activities during times of least disturbance to surrounding residents and occupants (9 a.m. to 4 p.m.); and select or construct haul routes that avoid the North Access Road and the adjacent Archbishop Riordan High School and residential uses along Plymouth Avenue and Lee Avenue, such as the relocation of North Street described in Variant 4: North Street Extension on page 5-22 and depicted in Figure 5-4 on page 5-20 of the SEIR.	SUM

* **In Table S-2, Mitigation Measure M-AQ-2d (Offset Construction Emissions for the Compressed Schedule), is revised as follows (deleted text is shown in ~~strikethrough~~ and new text is shown in double underline):**

(REVISED) TABLE S-2: SUMMARY OF IMPACTS OF THE PROPOSED PROJECT–DISCLOSED IN THIS SEIR INCLUDING THE INITIAL STUDY [EXCERPT]

Environmental Impact	Level of Significance prior to Mitigation	Improvement/Mitigation Measures	Level of Significance after Mitigation
SEIR Section 3.C, Noise [EXCERPT]			
…			
Impact AQ-2a: During construction, the proposed project would generate criteria air pollutants which would violate an air quality standard, contribute substantially to an existing or projected air quality violation, or result in a cumulatively considerable net increase in criteria air pollutants.	S	**…** **Mitigation Measure M-AQ-2d: Offset Construction Emissions for the Compressed Schedule.** Under the compressed three-year construction schedule for either the Developer's Proposed Option or the Additional Housing Option, the project sponsor shall implement this measure. Prior to issuance of the final certificate of occupancy for the final building associated with Phase 1, the project sponsor, with the oversight of the ERO, shall either: 1. *Directly fund or implement a specific offset project within San Francisco if available* to achieve the equivalent to a one-time reduction of 2.0 tons per year of ozone precursors for the Developer's Proposed Option or 3.2 tons per year of ozone precursors for the Additional Housing Option. To qualify under this mitigation measure, the specific emissions offset project must result in emission reductions within the San Francisco Bay Area Air Basin that would not otherwise be achieved through compliance with existing regulatory requirements. A preferred offset project would be one implemented locally within the City and County of San Francisco. Prior to implementing the offset	SUM

Environmental Impact	Level of Significance prior to Mitigation	Improvement/Mitigation Measures	Level of Significance after Mitigation
		project, it must be approved by the ERO. The project sponsor shall notify the ERO within six months of completion of the offset project for verification; or 2. *Pay mitigation offset fees* to the Bay Area Air Quality Management District Bay Area Clean Air Foundation or other governmental entity or third party. The mitigation offset fee~~, currently estimated at approximately $30,000 per weighted ton, plus an administrative fee of no more than 5 percent of the total offset,~~ shall fund one or more emissions reduction projects within the San Francisco Bay Area Air Basin. The fee will be determined by the planning department, the project sponsor, and the governmental entity or third party responsible for administering the funds ~~air district~~, and be based on the type of projects available at the time of the payment. This fee is intended to fund emissions reduction projects to achieve reductions of 2.0 tons per year of ozone precursors for the Developer's Proposed Option or 3.2 tons per year of ozone precursors for the Additional Housing Option, which is the amount required to reduce emissions below significance levels after implementation of other identified mitigation measures as currently calculated. The agreement that specifies fees and timing of payment shall be signed by the project sponsor, the governmental entity or third party responsible for administering the funds ~~air district~~, and the ERO prior to issuance of the first site permit. This offset payment shall total the predicted 2.0 tons per year of ozone precursors for the Developer's Proposed Option or 3.2 tons per year of ozone precursors for the Additional Housing Option above the 10-ton-per-year threshold after implementation of Mitigation Measures M-AQ-2a, M-AQ-2b, and M-AQ-2c. The total emission offset amount is calculated by summing the maximum daily construction of ROG and NOx (pounds/day), multiplying by 260 work days per year, and converting to tons. The amount represents the total estimated operational and construction-related ROG and NOx emissions offsets required. No reductions are needed for operations or overlapping construction and operations.	

5.B Section 3.A.6 Approach to Cumulative Impact Analysis

* **To update the status of the potential City College east basin parking garage project, the SEIR text is revised on p. 3.A-14 as follows:**

At subsequent 2019 Board of Trustees meetings, City College staff presented a facilities planning update on a potential bond measure that would be anticipated to fund construction of the facilities master plan projects, shown under the "Bond Measure" column in Table 3.A-2. In that update, a number of the facilities master plan projects were included in the list of potential bond-funded improvements. However, the East Basin Parking Garage was no longer included, the Performing Arts and Education Center was replaced by a new Diego Rivera Theater and a smaller STEAM building (both on the east basin), and a Multi Media Building was proposed at the location of the existing Creative Arts Extension Building. To support the college's anticipated increase in enrollment, the Balboa Reservoir project sponsor may fund a portion of a study addressing the potential City College garage on the east basin, if the college decides to consider pursuing such a project. A parking garage on the east basin would have independent utility from the Balboa Reservoir project—in other words, the east basin parking garage could move forward regardless of whether the Balboa Reservoir project on the west basin occurs. Consequently, this SEIR analysis need not address an east basin parking lot as part of the Balboa Reservoir project other than accounting for it as part of the cumulative analysis.

5.C Transportation and Circulation

To clarify the existing transit travel times, the text on SEIR p. 3.B-22 and continuing to SEIR p. 3.B-23 is revised as follows (deleted text is shown in ~~strikethrough~~ and new text is shown in double underline):

Muni transit operations in the study area were evaluated using transit delay analysis. The transit delay analysis presents the delay associated with traffic congestion, transit reentry, and passenger boarding along the following ~~corridors and~~ Muni lines for the weekday a.m. and p.m. peak hours:

- ~~Frida Kahlo Way from Judson Avenue to Ocean Avenue (Line 43)~~
- ~~Ocean Avenue from Plymouth Avenue to San Jose Avenue (Lines K, 29, 49)~~
- ~~Geneva Avenue from City College Terminal to San Jose Avenue (Lines 8, 8BX, 43, 54)~~
- K/T Third/Ingleside:
  - Jules Avenue/Ocean Avenue to Balboa Park BART Station
  - San Jose Avenue/Geneva Avenue to Dorado Terrace/Ocean Avenue

- 29 Sunset
  - Plymouth Avenue/Ocean Avenue to Mission Street/Persia Avenue
  - Mission Street/Persia Avenue to Plymouth Avenue/Ocean Avenue
- 43 Masonic
  - Frida Kahlo Way/City College South Entrance to Foerster Street/Monterey Boulevard
  - Gennessee Street/Monterey Boulevard to Frida Kahlo Way/City College South Entrance
- 49 Van Ness/Mission
  - Frida Kahlo Way/CCSF South Entrance to Mission Street/Persia Avenue
  - Mission Street/Ocean Avenue to Frida Kahlo Way/City College South Entrance

The results of the transit delay analysis are summarized in **Table 3.B-8, ~~Existing Transit Delay~~Existing Transit Travel Times**, and provided in Attachment C, Corridor Delay Analysis Synchro Worksheets, and Attachment D, Transit Reentry and Passenger Boarding Delay Analysis Calculations, of SEIR Appendix C2, Transit Assessment Memorandum. Transit ridership and capacity analysis are provided in Attachment F (transit ridership and capacity analysis) of SEIR Appendix C2 for informational purposes. Table 3.B-8 presents the estimated ~~seconds of delay a~~ transit vehicle ~~encounters~~ travel times during the a.m. and p.m. peak hours ~~along each of the study corridors~~.

~~TABLE 3.B-8~~
~~EXISTING TRANSIT DELAY~~

~~Corridor~~	~~Weekday a.m. Peak Hour (seconds of delay)~~		~~Weekday p.m. Peak Hour (seconds of delay)~~	
	~~Northbound/ Eastbound~~	~~Southbound/ Westbound~~	~~Northbound/ Eastbound~~	~~Southbound/ Westbound~~
~~Frida Kahlo Way~~	~~3~~	~~12~~	~~3~~	~~25~~
~~Ocean Avenue~~	~~110~~	~~132~~	~~113~~	~~133~~
~~Geneva Avenue~~	~~70~~	~~48~~	~~66~~	~~41~~

~~SOURCE: Kittelson & Associates Inc., 2018.~~
~~NOTES:~~
Transit delay includes corridor delay, transit reentry delay, and passenger boarding delay.

TABLE 3.B-8
EXISTING TRANSIT TRAVEL TIMES

Transit Line	Study Segment	Existing Transit Travel Time[a]	
		A.M. Peak Period	P.M. Peak Period
K/T	Jules Ave/Ocean Ave to Balboa Park BART	3:30	8:42
	San Jose Ave/Geneva Ave to Dorado Terr/Ocean Ave	3:28	10:03
29	Plymouth Ave/Ocean Ave to Mission St/Persia Ave	8:01	12:09
	Mission St/Persia Ave to Plymouth Ave/Ocean Ave	7:10	9:55
43	Frida Kahlo Way/City College South Entrance to Foerster St/Monterey Blvd	4:20	4:37
	Gennessee St/Monterey Blvd to Frida Kahlo Way/City College South Entrance	4:16	4:23
49	Frida Kahlo Way/City College South Entrance to Mission St/Persia Ave	5:39	10:04
	Mission St/Ocean Ave to Frida Kahlo Way/City College South Entrance	7:18	11:25

SOURCE: Kittelson & Associates, Inc. 2019; SFMTA Automatic Vehicle Location Data, 2019.

NOTES:

[a] Kittelson staff collected transit travel time data along route segments via onboard surveys. Transit travel times were collected on Tuesday, April 2, 2019, during the weekday a.m. peak period (7 to 9 a.m.) and the weekday p.m. peak period (4 to 6 p.m.). Staff boarded a transit vehicle at the route start point and recorded the travel time between each stop and the dwell time at each stop. Onboard survey data was used to supplement and verify automatic vehicle location data provided by SFMTA. Agencies may determine to update the existing baseline transit travel times closer to commencement of construction.

As shown in Table 3.B-8, the ~~highest transit delays~~ most variability in transit travel times are experienced along Ocean Avenue ~~between Plymouth Avenue and Judson Avenue~~ in the westbound direction where there is a difference in travel times of over 6.5 minutes between the weekday a.m. and p.m. peak hours. This is primarily caused by the vehicular traffic at the Ocean Avenue/San Jose Avenue intersection during the weekday p.m. peak hour, which operates with an average intersection delay above 100 seconds. Additionally, as a result of the high volume of vehicle traffic ~~volumes~~ in the curbside travel lane on westbound Ocean Avenue (between 900 and 930 vehicles per hour) transit vehicles ~~in this corridor~~ typically experience transit reentry delays of around 11 seconds.

To clarify the project-related increase in transit travel times, the text on SEIR p. 3.B-73 and continuing to SEIR p. 3.B-74 is revised as follows (deleted text is shown in ~~strikethrough~~ and new text is shown in double underline):

The impact of the Developer's Proposed Option and Additional Housing Option on transit delay (traffic congestion, transit reentry delay, and passenger boarding delay) was evaluated along the following ~~corridors and~~ Muni lines for the weekday a.m. and p.m. peak hours:

- ~~Frida Kahlo Way from Judson Avenue to Ocean Avenue (Line 43)~~
- ~~Ocean Avenue from Plymouth Avenue to San Jose Avenue (Lines K, 29, 49)~~

- ~~Geneva Avenue from City College Terminal to San Jose Avenue (Lines 8, 8BX, 43, 54)~~
- K/T Third/Ingleside:
  - Jules Avenue/Ocean Avenue to Balboa Park BART Station
  - San Jose Avenue/Geneva Avenue to Dorado Terrace/Ocean Avenue
- 29 Sunset
  - Plymouth Avenue/Ocean Avenue to Mission Street/Persia Avenue
  - Mission Street/Persia Avenue to Plymouth Avenue/Ocean Avenue
- 43 Masonic
  - Frida Kahlo Way/City College South Entrance to Foerster Street/Monterey Boulevard
  - Gennessee Street/Monterey Boulevard to Frida Kahlo Way/City College South Entrance
- 49 Van Ness/Mission
  - Frida Kahlo Way/CCSF South Entrance to Mission Street/Persia Avenue
  - Mission Street/Ocean Avenue to Frida Kahlo Way/City College South Entrance

The results of the transit delay analysis are summarized in **Table 3.B-18, Transit Delay Analysis**, and provided in Attachment C, Corridor Delay Analysis Synchro Worksheets, and Attachment D, Transit Reentry and Passenger Boarding Delay Analysis Calculations, of SEIR Appendix C2, Transit Assessment Memorandum.

~~TABLE~~ 3.B-18
~~TRANSIT DELAY ANALYSIS~~

~~Corridor~~	~~Weekday a.m. Peak Hour (seconds of delay)~~		~~Weekday p.m. Peak Hour (seconds of delay)~~	
	~~Northbound/ Eastbound~~	~~Southbound/ Westbound~~	~~Northbound/ Eastbound~~	~~Southbound/ Westbound~~
~~Transit Delay~~				
~~Existing Conditions~~				
~~Frida Kahlo Way~~	~~5~~	~~15~~	~~5~~	~~28~~
~~Ocean Avenue~~	~~121~~	~~143~~	~~124~~	~~144~~
~~Geneva Avenue~~	~~79~~	~~53~~	~~75~~	~~46~~
~~Existing plus Developer's Proposed Option~~				
~~Frida Kahlo Way~~	~~18~~	~~74~~	~~29~~	~~101~~
~~Ocean Avenue~~	~~187~~	~~182~~	~~182~~	~~244~~
~~Geneva Avenue~~	~~99~~	~~127~~	~~117~~	~~127~~
~~Existing plus Additional Housing Option~~				
~~Frida Kahlo Way~~	~~21~~	~~87~~	~~46~~	~~111~~
~~Ocean Avenue~~	~~183~~	~~207~~	~~208~~	~~272~~
~~Geneva Avenue~~	~~109~~	~~137~~	~~133~~	~~137~~

Corridor	Weekday a.m. Peak Hour (seconds of delay)		Weekday p.m. Peak Hour (seconds of delay)	
	Northbound/ Eastbound	Southbound/ Westbound	Northbound/ Eastbound	Southbound/ Westbound
Project-Related Increase in Delay				
Developer's Proposed Option				
Frida Kahlo Way	13	59	24	73
Ocean Avenue	66	39	58	100
Geneva Avenue	20	74	42	81
Additional Housing Option				
Frida Kahlo Way	16	72	41	83
Ocean Avenue	62	64	84	128
Geneva Avenue	30	84	58	91

SOURCE: Kittelson & Associates, Inc. 2018.

NOTES:

Transit delay includes corridor delay, transit reentry delay, and passenger boarding delay.

TABLE 3.B-18
TRANSIT DELAY ANALYSIS

Transit Line	Study Segment	Transit Travel Time		Travel Time Threshold[a]/ Project-Related Change		Exceeds Threshold?	
		A.M. Peak Period	P.M. Peak Period	A.M. Peak Period	P.M. Peak Period	A.M. Peak Period	P.M. Peak Period
	Existing Conditions[b]						
K/T	Jules/Ocean to Balboa Park BART	3:30	8:42	7:30	12:42	—	—
	San Jose/Geneva to Dorado/Ocean	3:28	10:03	7:28	14:03	—	—
29	Plymouth/Ocean to Mission/Persia	8:01	12:09	12:01	16:09	—	—
	Mission/Persia to Plymouth/Ocean	7:10	9:55	11:10	13:55	—	—
43	Frida Kahlo/City College South to Monterey/Foerster	4:20	4:37	8:20	8:37	—	—
	Gennessee/Monterey to Frida Kahlo/City College South	4:16	4:23	8:16	8:23	—	—
49	Frida Kahlo/City College South to Mission/Persia	5:39	10:04	9:39	14:04	—	—
	Mission/Ocean to Frida Kahlo/City College South	7:18	11:25	11:18	15:25	—	—
	Developer's Proposed Option						
K/T	Jules/Ocean to Balboa Park BART	4:36	9:40	1:06	0:58	No	No
	San Jose/Geneva to Dorado/Ocean	4:07	11:43	0:39	1:40	No	No
29	Plymouth/Ocean to Mission/Persia	9:07	13:07	1:06	0:58	No	No
	Mission/Persia to Plymouth/Ocean	7:49	10:35	0:39	1:40	No	No
43	Frida Kahlo/City College South to Monterey/Foerster	4:33	5:01	0:13	0:24	No	No
	Gennessee/Monterey to Frida Kahlo/City College South	5:15	5:36	0:59	1:13	No	No
49	Frida Kahlo/City College South to Mission/Persia	6:45	11:02	1:06	0:58	No	No
	Mission/Ocean to Frida Kahlo/City College South	7:57	13:05	0:39	1:40	No	No
	Additional Housing Option						
K/T	Jules/Ocean to Balboa Park BART	4:32	10:08	1:02	1:24	No	No
	San Jose/Geneva to Dorado/Ocean	4:32	12:11	1:04	2:08	No	No
29	Plymouth/Ocean to Mission/Persia	9:03	13:33	1:02	1:24	No	No
	Mission/Persia to Plymouth/Ocean	8:14	12:03	1:04	2:08	No	No
43	Frida Kahlo/City College South to Monterey/Foerster	4:36	5:18	0:16	0:41	No	No
	Gennessee/Monterey to Frida Kahlo/City College South	5:18	5:46	1:02	1:23	No	No
49	Frida Kahlo/City College South to Mission/Persia	6:41	12:28	1:02	1:24	No	No
	Mission/Ocean to Frida Kahlo/City College South	8:22	13:33	1:04	2:08	No	No

SOURCE: Kittelson & Associates, Inc. 2019; SFMTA Automatic Vehicle Location Data, 2019.

NOTES:

[a] The performance standard is calculated as the existing transit travel time plus four minutes, or half the headway of a route with headways of less than eight minutes.

[b] Kittelson staff collected transit travel time data along route segments via onboard surveys. Transit travel times were collected on Tuesday, April 2, 2019, during the weekday a.m. peak period (7 to 9 a.m.) and the weekday p.m. peak period (4 to 6 p.m.). Staff boarded a transit vehicle at the route start point and recorded the travel time between each stop and the dwell time at each stop. Onboard survey data was used to supplement and verify automatic vehicle location data provided by SFMTA. Agencies may determine to update the existing baseline transit travel times closer to commencement of construction.

Developer's Proposed Option

As shown in Table 3.B-18, vehicle and transit trips generated by the Developer's Proposed Option would increase transit delay by a maximum of ~~73 seconds along Frida Kahlo Way (southbound direction, weekday p.m. peak hour), a maximum of 100 seconds along Ocean Avenue (westbound direction, weekday p.m. peak hour), and a maximum of 81 seconds along Geneva Avenue (westbound direction, weekday p.m. peak hour).~~ 1 minute and 40 seconds along Ocean Avenue in the westbound direction during the weekday p.m. peak hour and a maximum of 1 minute and 6 seconds along Ocean Avenue in the eastbound direction during the weekday a.m. peak hour.

Based on an analysis of the project-related change in delay attributable to traffic congestion, transit reentry, and passenger boardings/alightings, t~~T~~he majority of the transit delay increase is attributable to the increase in passenger boarding delay resulting from the project-generated transit riders. The Developer's Proposed Option would not create additional transit reentry delay during the a.m. or p.m. peak hours.

As shown in Table 3.B-18, t~~T~~he Developer's Proposed Option would not result in transit delay greater than or equal to four minutes. Therefore, based on the established thresholds of significance, the Developer's Proposed Option would result in a ***less-than-significant*** impact related to transit delay.

Additional Housing Option

As shown in Table 3.B-18, vehicle and transit generated by the Additional Housing Option would increase transit delay by a maximum of ~~83 seconds along Frida Kahlo Way, (southbound direction, weekday p.m. peak hour), a maximum of 128 seconds along Ocean Avenue (westbound direction, weekday p.m. peak hour), and a maximum of 91 seconds along Geneva Avenue (westbound direction, weekday p.m. peak hour).~~ 2 minutes and 8 seconds along Ocean Avenue in the westbound direction during the weekday p.m. peak hour and a maximum of 1 minute and 2 seconds along Ocean Avenue in the eastbound direction during the weekday a.m. peak hour.

Based on an analysis of the project-related change in delay attributable to traffic congestion, transit reentry, and passenger boardings/alightings, t~~T~~he majority of the transit delay increase is attributable to the increase in passenger boarding delay resulting from the project-generated transit riders. The Additional Housing Option would not create additional transit reentry delay during the a.m. or p.m. peak hours.

As shown in Table 3.B-18, t~~T~~he Additional Housing Option would not result in transit delay greater than or equal to four minutes.[1] Therefore, based on the established thresholds of significance, the Additional Housing Option would result in a ***less-than-significant*** impact related to transit delay.

[1] Ibid.

5.D Noise

The text on SEIR p. 3.C-23 is revised as follows to clarify nighttime noise generating activity (deleted text is shown in ~~strikethrough~~ and new text is shown in double underline):

> Construction activities would generally occur between the hours of 7 a.m. and 8 p.m., up to seven days a week. The project sponsor does not anticipate frequent or regular nighttime noise generating activity ~~and would not occur during nighttime hours~~. Consequently, construction activities would be consistent with San Francisco Police Code section 2908.

To further address this comment with respect to potential noise impacts to Riordan High School, the text of Mitigation Measure M-NO-1 on SEIR p. 3.C-30 is revised as follows (deleted text is shown in ~~strikethrough~~ and new text is shown in double underline):

> Undertake the noisiest activities during times of least disturbance to surrounding residents and occupants (9 a.m. to 4 p.m.); and select or construct haul routes that avoid the North Access Road and the adjacent Archbishop Riordan High School and residential uses along Plymouth Avenue and Lee Avenue, such as the relocation of North Street described in Variant 4: North Street Extension on page 5-22 and depicted in Figure 5-4 on page 5-20 of the SEIR.

The text under "Construction-Related Noise Sources" under Impact NO-1, SEIR p. 3.C-23 is revised as follows to clarify nighttime work (deleted text is shown in ~~strikethrough~~ and new text is shown in double underline):

> ~~While c~~Certain construction activities such as large concrete pours, may require earlier start or later finish times to accommodate such time-specific activities, and could include one concrete pour per building. Such construction activities ~~that extend beyond normal hours have not been specifically identified by the applicant and~~ would be subject to review, permitting, and approval by the San Francisco Department of Building Inspection.

The text on SEIR p. 3.C-29 is revised as follows to clarify the noise analysis under the compressed construction schedule (deleted text is shown in ~~strikethrough~~ and new text is shown in double underline):

> As stated in the footnote to Table 2-2, p. 2-38, the phasing of project implementation would be subject to changes due to market conditions and other unanticipated factors. Consequently, construction could be complete as early as 2024 or extend beyond 2027. If construction occurs over a shorter period than shown in Table 2-2 (e.g., Phases 1 and 2 occurring simultaneously following Phase 0), a relatively larger amount of construction would take place during a relatively shorter period of time, thereby increasing the typical daily construction activity. Compression of the construction schedule from six to three years would increase the intensity of construction and may result in more individual pieces

of equipment operating simultaneously than under the proposed six-year construction period of the project. Under the compressed scenario, Phase 0 would occur over a 12-month period, as under the six-year construction scenario; therefore, the construction noise impacts for Phase 0 would be the same. Under the compressed scenario, Phases 1 and 2 would be constructed simultaneously after Phase 0 and would involve more equipment operation but not at the same location, as Phase 1 and Phase 2 are in separate geographic areas of the project site. Consequently, construction noise impacts at Archbishop Riordan High School as assessed in Table 3.C-8 would marginally increase by at most 3 dBA and only if development of blocks G and TH2 were to occur simultaneously (see Figure 2-18), while all other Phase 1 development would be over 300 feet away, such that construction noise would be attenuated by distance so as not to contribute considerably to construction noise from concurrent development of Phase 2 area under the compressed schedule. Additionally, because construction noise analysis involves consideration of the simultaneous operation of the two-noisiest pieces of equipment, the compressed construction scenario would not appreciably result in a change in the character of the significant and unavoidable construction noise impact identified. Therefore, due to the distances involved, the compressed construction scenario would only have a potential for a modest increase in noise levels over those predicted for the proposed schedule. ~~The same pieces of equipment would be operating under a compressed construction schedule. Therefore, the maximum noise level would not change based on the methodology above combining the operation of the noisiest pieces of equipment with each phase.~~ Under the compressed construction schedule, the construction noise impact from off-road equipment would be *significant*.

The second paragraph of SEIR p. 3.C-32 is revised as follows to correct the vibration standard for older residential structures (deleted text is shown in ~~strikethrough~~ and new text is shown in double underline):

This analysis evaluates the significance of construction-related vibration on structures and people (receptors), specifically cosmetic damage effects on structures and sleep disturbance and associated health effects on people. For building damage, the threshold limit depends on the architectural characteristics of the potentially affected structure (see Table 3.C-6, p. 3.C-14)~~, but~~. ~~f~~For modern residential, industrial and commercial buildings, a standard of 0.5 in/sec PPV is applied, while for older residential structures, a standard of 0.3 in/sec PPV is applied. The potential for sleep disturbance vibration effects are evaluated only when construction activities are proposed during the nighttime hours, which would not occur under the proposed project, therefore, there would be no sleep disturbance vibration impacts.

The fourth paragraph of SEIR p. 3.C-32 is revised as follows to correct the vibration standard for older residential structures (deleted text is shown in ~~strikethrough~~ and new text is shown in double underline):

As shown in Table 3.C-6, p. 3.C-14, depending on the type of vibration (transient versus continuous), groundborne vibration generated by project-related demolition and construction activities above ~~0.5~~ 0.3 in/sec PPV could cause cosmetic damage to new or

older nearby structures. As shown Table 3.C-9, estimated vibration levels of PPV's would be ~~well~~ below the ~~0.5~~ 0.3 in/sec threshold and this impact would be ***less than significant***.

5.E Air Quality

In response to the air district's request, acknowledging that the air district's emissions reduction grant program is evolving, and because individual emission reduction projects needed to support the ozone precursor offsets required by Mitigation Measure M-AQ-2d (Offset Construction Emissions for the Compressed Schedule) have not been identified, Mitigation Measure M-AQ-2d is revised as follows (deleted text is shown in ~~strikethrough~~ and new text is shown in double underline):

Mitigation Measure M-AQ-2d: Offset Construction Emissions for the Compressed Schedule. Under the compressed three-year construction schedule for either the Developer's Proposed Option or the Additional Housing Option, the project sponsor shall implement this measure. Prior to issuance of the final certificate of occupancy for the final building associated with Phase 1, the project sponsor, with the oversight of the ERO, shall either:

1. *Directly fund or implement a specific offset project within San Francisco if available* to achieve the equivalent to a one-time reduction of 2.0 tons per year of ozone precursors for the Developer's Proposed Option or 3.2 tons per year of ozone precursors for the Additional Housing Option. To qualify under this mitigation measure, the specific emissions offset project must result in emission reductions within the San Francisco Bay Area Air Basin that would not otherwise be achieved through compliance with existing regulatory requirements. A preferred offset project would be one implemented locally within the City and County of San Francisco. Prior to implementing the offset project, it must be approved by the ERO. The project sponsor shall notify the ERO within six months of completion of the offset project for verification; or

2. *Pay mitigation offset fees* to the Bay Area Air Quality Management District Bay Area Clean Air Foundation or other governmental entity or third party. The mitigation offset fee~~, currently estimated at approximately $30,000 per weighted ton, plus an administrative fee of no more than 5 percent of the total offset,~~ shall fund one or more emissions reduction projects within the San Francisco Bay Area Air Basin. The fee will be determined by the planning department, the project sponsor, and the governmental entity or third party responsible for administering the funds ~~air district~~, and be based on the type of projects available at the time of the payment. This fee is intended to fund emissions reduction projects to achieve reductions of 2.0 tons per year of ozone precursors for the Developer's Proposed Option or 3.2 tons per year of ozone precursors for the Additional Housing Option, which is the amount required to reduce emissions below significance levels after implementation of other identified mitigation measures as currently calculated.

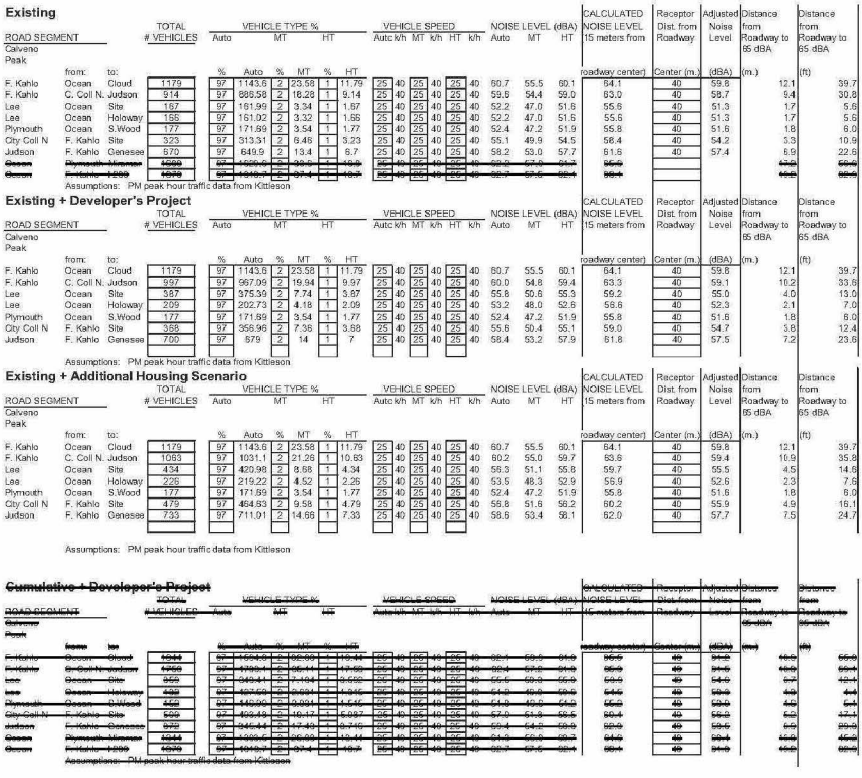
   The agreement that specifies fees and timing of payment shall be signed by the project sponsor, the governmental entity or third party responsible for administering the funds ~~air district~~, and the ERO prior to issuance of the first site permit. This offset payment shall total the predicted 2.0 tons per year of ozone precursors for the Developer's Proposed Option or 3.2 tons per year of ozone precursors for the

Additional Housing Option above the 10-ton-per-year threshold after implementation of Mitigation Measures M-AQ-2a, M-AQ-2b, and M-AQ-2c.

The total emission offset amount is calculated by summing the maximum daily construction emissions of ROG and NOx (pounds/day), multiplying by 260 work days per year, and converting to tons. The amount represents the total estimated construction-related ROG and NOx emissions offsets required. No reductions are needed for operations or overlapping construction and operations.

5.F Appendix D2, Noise Supporting Information

Pages 1 and 2 of SEIR Appendix D2 are revised as follows:



Existing

ROAD SEGMENT			TOTAL # VEHICLES	VEHICLE TYPE % Auto		MT		HT		VEHICLE SPEED Auto k/h	MT k/h	HT k/h	NOISE LEVEL (dBA) Auto	MT	HT	CALCULATED NOISE LEVEL 15 meters from	Receptor Dist. from Roadway	Adjusted Noise Level	Distance from Roadway to 65 dBA	Distance from Roadway to 65 dBA
Calveno Peak																				
	from:	to:		%	Auto	%	MT	%	HT							roadway center)	Center (m.)	(dBA)	(m.)	(ft)
F. Kahlo	Ocean	Cloud	1179	97	1143.6	2	23.58	1	11.79	25 40	25 40	25 40	60.7	55.5	60.1	64.1	40	59.8	12.1	39.7
F. Kahlo	C. Coll N.	Judson	914	97	886.58	2	18.28	1	9.14	25 40	25 40	25 40	59.5	54.4	59.0	63.0	40	58.7	9.4	30.8
Lee	Ocean	Site	167	97	161.99	2	3.34	1	1.67	25 40	25 40	25 40	52.2	47.0	51.6	55.6	40	51.3	1.7	5.6
Lee	Ocean	Holoway	165	97	161.02	2	3.32	1	1.66	25 40	25 40	25 40	52.2	47.0	51.6	55.6	40	51.3	1.7	5.6
Plymouth	Ocean	S.Wood	177	97	171.99	2	3.54	1	1.77	25 40	25 40	25 40	52.4	47.2	51.9	55.8	40	51.6	1.8	6.0
City Coll N	F. Kahlo	Site	323	97	313.51	2	6.46	1	3.23	25 40	25 40	25 40	55.1	49.9	54.5	58.4	40	54.2	3.3	10.9
Judson	F. Kahlo	Genesee	670	97	649.9	2	13.4	1	6.7	25 40	25 40	25 40	58.2	53.0	57.7	61.6	40	57.4	6.9	22.6
~~Ocean~~	~~Plymouth~~	~~Mirmaw~~	~~1588~~	~~97~~	~~1529.6~~	~~2~~	~~30.6~~	~~1~~	~~15.9~~	~~25 40~~	~~25 40~~	~~25 40~~	~~60.8~~	~~57.0~~	~~61.7~~				~~12.8~~	~~55.6~~
~~Ocean~~	~~F. Kahlo~~	~~Site~~	~~1580~~	~~97~~	~~1519.1~~	~~2~~	~~30.4~~	~~1~~	~~15.8~~	~~25 40~~	~~25 40~~	~~25 40~~	~~60.7~~	~~56.9~~	~~61.4~~				~~12.6~~	~~55.4~~

Assumptions: PM peak hour traffic data from Kittleson

Existing + Developer's Project

ROAD SEGMENT			TOTAL # VEHICLES	VEHICLE TYPE % Auto		MT		HT		VEHICLE SPEED Auto k/h	MT k/h	HT k/h	NOISE LEVEL (dBA) Auto	MT	HT	CALCULATED NOISE LEVEL 15 meters from	Receptor Dist. from Roadway	Adjusted Noise Level	Distance from Roadway to 65 dBA	Distance from Roadway to 65 dBA
Calveno Peak																				
	from:	to:		%	Auto	%	MT	%	HT							roadway center)	Center (m.)	(dBA)	(m.)	(ft)
F. Kahlo	Ocean	Cloud	1179	97	1143.6	2	23.58	1	11.79	25 40	25 40	25 40	60.7	55.5	60.1	64.1	40	59.8	12.1	39.7
F. Kahlo	C. Coll N.	Judson	997	97	967.09	2	19.94	1	9.97	25 40	25 40	25 40	60.0	54.8	59.4	63.3	40	59.1	10.2	33.6
Lee	Ocean	Site	387	97	375.39	2	7.74	1	3.87	25 40	25 40	25 40	55.8	50.6	55.3	59.2	40	55.0	4.0	13.0
Lee	Ocean	Holoway	209	97	202.73	2	4.18	1	2.09	25 40	25 40	25 40	53.2	48.0	52.6	56.6	40	52.3	2.1	7.0
Plymouth	Ocean	S.Wood	177	97	171.99	2	3.54	1	1.77	25 40	25 40	25 40	52.4	47.2	51.9	55.8	40	51.6	1.8	6.0
City Coll N	F. Kahlo	Site	368	97	356.96	2	7.36	1	3.68	25 40	25 40	25 40	55.6	50.4	55.1	59.0	40	54.7	3.6	12.4
Judson	F. Kahlo	Genesee	700	97	679	2	14	1	7	25 40	25 40	25 40	58.4	53.2	57.9	61.8	40	57.5	7.2	23.6

Assumptions: PM peak hour traffic data from Kittleson

Existing + Additional Housing Scenario

ROAD SEGMENT			TOTAL # VEHICLES	VEHICLE TYPE % Auto		MT		HT		VEHICLE SPEED Auto k/h	MT k/h	HT k/h	NOISE LEVEL (dBA) Auto	MT	HT	CALCULATED NOISE LEVEL 15 meters from	Receptor Dist. from Roadway	Adjusted Noise Level	Distance from Roadway to 65 dBA	Distance from Roadway to 65 dBA
Calveno Peak																				
	from:	to:		%	Auto	%	MT	%	HT							roadway center)	Center (m.)	(dBA)	(m.)	(ft)
F. Kahlo	Ocean	Cloud	1179	97	1143.6	2	23.58	1	11.79	25 40	25 40	25 40	60.7	55.5	60.1	64.1	40	59.8	12.1	39.7
F. Kahlo	C. Coll N.	Judson	1083	97	1031.1	2	21.26	1	10.83	25 40	25 40	25 40	60.2	55.0	59.7	63.6	40	59.4	10.9	35.8
Lee	Ocean	Site	434	97	420.98	2	8.68	1	4.34	25 40	25 40	25 40	56.3	51.1	55.8	59.7	40	55.5	4.5	14.8
Lee	Ocean	Holoway	226	97	219.22	2	4.52	1	2.26	25 40	25 40	25 40	53.5	48.3	52.9	56.9	40	52.6	2.3	7.5
Plymouth	Ocean	S.Wood	177	97	171.99	2	3.54	1	1.77	25 40	25 40	25 40	52.4	47.2	51.9	55.8	40	51.6	1.8	6.0
City Coll N	F. Kahlo	Site	479	97	464.83	2	9.58	1	4.79	25 40	25 40	25 40	55.8	51.6	56.2	60.2	40	55.9	4.9	16.1
Judson	F. Kahlo	Genesee	733	97	711.01	2	14.66	1	7.33	25 40	25 40	25 40	58.6	53.4	58.1	62.0	40	57.7	7.5	24.7

Assumptions: PM peak hour traffic data from Kittleson

~~Cumulative + Developer's Project~~

ROAD SEGMENT			TOTAL # VEHICLES	VEHICLE TYPE % Auto		MT		HT		VEHICLE SPEED Auto k/h	MT k/h	HT k/h	NOISE LEVEL (dBA) Auto	MT	HT	CALCULATED NOISE LEVEL 15 meters from	Receptor Dist. from Roadway	Adjusted Noise Level	Distance from Roadway to 65 dBA	Distance from Roadway to 65 dBA
~~Calveno~~ Peak																				
	~~from:~~	~~to:~~		%	Auto	%	MT	%	HT							roadway center)	Center (m.)	(dBA)	(m.)	(ft)
~~F. Kahlo~~	~~Ocean~~	~~Cloud~~	~~1644~~	~~97~~	~~1594.9~~	~~2~~	~~32.88~~	~~1~~	~~16.44~~	~~25 40~~	~~25 40~~	~~25 40~~	~~62.1~~	~~57.0~~	~~61.6~~	~~65.5~~	~~40~~	~~61.3~~	~~16.8~~	~~55.0~~
~~F. Kahlo~~	~~C. Coll N.~~	~~Judson~~	~~1258~~	~~97~~	~~1219.1~~	~~2~~	~~25.14~~	~~1~~	~~12.58~~	~~25 40~~	~~25 40~~	~~25 40~~	~~60.4~~	~~55.2~~	~~59.9~~	~~63.8~~	~~40~~	~~59.6~~	~~11.0~~	~~36.1~~
~~Lee~~	~~Ocean~~	~~Site~~	~~355~~	~~97~~	~~343.41~~	~~2~~	~~7.104~~	~~1~~	~~3.552~~	~~25 40~~	~~25 40~~	~~25 40~~	~~55.5~~	~~50.3~~	~~55.0~~	~~58.9~~	~~40~~	~~54.6~~	~~3.7~~	~~12.1~~
~~Lee~~	~~Ocean~~	~~Holoway~~	~~238~~	~~97~~	~~227.69~~	~~2~~	~~4.694~~	~~1~~	~~2.347~~	~~25 40~~	~~25 40~~	~~25 40~~	~~53.6~~	~~48.5~~	~~53.2~~	~~57.1~~	~~40~~	~~52.8~~	~~2.4~~	~~7.8~~
~~Plymouth~~	~~Ocean~~	~~S.Wood~~	~~182~~	~~97~~	~~176.96~~	~~2~~	~~3.644~~	~~1~~	~~1.822~~	~~25 40~~	~~25 40~~	~~25 40~~	~~52.6~~	~~47.4~~	~~52.0~~	~~55.9~~	~~40~~	~~51.7~~	~~1.9~~	~~6.2~~
~~City Coll N~~	~~F. Kahlo~~	~~Site~~	~~506~~	~~97~~	~~492.19~~	~~2~~	~~10.12~~	~~1~~	~~5.062~~	~~25 40~~	~~25 40~~	~~25 40~~	~~57.0~~	~~51.8~~	~~56.5~~	~~60.4~~	~~40~~	~~56.2~~	~~5.2~~	~~17.1~~
~~Judson~~	~~F. Kahlo~~	~~Genesee~~	~~822~~	~~97~~	~~797.44~~	~~2~~	~~16.40~~	~~1~~	~~8.219~~	~~25 40~~	~~25 40~~	~~25 40~~	~~59.4~~	~~54.2~~	~~59.0~~	~~62.9~~	~~40~~	~~58.6~~	~~8.5~~	~~28.0~~
~~Ocean~~	~~Plymouth~~	~~Mirmaw~~	~~1644~~	~~97~~	~~1594.9~~	~~2~~	~~32.88~~	~~1~~	~~16.44~~	~~25 40~~	~~25 40~~	~~25 40~~	~~62.1~~	~~57.0~~	~~61.6~~	~~65.5~~	~~40~~	~~61.3~~	~~16.8~~	~~55.0~~
~~Ocean~~	~~F. Kahlo~~	~~Site~~	~~1579~~	~~97~~	~~1519.1~~	~~2~~	~~30.4~~	~~1~~	~~15.8~~	~~25 40~~	~~25 40~~	~~25 40~~	~~60.7~~	~~56.9~~	~~61.4~~	~~65.4~~	~~40~~	~~61.1~~	~~16.6~~	~~54.5~~

~~Assumptions: PM peak hour traffic data from Kittleson~~

Page 1 of 2

~~**Cumulative + Additional Housing Scenario**~~

ROAD SEGMENT			TOTAL # VEHICLES	VEHICLE TYPE % Auto		MT		HT		VEHICLE SPEED Auto	k/h	MT	k/h	HT	k/h	NOISE LEVEL (dBA) Auto	MT	HT	CALCULATED NOISE LEVEL 15 meters from	Receptor Dist. from Roadway	Adjusted Noise Level	Distance from Roadway to 85 dBA	Distance from Roadway to 65 dBA
~~Calveno Peak~~																							
	~~from:~~	~~to:~~		~~%~~	~~Auto~~	~~%~~	~~MT~~	~~%~~	~~HT~~										~~roadway center)~~	~~Center (m.)~~	~~(dBA)~~	~~(m.)~~	~~(ft)~~
~~F. Kahlo~~	~~Ocean~~	~~Cloud~~	~~1201~~	~~96~~	~~1153~~	~~1~~	~~12.01~~	~~3~~	~~36.03~~	~~25~~	~~40~~	~~25~~	~~40~~	~~25~~	~~40~~	~~60.7~~	~~52.5~~	~~85.0~~	~~66.5~~	~~40~~	~~62.3~~	~~21.3~~	~~70.0~~
~~F. Kahlo~~	~~S. Cell N~~	~~Judson~~	~~1755~~	~~97~~	~~1749.5~~	~~2~~	~~35.09~~	~~1~~	~~17.55~~	~~25~~	~~40~~	~~25~~	~~40~~	~~25~~	~~40~~	~~62.5~~	~~57.5~~	~~81.5~~	~~65.9~~	~~40~~	~~61.9~~	~~19.1~~	~~62.7~~
~~Ocean~~	~~Broad~~	~~Site~~	~~485~~	~~97~~	~~414.19~~	~~2~~	~~8.284~~	~~1~~	~~4.142~~	~~25~~	~~40~~	~~25~~	~~40~~	~~25~~	~~40~~	~~59.5~~	~~51.5~~	~~75.5~~	~~55.9~~	~~40~~	~~57.9~~	~~9.1~~	~~29.8~~
~~Ocean~~	~~Ocean~~	~~Hallowy~~	~~515~~	~~97~~	~~143.1~~	~~2~~	~~5.051~~	~~1~~	~~1.435~~	~~25~~	~~40~~	~~25~~	~~40~~	~~25~~	~~40~~	~~51.7~~	~~45.5~~	~~61.1~~	~~55.0~~	~~40~~	~~50.5~~	~~1.5~~	~~5.0~~
~~Plymouth~~	~~Ocean~~	~~S.Wood~~	~~152~~	~~97~~	~~146.99~~	~~2~~	~~3.031~~	~~1~~	~~1.515~~	~~25~~	~~40~~	~~25~~	~~40~~	~~25~~	~~40~~	~~51.9~~	~~46.8~~	~~51.9~~	~~55.0~~	~~40~~	~~50.5~~	~~1.5~~	~~5.1~~
~~City Coll N~~	~~F. Kahlo~~	~~Site~~	~~345~~	~~97~~	~~331.31~~	~~2~~	~~10.05~~	~~1~~	~~5.477~~	~~25~~	~~40~~	~~25~~	~~40~~	~~25~~	~~40~~	~~57.1~~	~~52.1~~	~~69.6~~	~~59.3~~	~~40~~	~~59.5~~	~~5.0~~	~~16.4~~
~~Judson~~	~~F. Kahlo~~	~~Ocean~~	~~868~~	~~97~~	~~833.69~~	~~2~~	~~17.79~~	~~1~~	~~8.976~~	~~25~~	~~40~~	~~25~~	~~40~~	~~25~~	~~40~~	~~59.6~~	~~54.6~~	~~59.6~~	~~58.9~~	~~40~~	~~59.9~~	~~5.4~~	~~15.5~~
~~Ocean~~	~~Plymouth~~	~~Miramar~~	~~1245~~	~~97~~	~~1206.4~~	~~2~~	~~25.69~~	~~1~~	~~13.48~~	~~25~~	~~40~~	~~25~~	~~40~~	~~25~~	~~40~~	~~61.9~~	~~56.5~~	~~80.2~~	~~64.5~~	~~40~~	~~64.1~~	~~13.8~~	~~45.2~~
~~Ocean~~	~~F. Kahlo~~	~~Hillsb~~	~~1980~~	~~97~~	~~1847.7~~	~~2~~	~~39.89~~	~~1~~	~~19.95~~	~~25~~	~~40~~	~~25~~	~~40~~	~~25~~	~~40~~	~~62.6~~	~~57.6~~	~~82.8~~	~~66.4~~	~~40~~	~~64.9~~	~~16.6~~	~~54.4~~

~~Assumptions: PM peak hour traffic data from Kittleson~~

Existing + Construction Trucks

ROAD SEGMENT			TOTAL # VEHICLES	VEHICLE TYPE % Auto		MT		HT		VEHICLE SPEED Auto	k/h	MT	k/h	HT	k/h	NOISE LEVEL (dBA) Auto	MT	HT	CALCULATED NOISE LEVEL 15 meters from	Receptor Dist. from Roadway	Adjusted Noise Level	Distance from Roadway to 85 dBA	Distance from Roadway to 65 dBA
Calveno Peak																							
	from:	to:		%	Auto	%	MT	%	HT										roadway center)	Center (m.)	(dBA)	(m.)	(ft)
F. Kahlo	Ocean	Cloud	1201	96	1153	1	12.01	3	36.03	25	40	25	40	25	40	60.7	52.5	85.0	66.5	40	62.3	21.3	70.0
City Coll N	F. Kahlo	Site	345	92	317.4	1	3.45	7	24.15	25	40	25	40	25	40	55.1	47.1	83.2	63.9	40	59.7	11.8	38.6
Trucks Alone			22	0.1	0.022	0	0.022	100	21.96	25	40	25	40	25	40	13.5	25.2	82.8	52.8	30	59.8	9.1	29.8

Assumptions: PM peak hour traffic data from Kittleson

Existing

ROAD SEGMENT			TOTAL # VEHICLES	VEHICLE TYPE % Auto		MT		HT		VEHICLE SPEED Auto	k/h	MT	k/h	HT	k/h	NOISE LEVEL (dBA) Auto	MT	HT	CALCULATED NOISE LEVEL 15 meters from	Receptor Dist. from Roadway	Adjusted Noise Level	Distance from Roadway to 85 dBA	Distance from Roadway to 65 dBA
Calveno Peak																							
	from:	to:		%	Auto	%	MT	%	HT										roadway center)	Center (m.)	(dBA)	(m.)	(ft)
Plymouth	Ocean	S.Wood	177	97	171.69	2	3.54	1	1.77	25	40	25	40	25	40	52.4	47.2	51.9	55.8	40	51.6	1.8	6.0
Plymouth	San Ramo	Wild wd																					

Assumptions: PM p

Existing + Developer's Project Alternative C

ROAD SEGMENT			TOTAL # VEHICLES	VEHICLE TYPE % Auto		MT		HT		VEHICLE SPEED Auto	k/h	MT	k/h	HT	k/h	NOISE LEVEL (dBA) Auto	MT	HT	CALCULATED NOISE LEVEL 15 meters from	Receptor Dist. from Roadway	Adjusted Noise Level	Distance from Roadway to 85 dBA	Distance from Roadway to 65 dBA
Calveno Peak																							
	from:	to:		%	Auto	%	MT	%	HT										roadway center)	Center (m.)	(dBA)	(m.)	(ft)
Plymouth	San Ramo	Wild wd	222	97	215.34	2	4.44	1	2.22	25	40	25	40	25	40	53.4	48.2	52.9	56.8	40	52.6	2.3	7.5

Assumptions: PM peak hour traffic data from Kittleson

Existing + Additional Housing Alternative C

ROAD SEGMENT			TOTAL # VEHICLES	VEHICLE TYPE % Auto		MT		HT		VEHICLE SPEED Auto	k/h	MT	k/h	HT	k/h	NOISE LEVEL (dBA) Auto	MT	HT	CALCULATED NOISE LEVEL 15 meters from	Receptor Dist. from Roadway	Adjusted Noise Level	Distance from Roadway to 85 dBA	Distance from Roadway to 65 dBA
Calveno Peak																							
	from:	to:		%	Auto	%	MT	%	HT										roadway center)	Center (m.)	(dBA)	(m.)	(ft)
Plymouth	San Ramo	Wild wd	238	97	228.92	2	4.72	1	2.38	25	40	25	40	25	40	53.7	48.5	53.1	57.1	40	52.8	2.4	7.9

Assumptions: PM peak hour traffic data from Kittleson

This page intentionally left blank