
17. ALTERNATIVES TO THE PROPOSED PROJECT

The Marina Shores Village project described in chapter 3 and illustrated on Figures 3.7 through 3.12 of that chapter has been considered as the principal proposal for development of the project site and has been analyzed in detail in this EIR. To provide a basis for further understanding of the environmental effects of the proposed project and possible approaches to reducing its identified significant impacts, section 15126.6(a) of the California Environmental Quality Act (CEQA) Guidelines requires an EIR to also "*...describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project, but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives.*" Section 15126.6(b) of the CEQA Guidelines states that, because the EIR must identify ways to mitigate or avoid significant effects of the proposed project on the environment, "*[T]he discussion of alternatives shall focus on alternatives to the project or its location which are capable of avoiding or substantially lessening any significant effects of the project, even if these alternatives would impede to some degree the attainment of the project objectives, or would be more costly.*"

Pursuant to these CEQA sections, this EIR chapter identifies and evaluates a range of reasonable alternatives to the proposed project which would feasibly attain most of the basic objectives of the project, but would avoid or substantially lessen some of the significant adverse environmental effects identified in chapters 4 through 15. A range of nine alternatives has been identified for evaluation in this chapter. The nine alternatives are:

- **Alternative 1: No Project (Current Site Status).** As required by the CEQA Guidelines (section 15126.6[e][1]), this alternative assumes that the project would not be developed and the project site would remain in its present condition.
- **Alternative 2: Buildout Under Existing General Plan and Zoning Entitlements--Maximum Residential Plus Commercial.** The current General Plan and zoning designations for the project site permit varying combinations of residential and commercial development. To test the comparative environmental implications of a residential land use emphasis, Alternative 2 assumes that the project site would be developed with the maximum number of residential units permissible, while Alternative 3 assumes the maximum amount of commercial development (floor area) permissible, under current land use controls. Under Alternative 2, the Pete's Harbor portion of the site would be developed exclusively with residential uses consistent with its existing General Plan and zoning designations--*Commercial and Residential* and *General Commercial-Residential Combining (CG-C)*, respectively, through full application of the *Residential Combining*

District overlay zone. Alternative 2 assumes the same Pete's Harbor site developable land area as the proposed project (11.6 acres) and development at the maximum allowable residential density of 40 dwelling units per net acre, for a total of 462 residential units. The Peninsula Marina portion of the site would be developed with commercial uses only consistent with its existing General Plan and zoning designations--*Commercial/Office* and *General Commercial (CG)*, respectively, which permit only office and general retail uses. A total of approximately 898,000 square feet of commercial floor area is assumed for the Peninsula Marina site (the maximum allowable under the existing 0.70 FAR limitation), including approximately 20,000 square feet of retail-restaurant floor area (a 60-to-70 percent increase over the proposed project in order to internalize more trips) and 878,000 square feet of office floor area.

- **Alternative 3: Buildout Under Existing General Plan and Zoning Entitlements--All Commercial.** Alternative 3 assumes development of the project site with the maximum commercial floor area total permissible under current General Plan and zoning designations. The existing *Residential Combining District* zoning overlay on the Pete's Harbor property would not be applied. Applying the maximum allowable floor area ratio (FAR) of 0.70, this alternative would result in the development of up to approximately 1,250,000 square feet of commercial floor area, including 1,230,000 square feet of office area and 20,000 square feet of retail-restaurant to serve the convenience retail needs of the greater Bayfront Area and thereby internalize trips.
- **Alternative 4: Residential/Commercial--Same Residential, Reduced Commercial, with Reduced Building Heights and Reduced Marina Fill.** This alternative assumes that the project site would be developed as a mixed use residential-commercial complex similar to the proposed project, with the same residential unit total, but with less commercial floor area, as a means of reducing building intensity and height and reducing the amount of marina fill. Accordingly, Alternative 4 includes 1,930 condominium residential units for sale (the same as the proposed project) but a reduction in commercial floor area from 312,000 square feet (the proposed project) to 162,000 square feet, including 12,000 square feet of convenience retail/restaurant space (same as the proposed project) and 150,000 square feet of office space (versus 300,000 square feet for the proposed project). The reduced commercial floor area total would permit an increase in the number of multi-story residential structures from 13 (proposed project) to approximately 15, an associated slight (8 percent) reduction in residential structure maximum height from 260 feet down to 240 feet--i.e., 21-story maximum down to 19-story maximum, and a reduction in marina fill (from approximately 11.54 total acres currently proposed down to approximately 9.0 acres).
- **Alternative 5: Residential/Commercial--Same Residential, Reduced Commercial, with Reduced Building Heights, Reduced Marina Fill, and Added Park.** This alternative assumes that the project site would be developed as a mixed use residential-commercial complex, with the same residential unit total as the proposed project and the same commercial floor area reduction as Alternative 4, but with the addition of a

neighborhood park. Accordingly, Alternative 5 includes 1,930 condominium residential units for sale (the same as the proposed project), and a reduction in commercial floor area from 312,000 square feet (proposed project) to 162,000 square feet (same as Alternative 4), including 12,000 square feet of convenience retail (again, the same as Alternative 4), plus a 3-acre on-site neighborhood park. Alternative 5 would involve less marina fill (approximately 11.0 acres) than the proposed project (approximately 11.54 acres). Alternative 5 would include approximately 15 multi-story residential structures (two more than the proposed project), and a reduction in residential structure maximum height to 190 feet (approximately 15 stories) as compared to 260 feet (21 stories) for the proposed project.

- **Alternative 6: Residential/Commercial--Same Residential, Reduced Commercial, with Reduced Building Heights, Reduced Marina Fill, Added Hotel, Increased Retail, and Incorporation of Bayfront Study Transit and Transportation Demand Management (TDM) Measures.** This alternative, submitted by the applicant, assumes that the project site would be developed as a mixed use residential-commercial complex similar to the proposed project, with the same residential unit total, but with a redesign to reduce visual, traffic and marina fill impacts and improve project waterfront relationships. The redesign would include modifications in building heights and placement to reduce visual impacts, an increase in the amount of the commercial floor area total devoted to local-serving convenience retail to "internalize" more trips, the addition of a 200-room hotel, and the incorporation of specific transit provisions and transportation demand management (TDM) measures recommended in the City's *Bayfront Study* to reduce peak period vehicular trips. Accordingly, Alternative 5 would include 1,930 condominium residential units for sale (the same as the proposed project), and a reduction in commercial floor area from 312,000 square feet (the proposed project) to 175,000 square feet, including 25,000 square feet of service retail (versus 12,000 square feet for the proposed project) to better serve the convenience needs of the greater Bayfront Area. Alternative 6 would include more multi-story structures (17 residential and one hotel "tower") than Alternative 5 (15 "towers") or the proposed project (13 "towers"). However, the proposed Alternative 6 layout would also require less marina fill (approximately 9.8 acres) than would Alternative 5 (approximately 11.0 acres) or the proposed project (approximately 11.54 acres). Also, in addition to the increase in on-site convenience-serving retail, Alternative 6 would incorporate various specific transit provisions and other TDM measures from the City's current *Bayfront Study* to reduce peak period external vehicular trip generation.
- **Alternative 7: Residential/Commercial--More Balanced Mix with Reduced Residential and Increased Commercial, Plus Reduced Building Heights and Reduced Marina Fill.** This alternative assumes that the project site would be developed with a mixed use residential-commercial complex similar to the proposed project, but with a more balanced residential-commercial land use mix, including approximately one-third fewer residential units and two-thirds more commercial floor area. Alternative 7 would incorporate a development concept similar to what was proposed by the applicant in the summer of 2001, prior to the current project application. Alternative 7 would include 1,300

condominium residential units for sale (as compared to 1,930 for the proposed project) and 535,000 square feet of commercial floor area, including approximately 17,000 square feet of convenience retail. The assumed layout for Alternative 7 includes less marina fill, 10.8 acres versus 11.54 acres for the proposed project, and a reduction in residential building intensity and height with 11 multi-story residential structures, as compared to 13 for the proposed project, and a maximum building height of 205 feet (approximately 20 stories) as compared to 260 feet (23 stories) for the proposed project.

- **Alternative 8: Residential/Commercial--Reduced Residential and Reduced Commercial to Permit No Marina Fill.** This alternative assumes that the project site would be developed with a residential-commercial complex similar to the proposed project, but with a reduction in residential and commercial development totals sufficient to eliminate all of the approximately 11.54 acres of marina fill associated with the proposed project. The layout for Alternative 8 includes no marina fill (i.e., the existing approximately 17.1 acres of on-site marina water area would be left unchanged). Alternative 8 also includes a reduction in residential structure maximum height to 190 feet or approximately 17 stories (versus 260 feet or approximately 23 stories for the proposed project), and a reduction in the number of multi-story residential structures to 7 (versus 13 for the proposed project). With these limitations, the alternative would yield approximately 850 condominium residential units for sale and approximately 203,000 square feet of commercial floor area, including approximately 5,000 square feet of convenience retail (the same approximate ratio of square feet per residential unit as the proposed project).
- **Alternative 9: Alternative Sites.** This alternative addresses the question of whether there is another location where the development of the proposed project could occur which would achieve most of the basic project objectives while avoiding or lessening some of the significant effects of the proposed project.

CEQA Guidelines section 15126.6(d) indicates that the EIR comparison of the impacts of the identified alternatives is intended to be less detailed than the discussion of the impacts of the proposed project.¹ Following that guideline, the discussions in this chapter of the comparative impacts of the identified alternatives are intentionally less detailed than the discussions in EIR chapters 4 through 15 of the significant effects of the proposed project, with the following exceptions:

(1) Because the more recent applicant-submitted **Alternative 6** was formulated in consultation with City decision-makers (i.e., has been presented by the applicant and discussed in work sessions with the City's Community Development Department staff, Architectural Review

¹CEQA Guidelines section 15126.6(d) states, "If an alternative would cause one or more significant effects in addition to those that would be caused by the project as proposed, the significant effects of the alternative shall be discussed, but in less detail than the significant effects of the project as proposed."

Committee and Planning Commission) and may ultimately more closely represent the actual, revised intentions of the applicant, the design characteristics, comparative impacts and mitigating effects of Alternative 6 are described in greater detail in this chapter in order to provide adequate CEQA documentation (i.e., minimize the need for supplemental CEQA documentation) should the City elect to approve this or a similar alternative; and

(2) Similarly, because **Alternative 7**, which represents the development program previously submitted by the applicant in the summer of 2001 prior to the current project application, incorporates a more balanced residential-commercial mix (less residential, more office and retail) and less residential building height than the currently proposed project (up to 20 stories instead of 23 stories), and may reflect the preferences of some City decision-makers,² the design characteristics, and comparative impacts and mitigating effects of Alternative 7 are also described in greater detail in order to provide adequate CEQA documentation (i.e., minimize the need for supplemental CEQA documentation) should the City elect to approve this or a similar alternative.

CEQA Guidelines section 15126.6(d) states, "*A matrix displaying the major characteristics may be used to summarize the comparison.*" Accordingly, Table 17.1 herein (Alternatives Comparison: Summary of Project Characteristics--Overall Site), Table 17.2 (Alternatives Comparison: Summary of Project Characteristics--Peninsula Marina Portion) and Table 17.3 (Alternatives Comparison: Summary of Project Characteristics--Pete's Harbor Portion), compare the key project description characteristics of each of the alternatives, except for Alternative 17.9 (Alternative Sites), whose feasibility is considered remote (see section 17.9 herein). Table 17.4 herein (Alternatives Comparison: Net Additional Vehicular Traffic Generated) compares the vehicular trip generation characteristics of each alternative. Tables 17.5 and 17.6 herein (Alternatives Comparison: Key Operational Intersection Impacts--Alternatives 6 and 7) summarize the comparative level of service impacts of Alternatives 6 and 7 on key intersections. Tables 17.7 through 17.10 (Alternatives Comparison: Freeway Ramp Impacts) compare the freeway ramp capacity impacts of Alternatives 6 and 7. Table 17.11 compares the effectiveness of the various alternatives in achieving the basic project objectives. Finally, Table 17.12 herein (Impact Comparison--Summary Overview) provides a summary of the various comparison conclusions for each alternative, leading to selection of the "environmentally superior" alternative, as called for under CEQA Guidelines section 15126.6(e)(2).

Based on the information summarized in these tables, sections 17.1 through 17.9 which follow

²In their initial review of this previous development concept and the current proposed project development concept, some members of the City's Planning Commission and City Council expressed their possible preferences for this previous development program, which incorporates more balance between residential and commercial land uses.

provide a narrative description of the principal project characteristics and comparative mitigating and adverse effects of each alternative, followed by section 17.10 which explains selection of the "environmentally superior" alternative.

Table 17.1

Table 17.2

Table 17.3

Table 17.4
PROJECT ALTERNATIVE TRIP GENERATION COMPARISON

<u>Project Alternative</u>	<u>Number of Trips</u>			<u>Total</u>	<u>PM Peak Hour</u>		<u>Total</u>
	<u>Daily</u>	<u>AM Peak Hour</u>			<u>In</u>	<u>Out</u>	
		<u>In</u>	<u>Out</u>				
Proposed Project	14,108	456	582	1,038	532	567	1,099
Alternative 1	--	--	--	--	--	--	--
Alternative 2	8,628	871	213	1,084	244	867	1,111
Alternative 3	8,421	1,116	115	1,231	190	1,116	1,306
Alternative 4	12,910	295	565	859	508	432	941
Alternative 5	12,910	295	565	859	508	432	941
Alternative 6	12,500	310	522	833	495	414	909
Alternative 7	12,052	628	429	1,057	421	682	1,103
Alternative 8	6,575	267	261	528	240	306	546

SOURCE: Fehr & Peers Associates and rates from Trip Generation (Institute of Transportation Engineers, Sixth Edition, 1997).

Table 17.5

INTERSECTION LEVELS OF SERVICE--PROJECT CONDITIONS (ALTS. 6 AND 7)

Study Intersections	<u>Alternative 6</u>		<u>Alternative 7</u>	
	<u>AM Peak Delay/LOS</u>	<u>PM Peak Delay/LOS</u>	<u>AM Peak Delay/LOS</u>	<u>PM Peak Delay/LOS</u>
1. Alameda de las Pulgas/ Whipple Avenue	27.1/C	27.1/C	27.4/C	27.3/C
2. El Camino Real/Whipple Avenue	36.6/D	54.3/D	36.7/D	56.5/E
3. Winslow Street/Whipple Avenue	31.5/C	40.3/D	31.5/C	40.4/D
4. Veterans Boulevard/Whipple Avenue	40.3/D	39.4/D	41.6/D	40.4/D
5. US 101 Northbound Off-Ramp/ Whipple Avenue	10.8/B	15.3/B	13.6/B	14.4/B
6. East Bayshore Road (Blomquist Street)/ Bair Island Road	n/a	n/a	n/a	n/a
7. El Camino Real/Jefferson Avenue	41.4/D	48.0/D	41.4/D	48.1/D
8. Veterans Boulevard/Jefferson Avenue	15.7/B	28.3/C	15.7/B	28.2/C
9. Veterans Boulevard/Maple Street	23.3/C	32.7/C	23.6/C	32.8/C
10. Blomquist Street/Maple Street	2.9/B	6.8/B	3.1/B	6.7/B
11. Alameda de las Pulgas/ Woodside Road	38.8/D	37.8/D	39.0/D	38.2/D
12. Middlefield Road/Woodside Road	35.6/D	42.5/D	35.8/D	42.6/D
13. Bay Road/Woodside Road	22.6/C	30.4/C	22.7/C	30.3/C
14. Broadway/Woodside Road	>180/F	>180/F	>180/F	>180/F
15. Veterans Boulevard/Woodside Road	22.5/C	42.9/D	22.6/C	43.1/D
16. Blomquist Street/Seaport Boulevard	37.3/D	30.4/C	37.8/D	30.4/C
17. US 101 Southbound Ramps/ Marsh Road	15.5/B	16.6/B	15.5/B	16.7/B
18. Bayfront Expressway/Marsh Road	25.1/C	29.3/C	25.2/C	29.7/C
19. Bayfront Expressway/Willow Road	21.2/C	74.9/E	21.1/C	78.2/E

SOURCE: Fehr & Peers Associates, Inc.

Notes:

(1) Signalized intersection LOS ratings are based on average control delay expressed in seconds per vehicle. Unsignalized intersection LOS ratings are based on total control delay expressed in seconds per vehicle. Signalized and unsignalized analysis methodologies were obtained from the *2000 Highway Capacity Manual*, Transportation Research Board.

(2) Adjustments have been made to the LOS calculations at the El Camino Real/Whipple Avenue intersection to account for CalTrain movement preemption of the signal. CalTrain movements affect 20 to 30 percent of the cycles at the intersection during each peak hour. Therefore, the amount of "green time" allocated to the affected turning movements was decreased by 20 to 30 percent and reallocated to the northbound and southbound through movements.

(3) The East Bayshore Road/Bair Island Road intersection (#6) will be constructed as part of the planned Blomquist Street Extension over Redwood Creek.

Significant impacts are listed in **bold** type.

Table 17.6

INTERSECTION LEVELS OF SERVICE--CUMULATIVE CONDITIONS (ALTS. 6 AND 7)

Study Intersections	<u>Alternative 6</u>		<u>Alternative 7</u>	
	<u>AM Peak Delay/LOS</u>	<u>PM Peak Delay/LOS</u>	<u>AM Peak Delay/LOS</u>	<u>PM Peak Delay/LOS</u>
1. Alameda de las Pulgas/ Whipple Avenue	38.2/D	37.4/D	38.9/D	38.4/D
2. El Camino Real/Whipple Avenue	72.5/E	113.3/F	72.3/E	115.2/F
3. Winslow Street/Whipple Avenue	39.1/D	52.6/D	39.8/D	52.6/D
4. Veterans Boulevard/Whipple Avenue	73.3/E	58.0/E	72.9/E	61.1/E
5. US 101 Northbound Off-Ramp/ Whipple Avenue	12.0/B	45.1/D	14.9/B	38.1/D
6. East Bayshore Road (Blomquist Street)/6.7/A Bair Island Road		29.4/C	7.8/A	35.1/D
7. El Camino Real/Jefferson Avenue	66.5/E	90.7/F	66.5/E	91.0/F
8. Veterans Boulevard/Jefferson Avenue	20.9/C	32.7/C	21.0/C	32.7/C
9. Veterans Boulevard/Maple Street	28.4/C	37.9/D	28.6/C	38.1/D
10. Blomquist Street/Maple Street	> 180/F	> 180/F	> 180/F	> 180/F
11. Alameda de las Pulgas/ Woodside Road	92.4/F	75.6/E	93.4/F	77.6/E
12. Middlefield Road/Woodside Road	40.3/D	60.9/E	40.6/D	61.4/E
13. Bay Road/Woodside Road	27.2/C	35.7/D	27.4/C	35.7/D
14. Broadway/Woodside Road	>180/F	>180/F	>180/F	>180/F
15. Veterans Boulevard/Woodside Road	49.5/D	104.6/F	50.5/D	105.2/F
16. Blomquist Street/Seaport Boulevard	114.5/F	102.9/F	117.4/F	107.0/F
17. US 101 Southbound Ramps/ Marsh Road	18.2/B	21.2/C	18.2/B	21.5/C
18. Bayfront Expressway/Marsh Road	30.8/C	36.4/D	30.9/C	37.4/D
19. Bayfront Expressway/Willow Road	25.3/C	> 148.7/F	25.3/C	152.9/F

SOURCE: Fehr & Peers Associates, Inc.

Notes:

(1) Signalized intersection LOS ratings are based on average control delay expressed in seconds per vehicle. Unsignalized intersection LOS ratings are based on total control delay expressed in seconds per vehicle. Signalized and unsignalized analysis methodologies were obtained from the *2000 Highway Capacity Manual*, Transportation Research Board.

(2) Adjustments have been made to the LOS calculations at the El Camino Real/Whipple Avenue intersection to account for CalTrain movement preemption of the signal. CalTrain movements affect 20 to 30 percent of the cycles at the intersection during each peak hour. Therefore, the amount of "green time" allocated to the affected turning movements was decreased by 20 to 30 percent and reallocated to the northbound and southbound through movements.

(3) The East Bayshore Road/Bair Island Road intersection (#6) will be constructed as part of the planned Blomquist Street Extension over Redwood Creek.

Significant impacts are listed in **bold** type.

Table 17.7
FREEWAY RAMP CAPACITY ANALYSIS--PROJECT CONDITIONS (ALT. 6)

Freeway Ramp	Capacity	AM Peak Hour			PM Peak Hour		
		Volume	Project Trips	V/C	Volume	Project Trips	V/C
SB US 101 Off-Ramp/ Veterans Boulevard	3,800	1,801	54	0.47	1,549	94	0.41
SB US 101 On-Ramp/ Whipple Avenue	1,900	204	132	0.11	258	134	0.14
NB US 101 Off-Ramp/ Whipple Avenue	2,000	798	99	0.40	1,092	138	0.55
NB US 101 On-Ramp/ Whipple Avenue	1,900	174	102	0.09	247	75	0.13
SB US 101 On-Ramp/ Woodside Road	2,000	1,018	11	0.51	1,061	9	0.53
NB US 101 Off-Ramp/ Woodside Road (Seaport Blvd.)	1,900	1,295	11	0.68	1,280	15	0.67

SOURCE: Fehr & Peers Associates and Caltrans.

Notes:

- (1) Capacity based on information presented in Chapter 25 of the *2000 Highway Capacity Manual* and the posted recommended travel speed on the ramp.
- (2) Volumes obtained from existing count data provided by Caltrans *plus* trips generated by the proposed project.
- (3) V/C = volume-to-capacity ratio.
- (4) NB = northbound; SB = southbound.

Table 17.8
FREEWAY RAMP CAPACITY ANALYSIS--PROJECT CONDITIONS (ALT. 7)

Freeway Ramp	Capacity	AM Peak Hour			PM Peak Hour		
		Volume	Project Trips	V/C	Volume	Project Trips	V/C
SB US 101 Off-Ramp/ Veterans Boulevard	3,800	1,835	98	0.48	1,532	77	0.40
SB US 101 On-Ramp/ Whipple Avenue	1,900	202	130	0.11	374	250	0.20
NB US 101 Off-Ramp/ Whipple Avenue	2,000	924	225	0.46	1,079	125	0.54
NB US 101 On-Ramp/ Whipple Avenue	1,900	153	81	0.08	283	111	0.15
SB US 101 On-Ramp/ Woodside Road	2,000	1,016	9	0.51	1,069	17	0.53
NB US 101 Off-Ramp/ Woodside Road (Seaport Blvd.)	1,900	1,307	23	0.69	1,279	14	0.67

SOURCE: Fehr & Peers Associates and Caltrans.

Notes:

- (1) Capacity based on information presented in Chapter 25 of the *2000 Highway Capacity Manual* and the posted recommended travel speed on the ramp.
- (2) Volumes obtained from existing count data provided by Caltrans *plus* trips generated by the proposed project.
- (3) V/C = volume-to-capacity ratio.
- (4) NB = northbound; SB = southbound.

Table 17.9
FREEWAY RAMP CAPACITY ANALYSIS--CUMULATIVE CONDITIONS (ALT. 6)

Freeway Ramp	Capacity	AM Peak Hour			PM Peak Hour		
		Volume	Project Trips	V/C	Volume	Project Trips	V/C
SB US 101 Off-Ramp/ Veterans Boulevard	3,800	2,307	54	0.61	2,006	94	0.53
SB US 101 On-Ramp/ Whipple Avenue	1,900	287	114	0.15	315	102	0.17
NB US 101 Off-Ramp/ Whipple Avenue	2,000	964	75	0.48	1,367	102	0.68
NB US 101 On-Ramp/ Whipple Avenue	1,900	224	101	0.12	271	75	0.14
SB US 101 On-Ramp/ Woodside Road	2,000	1,551	30	0.78	1,641	30	0.82
NB US 101 Off-Ramp/ Woodside Road (Seaport Blvd.)	1,900	1,698	46	0.89	1,768	56	0.93

SOURCE: Fehr & Peers Associates and Caltrans.

Notes:

- (1) Capacity based on information presented in Chapter 25 of the *2000 Highway Capacity Manual* and the posted recommended travel speed on the ramp.
- (2) Volumes obtained from existing count data provided by Caltrans *plus* trips generated by the proposed project.
- (3) V/C = volume-to-capacity ratio.
- (4) NB = northbound; SB = southbound.

Table 17.10
FREEWAY RAMP CAPACITY ANALYSIS--CUMULATIVE CONDITIONS (ALT. 7)

Freeway Ramp	Capacity	AM Peak Hour			PM Peak Hour		
		Volume	Project Trips	V/C	Volume	Project Trips	V/C
SB US 101 Off-Ramp/ Veterans Boulevard	3,800	2,351	98	0.62	1,993	77	0.52
SB US 101 On-Ramp/ Whipple Avenue	1,900	271	98	0.14	407	194	0.21
NB US 101 Off-Ramp/ Whipple Avenue	2,000	1,062	173	0.53	1,358	93	0.68
NB US 101 On-Ramp/ Whipple Avenue	1,900	204	81	0.11	307	111	0.16
SB US 101 On-Ramp/ Woodside Road	2,000	1,551	30	0.78	1,645	34	0.82
NB US 101 Off-Ramp/ Woodside Road (Seaport Blvd.)	1,900	1,723	61	0.91	1,764	62	0.93

SOURCE: Fehr & Peers Associates and Caltrans.

Notes:

- (1) Capacity based on information presented in Chapter 25 of the *2000 Highway Capacity Manual* and the posted recommended travel speed on the ramp.
- (2) Volumes obtained from existing count data provided by Caltrans *plus* trips generated by the proposed project.
- (3) V/C = volume-to-capacity ratio.
- (4) NB = northbound; SB = southbound.

Table 17.11

ALTERNATIVES COMPARISON--ATTAINMENT OF BASIC PROJECT OBJECTIVES

Objectives	Alternatives	
	Proposed Project: Residential/Commercial Complex--1,930 condo. units, 312,000 sf of commercial space	Alternative 1: No Project-- Current Site Status (existing marina, residential and commercial uses)
<i>Create mixed use residential-office-retail project that responds to market demands for more residential purchase and office lease opportunity on the Mid-Peninsula, convenient to an existing downtown, major interregional transit corridor and local job centers.</i>	Partial to high attainment. Convenience to existing Redwood City downtown, El Camino transit corridor, and CalTrain station dependent upon implementation of EIR mitigations 4-4 and 7-11.	No attainment.
<i>Provide primarily residential uses, w/ complementary commercial, retail and other community-serving uses.</i>	Partial to high attainment. Community-serving retail component (12,000 square feet) smaller than Alternatives 2, 3, 6 and 7.	No attainment.
<i>Create high-quality Bayfront development providing variety of housing options and costs to address Peninsula's housing shortage.</i>	High attainment.	No attainment.
<i>Create community that invites/encourages resident and public enjoyment of S.F. Bay and Bair Island Wildlife Refuge.</i>	Partial to high attainment. This EIR describes measures needed to improve public access to Bay.	No attainment.
<i>Create waterfront project providing access to S.F. Bay for residents and public via walkways and marinas.</i>	Partial to high attainment. This EIR describes measures needed to improve public access to Bay.	No attainment.

Alternatives (cont.)

Alternative 2: Buildout Under Existing Entitlements--Max. Residential plus Commercial

Partial attainment. The alternative includes substantially (76 percent) fewer residential units (462) than the proposed project (1,930).

Partial attainment. See above.

Partial attainment. See above.

Partial attainment. See above.

Partial attainment. See above.

Alternative 3: Buildout Under Existing Entitlements--All Commercial

Low attainment. The alternative includes no residential component.

No attainment. The alternative includes no residential component.

No attainment.

Low attainment.

Low attainment.

Alternative 4: Same Residential, Reduced Commercial

Partial attainment. Alternative includes same residential total, but less commercial space for lease than proposed project. Mitigations needed to increase convenience to downtown, El Camino transit corridor and CalTrain station.

Partial to high attainment. Community-serving retail same limited size as proposed project (12,000 s.f.).

High attainment.

Partial to high attainment. EIR describes measures needed to improve public access to Bay.

Partial to high attainment. This EIR describes measures needed to improve public access to Bay.

Table 17.11 (*continued*)

ALTERNATIVES COMPARISON--ATTAINMENT OF BASIC PROJECT OBJECTIVES

<u>Objectives</u>	<u>Alternatives</u>	
	<u>Alternative 5: Same Residential, Reduced Commercial, with Park</u>	<u>Alternative 6: Same Residential, Reduced Commercial, Added Hotel, plus Transit/TDM Measures</u>
<i>Create mixed use residential-office-retail project that responds to market demands for more residential purchase and office lease opportunity on the Mid-Peninsula, convenient to an existing downtown, major interregional transit corridor and local job centers.</i>	Partial attainment. Same comments as for Alternative 4.	Partial to high attainment. Alternative 6 includes same residential unit total and more convenience (service) retail than proposed project, but less commercial space for lease. Incorporates TDM measures to increase convenience to downtown, El Camino transit corridor and CalTrain station.
<i>Provide primarily residential uses, w/ complementary commercial, retail and other community-serving uses.</i>	Partial to high attainment. Community-serving retail same, limited size as proposed project (12,000 s.f.).	High attainment. Same residential total as proposed project; convenience (service) commercial space doubled.
<i>Create high-quality Bayfront development providing variety of housing options and costs to address Peninsula's housing shortage.</i>	High attainment.	High attainment.
<i>Create community that invites/encourages resident and public enjoyment of S.F. Bay and Bair Island Wildlife Refuge.</i>	Partial to high attainment. EIR describes measures needed to improve public access to Bay.	High attainment. Incorporates measures to improve public access to Bay.
<i>Create waterfront project providing access to S.F. Bay for residents and public via walkways and marinas.</i>	Partial to high attainment. EIR describes measures needed to improve public access to Bay.	High attainment. Incorporates measures to improve public access to Bay.

Alternative 7: More Balanced Mix--Reduced Residential, Increased Commercial (previous submittal)

Partial to high attainment. 33 percent more residential and 71 percent less commercial than proposed project. More convenience retail. Mitigations needed to increase convenience to downtown, El Camino transit corridor and CalTrain station.

High attainment. Higher per unit convenience (service) retail space ratio than proposed project.

Partial attainment. Reduction in residential unit total reduces amount and potential variety of housing options.

Reduction in residential. Partial to high attainment. Measures needed to improve public access to Bay.

Reduction in residential. Partial to high attainment. Measures needed to improve public access to Bay.

Alternative 8: Reduced Residential, Reduced Commercial, No Marina Fill

Partial attainment. 56 percent fewer residential units for sale and 35 percent less commercial space for lease. Mitigation needed to increase convenience to downtown, El Camino transit corridor and CalTrain station.

Partial attainment. Alternative includes 56 percent reduction in residential unit total.

Partial attainment. Reduction in residential unit total reduces amount and potential variety of housing options.

Partial attainment. Alternative includes substantially (56 percent) fewer residential units (850) than proposed project (1,930).

Partial attainment. Alternative includes substantially (56 percent) fewer residential units (850) than proposed project (1,930).

17.1 ALTERNATIVE 1: NO PROJECT

17.1.1 Principal Characteristics

This alternative would represent the "status quo"; the project site would not be developed with the proposed new land uses, but rather would remain in its current condition. The diverse mix of existing marina, residential, and commercial uses described in EIR subsections 3.1.3 (General Site Characteristics) and 4.1.1 (Existing On-Site Land Uses) would remain. All existing activities on the site (e.g., general office use, marina, marina and mobile home residential, container storage, RV repair and storage, restaurant, harbor master's office) would continue. No dredging or filling of water areas would occur; the existing on-site marina water area of approximately 17.1 acres would remain. The land use characteristics of this alternative in comparison to the proposed project and other identified alternatives are summarized in Tables 17.1, 17.2 and 17.3.

17.1.2 Alternative 1 Evaluation: Comparative Adverse and Mitigating Effects

(a) Land Use. No significant environmental impacts. Existing on-site land use characteristics would remain unchanged under the "No Project" alternative. No loss of existing boat slips would occur. No concerns regarding compatibility of residential towers with electrical transmission lines would be introduced. No land use incompatibilities between new, highly intensive, up to 23 stories and 65 dwelling units/acre (d.u./acre) residential development next to existing 2-to-4-story, 30 d.u./acre residential development, would be introduced. No potential conflicts with navigable air space above the project site would be introduced. On the other hand, current underutilization of the large waterfront project site, zoned for more intensive commercial and residential use, with direct freeway access, would remain unchanged.

(b) Visual Factors. No significant impacts. The existing visual character of the project site would remain unchanged. Visual impacts associated with development of 25 new high- and mid-rise buildings and other elements of the proposed project would not occur. There would be no inconsistency with City height-related policies, no impact on views, vistas, and the character of the surrounding Bayfront Area, and no incompatibility impact related to existing nearby development. Light and glare and shadow impacts would not be created and construction related visual impacts would not occur.

On the other hand, aesthetic improvements to portions of the project site that are currently unattractive--e.g., the vacant property south of Peninsula Marina--would also not occur, nor would site and landscape improvements that would encourage public access to, and appreciation of, Bayfront Area visual resources. Similarly, no restoration of water-edge bank areas, creation of waterfront walkways and bicycle trails or development of waterfront-oriented commercial businesses, plazas, overlooks, and other public open spaces would occur.

(c) Population, Housing and Employment. No change in existing on-site housing population or employment characteristics would occur. No associated adverse environmental impacts (transportation impacts, infrastructure and public services impacts, public health and safety impacts, noise impacts or air quality impacts) would occur. On the other hand, the project's substantial local and regional housing, employment, and associated economic benefits would also not occur.

(d) Transportation and Circulation. No significant environmental impacts. Table 17.4 presents the comparative net vehicular trip generation characteristics of the proposed project versus alternatives 1 through 8. Obviously, there would be no change in existing project site traffic generation characteristics or associated off-site transportation system conditions under the "No Project" alternative.

(e) Biological Resources. No significant environmental impacts. There would be no change in existing on-site biological conditions, including marina water area, wetland edges, and associated aquatic wildlife values.

(f) Hydrology and Water Quality. No significant environmental impacts. No changes in existing on-site marina (water) area, marina tidal prism, marina flushing characteristics, on-site soil erosion characteristics, the amount of stormwater runoff from the site, or associated contaminant discharge into marine, creek, and Bay waters, would occur. The overall impact of the "No Project" scenario on the quality of stormwater discharged into Redwood Creek would probably be less significant than the project impact with implementation of the mitigations ("best management practices") identified in this EIR. Project impacts to marina and Redwood Creek water quality due to site grading and potential post-construction erosion, and due to the flushing channel, would also not occur. On the other hand, existing conditions at Pete's Harbor include an unknown number of live-aboards, and associated illegal dumping of sewage into harbor waters. Thus the overall impact of this alternative relative to the proposed project could be neutral.

(g) Infrastructure and Public Services. No significant environmental impacts. No changes in infrastructure or public service demands associated with the existing Peninsula Marina and Pete's Harbor land uses would occur under the "No Project" alternative.

(h) Soils and Geology. No significant environmental impacts. No grading, dredging, surface modifications, changes in on-site seismic hazards, changes in on-site soil erosion characteristics, or introduced potentials for significant differential settlement or ground-shaking-induced failure of Bay mud soils would occur under the "No Project" alternative.

(i) Public Health and Safety. No significant environmental impacts. No demolition or construction activities with potential health or public safety impacts would occur. No introduction of new residents within the San Carlos Airport planning area would occur.

(k) Noise. No significant environmental impacts. No potential land use/noise environment incompatibilities would be introduced. No demolition or construction period vibration or noise impacts on adjacent residential uses would occur.

(l) Cultural Resources. No significant environmental impacts. No development-related potentials for disturbance of on-site cultural resource values would occur.

(m) Air Quality. No significant environmental impacts. No construction period or long-term local or regional air emissions impacts would occur.

(n) Attainment of Basic Project Objectives. As indicated in Table 17.11 herein, none of the basic project objectives listed in section 3.3 of this EIR would be achieved.

17.2 ALTERNATIVE 2: BUILDOUT UNDER EXISTING GENERAL PLAN AND ZONING ENTITLEMENTS--RESIDENTIAL-COMMERCIAL MIX

17.2.1 Principal Characteristics

This alternative assumes that the project site would be developed as a mixed use residential-commercial project as permitted under its existing Redwood City Strategic General Plan and City zoning designations, including the maximum number of residential units currently allowed under the site's existing General Plan and zoning designations. The land use characteristics of this alternative in comparison to the proposed project and other identified alternatives are summarized in Tables 17.1 (overall site), 17.2 (Peninsula Marina portion) and 17.3 (Pete's Harbor portion).

For purposes of fair comparison, this alternative assumes the same Peninsula Marina and Pete's Harbor land and water areas as the proposed project; i.e., the Peninsula Marina land area would be increased from 19.14 acres (existing) to 29.44 acres by reducing the Peninsula Marina water area from approximately 14.10 acres (existing) to 3.80 acres, and the Pete's Harbor land area would be increased from 10.31 acres (existing) to 11.6 acres by reducing the Pete's Harbor water area from approximately 2.90 acres (existing) to 1.66 acres.

The Pete's Harbor land area (11.6 acres) would be developed exclusively with residential uses consistent with its *Residential Combining District* overlay zone at the maximum permitted density of 40 units per acre, for a total of **462 condominium residential units for sale**.

The Peninsula Marina land area (29.44 acres) would be developed with commercial uses only, consistent with its existing General Plan and zoning designations--*Commercial/Office* and *General Commercial District (CG)*, respectively, which permit only office and general retail uses (no residential). Based on the maximum allowable floor area ratio (FAR) of 0.70 for this zoning district, this alternative assumes up to approximately 898,000 square feet of commercial floor space on the Peninsula Marina portion of the site, including approximately 20,000 square feet of convenience retail and restaurant space (a 60-to-70 percent increase over the proposed project, in order to better serve the convenience retail needs of the greater Bayfront Area and thereby internalize more trips); the remaining approximately 878,000 square feet of commercial floor area would be office.

17.2.2 Alternative 2 Evaluation: Comparative Adverse and Mitigating Effects

(a) Land Use. Substantially reduced, but still significant, environmental impacts. The residential density (approximately 40 d.u./acre), intensity (approximately six residential towers) and tower heights (up to approximately 7 stories) under Alternative 2 would be substantially less than the proposed project. As a result, land use compatibility impacts on existing adjacent 2- to 4-story, 30 d.u./acre residential developments would be substantially reduced. Potentials for navigable air space conflicts would be insignificant. More convenience retail would be provided under this alternative to serve anticipated needs in the developing Bayfront Area. The reduced

intensity of Alternative 2 would also provide greater ability to avoid potential conflicts between the project residential uses and existing electrical transmission lines. The degree of marina (water) area loss and associated boat slip loss would be similar to the proposed project.

(b) Visual Factors. Substantially reduced, but still significant, environmental impacts. It is assumed that the character and quality of building forms and materials, although substantially reduced in height, and the treatments and improvements along the water edges under Alternative 2, would be the same or similar to the proposed project. The maximum heights of the approximately six residential towers under this alternative, at 80 feet, would be generally consistent with the City's existing 75-foot maximum height limit, but would extend above the existing approximately 50-foot visual "base plane" of the Bayfront Area by approximately 30 feet, resulting in significant impacts on the visual character of the area. However, this impact would be substantially less than those resulting from the proposed project's 240-to-260-foot (up to 23-story) towers. Alternative 2 would have comparatively minimal (insignificant) view blockage impacts and associated impacts on local public views and view corridors. Similarly, Alternative 2 would have minimal (insignificant) light and glare and shadow impacts.

(c) Population, Housing and Employment. Alternative 2, at 462 residential units, would house substantially fewer people than the proposed project, with an estimated on-site population of 960 (versus 4,020, or 3,910 net new) residents. Conversely, the Alternative 2 commercial/office component would accommodate a substantially greater employment total, approximately 2,500 employees, versus 880 employees for the proposed project. As a result, Alternative 2 would contribute substantially to the existing citywide employed residents/job imbalance, resulting in increased in-commuting.

(d) Transportation and Circulation. Slightly increased environmental impacts. As indicated by Table 17.4, Alternative 2 would generate less daily traffic than the proposed project (an estimated 8,628 versus 14,108 trips). However, with commercial uses assumed to be 98 percent office, Alternative 2 would generate commute period traffic volume totals similar to the proposed project, as shown in Table 17.4. AM in and PM out peak volumes would be substantially greater, resulting in greater impacts on peak period intersection and freeway ramp operation.

(e) Biological Resources. Reduced, but still significant, environmental impacts. Alternative 2 would result in the same marine modifications and resulting water area loss as the proposed project and associated similar impacts on fish species of special concern (steelhead and salmon) and "essential fish habitat" (regulated habitat) for several species of bottomfish (rock fish, flat fish, sharks, rays, etc.) and upper water column species (Pacific sardine, northern anchovy, etc.). Construction-related direct or noise disturbance impacts on intertidal wetland edges of Redwood Creek and Smith Slough, and associated bird species, would also be similar to the proposed project. Alternative 2 would require the same jurisdictional review and permits as the proposed project. Bird collision mortality impacts would remain significant, but would be substantially reduced due to the construction of fewer towers (6 rather than 13) and less building height (up to 80 feet instead of 260 feet). Similarly, shadow effects on biological

resources would be reduced substantially due to the reduced residential tower number and heights.

(f) Hydrology and Water Quality. Similar environmental impacts. Since the marina (water) area acreage would remain the same under Alternative 2 as the proposed project, potential impacts on erosion and sedimentation and on marina and creek water quality would not vary substantially from those identified for the proposed project.

(g) Infrastructure and Public Services. Substantially reduced, but still significant, environmental impacts. The substantial reduction in residential population under Alternative 2 (462 units and 960 people versus 1,930 units and 4,020 residents for the proposed project) would result in corresponding reductions in project demands for water, sewer, police, fire, emergency medical, schools, parks and recreation, solid waste disposal, and child care services.

(h) Soils and Geology. Reduced, but still significant, environmental impacts. Alternative 2 would be subject to the same range of geotechnical hazards associated with grading, dredging and surface modifications as the proposed project, and the same potentials for differential settlement and earthquake ground-shaking-induced liquefaction and differential settlement, although substantially fewer on-site residents (960 versus 4,020) would be subject to associated on-site hazards.

(i) Public Health and Safety. Reduced, but still significant, environmental impacts. Similarly, Alternative 2 would be subject to similar, but reduced potentials for significant safety impacts associated with the introduction of additional residents (approximately 960 versus 4,020 for the proposed project) within the San Carlos Airport planning area.

(j) Noise. Reduced, but still significant, environmental impacts. The Alternative 2 residential component facades would be exposed to the same freeway and aviation noise levels as the proposed project, but fewer residents would be affected. Similar, construction period ground vibration and noise impacts on adjacent residential uses would occur, but over a reduced duration due to the reduced number and height of project structures.

(k) Cultural and Historic Resources. Reduced, but still significant, environmental impacts. Although the degree of foundation excavation of the residential tower structures would be substantially less for Alternative 2 than the proposed project, the degree of surface modification would be similar. Marina modifications would be the same as the proposed project. The potential for disturbance of an as yet unidentified sensitive, on-site, subsurface cultural resource during project grading and dredging would therefore remain significant.

(l) Air Quality. Similar environmental impacts. Construction period generation of exhaust emissions and fugitive particulate emissions would be similar to the proposed project, with similar potentially significant temporary effects on local air quality. Regional air emissions produced by additional vehicular traffic generation would be similar to the proposed project

(Table 17.4 indicates similar daily and peak period trip generation totals).

(m) Attainment of Basic Project Objectives. Alternative 2 would result in partial attainment of the basic project objectives listed in section 3.3. Alternative 2 would result in substantially fewer (76 percent fewer) residential units than the proposed project, and thus a substantially reduced response to regional market demands for more residential purchase, and would not be as potentially effective in providing a variety of housing options and costs.

17.3 ALTERNATIVE 3: BUILDOUT UNDER EXISTING GENERAL PLAN AND ZONING ENTITLEMENTS--ALL COMMERCIAL

17.3.1 Principal Characteristics

This alternative assumes that the project site would be developed as an ***all-commercial project*** as also permitted under its existing Redwood City Strategic General Plan and City zoning designations. The existing *Residential Combining District* overlay zoning designation on the Pete's Harbor property would not be applied. The land use characteristics of this alternative in comparison to the proposed project and other identified alternatives are summarized in Tables 17.1 (overall site), 17.2 (Peninsula Marina portion) and 17.3 (Pete's Harbor portion).

For purposes of fair comparison, this alternative, like Alternative 2, assumes the same Peninsula Marina and Pete's Harbor land and water areas as the proposed project; i.e., the Peninsula Marina land area would be increased from 19.14 acres (existing) to 29.44 acres by reducing the Peninsula Marina water area from approximately 14.10 acres (existing) to 3.80 acres, and the Pete's Harbor land area would be increased from 10.31 acres (existing) to 11.6 acres by reducing the Pete's Harbor water area from approximately 2.90 acres (existing) to 1.66 acres.

Alternative 3 would include ***no residential*** development.

Existing General Plan and zoning provisions would allow development of up to approximately 898,000 square feet of commercial space under the maximum allowable floor area ratio (FAR) of 0.70 on the approximately 29.44-acre Peninsula Marina portion of the project site, which is designated *Commercial/Office* in the General Plan and zoned *General Commercial (CG)*; and up to approximately 352,000 square feet of commercial space at the maximum allowable FAR of 0.70 on the approximately 11.6-acre Pete's Harbor portion of the site, which is designated *Mixed Use (Commercial and Residential)* in the General Plan and zoned *General Commercial-Residential Combining (CG-R)*. The total commercial floor area on the project site would therefore be approximately 1,250,000 square feet under this alternative. According to the City's Zoning Ordinance, the *General Commercial* zoning district allows retail, office, and a variety of other commercial uses. For this alternative, the commercial floor area total includes approximately 20,000 square feet of convenience retail and restaurant space, the same subtotal as Alternative 2, which would be a 60-to-70 percent increase over the proposed project, in order to better serve the convenience retail needs of the greater Bayfront area and thereby internalize more trips; the remaining 1,230,000 square feet of commercial floor area would be office.

17.3.2 Alternative 3 Evaluation: Comparative Adverse and Mitigating Effects

(a) Land Use. Reduced, but still significant, environmental impacts. Alternative 3 would involve the same marina fill total and associated developable land area as Alternative 2 and the proposed project, but would involve an exclusively commercial/office development program (i.e.,

no residential development). Alternative 2 would involve construction of the maximum commercial floor area permissible under current General Plan and zoning designations. Alternative 3 would result in reduced building heights (up to 7 stories) similar to Alternative 2, and a substantial increase in commercial development intensity (approximately four times the proposed project commercial floor space total), with construction of approximately seven high-mass, large-footprint (approximately 45,000-square-foot average building footprint), 4-to-7 story, commercial-office structures. Potentials for significant land use compatibility impacts between this intensive, high-mass, commercial-office development with existing adjacent 2-to-4-story residential development would remain. Elimination of the residential component would reduce electrical transmission line proximity concerns to a less-than-significant level. The total loss of marina slips (approximately 16-to-36) would be the same as the proposed project.

(b) Visual Impacts. Substantially reduced, but still significant, environmental impacts. Alternative 3 would include no residential tower structures and up to approximately seven, large-footprint, 4-to-7-story commercial-office structures. These structures would present potentials for significant visual incompatibilities with adjacent 30 d.u./acre, 2-to-4-story residential development, and would require design mitigations to create appropriate building scale transitions and buffering. Alternative 3 would result in minimal, less-than-significant impacts on distant views through the site, but significant, although substantially reduced, potential impacts on local views and view corridors. Alternative 3 would result in minimal (less-than-significant) shadow impacts.

(c) Population, Housing and Employment. Alternative 3 would exclude any new residential development or associated population increases, and would accommodate approximately four times as many on-site employees as the proposed project (approximately 3,500 on-site jobs). As a result, the project would contribute substantially to the existing citywide employed residents/jobs imbalance, resulting in increased in-commuting into Redwood City and associated commute period transportation, noise and air emissions impacts. Alternative 3 would be unresponsive to local and regional demands for housing.

(d) Transportation and Circulation. Slightly increased environmental impacts. Slightly increased impacts on peak period intersection freeway ramp and freeway segment impacts. As indicated in Table 17.4, Alternative 3, with its predominantly office occupancy, would generate fewer total daily trips than the proposed project (8,421 versus 14,108), but slightly more total peak period trips, and substantially more "AM in" and "PM out" trips during the peak period than the proposed project, with associated increases in off-site impacts on peak period intersection and freeway ramp operation. Alternative 3 is estimated to generate the highest number of net new peak-hour vehicle trips (1,231 and 1,306 in the AM and PM peak hours, respectively) of the eight alternatives.

(e) Biological Resources. Similar, but slightly reduced, environmental impacts. Alternative 3 would result in significant biological resources impacts similar to the proposed project. Alternative 3 would involve the same marina modifications and resulting water area loss as the proposed project, with associated similar impacts on fish species of special concern (steelhead

and salmon) and "essential fish habitat" (regulated habitat) for several marina-associated species of bottomfish (rock fish, sharks, rays, etc.) and upper water column species (Pacific sardine, northern anchovy, etc.). Construction-related direct and indirect (noise disturbance) impacts on intertidal wetland edges of Redwood Creek and Smith Slough, and on associated bird species, would also be similar to the proposed project. Alternative 3 would require the same marina-fill-related jurisdictional approvals as the proposed project. Bird collision mortality and shadow impacts would be substantially reduced due to the reduced building height range of 4-to-7 stories (versus up to 23 stories for the proposed project).

(f) Hydrology and Water Quality. Similar environmental impacts. Like Alternative 2, the marina (water) area modifications associated with Alternative 3 would be the same as the proposed project, and potential project impacts on erosion and sedimentation and on marina and creek water quality would not vary substantially from those identified for the proposed project.

(g) Infrastructure and Public Services. Substantially reduced, but still significant, environmental impacts. The elimination of the residential component in lieu of maximum commercial-office development would result in corresponding reductions in project demands for water, sewer, police, fire, emergency medical, school, parks and recreation, solid waste disposal, and child care services. The estimated on-site employment total of approximately 3,500 would result in substantially less demand for such services than would the estimated proposed project on-site population of 4,020 residents and 880 employees.

(h) Soils and Geology. Reduced, but still significant, environmental impacts. Alternative 3 would be subject to the same range of geotechnical hazards associated with grading and dredging as the proposed project, although the elimination of the tall residential towers (140-to-260 feet) and their replacement with up to approximately seven higher mass, 4-to-7 story structures may result in differences in the types and degrees of potential Bay-mud related differential settlement and earthquake-shaking-induced liquefaction and differential settlement impacts. Also, fewer on-site occupants, approximately 3,500 employees versus 4,020 residents and 880 employees for the proposed project, would be subject to associated on-site hazards.

(i) Public Health and Safety. Reduced, but still significant, environmental impacts. Alternative 3 would be subject to similar, but reduced potentials for significant safety impacts associated with the introduction of a high-occupancy development (in this case approximately 3,500 employees instead of 4,020 residents and 880 employees) within the San Carlos Airport planning area.

(j) Noise. Substantially reduced, but still significant, environmental impacts. The elimination of the residential component of the project would eliminate associated concerns regarding the compatibility of residential tower units with existing and projected freeway and aviation traffic noise levels in the area. Construction period potentials for ground vibration and noise impacts would be similar to the proposed project, but reduced in intensity and duration, due to the reduced number and height of project buildings.

(k) Cultural and Historic Resources. Reduced, but still significant, environmental impacts. Although the degree of foundation excavation necessary for the seven 4-to-7 story, high mass commercial-office buildings would be less than anticipated with the proposed project (approximately 13 residential towers up to 23 stories in height), the potential for disturbance of an as yet unidentified sensitive, on-site, subsurface cultural resource during project-related grading and dredging would remain significant.

(l) Air Quality. Similar environmental impacts. Construction period generation of exhaust and dust emissions would be similar to the proposed project, with similar potentially significant temporary effects on local air quality. Regional air emissions produced by additional daily and peak period vehicular traffic would be similar to the proposed project (daily emissions would be slightly less, but peak period emissions would be slightly increased).

(m) Attainment of Basic Project Objectives. Low attainment. As summarized in Table 17.11, Alternative 3 could partially attain two of the basic project objectives listed in section 3.3 of this EIR: the alternative would respond to market demands for office lease opportunity on the Mid-Peninsula (although such demands have recently declined dramatically, resulting in higher recent vacancy rates) and creation of a waterfront project providing public access to San Francisco Bay via walkways and marinas. However, with no residential development, Alternative 3 would not meet the primary project objectives of creating a mixed use residential-commercial project responding to market demands for more residential purchase, and a greater variety of housing options and costs, on the Mid-Peninsula.

17.4 ALTERNATIVE 4: RESIDENTIAL/COMMERCIAL--SAME RESIDENTIAL, REDUCED COMMERCIAL, WITH REDUCED BUILDING HEIGHTS AND REDUCED MARINA FILL

17.4.1 Principal Characteristics

This alternative assumes that the project site would be developed as a mixed use residential-commercial complex similar to the proposed project, but with less commercial floor area as a means of reducing building intensity and height and reducing the amount (area) of marina fill. Accordingly, the Alternative 4 development program includes a total of 1,930 condominium residential units for sale (the same as the proposed project), and a reduction in total commercial area from 312,000 square feet (the proposed project) to 162,000 square feet, including 12,000 square feet of convenience (service) retail/restaurant space (the same as the proposed project) and 150,000 square feet of office space (versus 300,000 square feet for the proposed project).

The reduction in commercial floor area is intended to permit an increase in the number of multi-story residential structures accommodating the 1,930 condominium units from 13 (proposed project) to approximately 15, thereby permitting an associated slight (8 percent) reduction in residential structure maximum height from 260 down to 240 feet (i.e., from a 21-story maximum down to a 19-story maximum), and a substantial reduction in marina fill from the approximately 11.54 acres currently proposed down to approximately 9.8 acres.

The land use characteristics of Alternative 4 in comparison to the proposed project and the other evaluated alternatives are summarized in Tables 17.1 (overall site), 17.2 (Peninsula Marina portion) and 17.3 (Pete's Harbor portion).

17.4.2 Alternative 4 Evaluation: Comparative Adverse and Mitigating Effects

(a) Land Use. Reduced, but still significant, environmental impacts. The Alternative 4 residential density (approximately 56 d.u./acre versus up to 65 d.u./acre for the proposed project), residential tower heights (up to 21 stories versus 23 stories for the proposed project), and residential building intensity (up to 15 tower structures versus 13 for the proposed project) would result in a similar land use compatibility impact with adjacent 2- to 4-story, 30 d.u./acre residential developments. The reduced commercial square footage (162,000 square feet versus 312,000 square feet for the proposed project) would allow a substantial reduction in marina (water area) fill (approx. 9.8 acres of marina fill, versus approximately 11.54 acres with the proposed project), resulting in greater potentials for layout flexibility, scale transition, and buffering. There would also be a reduced potential for navigable air space conflicts (i.e., a 20-foot reduction in maximum building height). Alternative 4, with the same limited retail floor area total as the propose project (12,000 square feet) would result in the same EIR-identified need for more service retail to serve anticipated future, cumulative convenience needs in the Bayfront Area.

(b) Visual Factors. Similar environmental impacts. The reduced commercial floor area in Alternative 4 would permit a reduction in commercial building coverage and a larger marina

(water) area (i.e., less marina fill) than the proposed project. The increased number of residential towers (15 instead of 13) and slightly reduced tower heights (up to 21 instead of 23 stories) would result in visual impacts similar to the proposed project. The residential towers would exceed the current 75-foot building height limit by up to approximately 165 feet, resulting in similar but slightly less pronounced, visual inconsistencies with the surrounding Bayfront Area. Similarly, the high-rise tower elements would still extend well above the existing approximately 50-foot "visual plane" of Bayfront Area development and landscaping. The two additional residential towers may result in similar or increased blockage of sky and distant views through the site. The focus of surrounding views would still be shifted towards the project by the tower elements. Alternative 4 would also have similar impacts on surrounding public views and view corridors, similar shadow impacts on adjacent land uses, and similar overall visual impact mitigation needs.

(c) Population, Housing and Employment. Alternative 4 would include the same residential unit total (1,930 d.u.s) and on-site population characteristics (approximately 4,020 residents, or 3,910 net new residents) as the proposed project, but a substantially reduced on-site employment total (450-to-460 on-site employees versus approximately 880 for the proposed project). Alternative 4 would therefore have housing benefits similar to the proposed project, and a similar but increased positive effect on the existing citywide imbalance between jobs and employed residents, reducing current in-commuting tendencies.

(d) Transportation and Circulation. Similar, but slightly reduced, environmental impacts. As indicated in Table 17.4, Alternative 4 would generate less daily and less peak period traffic than the proposed project (12,910 versus 14,108 total daily trips, 859 versus 1,038 AM peak-hour trips, and 941 versus 1,099 PM peak-hour trips) with associated slight reductions in project contributions to anticipated off-site intersection, freeway ramps, and freeway segment impacts. Project-related off-site mitigation needs would remain essentially the same.

(e) Biological Resources. Reduced, but still significant, environmental impacts. Alternative 4 would involve less marina fill (approximately 9.8 acres versus 11.54 acres for the proposed project) resulting in corresponding reductions in impacts on marine habitat for fish species of special concern (steelhead and salmon), "essential fish habitat" (bottomfish such as rockfish, flat fish, sharks, rays, etc.), and upper water column species (Pacific sardine, northern anchovy, etc.). Construction-related direct physical disturbance and indirect noise disturbance of the intertidal wetland edges of Redwood Creek and Smith Slough, and associated bird species, would be similar to the proposed project. The marina fill aspect of Alternative 4 would require the same jurisdictional review and permits as the proposed project, but with less need for compensatory mitigation. Potentials for bird collision mortality impacts associated with the residential towers would be similar to the proposed project, as would building shadow impacts on adjacent biological resources.

(f) Hydrology and Water Quality. Reduced, but still significant, environmental impacts. Alternative 4 would include a reduced amount of marina area lost to fill (9.8 acres versus 11.54 acres for the proposed project) and a slight reduction in total developed land area (38.4 acres

versus 41.0 acres for the proposed project). The overall reduction in developed land area (roughly 6.3 percent) would slightly reduce this alternative's potential erosion and sedimentation impacts, but not to an insignificant level. The approximately 2.6-acre reduction in marina fill area would recoup approximately 20.8 acre-feet of the marina tidal prism from the approximately 95 acre-feet that would be lost under the proposed project, a significant reduction (approximately 22 percent); however, the resulting overall impact on the tidal prism would remain significant.

(g) Infrastructure and Public Services. Similar, but slightly reduced, environmental impacts. Alternative 4, with an estimated 4,020 on-site residents (the same as the proposed project) and 450-to-460 on-site employees (versus 880 for the proposed project) would result in increases in demands for local infrastructure (water and sewer) and public services (police, fire, emergency medical services, schools, parks and recreation, solid waste disposal, child care) similar to, but slightly less than, the proposed project.

(h) Soils and Geology. Similar environmental impacts. Alternative 4 would be subject to the same range of geotechnical impacts associated with grading, dredging, and high-rise and high-mass building construction as the proposed project. Alternative 4 would include the same resident population, a reduced employment population, and the same potential as for Bay mud related differential settlement and earthquake-induced liquefaction and differential settlement impacts.

(i) Public Health and Safety. Similar environmental impacts. Alternative 4 would be subject to the same or similar potential safety impacts as the proposed project associated with the introduction of 4,020 residents (same as project) and 460-to-465 employees (versus 880 for the proposed project) within the San Carlos Airport planning area.

(j) Noise. Similar environmental impacts. The 15 residential towers at up to 21 stories in height would be subject to the same freeway and aviation traffic noise compatibility impacts and mitigation needs as the proposed project. Construction period potentials for ground vibration impacts and noise impacts would also be similar to the proposed project.

(k) Cultural Resources. Similar environmental impacts. The degree of foundation excavation for the 15 residential towers under this alternative would be similar to the proposed project. The degree of excavation for the commercial component would be less. Associated potentials for disturbance of an as yet unrecorded on-site, subsurface cultural resource during project-related construction would remain significant.

(l) Air Quality. Similar environmental impacts. Construction period generation of exhaust and dust emissions would be similar to the proposed project, with similar potentially significant temporary impacts on local air quality. Regional air emissions increases produced by additional daily and peak-hour vehicular traffic would also be similar to the proposed project (similar daily and peak period trip generation totals--see Table 17.4).

(m) Attainment of Basic Project Objectives. Partial attainment. Alternative 4 would attain most of the basic project objectives pertaining to creation of a mixed use residential-office-retail project responding to market demands for home purchase and office lease opportunities, but with substantially less office-retail floor area than the proposed project (162,000 versus 312,000 square feet).

17.5 ALTERNATIVE 5: RESIDENTIAL/COMMERCIAL--SAME RESIDENTIAL, REDUCED COMMERCIAL, WITH REDUCED BUILDING HEIGHTS, REDUCED MARINA FILL AND ADDED PARK

17.5.1 Principal Characteristics

Alternative 5 assumes development of the project site as a mixed-use residential-commercial complex similar to the proposed project, with the same residential unit total, but with a commercial floor area reduction similar to Alternative 4, and the addition of an on-site neighborhood park as suggested in this EIR under *Mitigation 10-8(2)*. Accordingly, Alternative 5 would include 1,930 condominium residential units for sale (the same as the proposed project and Alternative 4), and a reduction in the commercial floor area from 312,000 square feet (the proposed project total) to 162,000 square feet (the same as Alternative 4), including 12,000 of convenience (service) retail/restaurant space (again, the same as Alternative 4), plus the addition of a 3-acre neighborhood park. As a result of the added park, Alternative 5 would involve more marina fill (approximately 11.0 acres) than Alternative 4 (approximately 9.0 acres), but less marina fill than the proposed project (11.54 acres).

Alternative 5 would include approximately the same number of multi-story residential structures (15) as Alternative 4 (two more than the proposed project), but with a reduction in maximum residential structure height down to 190 feet (15 stories), as compared to 240 feet (19 stories) for Alternative 4 and 260 feet (21 stories) for the proposed project.

The land use characteristics of Alternative 5 in comparison to the proposed project and the other evaluated alternatives are summarized in Tables 17.1 (overall site), 17.2 (Peninsula Marina portion) and 17.3 (Pete's Harbor portion).

17.5.2 Alternative 5 Evaluation: Comparative Adverse and Mitigating Effects

(a) Land Use. Similar environmental impacts. The Alternative 5 residential density (approximately 59.6 d.u./acre versus up to 65.0 d.u./acre for the proposed project), residential tower heights (up to 17 stories versus 23 stories for the proposed project) and residential building intensity (up to 15 tower structures versus 13 for the proposed project) would result in similar or slightly reduced land use compatibility impacts with adjacent 2- to 4-story, 30 d.u./acre residential developments. The reduced commercial square footage total for Alternative 5 (162,000 square feet versus 312,000 square feet for the proposed project) would permit introduction of a 3-acre neighborhood park and a slightly reduced degree of marina fill (11.0 acres versus 11.54 acres for the proposed project). There would also be a reduced potential for navigable air space conflict (i.e., a 70-foot reduction in maximum building height). Like Alternative 4, Alternative 5 would include the same limited retail floor area total as the proposed project (12,000 square feet) and would result in the same EIR-identified need for more service retail to serve anticipated future, cumulative convenience needs in the Bayfront Area.

(b) Visual Factors. Similar, but slightly reduced, environmental impacts. The reduced

commercial floor area in Alternative 5 would permit introduction of more public open space (a 3-acre park) and a slightly larger marina (water) area (6.1 acres versus 5.5 acres for the proposed project). The 3-acre park, which is assumed to be located on the southerly portion of the site adjacent to U.S. 101, would reduce project proximity to the freeway and associated visual impacts, and similarly, would improve the project relationship to Redwood Creek. The tradeoff between park size and water open space would represent a key policy question. Internal water (marina) area may be considered a more scarce and potentially valuable visual resource than park area. The increased number of residential towers (15 instead of 13) and reduced tower heights (up to 17 instead of 23 stories) would result in visual impacts similar to the proposed project. The residential towers would exceed the current 75-foot building height limit by up to approximately 115 feet, resulting in similar, but less pronounced, visual inconsistencies with the surrounding Bayfront Area. The high-rise tower elements would still extend well above the existing approximately 50-foot "visual plane" of Bayfront Area development and landscaping. The two additional residential towers (15 instead of 13) may result in similar or increased blockage of sky and distant views through the site. The focus of surrounding views would still be shifted towards the project by the tower elements. Alternative 5 would have impacts similar to the proposed project on surrounding public views and view corridors, similar shadow impacts on adjacent land uses, and similar overall visual impact mitigation needs.

(c) Population, Housing and Employment. Alternative 5 would have the same comparative adverse and mitigating effects related to population, housing and employment as Alternative 4 (same residential and commercial totals).

(d) Transportation and Circulation. Similar, but slightly reduced, environmental impacts. As indicated in Table 17.4, Alternative 5 would have the same comparative adverse and mitigating effects on transportation and circulation as Alternative 4 (same residential and commercial totals).

(e) Biological Resources. Similar, but slightly reduced, environmental impacts. Alternative 5 would involve slightly less marina fill (approximately 11.0 acres versus 11.54 acres for the proposed project), but impacts similar to the proposed project on marina habitat for fish species of special concern (steelhead and salmon), "essential fish habitat" (bottomfish such as rockfish, flat fish, sharks, rays, etc.) and upper water column species (Pacific sardine, northern anchovy, etc.). Construction-related direct physical disturbance and indirect noise disturbance of the intertidal wetland edges of Redwood Creek and Smith Slough, and associated bird species, would be similar to the proposed project. The marina fill aspect of Alternative 5 would require the same jurisdictional review and permits as the proposed project, but with slightly less need for compensatory mitigation. Potentials for bird collision mortality impacts associated with the residential towers would be similar to the proposed project, as would building shadow impacts on adjacent biological resources.

(f) Hydrology and Water Quality. Substantially reduced, but still significant, environmental impacts. Alternative 5 would include a slightly reduced amount of marina area lost to fill (11.0 acres versus 11.54 acres for the proposed project) and a slight reduction in total developed land

area (40.4 acres versus 41.0 acres for the proposed project). Since the developed land area total would be only slightly less than the proposed project, Alternative 5 would have similar significant potentials for erosion and sedimentation impacts. The approximately 0.54-acre reduction in marina fill area would result in slightly less tidal prism loss than the proposed project (90.2 acre-feet versus 95.0 acre-feet for the proposed project). If the added 3-acre park element were fully integrated into the project stormwater treatment design, with lengthy reaches of grass-lined swales that would convey commercial and residential parking lot runoff to outfalls along Redwood Creek, the added park could significantly reduce potential adverse water quality impacts due to the high levels of on-site automobile traffic and parking associated with the project. While the application of available "best management practices" (BMPs) to the treatment of stormwater runoff has been credited in this EIR with reducing the potential project impacts on water quality to a less-than-significant level, the 3-acre park in Alternative 5, fitted with substantial lengths of grass-lined swales and fully integrated into the development's stormwater system, could go even further toward minimizing water quality impacts.

(g) Infrastructure and Public Services. Similar environmental impacts. Alternative 5, with the same population, housing, and employment characteristics as Alternative 4, would have impacts similar to Alternative 4 on local infrastructure and public services. These impacts would also be similar to the proposed project.

(h) Soils and Geology. Similar environmental impacts. Same comparative soil and geology implications as Alternative 4.

(i) Public Health and Safety. Similar environmental impacts. Same comparative public health and safety impacts as Alternative 4.

(j) Noise. Similar environmental impacts. The 15 residential towers and up to 17 stories in height would be subject to freeway and aviation noise impacts and mitigation needs similar to the proposed project. The introduction of the 3-acre park at the southern portion of the project near the freeway could exacerbate project noise abatement needs, since the elimination of the commercial structures located here under the proposed project layout could result in more direct residential facade noise exposure to the freeway. The adverse effects of the increased direct exposure would outweigh the mitigating effects of the park's buffer effects (separation from the freeway). Potentials for construction period ground vibration and noise impacts on existing adjacent residential development would be similar to the proposed project.

(k) Cultural Resources. Similar environmental impacts. The comparable adverse and mitigating effects of Alternative 5 related to potential on-site cultural resource values would be the same as Alternative 4.

(l) Air Quality. Similar environmental impacts. Same comparative adverse and mitigating effects as Alternative 4.

(m) Attainment of Basic Project Objectives. Partial attainment. Explanation for Alternative 4

also applies to Alternative 5.

17.6 ALTERNATIVE 6: RESIDENTIAL/COMMERCIAL--SAME RESIDENTIAL, REDUCED COMMERCIAL, WITH REDUCED BUILDING HEIGHTS, REDUCED MARINA FILL, ADDED HOTEL, AND INCREASED RETAIL, PLUS TRANSIT AND TDM PROVISIONS

17.6.1 Principal Characteristics

Alternative 6 also assumes development of the project site as mixed use residential-commercial complex similar to the proposed project, with the same 1,930 residential unit total, but with a redesign to incorporate measures identified in this EIR to reduce visual, traffic, and marina fill impacts, and increase waterfront relationships. The Alternative 6 design revisions would include a reduced commercial floor area total--175,000 square feet versus 312,000 square feet for the proposed project, permitting reductions and variations in building heights and massing, and modifications in building layout, building separation, internal open space provisions, and internal street relationships, in order to incorporate EIR- and *Bayfront Study*-recommended visual and transportation impact mitigations. Alternative 6 also includes a reduction in marina fill (approximately 9.8 acres as compared to 11.54 acres for the proposed project) in order to decrease open water loss and associated biological impacts and jurisdictional difficulties. Alternative 6 also includes an increased service-retail floor area total--25,000 square feet--devoted to local-serving convenience ("service") retail in order to "internalize" more Bayfront Area vehicular trips, plus the addition of a 200-room hotel. In addition, this alternative includes incorporation of the following types of transit provisions and "transportation demand management" TDM measures recommended in the City's recent (February 2003) *Bayfront Study* (which are not currently included as part of the proposed project):

- (1) TDM programs to be incorporated in project commercial space lease agreements for implementation by large employers, such as:
 - *flexible work schedules* and *telecommuting* provisions to reduce peak period travel;
 - *financial incentives* (subsidized transit passes, Ecopasses, etc.) to encourage more employees to shift to transit (even once or twice per week);
 - provision of *alternative transportation services* for employees who use transit (e.g., guaranteed ride home services, fleet vehicles for midday use; an employer-owned and sponsored shuttle service to CalTrain, the downtown, other local business centers, and the El Camino Real transit corridor; etc., with all-day service and frequent peak-hour headways);
 - *aggressive financial and other incentives* to encourage employee *carpooling and vanpooling*, including subsidized vanpools (using leased vans);
 - provision of *on-site facilities for alternative travel modes*, including bicycle lockers, showers, cafeteria(s), bank machine(s), and preferential carpool parking provisions (with enforcement and promotional commitments);

- *on-site administrative and education programs* such as
 - a full-time TDM program coordinator/manager,
 - a carpool and vanpool (rideshare) database and formation system,
 - a TDM orientation program for new employees,
 - circulation of brochures, installation of informational kiosks, and publishing of periodic newspaper articles advocating and promoting TDM measures,
 - advertising carpool information phone number(s),
 - conducting annual promotional events,
 - establishing bicycle and other commuter clubs, etc.;
- *land use strategies* such as provision of such on-site amenities as child care, fitness center(s), dry cleaning, cafes, restaurants, convenience retail, etc.; and

(2) TDM measures for implementation by the management of the project residential condominium complex, including:

- *alternative travel service* such as resident (homeowners association) owned and sponsored shuttle/vanpool service to CalTrain, the downtown, other local business centers, and the El Camino Real transit corridor, and
- *land use strategies* such as provision of on-site amenities like child care, fitness center(s), convenience retail, cafes, restaurants, dry cleaning, video rental, banking machines, etc..

The "project description" characteristics of Alternative 6 in comparison to the proposed project and the other evaluated alternatives are summarized in Tables 17.1 (overall site), 17.2 (Peninsula Marina portion) and 17.3 (Pete's Harbor portion). Conceptual site plans, conceptual architectural elevations and cross-sections for Alternative 6 are illustrated on Figures 17-6.1 through 17-6.5.

Figure 17-6.1. Alternative 6--Overall Illustrative Site Plan.

Figure 17-6.2. Alternative 6--Typical Architectural Elevation.

Figure 17-6.3. Alternative 6--Typical Cross-Sections.

Figure 17-6.4. Alternative 6--Peninsula Marina Site Plan.

Figure 17-6.5. Alternative 6--Pete's Harbor Site Plan.

17.6.2 Alternative 6 Evaluation: Comparative Adverse and Mitigating Effects

(a) Land Use. Reduced, but still significant, environmental impacts. The Alternative 6 residential density (approximately 55.9 d.u./acre versus up to 65.0 d.u./acre for the proposed project), residential tower heights (up to 21 stories versus 23 stories for the proposed project) and residential building intensity (approximately 17 tower structures versus 13 for the proposed project) would result in similar or slightly reduced potentials for adverse land use compatibility impacts on existing adjacent 2-to-4-story, 30 d.u./acre residential developments. The reduction in the amount of marina fill area (approximately 9.8 acres of water area loss versus approximately 11.54 acres of water area loss for the proposed project) and reduction in total commercial square footage for Alternative 6 (175,000 square feet versus 312,000 square feet for the proposed project) would permit the addition of a 200-room hotel. The reduced building height (a 24-foot reduction in maximum building height) would reduce potentials for navigable air space conflicts. The increase in the service-retail space subtotal (25,000 square feet versus 12,000 square feet for the proposed project) would better serve the anticipated convenience needs of the greater Bayfront Area and thereby "internalize" more trips. This modification, plus the transit linkage and other TDM measures incorporated into Alternative 6, would further City "smart growth" objectives and policies. The reduced marina water area loss would result in a corresponding reduction in the degree of project-related boat slip loss.

The effects of these Alternative 6 differences on the various specific land use impact and mitigation findings described in chapter 4 (Land Use) of this EIR are summarized below:

Impact 4-1: Project Relationships to Existing overhead Electrical Transmission Lines. Similar impacts; same mitigation.

Impact 4-2: Project Compatibility with Adjacent Residential Uses. Slightly reduced impacts; same mitigation.

Impact 4-3: Project Consistency with "Smart Growth" Policies and Criteria. Reduced impacts; same mitigation.

(b) Visual Impacts. Substantially reduced, but still significant, environmental impacts. The reduced commercial floor area in Alternative 6 (175,000 square feet versus 312,000 square feet for the proposed project) permits introduction of more public open space, including increased on-site water area, as well as the addition of a 200-room hotel, while reducing residential tower heights. The reduced commercial floor area and increased number of towers (18, including the hotel, instead of 13) also permits reduction in maximum residential tower heights by 2 stories (to 21 rather than 23 stories). The increased number of residential towers and reduced tower heights would result in visual impacts similar to the proposed project. The residential towers would exceed the current 75-foot building height limit by up to approximately 160 feet, resulting in visual inconsistencies with the surrounding Bayfront Area similar to, but slightly less than, the proposed project effects. Similarly, the high-rise tower elements would still extend well above the approximately 50-foot "visual plane" of existing Bayfront Area development and

landscaping.

The five additional towers (18 instead of 13) may result in similar or increased blockage of sky and distant views through the site. The focus of surrounding views would still be shifted toward the project by the 18 tower elements. Alternative 6 would therefore have impacts similar to the proposed project on surrounding public views and view corridors, similar shadow impacts on adjacent land uses, and similar overall visual impact mitigation needs.

The distribution of and variation in height among the tallest buildings under Alternative 6 differs from the proposed project. Under the proposed project design, tower heights are relatively consistent, with 21-story towers in the northerly Pete's Harbor portion of the site and 23-story towers in the southerly Peninsula Marina portion of the project site. Under Alternative 6, the tallest towers, from 20 to 21 stories, are located on the Pete's Harbor site. The number of towers on the Pete's Harbor portion of site is increased as well, from 5 to 7. Tower heights on the Peninsula Marina portion of the site are reduced to an average of 14 stories, and the number of towers is increased from 9 to 12 (including the hotel and the office building).

The visual effects these Alternative 6 differences are illustrated by Figures 17-6.6, 17-6.7, 17-6.8 and 17-6.9 (photo-simulations), and are described below:

- *Viewpoint 1: Bair Island Wildlife Refuge Public Trail (Figures 17-6.6).* Buildings extend above the "visual base plane" (i.e., the general height of existing structures and/or trees in the vicinity), similar to the proposed project. The view focus is shifted from the distant horizon to the foreground development. Existing vegetation along Pete's Harbor is replaced by the facades of high- and mid-rise buildings. Towers on the Pete's Harbor portion remain about five times the height of the base plane. The sky area blocked in the Pete's Harbor area is slightly increased from the proposed project due to the additional tower buildings. However, the visual impact of buildings in the Peninsula Marina area is significantly reduced; i.e., the sky area obstructed is reduced.
- *Viewpoint 2: Highway 101 Southbound Near Whipple Avenue (Figure 17-6.7).* Buildings extend above the base plane, similar to the proposed project. Towers in the Pete's Harbor area remain about three times the height of the base plane. The sky area blocked is slightly increased from the proposed project in the Pete's Harbor area due to the additional tower buildings. The visual impact of residential buildings in the Peninsula Marina area is significantly reduced from the proposed project. This reduction is more pronounced from this viewpoint than from Viewpoint 1; the degree of sky area blocked is further reduced. However, the 19-story hotel tower in this alternative creates a substantial visual effect in comparison to the proposed project's 9-story office building. The degree of sky area blockage above the Whipple Avenue overcrossing is more than doubled.
- *Viewpoint 3: Highway 101 Northbound at Seaport Blvd. (Figure 17-6.8).* Buildings extend above the base plane slightly more than in the proposed project. Residential tower locations extend further north (right) on the Pete's Harbor site, and the hotel adjacent to

U.S. 101 appears further west (left). Tower heights in the Peninsula Marina area south of the PG&E transmission lines appear reduced about 50 percent, and reduced from three times to two times the height of the base plane. However, the degree of sky area blockage in the Pete's Harbor area north of the transmission lines is almost doubled relative to the proposed project due to the addition of two towers. The Alternative 6 buildings block views to the northern Peninsula hills, including views to San Bruno Mountain. From this viewpoint, the receding visual effect of distance makes the taller towers located at the northerly point of the project appear similar in height to the shorter towers located at the southerly portion.

- *Viewpoint 4: Maple Street/Highway 101 Overcrossing (Figure 17-6.9).* Buildings extend above the base plane, similar to the proposed project. Towers extend across the visual field, slightly more than in the proposed project. Towers appear in this view to be two to three times the height of the visual base plane, as compared to four times for the proposed project. The degree of sky area blocked is reduced relative to the proposed project.

The photo-simulations on Figures 17-6.6 through 17-6.9 illustrate that Alternative 6 would result in impacts on the visual character of the surrounding area and general visual incompatibility impacts substantially less than the proposed project. The magnitude of these impacts is reduced to about half those of the proposed project. However, the photo-simulations also illustrate the concentration of taller buildings at the northerly portion of the project site in proximity to Bayfront natural areas, significantly affecting the view from Bair Island. Future design review should focus on determining if taller buildings should be concentrated on the site, and if so, at what location. The 19-story hotel adjacent to U.S. 101 extends 12 stories above adjacent buildings and appears visually incongruous. Designing the hotel as an attractive architectural landmark would reduce its visual impact; in addition, the hotel could be redesigned to reduce its height while still accommodating approximately 200 guest rooms.

Light and glare impacts would be reduced in general proportion to the reduction in building height. Shadow lengths would be reduced as well, except in the northerly Pete's Harbor area where more towers are proposed than with the proposed project. The confluence of Smith Slough and Redwood Creek at Outer Pete's Harbor is one of the site's most attractive areas; the alternative's two additional 20-story towers in proximity to this feature would add to the already substantial shade impacts noted for the proposed project. Most public spaces within Alternative 6 would remain in shadow during the winter months.

Figure 17-6.6. Alternative 6--Viewpoint 1 from Bair Island Looking East.

Figure 17-6.7. Alternative 6--Viewpoint 2 from Highway 101 Southbound Near Whipple Avenue.

Figure 17-6.8. Alternative 6--Viewpoint 3 from Highway 101 Northbound at Seaport Blvd.

Figure 17-6.9. Alternative 6--Viewpoint 4 from Maple Street Overcrossing East.

The public spaces have been refined in Alternative 6 relative to the proposed project. As illustrated by the Alternative 6 site plan (Figure 17.6-1), more defined streets, walkways, and related landscape approaches are indicated. Though reduced from the existing condition, the internal water area is approximately 33 percent larger in Alternative 6 than in the proposed project, with an additional canal in the Peninsula Marina area and multiple "finger" water areas that increase the length of public waterfront walkways. The expanded commercial area further increases waterfront visibility and public use.

An architectural grid similar to the proposed project is indicated, with oblique building masses and triangular open spaces located along the Redwood Creek perimeter. However, the Alternative 6 site plan contains more design detail in this area than the proposed project, indicating that these spaces would include courts, plazas, and overlooks rather than leftover spaces. Some buildings are aligned with Bair Island Drive; however, a further revision locating the hotel and commercial buildings parallel to the right-of-way would create a stronger gateway to the Bayfront Area.

Under Alternative 6, buildings along Redwood Creek have 15-to-20 foot setbacks, constricting the visual open space associated with the Redwood Creek similar to the proposed project. The number of towers abutting Redwood Creek is increased from two to three, and tower heights are reduced from 23 stories to 20 stories in the Peninsula Marina area. Nevertheless, visual contrasts with the Creek, Docktown, and Seaport Center remain abrupt.

Alternative 6 has a more varied skyline than the proposed project, with the 19-story hotel on the south and 21-story buildings on the north framing a concentration of shorter buildings. The general appearance would be somewhat similar to the Redwood Shores development to the north, with the tallest buildings located to the north of the site at the edge of adjacent wetland areas.

Alternative 6 includes two-level parking garages along many of the internal streets and pedestrian ways. Though some are screened with townhouse units, substantial garage frontages remain exposed, similar to the proposed project.

The general quality of building forms and materials is assumed to be the same as the proposed project, but Alternative 6 would have greater visual interest due to the variety of tower and apartment rooftop architectural forms. A potentially significant impact would still exist related to the visual effect of PG&E electrical transmission lines on the proposed residences.

The effects of these Alternative 6 differences on the various specific impact and mitigation findings described in Chapter 5 (Visual Factors) of this EIR are summarized below:

Impact 5-1: Project Consistency with City Height-Related Policies and Regulations.

Reduced impacts. Modifications included in Alternative 6 would substantially reduce project building height and scale inconsistency impacts, but not to a less-than-significant level. *Impact 5-1* would remain as a ***significant unavoidable impact***.

Impact 5-2: Visual Impacts on Views and Vistas and on the Character of the Surrounding Area. Reduced impacts. Residential and hotel towers would still substantially exceed the existing, "visual base plane" of the Bayfront Area. Obstruction of existing views of the sky and surrounding hills would still occur, but to a reduced degree. Project building setbacks and relationships to adjacent waterways and public trails would be improved. The design revisions incorporated into Alternative 6 would substantially reduce the degree of project impacts on surrounding views and vistas and on the character of the Bayfront Area, but not to a less-than-significant level. *Impact 5-2* would remain as a **significant unavoidable impact**.

Impact 5-3: General Visual Compatibility Impact. The magnitude of project building height, mass, scale and intensity incongruities with existing development in the immediate Bayfront Area vicinity would be substantially reduced. As presented in this alternative's site plan, the hotel is a 19-story structure; the hotel would need to be redesigned to be less visually prominent and more visually compatible. At this point, the design revisions incorporated into Alternative 6 would substantially reduce the degree of project visual incompatibility impacts, but not to a less-than-significant level. *Impact 5-3* would remain as a **significant unavoidable visual impact**.

Impact 5-4: Potential Light and Glare Impacts. Reduced, but still significant, potential impacts. Same mitigation.

Impact 5-5: Shadow Impacts. Substantially reduced, but still significant shadow impacts. Same mitigation; still resulting in possible **significant unavoidable visual impact**.

Impact 5-6: Inconsistency with City Urban Design Objectives. Substantially reduced, but still potentially significant, impacts. Alternative 6 incorporates many of the mitigation concepts described in this EIR. The mitigation language for this impact (*Mitigation 5-6*) would nevertheless remain the same.

Impact 5-7: Internal Visual Relationship of Project Development to Electrical Transmission Lines. A potentially significant impact would still exist related to the potential visual effects of PG&E electrical transmission lines on proposed project residences. The mitigation described in this EIR would remain the same.

(c) Population, Housing and Employment. Alternative 6 would include the same residential unit total (1,930 d.u.s) and associated on-site population characteristics (approximately 4,020 residents, or 3,910 net new residents), and essentially the same regional housing market benefits, as the proposed project. Alternative 6 would also include a substantially reduced on-site employment total (approximately 500 on-site employees versus approximately 880 for the proposed project). With its reduced ratio of on-site jobs to residents, Alternative 6 would have an even greater positive effect on the existing citywide imbalance between jobs and employed

residents than the proposed project, further reducing current in-commuting tendencies.

(d) Transportation and Circulation. Reduced, but still significant, environmental impacts. As indicated by Table 17.4, Alternative 6 would generate less daily traffic (an estimated 12,500 trips versus 14,108 for the proposed project) and less AM and PM peak-hour traffic (an estimated 833 and 909 trips, respectively, versus 1,038 and 1,099 trips for the proposed project). It should be noted that the vehicular trip generation totals for Alternative 6 include a 15 percent reduction to account for this alternative's assumed incorporation of minimum-level and moderate-level transit and transportation demand management (TDM) measures identified in the *Bayfront Study* and summarized in the appendix to chapter 7 of this EIR (Transportation and Circulation). These reductions were not applied to the proposed project or to the other evaluated alternatives.

As previously indicated, Alternatives 6 and 7 were selected for more detailed analysis to determine the potential specific impacts of each as compared to the proposed project. The analysis has been conducted for the study intersections and the two freeway interchanges. The interchange analysis includes ramp capacity only, since the provision of auxiliary lanes constructed under Background Conditions eliminates the need for freeway segment weaving analysis and merging/diverging operations.

Resulting effects for Alternative 6 are indicated in Tables 17.5 through 17.7 and Table 17.9. It should be noted that the cumulative analysis assumes completion of the Blomquist Street Extension.

Intersection Operations. As shown in Table 17.5, Alternative 6 is expected to result in no significant intersection impacts under near-term "with project" conditions. As shown in Table 17.6, under Cumulative Conditions, Alternative 6 is expected to significantly impact four intersections as compared to seven impacted by the proposed project. The proposed project's impacts at the Alameda de las Pulgas/Woodside Road, Broadway/Woodside Road, and Veterans Boulevard/Woodside Road intersections are not expected to occur with this alternative under cumulative conditions.

Freeway Ramp Capacity Analysis. The freeway ramp capacity analysis for Alternative 6 was conducted using the same HCM methodology and background and cumulative volumes developed as part of the proposed project analysis. The results of this analysis for Alternative 6 under near-term project conditions are presented in Table 17.7; the results for cumulative conditions are presented in Table 17.9. Similar to the proposed project, all freeway ramps are expected to operate well below capacity under near-term conditions. The highest projected V/C ratio under this scenario is 0.68 during the AM peak hour. Under Cumulative Conditions with the Blomquist Street Extension in place, the addition of traffic from Alternative 6 will cause the northbound off-ramp to Woodside Road/Seaport Boulevard to operate at 0.89 and 0.93 during the AM and PM peak hours, respectively. The PM peak-hour ratio at this location is only slightly higher than the level expected with the proposed project (0.92) under Cumulative Conditions.

Other Potential Impacts. Impacts of the proposed project have also been identified (in section 7.3 of this EIR) for the following additional issues: transit accessibility, pedestrian and bicycle access, emergency access, driveway safety, internal circulation, and parking. Alternative 6 includes essentially the same layout in terms of roadways and transit, bicycle, and pedestrian facilities. The Alternative 6 impacts on these issues are expected to be similar in nature to the proposed project and all of the mitigation measures identified in this EIR for the proposed project would still apply (e.g., modified roadways to accommodate transit vehicles, sight distance requirements at driveways, parking management programs, etc.).

In summary, Alternative 6 would have the following specific effects on the transportation impacts and mitigation requirements identified in chapter 7 of this EIR (Transportation and Circulation) for the proposed project:

Impact 7-1: Project Impact on the El Camino Real/Whipple Avenue Intersection.

Alternative 6 would reduce this impact to a less-than-significant level. No mitigation would be required.

Impacts 7-2 through 7-6: Project Impacts on U.S. 101 Southbound Mixed-Flow Lanes and SR 84 Westbound and Eastbound Segments. Similar significant impacts; same mitigations.

Impacts 7-7 through 7-9: Project Impacts on Transit, Pedestrian, and Bicycle Facilities. Same potential impacts; same mitigations.

Impacts 7-10 and 7-10A: Project Emergency Access Impact, and Associated Need for Blomquist Street Extension, and Secondary Impacts of Blomquist Extension on Blomquist Street/Maple Street Intersection. Similar impacts; same mitigations.

Impact 7-11: Project Impacts on CMP Roadway Network--PM Peak Hour. Similar impacts; same mitigation.

Impact 7-12: Project Driveway Impacts. Similar potential for significant safety impacts; same mitigation.

Impact 7-13: Project Internal Circulation Impacts. Similar potential for significant safety impacts and emergency access deficiencies; same mitigation.

Impact 7-14: Potentially Inadequate Project Parking Provisions. Similar concerns regarding adequacy of peak period parking provisions, parking convenience (proximity to users) and parking control and security; same mitigations.

Impact 7-15: Cumulative (2020) With Project Impacts on the El Camino Real/Whipple Intersection. Significant impact; same mitigation.

Impact 7-16: Cumulative (2020) With Project Impact on the Veterans Boulevard/Whipple Intersection. Significant impact; same mitigation.

Impact 7-17: Cumulative (2020) With Project Impact on the Blomquist Street/Maple Street Intersection. Significant impact; same mitigation.

Impact 7-18: Cumulative (2020) With Project Impact on the Alameda de las Pulgas/Woodside Road Intersection. Alternative 6 would reduce this impact to a less-than-significant-level. No mitigation would be required.

Impact 7-19: Cumulative (2020) With Project Impact on the Broadway/Woodside Road Intersection. Alternative 6 would reduce this impact to a less-than-significant level. No mitigation would be required.

Impact 7-20: Cumulative (2020) With Project Impact on the Veterans Boulevard/Woodside Road Intersection. Alternative 6 would reduce this impact to a less-than-significant level. No mitigation would be required.

Impact 7-21: Cumulative (2020) With Project Impact on the Blomquist Street/Seaport Boulevard Intersection. Significant impact; same mitigation.

(e) Biological Resources. Similar, but slightly reduced, environmental impacts. Alternative 6 would involve slightly less marina fill (approximately 9.8 acres versus 11.54 acres for the proposed project), but impacts similar to the proposed project on marina habitat for fish species of special concern (steelhead and salmon), "essential fish habitat" (bottomfish such as rockfish, flat fish, sharks, rays, etc.) and upper water column species (Pacific sardine, northern anchovy, etc.). Construction-related direct physical disturbance and indirect noise disturbance of the intertidal wetland edges of Redwood Creek and Smith Slough, and associated bird species, would be similar to the proposed project. The marina fill aspect of Alternative 6 would require the same jurisdictional review and permits as the proposed project, but with slightly less need for compensatory mitigation. Potentials for bird collision mortality impacts associated with the residential towers would be similar to the proposed project, as would building shadow impacts on adjacent biological resources.

The adverse and mitigating effects of these Alternative 6 differences on the various specific impact and mitigation findings described in chapter 8 (Biological Resources) of this EIR are summarized below.

Impact 8-1: Impacts on Steelhead and Chinook Salmon. This alternative would result in the loss of 9.8 acres of estuarine habitat for steelhead and Chinook salmon, compared to 11.6 acres associated with the proposed project. Construction activities could result in similar impacts related to increased water turbidity, containment release, noise, and underwater shock waves. Same mitigations.

Impact 8-2: Impacts on Essential Fish Habitat. Alternative 6 would fill 9.8 acres of

estuarine "essential fish habitat," which is 1.8 acres less than the proposed project. Construction activities could still result in increased water turbidity, contaminant release, noise, and underwater shock waves. These effects would represent the same significant impacts as those described for the proposed project. Same mitigations.

Impact 8-3: Impacts on California Clapper Rail. Impacts on this species associated with Alternative 6 are similar to those of the proposed project; however, there would be 1.8 acres less fill of aquatic waterbird foraging habitat, and less shadow effect compared to the proposed project. Same mitigation.

Impact 8-4: General Construction Period Noise Impacts on Wildlife. Impacts similar to proposed project; same mitigations.

Impact 8-5: Project-Related Loss of estuarine Navigable Waters and Other Waters of the U.S. Alternative 6 would fill 9.8 acres of "navigable and other waters of the United States," slightly less than proposed project. This would represent a similar significant impact. Same mitigations.

Impacts 8-6 and 8-7: Project-Related Loss of Saline and Fresh Emergent Wetlands. Impacts similar to proposed project; same mitigation.

Impact 8-8: Project-Related Bird Collisions. Alternative 6 includes the construction of more towers (15) and lower tower height (190 feet) than the proposed project; however, the buildings are still likely to cause bird collision mortality due to lighting and window hazards. These collisions are inevitable and would still constitute an **unavoidable significant impact**. Collisions may be reduced by implementing *Mitigation 8-8*.

Impact 8-9: Project-Related Outdoor Lighting Impacts on Biological Resources. Impacts similar to proposed project; same mitigation.

Impact 8-10: Project-Related Introduction of Invasive, Non-Native Plants. Impacts similar to proposed project; same mitigation.

(f) Hydrology and Water Quality. Similar environmental impacts. Alternative 6 would include a reduced amount of marina water area lost to fill (9.8 acres versus 11.54 acres for the proposed project) and a slight reduction in total developable land area (39.2 acres versus 41.0 acres for the proposed project). Alternative 6 would therefore have similar significant potentials for erosion and sedimentation impacts. The approximately 1.7-acre reduction in lost marina area would result in a corresponding reduction in tidal prism loss (approximately 81 acre-feet versus 95 acre-feet for the proposed project). Unlike Alternative 5, which includes a 3-acre park that could be integrated into the project's stormwater discharge system, the potential impacts of Alternative 6 on construction period site erosion and sedimentation, and on long-term marina, creek and Bay water quality, would not differ substantially from the impacts of the proposed project.

In summary, Alternative 6 would have the following effects on the impact and mitigation findings described in chapter 9 (Hydrology and Water Quality) of this EIR:

Impact 9-1: Temporary Soil Erosion Increase and Sedimentation Impacts During Project Construction. Similar impacts; same mitigation.

Impact 9-2: Increased Stormwater Containment Loading. Similar impacts; same mitigation.

Impact 9-3: Temporary Impacts from Proposed Flushing Channel Construction. Similar impacts; same mitigation.

Impact 9-4: Project Impacts on Marine and Creek Sedimentation and Associated Creek/Bay Water Quality impacts. Similar impacts; same mitigation.

(g) Infrastructure and Public Services. Alternative 6, due to the incorporation of a hotel, would consume an additional approximately 26,500 net gallons of water per day compared to the proposed project, with a proportionate increase in sewage generation.³ Otherwise, with the same population and housing characteristics, but a substantially lower employment total (approximately 500 jobs versus 880 for the proposed project), this alternative would have impacts similar to, but slightly less than the proposed project, on local infrastructure and public services.

In summary, Alternative 6 would have the following effects on the impact and mitigation findings identified in chapter 10 (Infrastructure and Public Services) of this EIR:

Impact 10-1: Project-Related and Cumulative Municipal Water Demand. The modifications included in Alternative 6 would not change the basic conclusion documented in the Redwood City City Council approved Water Supply Assessment (WSA) for the proposed project--i.e., that the City does not currently have sufficient water supply to meet the projected water demands of the proposed project together with those of its existing customers and the demands of other planned development. There would be no change in the EIR-identified mitigation requirement for this impact, which calls for City completion of a *subsequent water supply analysis* prior to City approval of any tentative map or development agreement for the project. The *subsequent water supply analysis* would incorporate the various Alternative 6 changes in land use and associated water demand characteristics. Until an achievable water supply source is identified, this impact would constitute a ***significant unavoidable impact***.

³Phong Du, Senior Civil Engineer, City of Redwood City Engineering and Construction Department, personal communication, February 12, 2003.

Impact 10-2: Project-Related and Cumulative Impacts on Sewage Treatment and Transmission Capacity. Similar, but slightly increased impacts; same mitigation.

Impacts 10-3 through 10-9: Project-Related and Cumulative Impacts on Police, Fire Protection and Emergency Medical Services; Emergency Access Impacts; and Impacts on Parks, Recreation, and Solid Waste Disposal. Similar impacts; same mitigations.

(h) Soils and Geology. Similar environmental impacts. Alternative 6 would be subject to the same range of geotechnical impacts associated with grading, dredging, and high-rise and high-mass building construction as the proposed project. Alternative 6 would include the same potentials as the proposed project for Bay mud related differential settlement and earthquake-induced liquefaction and differential settlement impacts. The same mitigations would apply.

(i) Public Health and Safety. Similar environmental impacts. Alternative 6 would be subject to the same or similar potential safety impacts as the proposed project associated with the introduction of 4,020 residents (same as project) and approximately 460-to-500 employees (versus 880 for the proposed project) within the San Carlos Airport planning area. The same mitigations would apply.

(j) Noise. Similar impacts. The 17 residential towers up to 17 stories in height would be subject to freeway and aviation noise compatibility impacts and associated mitigation needs similar to the proposed project. Potentials for construction period ground vibration and noise impacts on existing adjacent residential development would be similar to the proposed project. The same mitigations would apply.

(k) Cultural Resources. Similar environmental impacts. The degree of foundation excavation for the 17 residential towers under this alternative would be similar to or greater than the proposed project. The degree of excavation for the commercial component would be less. Associated potentials for disturbance of an as yet unrecorded on-site, subsurface cultural resource during project-related construction would remain significant.

(l) Air Quality. Similar environmental impacts. Construction period generation of exhaust and dust emissions would be similar to the proposed project, with similar potentially significant temporary impacts on local air quality. Regional air emissions increases produced by additional daily and peak-hour vehicular traffic would also be similar to the proposed project (similar daily and peak period trip generation totals--see Table 17.4).

(m) Attainment of Basic Project Objectives. Partial/high attainment. Alternative 6 would attain most of the basic project objectives pertaining to creation of a mixed use residential-office-retail project responding to market demands for home purchase and office lease opportunities, but with substantially less office-retail floor area than the proposed project (175,000 versus 312,000 square feet).

17.7 ALTERNATIVE 7: RESIDENTIAL/COMMERCIAL--MORE BALANCED MIX WITH REDUCED RESIDENTIAL AND INCREASED COMMERCIAL, PLUS REDUCED BUILDING HEIGHTS AND REDUCED MARINA FILL

17.7.1 Principal Characteristics

This alternative assumes a site plan similar to the currently proposed project, but with a more "balanced" on-site residential-commercial land use mix, including approximately one-third fewer residential units (1,300 vs. the 1,930 units proposed) and three-fourths more office-retail space (535,000 square feet vs. the 312,000 square feet proposed). This alternative reflects a development plan previously proposed by the applicant and informally submitted to the City in the summer of 2001. Principal differences between this alternative and the proposed project include:

- This alternative provides a more balanced allocation between residential and commercial uses, including approximately 1,300 residential units (56.5 units per acre, excluding water) and approximately 17,000 square feet of convenience (service) retail space (as compared to 12,000 square feet for the proposed project). The retail component for the alternative would be developed at two locations--at Pete's Harbor (a 5,000-square-foot restaurant) and as part of the office component (12,000 square feet of ground floor retail), compared to the proposed project where all of the retail space (including a similar 5,000-square-foot restaurant) would be clustered and centrally located adjacent to the reconfigured Peninsula Marina.
- The layout for this alternatives includes less marina fill, 10.8 acres versus 11.54 acres for the proposed project, and a reduction in residential building intensity and height, with 11 multi-story residential structures, as compared to 13 for the proposed project, and a maximum building height of 205 feet (20 stories) as compared to 260 feet (23 stories) for the proposed project.
- This alternative would also include a child care center (5,000 square feet) and a health club (12,000 square feet) as part of the office component; the proposed project includes neither of these amenities.

The land use characteristics of Alternative 7 in comparison to the proposed project and other identified alternatives are summarized in Tables 17.1, 17.2 and 17.3. A conceptual site plan, conceptual architectural elevations and conceptual cross-sections for Alternative 7 are illustrated on Figures 17.7-1 through 17.7-5.

17.7.2 Alternative 7 Evaluation: Comparative Adverse and Mitigating Effects

(a) Land Use. Reduced, but still significant, environmental impacts. The Alternative 7 reduced residential density (approximately 56.5 d.u./acre versus up to 65.0 d.u./acre for the proposed project), reduced residential tower heights (up to 20 stories versus 23 stories for the

Figure 17-7.1. Alternative 7--Overall Illustrative Site Plan.

Figure 17-7.2. Alternative 7--Typical Architectural Elevation.

Figure 17-7.3. Alternative 7--Typical Cross-Sections.

Figure 17-7.4. Alternative 7--Peninsula Marina Site Plan.

Figure 17-7.5. Alternative 7--Pete's Harbor Site Plan.

proposed project) and reduced residential building intensity (approximately 11 residential tower structures versus 13 for the proposed project) would result in reduced potentials for adverse land use compatibility impacts on existing adjacent 2- to 4-story, 30 d.u./acre residential developments. Alternative 7 would include less reduction in the amount of marina fill area (approximately 10.8 acres of water area loss versus approximately 11.54 acres of water area loss for the proposed project). The reduction in total residential units (1,300 versus 1,930 for the proposed project) and associated reduction in residential building coverage would permit an increase in the amount of commercial building coverage and floor area (535,000 square feet versus 312,000 square feet for the proposed project). The reduced building height (a 55-foot reduction in maximum building height) would reduce potentials for navigable air space conflicts. The increase in the service-retail space subtotal (17,000 square feet versus 12,000 square feet for the proposed project) combined with the reduction in on-site residential units would permit the project to better serve the anticipated convenience needs of the greater Bayfront Area and thereby "internalize" more trips. The reduced marina water area loss would result in a corresponding reduction in the degree of project-related boat slip loss.

The effects of these Alternative 7 differences on the various specific land use impact and mitigation findings described in chapter 4 (Land Use) of this EIR are summarized below:

Impact 4-1: Project Relationships to Existing Overhead Electrical Transmission Lines. Similar, but slightly reduced, environmental impacts; same mitigation.

Impact 4-2: Project Compatibility with Adjacent Residential Uses. Similar, but slightly reduced, environmental impacts; same mitigation.

Impact 4-3: Project Consistency with "Smart Growth" Policies and Criteria. Reduced, but still significant, environmental impacts; same mitigation.

(b) Visual Impacts. Reduced, but still significant, environmental impacts. The Alternative 7 design would substantially exceed the City's 75-foot height limit, with residential tower heights ranging from 128 feet (12 stories) to 205 feet (20 stories). The number of residential towers is reduced from 13 to 11; the number of total tower-type buildings is increased from 14 to 33. However, the average height of the towers is reduced by approximately 34 percent (from 232 feet for the proposed project to 153 feet for Alternative 7). No lower-height apartment buildings are contained in this alternative; a limited number of podium fronting townhouse units are included.

Eleven three-tower modules are replicated throughout the site. Each module consists of one 16-story tower above a 4-story parking podium (20 stories total) and two 10-story towers above a 2-story parking podium (12 stories total). Four of the 20-story, 205-foot towers are located in the Peninsula Marina portion of the site. This is a reduction in tall towers relative to the proposed project, from five to four in the Pete's Harbor area, and from nine to seven in the Peninsula Marina area.

The visual effects of Alternative 7 are illustrated by Figures 17.7-6 through 17.7-9 (photo-simulations) and are described below:

- *Viewpoint 1: Bair Island Wildlife Refuge Public Trail (Figure 17.7-6).* The visual impact on this view is generally reduced relative to the proposed project. Buildings extend above the base plane, similar to the proposed project. The view focus is shifted from the distant horizon to the foreground development. Vegetation along Pete's Harbor is replaced by the facades of high- and mid-rise buildings. However, average tower heights relative to the proposed project are significantly reduced in both the Pete's Harbor and Peninsula Marina areas, from five to 2.5 times the visual base plane. Sky area blockage is shifted to lower elevations as a result of the reduced tower heights and the greater number of 12-story, mid-height buildings.
- *Viewpoint 2: Highway 101 Southbound Near Whipple Avenue (Figure 17.7-7).* Buildings extend above more of the base plane compared to the proposed project due to additional mid-height buildings and the six-story office building located adjacent to U.S. 101. Tower heights in the Pete's Harbor area are reduced slightly from the proposed project, from about three times down to 2.5 times the height of the base plane. However, the degree of sky area blockage is increased relative to the proposed project due to the number of 12-story, mid-height buildings; i.e., buildings align to create a solid mass. The visual impact of residential buildings in the Peninsula Marina area is reduced, in comparison to the proposed project, through this reduction is not as significant as Alternative 6. Sky area blockage is shifted to lower elevations as the result of shorter towers and the 12-story, mid-height buildings.
- *Viewpoint 3: Highway 101 Northbound at Seaport Blvd. (Figure 17.7-8).* Buildings extend above more of the base plane compared to the proposed project; the residential towers also appear to extend further west (left) on the Peninsula Marina site. Tower heights appear to be reduced about 40 percent, and are from two to three times the height of the base plane. Sky area blockage is shifted to a lower elevation as the result of shorter towers and the 12-story, mid-height buildings. The Alternative 7 buildings also would block views from this vantage point towards the northern Peninsula hills, including views to San Bruno Mountain.
- *Viewpoint 4: Maple Street/Highway 101 Overcrossing (Figure 17.7-5).* Buildings extend above more of the base plane compared to the proposed project. However, taller towers extend across the visual field only approximately half that of the proposed project. The degree of sky area blockage by the towers is reduced by approximately 30 percent from the proposed project. Similar to Viewpoints 1 through 3, building mass is shifted to a lower elevation as a result of the shorter towers and the 12-story, mid-height buildings. The 6-story office building located adjacent to U.S. 101 appears to extend further above the visual base

Figure 17-7.6. Alternative 7--Viewpoint 1 from Bair Island Looking East.

Figure 17-7.7. Alternative 7--Viewpoint 2 from Highway 101 Southbound Near Whipple Avenue.

Figure 17-7.8. Alternative 7--Viewpoint 3 from Highway 101 Northbound at Seaport Blvd.

Figure 17-7.9. Alternative 7--Viewpoint 4 from Maple Street Overcrossing East.

plane than the 7- to 9-story office building under the proposed project, due to building location and view angle.

Generally, the photo-simulations illustrate that Alternative 7 would result in reduced impacts on the visual character of the surrounding area and reduced visual incompatibility impacts. The magnitude of these impacts is reduced to about half those of the proposed project. These comparative effects are similar to Alternative 6, but differ in terms of specifics. The photo-simulations illustrate the concentration of building mass at lower elevations, creating a more densely urban appearance as viewed from a distance than either the proposed project or Alternative 6. The 6-story office buildings located at the south of the project site adjacent to U.S. 101 does not appear as an integral part of the project and do not complement the adjacent residential building forms. The office structures' blocky massing, large square window forms, and dark glass do not relate well to the finer detailing of the residential buildings.

Light and glare impacts would be reduced from the proposed project in general proportion to the reduction in average building height. Shadow lengths would be reduced as well. However, most public spaces within Alternative 7 would remain in shadow during the winter months.

A water edge walk is indicated along the perimeter of internal water areas and along the bank of Redwood Creek. As illustrated by the Alternative 7 site plan (Figure 17.7-1), open space is provided in the form of landscaped areas leftover between tower parking podiums, rather than as pedestrian-oriented streets, courts, and plazas as in the proposed project and Alternative 6. Internal water areas are greatly reduced in size compared to the existing condition, but are about 15 percent larger than the proposed project, and the length of water edge walkways would also be increased. An associated waterfront plaza or signature public space is not provided in this alternative. The above-grade parking structure associated with the office buildings further reduces the amount of visible, usable public space in comparison to the proposed project.

An architectural grid similar to the proposed project is indicated, with oblique building masses and triangular open spaces located along Bair Island Road and the Redwood Creek perimeter. However, the Alternative 7 "towers in a park" building arrangement creates a significantly different visual character than the more community design-oriented approaches of the proposed project and Alternative 6, with their greater variety of housing types, streets, and pedestrian ways.

The tower podiums along Redwood Creek under Alternative 7 are set back 60-to-70 feet in the Peninsula Marina area, significantly more than the proposed project and Alternative 6. This provides more visual open space associated with the creek. This setback area includes an access drive with perimeter visitor parking. The office buildings and parking structure are setback by only 15 to 20 feet, in contrast to the greater setbacks of the adjacent residential building, creating an inconsistent appearance for the creekside public access way. Podium setbacks along the creek in the Pete's Harbor area are a minimal 15 feet, creating a visually constricted condition in that location. Although tower heights are reduced from 23 stories to 20-

and 12-stories, the visual contrast with the creek, Docktown, and Seaport Center will still be abrupt.

The two-to-one mix of 12- and 20-story buildings will create a more varied skyline than the proposed project. However, the "boxy" form of the office buildings do not provide the visual interest provided by the pitched roofs and towers in the proposed project and Alternative 6. Two- to four-level parking garages are located along streets and pedestrian ways. Though some are screened with townhouse units, substantial garage frontages remain exposed, more than under the proposed project or Alternative 6. A potentially significant impact still exists related to the visual effect of the existing PG&E electrical transmission lines on the proposed project residences.

The effects of these Alternative 7 visual differences on the various specific impact and mitigation findings described in chapter 5 (Visual Factors) of this EIR are summarized below:

Impact 5-1: Project Consistency with City Height-Related Policies and Regulations.

Reduced, but still significant, impacts. Modifications included in Alternative 7 would reduce project building height and scale inconsistency impacts, but not to a less-than-significant level. The same mitigation requirements would apply, and even with implementation of these mitigations, *Impact 5-1* would remain a **significant unavoidable impact**.

Impact 5-2: Visual Impacts on Views and Vistas and on the Character of the Surrounding Area.

Reduced, but still significant, impacts. Average residential tower heights are significantly reduced in comparison to the proposed project. The blocked sky area would be shifted to lower elevations as a result of the shorter towers and numerous 12-story mid-height buildings. The project buildings would still block views through the site of the Peninsula Hills and San Bruno Mountain. The residential and office towers would still substantially exceed the existing "visual base plane" of the Bayfront Area. The same mitigations identified in this EIR for the proposed project would apply to Alternative 7, and even with these mitigations, *Impact 5-2* would remain a **significant unavoidable impact**.

Impact 5-3: General Visual Compatibility Impact.

Reduced, but still significant, impacts. The visual incompatibility impacts of Alternative 7 would be similar to the proposed project, but would differ in terms of specifics, as previously explained. The same mitigations identified in this EIR for the proposed project would apply to Alternative 7, and even with these mitigations, *Impact 5-3* would remain a **significant unavoidable visual impact**.

Impact 5-4: Potential Light and Glare Impacts. Reduced, but still significant, potential impacts. Same mitigation.

Impact 5-5: Shadow Impacts. Reduced, but still significant shadow impacts. Most public spaces would remain in shadow. Same mitigation; still resulting in possible **significant unavoidable visual impact**.

Impact 5-6: Inconsistency with City Urban Design Objectives. Similar environmental impacts. The mitigation language for this impact (*Mitigation 5-6*) would remain the same.

Impact 5-7: Internal Visual Relationship of Project Development to Electrical Transmission Lines. A potentially significant impact would still exist. The mitigation described in this EIR for the proposed project would remain the same.

(c) Population, Housing and Employment. Alternative 7 would include a reduced residential unit total (1,300 d.u.s versus 1,930 d.u.s for the proposed project) and associated reduced on-site population total (approximately 2,710 residents versus approximately 4,020 residents, or 3,910 net new residents, for the proposed project), and corresponding reductions in regional housing benefits. Alternative 7 would also include a substantially increased on-site employment total (approximately 1,510 on-site employees versus approximately 880 for the proposed project). With its increased ratio of on-site jobs to residents, Alternative 7 would have a less positive effect on the existing citywide imbalance between jobs and employed residents.

(d) Transportation and Circulation. Slightly increased environmental impacts. As indicated by Table 17.4, Alternative 7 would generate less daily traffic (an estimated 12,052 trips versus 14,108 for the proposed project), but more AM and PM peak-hour traffic (an estimated 1,057 and 1,103 trips, respectively, versus 1,038 and 1,099 trips for the proposed project).

As previously indicated, Alternatives 6 and 7 were selected for more detailed analysis to determine the potential specific impacts of each as compared to the proposed project. A comparative analysis has been conducted for the 19 study intersections and the two freeway interchanges. The interchange analysis includes ramp capacity only, since the provision of freeway segment auxiliary lanes constructed under Background Conditions eliminates the need for freeway segment weaving analysis and merging/diverging operations.

Resulting effects for Alternative 7 are indicated by Tables 17.5, 17.6, 17.8 and 17.10. It should be noted that the cumulative analysis assumes completion of the Blomquist Street Extension.

Intersection Operations. As shown in Table 17.5, the additional office space and reduced residential use in Alternative 7 will change the trip assignment such that this alternative is expected to result in significant impacts at two locations-EI Camino Real/Whipple Avenue and Bayfront Expressway/Willow Road. The latter represents one more near-term intersection impact than is expected with the proposed project.

As shown in Table 17.6, Alternative 7 is projected to result in cumulative impacts at eight intersections during the AM and/or PM peak hour under cumulative conditions. Similar to the near-term analysis, the intersection of Bayfront Expressway and Willow Road is expected to be impacted by this alternative, and was not significantly affected by the proposed project.

Freeway Ramp Capacity Analysis. The freeway ramp capacity analysis for Alternative 7 was

conducted using the same HCM methodology and background and cumulative volumes developed as part of the proposed project analysis. The results of this analysis for Alternative 7 under near-term project conditions are presented in Table 17.8; the results for cumulative conditions are presented in Table 17.10. As shown in Table 17.8, ramp V/C ratios under Alternative 7 are similar to the ratios projected under Alternative 6 and the proposed project for near-term conditions. All locations are projected to operate with V/C ratios less than 0.69. As shown in Table 17.10, with the addition of cumulative traffic, the AM peak hour V/C ratio of 0.91 at the northbound off-ramp to Woodside Road/Seaport Boulevard is slightly higher than that of Alternative 6 and the proposed project (0.89). Otherwise, operations on the remaining facilities are generally the same as for the proposed project.

Other Potential Impacts. Impacts of the proposed project have also been discussed in section 7.3 of this EIR for the following issues: transit accessibility, pedestrian and bicycle access, emergency access, driveway safety, internal circulation, and parking. Alternative 7 includes essentially the same layout in terms of roadways and transit, bicycle, and pedestrian facilities. The Alternative 7 impacts on these issues are expected to be similar in nature to the proposed project, and all of the mitigation measures identified in this EIR for the proposed project would still apply (e.g., modified roadways to accommodate transit vehicles, sight distance requirements at driveways, parking management programs, etc.).

In summary, Alternative 7 would have the following specific effects on the transportation impacts and mitigation requirements identified in chapter 7 of this EIR (Transportation and Circulation) for the proposed project:

Impact 7-1: Project Impact on the El Camino Real/Whipple Avenue Intersection.

Similar significant impact; same mitigation would be required.

Added Intersection Impact: Project Impacts on the Bayfront Expressway/Willow

Road Intersection. Alternative 7 would also result in an added significant impact on this intersection under Background Plus Project Conditions, requiring mitigations (added turning lane provisions, etc.).

Impacts 7-2 through 7-6: Project Impacts on U.S. 101 Southbound Mixed-Flow Lanes and SR 84 Westbound and Eastbound Segments. Similar significant impacts; same mitigations.

Impacts 7-7 through 7-9: Project Impacts on Transit, Pedestrian, and Bicycle Facilities. Same potential impacts; same mitigations.

Impacts 7-10 and 7-10A: Project Emergency Access Impact, Associated Need for Blomquist Street Extension, and Secondary Impacts of Blomquist Extension on Blomquist Street/Maple Street Intersection. Similar significant impacts; same mitigations.

Impact 7-11: Project Impacts on CMP Roadway Network--PM Peak Hour. Similar significant impacts; same mitigation.

Impact 7-12: Project Driveway Impacts. Similar potential for significant safety impacts; same mitigation.

Impact 7-13: Project Internal Circulation Impacts. Similar potential for significant safety impacts and emergency access deficiencies; same mitigation.

Impact 7-14: Potentially Inadequate Project Parking Provisions. Similar concerns regarding adequacy of peak period parking provisions, parking convenience (proximity to users) and parking control and security; same mitigations.

Impact 7-15: Cumulative (2020) With Project Impacts on the El Camino Real/Whipple Intersection. Similar significant impact; same mitigation.

Added Intersection Impact: Cumulative (2020) With Project Impacts on the Bayfront Expressway/Willow Road Intersection. Similar to the Background Plus Project conditions scenario, Alternative 7 would result in an added significant impact on this intersection under Cumulative Plus Project conditions, requiring mitigation (added turning and through lane provisions, etc.).

Impact 7-16: Cumulative (2020) With Project Impact on the Veterans Boulevard/Whipple Intersection. Similar significant impact; same mitigation.

Impact 7-17: Cumulative (2020) With Project Impact on the Blomquist Street/Maple Street Intersection. Similar significant impact; same mitigation.

Impact 7-18: Cumulative (2020) With Project Impact on the Alameda de las Pulgas/Woodside Road Intersection. Similar significant impact; same mitigation.

Impact 7-19: Cumulative (2020) With Project Impact on the Broadway/Woodside Road Intersection. Similar significant impact; same mitigation.

Impact 7-20: Cumulative (2020) With Project Impact on the Veterans Boulevard/Woodside Road Intersection. Similar significant impact; same mitigation.

Impact 7-21: Cumulative (2020) With Project Impact on the Blomquist Street/Seaport Boulevard Intersection. Similar significant impact; same mitigation.

(e) Biological Resources. Similar, but slightly reduced, environmental impacts. Alternative 7 would involve slightly less marina fill (approximately 10.8 acres versus 11.54 acres for the proposed project), but would still result in impacts similar to the proposed project on marina habitat for fish species of special concern (steelhead and salmon), "essential fish habitat" (bottomfish such as rockfish, flat fish, sharks, rays, etc.) and upper water column species

(Pacific sardine, northern anchovy, etc.). Construction-related direct physical disturbance and indirect noise disturbance of the intertidal wetland edges of Redwood Creek and Smith Slough, and associated bird species, would be similar to the proposed project. The marina fill aspect of Alternative 7 would require the same jurisdictional review and permits as the proposed project, but with slightly less need for compensatory mitigation. With the reduction in building heights and intensity, potentials for bird collision mortality impacts associated with the residential towers would be reduced, as would building shadow impacts on adjacent biological resources.

The adverse and mitigating effects of these Alternative 7 differences on the various specific impact and mitigation findings described in chapter 8 (Biological Resources) of this EIR are summarized below.

Impact 8-1: Impacts on Steelhead and Chinook Salmon. Alternative 7 would result in the loss of 10.8 acres of estuarine habitat for steelhead and Chinook salmon, compared to 11.54 acres with the proposed project. Construction activities could still result in increased water turbidity, contaminated stormwater release, and temporary noise and underwater shock wave impacts on these species. Same mitigations.

Impact 8-2: Impacts on Essential Fish Habitat. Alternative 7 would fill 10.8 acres of estuarine "essential fish habitat," which is approximately 0.8 acre less than the proposed project. Construction activities could still result in increased water turbidity, contaminated stormwater release, and temporary noise and underwater shock wave impacts on "essential fish habitat." These effects would represent essentially the same significant impacts as those described for the proposed project. Same mitigations.

Impact 8-3: Impacts on California Clapper Rail. Impacts associated with Alternative 7 would be similar to those of the proposed project; however, there would be 0.8 acre less fill of aquatic waterbird foraging habitat, and less shadow effect compared to the proposed project. Same mitigation.

Impact 8-4: General Construction Period Noise Impacts on Wildlife. Essentially the same impacts as proposed project; same mitigations.

Impact 8-5: Project-Related Loss of estuarine Navigable Waters and Other Waters of the U.S. Alternative 7 would fill 10.8 acres of "navigable and other waters of the United States." This would require jurisdictional approval similar to those required for the proposed project, but slightly less compensatory mitigation. The same mitigation language would apply.

Impacts 8-6 and 8-7: Project-Related Loss of Saline and Fresh Emergent Wetlands. Essentially the same impacts as proposed project; same mitigation.

Impact 8-8: Project-Related Bird Collisions. Alternative 7 includes the construction of fewer towers (11) and a lower maximum tower height (205 feet) than the proposed project; however, these buildings are still likely to cause bird collision mortality due to lighting and

window hazards. These collisions would be inevitable and would still constitute an **unavoidable significant impact**. Collisions may be reduced by implementing *Mitigation 8-8*.

Impact 8-9: Project-Related Outdoor Lighting Impacts on Biological Resources.

Essentially the same impact as proposed project; same mitigation.

Impact 8-10: Project-Related Introduction of Invasive, Non-Native Plants. Essentially the same impacts as proposed project; same mitigation.

(f) Hydrology and Water Quality. Similar environmental impacts. Alternative 6 would include a reduced amount of marina water area lost to fill (10.8 acres versus 11.54 acres for the proposed project) and a slight reduction in total developable land area (40.2 acres versus 41.0 acres for the proposed project). Alternative 7 would therefore have similar significant potentials for erosion and sedimentation impacts. The approximately 0.8-acre reduction in lost marina area would result in a corresponding reduction in tidal prism loss (approximately 89 acre-feet versus 95 acre-feet for the proposed project). Unlike Alternative 5, which includes a 3-acre park that could be integrated into the project's stormwater discharge system, the potential impacts of Alternative 7 on construction period site erosion and sedimentation, and on long-term marina, creek and Bay water quality, would not differ substantially from the impacts of the proposed project.

In summary, Alternative 7 would have the following effects on the impact and mitigation findings described in chapter 9 (Hydrology and Water Quality) of this EIR:

Impact 9-1: Temporary Soil Erosion Increase and Sedimentation Impacts During Project Construction. Similar impacts; same mitigation.

Impact 9-2: Increased Stormwater Containment Loading. Similar impacts; same mitigation.

Impact 9-3: Temporary Impacts from Proposed Flushing Channel Construction. Similar impacts; same mitigation.

Impact 9-4: Project Impacts on Marine and Creek Sedimentation and Associated Creek/Bay Water Quality impacts. Similar impacts; same mitigation.

(g) Infrastructure and Public Services. Similar environmental impacts. Alternative 7, with an approximately 33 percent reduction in on-site residents, but an approximately 71 percent increase in on-site employment, would have impacts similar to, but slightly less than, the proposed project on local infrastructure and public services. Alternative 7 would have the following effects on the impact and mitigation findings identified in chapter 10 (Infrastructure and Public Services) of this EIR:

Impact 10-1: Project-Related and Cumulative Municipal Water Demand. The 33 percent reduction in on-site households and 71 percent increase in on-site employment would not substantially change the basic conclusion documented in the Redwood City City Council approved Water Supply Assessment (WSA) for the proposed project--i.e., that the City does not currently have sufficient water supply to meet the projected water demands of the proposed project together with those of its existing customers and the demands of other planned development. There would be no change in the EIR-identified mitigation requirement for this impact, which calls for City completion of a *subsequent water supply analysis* prior to City approval of any tentative map or development agreement for the project. The *subsequent water supply analysis* would incorporate the various Alternative 7 changes in land use and associated water demand characteristics. Until an achievable water supply source is identified, this impact would constitute a ***significant unavoidable impact***.

Impact 10-2: Project-Related and Cumulative Impacts on Sewage Treatment and Transmission Capacity. Similar, slightly reduced impacts; same mitigation.

Impacts 10-3 through 10-9: Project-Related and Cumulative Impacts on Police, Fire Protection and Emergency Medical Services; Emergency Access Impacts; and Impacts on Parks, Recreation, and Solid Waste Disposal Services. Similar, slightly reduced impacts; same mitigations.

(h) Soils and Geology. Alternative 7 would be subject to the same range of geotechnical impacts associated with grading, dredging, and high-rise and high-mass building construction as the proposed project. Alternative 7 would include the same potentials as the proposed project for Bay mud related differential settlement and earthquake-induced liquefaction and differential settlement impacts. The same mitigations would apply.

(i) Public Health and Safety. Similar environmental impacts. Alternative 7 would be subject to the same or similar potential safety impacts as the proposed project associated with the introduction of 4,020 residents (same as project) and approximately 500 employees (versus 880 for the proposed project) in the San Carlos Airport planning area. The same mitigations would apply.

(j) Noise. Similar impacts. The 11 residential towers up to 20 stories in height would be subject to freeway and aviation noise impacts and mitigation needs similar to the proposed project. Potentials for construction period ground vibration and noise impacts on existing adjacent residential development would be similar to the proposed project. The same mitigations would apply.

(k) Cultural Resources. Similar environmental impacts. The degree of foundation excavation for the 11 residential towers under this alternative would be similar to, but slightly less than, the proposed project. The degree of excavation for the commercial component would be greater. Associated potentials for disturbance of an as yet unrecorded on-site, subsurface cultural

resource during project-related construction would remain significant. The same mitigations would apply.

(l) Air Quality. Similar environmental impacts. Construction period generation of exhaust and dust emissions would be similar to the proposed project, with similar potentially significant temporary impacts on local air quality. Regional air emissions increases produced by additional daily and peak-hour vehicular traffic would also be similar to the proposed project (similar daily and peak period trip generation totals--see Table 17.4).

(m) Attainment of Basic Project Objectives. Partial attainment. Alternative 7 would attain most of the basic project objectives pertaining to creation of a mixed use residential-office-retail project responding to market demands for home purchase and office lease opportunities, but with substantially more office-retail floor area than the proposed project (535,000 versus 312,000 square feet), and substantially fewer residential units (1,300 versus 1,930 residences).

17.8 ALTERNATIVE 8: RESIDENTIAL/COMMERCIAL--REDUCED RESIDENTIAL AND REDUCED COMMERCIAL TO PERMIT NO MARINA FILL

17.8.1 Project Characteristics

This alternative assumes development of the project with a residential-commercial complex similar to the proposed project, but with a reduction in residential and commercial development totals sufficient to eliminate all of the approximately 11.54 acres of marina fill associated with the proposed project. A conceptual layout for Alternative 8 is illustrated on Figure 17-8. The Alternative 8 development plan would leave the existing approximately 17.1-acre marina water area unchanged in order to avoid open water loss and associated biological impacts and jurisdictional difficulties. This alternative would also include a reduction in maximum residential building height to 190 feet (17 stories), as compared to 260 feet (21 stories) for the proposed project, and a reduction in the number of multi-story residential structures to 7, as compared to 13 for the proposed project. With these marina preservation and building height and intensity limitations, the alternative would yield approximately 850 condominium residential units for sale (a 56 percent reduction in comparison to the proposed project) and approximately 203,000 square feet of commercial floor area (a 34 percent reduction), including approximately 5,000 square feet of convenience (service) retail (the same approximate ratio of square feet per residential unit as the proposed project).

The "project description" land use characteristics of Alternative 8 in comparison to the proposed project and the other evaluated alternatives are summarized in Tables 17.1 (overall site), 17.2 (Peninsula Marina portion) and 17.3 (Pete's Harbor portion).

17.8.2 Alternative 8 Evaluation: Comparative Adverse and Mitigating Effects

(a) Land Use. Substantially reduced, but still significant, environmental impacts. The residential density (approximately 37 d.u./acre), intensity (approximately seven residential towers) and tower heights (up to approximately 17 stories) under Alternative 8 would be substantially less than the proposed project. As a result, land use compatibility impacts on existing adjacent 2- to 4-story 30 d.u./acre residential developments would be substantially reduced. Potentials for navigable air space conflicts would be substantially reduced (maximum building heights would be reduced by 70 feet, and the number of "tower" structures would be reduced by four). The amount of convenience retail space per on-site dwelling unit would be similar to the proposed project, with similar needs for an increase in size to better serve anticipated convenience commercial needs in the developing Bayfront Area. The reduced intensity of Alternative 8 would provide greater ability to avoid potential conflicts between the project residential uses and existing electrical transmission lines. The marina (water) area loss aspects of the proposed project would be eliminated; associated boat slip loss would also be substantially reduced.

Figure 17-8. Alternative 8--Overall Illustrative Site Plan.

(b) Visual Factors. Substantially reduced, but still significant, environmental impacts. The tallest buildings in this alternative still substantially exceed the City's 75-foot height limit (by up to 115 feet) with residential tower heights up to 190 feet. Alternative 8 would result in similar significant impacts on the visual character of the surrounding area and similar visual incompatibility impacts. These impacts would be less than those resulting from the proposed project's 240- to 260-foot towers. Light, glare, shadow and building mass impacts would be reduced in general proportion to the reduction in the number of buildings and building heights. (It is assumed the quality of building forms and materials would be comparable to the project, and that underground and/or podium parking would be employed for all buildings.)

The internal water area is the same as the existing condition, and 5.3 times the proposed project. Water features would therefore be a major visual and open space element in this alternative. Internal water edge public ways would be increased proportionally.

(c) Population, Housing and Employment. Alternative 8, at 850 residential units, would house substantially fewer people than the proposed project, with an estimated on-site population of 1,770 (versus 4,020, or 3,910 net new) residents. Similarly, the Alternative 8 commercial component would accommodate a substantially reduced employment total, approximately 570 employees, versus 880 employees for the proposed project. As a result, Alternative 8 would still have a positive rather than negative effect on the existing citywide employed residents/job imbalance, potentially resulting in decreased in-commuting.

(d) Transportation and Circulation. Substantially reduced, but still significant, environmental impacts. As indicated by Table 17.4, Alternative 8 would generate less than half the amount of daily traffic as the proposed project (an estimated 6,575 versus 14,108 trips), and approximately half the amount of AM and PM peak-hour trip totals (528 and 546, respectively, versus 1,038 and 1,099 for the proposed project). As a result, Alternative 8 would result in substantially reduced off-site impacts on peak period intersection and freeway ramp operation.

(e) Biological Resources. Reduced, but still significant, environmental impacts. Alternative 8 would result in no loss of estuarine habitat for steelhead and Chinook salmon, compared to 11.54 acres with the proposed project. Construction activities, although reduced in extent and duration, would still have significant impacts, and would result in similar mitigation needs. Alternative 8 would also involve construction of fewer towers (seven versus 13) and lower maximum tower heights (190 versus 260 feet) than the proposed project; however, these buildings are still likely to cause bird collision mortality due to lighting and window hazards. Such collisions would be inevitable and would still constitute a **significant unavoidable impact**. The same mitigations would apply.

(f) Hydrology and Water Quality. Substantially reduced, but still significant, environmental impacts. Alternative 8 represents the only alternative that would lead to significant reductions in water quality impacts relative to the project. The total development acreage would be substantially reduced (by 28 percent) relative to the project. In addition, the absence of marina filling would eliminate the loss of Bay tidal prism. In all likelihood, this alternative would maintain

active marina uses and would still include the construction of a flushing channel. Thus, the Peninsula Marina would probably be dredged, resulting in an actual increase in tidal prism relative to the existing project area condition.

(g) Infrastructure and Public Services. Substantially reduced, but still significant, environmental impacts. The substantial reduction in residential population under Alternative 8 (850 units and 1,770 people versus 1,930 units and 4,020 residents for the proposed project) would result in corresponding reductions in project demands for water, sewer, police, fire, emergency medical, schools, and solid waste disposal services.

(h) Soils and Geology. Reduced, but still significant, environmental impacts. Alternative 8 would be subject to the same range of geotechnical hazards associated with grading, dredging and surface modifications as the proposed project, and the same potentials for differential settlement and earthquake ground-shaking-induced liquefaction and differential settlement, although substantially fewer on-site residents (1,770 versus 4,020) would be subject to associated on-site hazards.

(i) Public Health and Safety. Reduced, but still significant, environmental impacts. Alternative 8 would be subject to similar, but reduced potentials for significant safety impacts associated with the introduction of additional residents (approximately 1,770 versus 4,020 for the proposed project) within the San Carlos Airport planning area.

(j) Noise. Reduced, but still significant, environmental impacts. The Alternative 8 residential component facades would be exposed to the same freeway and aviation noise levels as the proposed project, but fewer residents would be affected. Similarly, construction period ground vibration and noise impacts on adjacent residential uses would occur, but over a reduced duration due to the reduced number and height of project structures.

(k) Cultural and Historic Resources. Reduced, but still significant, environmental impacts. Although the degree of foundation excavation for the residential tower structures would be substantially less for Alternative 8 than the proposed project, the degree of surface modification would be similar. The potential for disturbance of an as yet unidentified sensitive, on-site, subsurface cultural resource during project grading and dredging would therefore remain significant.

(l) Air Quality. Substantially reduced, but still significant, environmental impacts. Construction period generation of exhaust emissions and fugitive particulate emissions would be similar to the proposed project, with similar potentially significant temporary effects on local air quality. Regional air emissions produced by additional vehicular traffic generation would be substantially less than (roughly one half of) the proposed project (Table 17.4 indicates roughly half the level of daily and peak period trip generation), but still significant. The same mitigation language would apply.

(m) Attainment of Basic Project Objectives. Alternative 8 would result in partial attainment of

the basic project objectives listed in section 3.3. Alternative 8 would result in substantially fewer (56 percent fewer) residential units than the proposed project, and thus a substantially reduced response to regional market demands for more residential purchase, and would not be as potentially effective in providing a variety of housing options and costs.

17.9 ALTERNATIVE 9: ALTERNATIVE SITES

Section 15126.6 of the CEQA Guidelines indicates that the EIR evaluation of alternatives may include alternatives to the project's proposed location. CEQA Guidelines section 15126.6(f)(2)(A) states, "*[T]he key question and first step in the analysis is whether any of the significant effects of the project would be avoided or substantially lessened by putting the project in another location. Only locations that would avoid or substantially lessen any of the significant effects of the project need to be considered for inclusion in the EIR.*"

The possibility of alternative sites for the proposed project has been evaluated by the City. It has been determined that there are no specific sites of adequate size (around 40 acres of developable land area) and general character (e.g., generally level and available for high-density housing near a business center and major transit corridor) available in the Mid-Peninsula subregion where development of such a project could be undertaken that would attain most of the basic objectives of the project (see Table 17.1) and would avoid or substantially lessen the identified environmental impacts of the project as proposed. Development of the proposed high-density, large-scale, residential-commercial project on other identified vacant or undeveloped sites in the Mid-Peninsula subregion would likely result in similar or greater land use impacts on surrounding neighborhoods (the proposed project site is separated by U.S. 101 from established residential areas), similar or greater visual impacts (high-rise elements are assumed to be necessary to achieve a high--1,000 to 1,950--residential unit total, and would be visually prominent wherever located in the Mid-Peninsula area), similar or greater traffic impacts on the local roadway network (the proposed project site is relatively close to the 101 freeway and would be served by two interchanges), similar impacts on water demand and supply (a regional problem), similar or greater air quality impacts (i.e., other possible sites would have less access to a major transit corridor), and similar or greater noise impacts on adjoining and nearby neighborhoods.

Substantial biological habitat values unique to the proposed project site, including its existing, on-site estuarine water areas and its proximity to the Bair Island Wildlife Refuge, would be adversely affected by the proposed development; alternative locations more removed from these features would of course reduce these impacts. However, the EIR does identify mitigations to reduce the project's identified potentially significant impacts on these unique biological resources to less-than-significant levels, except for project-related bird collisions (see chapter 8, Biological Resources).

Also, the project applicant, Glenborough-Pauls, LLC, owns the Peninsula Marina portion of the project site and has a lease option to buy the Pete's Harbor portion of the site. The applicant

has no controlling interest in any other property capable of meeting most of the basic objectives of the proposed project.

For the reasons described above, the possibility of locating the proposed project on an alternative site that would avoid or substantially lessen potentially significant environmental impacts identified in this EIR while attaining most of the basic project objectives is remote, and has been eliminated from further detailed consideration. No further environmental analysis of alternative sites is required under CEQA.⁴

17.10 CONCLUSIONS: ENVIRONMENTALLY SUPERIOR ALTERNATIVE

The CEQA Guidelines (section 15126[e][2]) stipulate, *“If the environmentally superior alternative is the ‘no project’ alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives.”* Tables 17.2 through 17.11 present summary matrices comparing the environmental implications of the various identified alternatives with the proposed project in terms of each of the various individual environmental issues (topics) discussed in this EIR (land use; visual factors; population, housing and employment; transportation and circulation; biological resources; etc). Table 17.12 which follows provides a consolidated, summary comparison for all of the environmental issues considered. The summary comparisons in these tables indicate that, of the various alternatives evaluated in this EIR other than the “no project”

⁴CEQA Guidelines section 15126.6(c) explains that alternatives may be eliminated from detailed consideration in the EIR if they fail to meet most of the basic project objectives, are infeasible, or do not avoid any significant environmental effects. CEQA Guidelines section 15126.6(f) indicates that the Lead Agency should consider site suitability, economic viability, availability of infrastructure, general plan consistency, other regulatory limitation, jurisdictional boundaries and the proponents control over alternative sites in determining the range of alternatives to be evaluated in an EIR. With respect to alternative locations, CEQA Guidelines section 15126.6(f) indicates that alternative locations need not be evaluated in every case. The key question in determining whether to evaluate alternative locations is whether any of the significant effects of the project would be avoided or substantially lessened by putting the project in another location. Only locations that would avoid or substantially lessen any significant effects need be evaluated in the EIR. CEQA Guidelines section 15126(f)(2) indicates that alternatives that are remote or speculative, or the effects of which cannot be reasonably predicted, need not be considered.

alternative, **Alternative 17.8: Residential/Commercial--Reduced Residential and Reduced Commercial to Permit No Marina Fill**, would result in the least adverse combination of environmental impacts and therefore would be the “environmentally superior” alternative. This conclusion is based on the summary conclusions in Table 17.12, including the overall reduction in land use compatibility, visual, off-site transportation, biological (aquatic) resources, water quality, infrastructure and public service demand, noise, and air emissions impacts as compared with the proposed project and other seven alternatives.

Table 17.12
ALTERNATIVES COMPARISON--SUMMARY OVERVIEW

Impact	Alternatives	
	Alternative 1: No Project-- Current Site Status (existing marina, residential and commercial uses)	Alternative 2: Buildout Under Existing Entitlements--Max. Residential plus Commercial
(a) Land Use	No significant environmental impacts.	Substantially reduced, but still significant, environmental impacts.
(b) Visual Factors	No significant environmental impacts.	Substantially reduced, but still significant, environmental impacts.
(c) Population, Housing and Employment	--	--
(d) Transportation and Circulation	No significant environmental impacts.	Substantially reduced, but still significant, environmental impacts.
(e) Biological Resources	No significant environmental impacts.	Reduced, but still significant, environmental impacts.
(f) Hydrology and Water Quality	No significant environmental impacts.	Substantially reduced, but still significant, environmental impacts.
(g) Infrastructure and Public Services	No significant environmental impacts.	Substantially reduced, but still significant, environmental impacts.
(h) Soils and Geology	No significant environmental impacts.	Reduced, but still significant, environmental impacts.
(i) Public Health and Safety	No significant environmental impacts.	Reduced, but still significant, environmental impacts.
(j) Noise	No significant environmental impacts.	Reduced, but still significant, environmental impacts.
(k) Cultural Resources	No significant environmental impacts.	Reduced, but still significant, environmental impacts.
(l) Air Quality	No significant environmental impacts.	Substantially reduced, but still significant, environmental impacts.

Alternatives (cont.)

Alternative 3: Buildout Under Existing Entitlements--All Commercial

Alternative 4: Same Residential, Reduced Commercial

Reduced, but still significant, environmental impacts.

Reduced, but still significant, environmental impacts.

Substantially reduced, but still significant, environmental impacts.

Similar environmental impacts.

--

--

Slightly increased environmental impacts.

Similar, but slightly reduced, environmental impacts.

Similar, but slightly reduced, environmental impacts.

Reduced, but still significant, environmental impacts.

Similar environmental impacts.

Reduced, but still significant, environmental impacts.

Substantially reduced, but still significant, environmental impacts.

Similar, but slightly reduced, environmental impacts.

Reduced, but still significant, environmental impacts.

Similar environmental impacts.

Reduced, but still significant, environmental impacts.

Similar environmental impacts.

Substantially reduced, but still significant, environmental impacts.

Similar environmental impacts.

Reduced, but still significant, environmental impacts.

Similar environmental impacts.

Similar environmental impacts.

Similar environmental impacts.

Table 17.12 (continued)
ALTERNATIVES COMPARISON--SUMMARY OVERVIEW

Impact	Alternatives	
	Alternative 5: Same Residential, Reduced Commercial, with Park	Alternative 6: Same Residential, Reduced Commercial, Added Hotel, plus Transit/TDM Measures
(a) Land Use	Similar environmental impacts.	Reduced, but still significant, environmental impacts.
(b) Visual Factors	Similar, but slightly reduced, environmental impacts.	
(c) Population, Housing and Employment	--	--
(d) Transportation and Circulation	Similar, but slightly reduced, environmental impacts.	Reduced, but still significant, environmental impacts.
(e) Biological Resources	Similar, but slightly reduced, environmental impacts.	Similar, but slightly reduced, environmental impacts.
(f) Hydrology and Water Quality	Substantially reduced, but still significant, environmental impacts.	Similar environmental impacts.
(g) Infrastructure and Public Services	Similar environmental impacts.	Slightly increased water and sewer impacts. Otherwise, similar, but slightly reduced, environmental impacts.
(h) Soils and Geology	Similar environmental impacts.	Similar environmental impacts.
(i) Public Health and Safety	Similar environmental impacts.	Similar environmental impacts.
(j) Noise	Similar environmental impacts.	Similar environmental impacts.
(k) Cultural Resources	Similar environmental impacts.	Similar environmental impacts.
(l) Air Quality	Similar environmental impacts.	Similar, but slightly reduced, environmental impacts.

**Alternative 7: More Balanced
Mix--Reduced Residential,
Increased Commercial
(previous submittal)**

**Alternative 8: Reduced
Residential, Reduced
Commercial, No Marina Fill**

Reduced, but still similar,
environmental impacts.

Substantially reduced, but still
significant, environmental
impacts.

Reduced, but still similar,
environmental impacts.

Substantially reduced, but still
significant, environmental
impacts.

--

--

Slightly increased environmental
impacts.

Substantially reduced, but still
significant, environmental
impacts.

Similar, but slightly reduced,
environmental impacts.

Reduced, but still similar,
environmental impacts.

Similar environmental impacts.

Substantially reduced, but still
significant, environmental
impacts.

Similar environmental impacts.

Substantially reduced, but still
significant, environmental
impacts.

Similar environmental impacts.

Reduced, but still significant,
environmental impacts.

Similar environmental impacts.

Reduced, but still significant,
environmental impacts.

Similar environmental impacts.

Reduced, but still significant,
environmental impacts.

Similar environmental impacts.

Reduced, but still significant,
environmental impacts.

Similar environmental impacts.

Substantially reduced, but still
significant, environmental
impacts.

