APPENDIX N

EIR Technical Reports for 80% Program Residential Option
Wastewater/Sewer and Water
PSOMAS, May 4, 2010

EIR TECHNICAL REPORTS FOR:
80% PROGRAM RESIDENTIAL OPTION

- **WASTEWATER / SEWER**
- **WATER**

For

Colorado at Lake
880 East Colorado Project
880 East Colorado Blvd,
Pasadena, California

Psomas Project No.: 1SIN010100
May 4, 2010

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EIR WASTEWATER/SEWER SYSTEM TECHNICAL REPORT

2. DESCRIPTION OF THE PROJECT

The 80% residential project alternative is identical to the 100% program with the following differences:

- The office space has been decreased from 103,410 square feet to 69,726 square feet.
- The proposed 156 hotel rooms and 5 condominium units have been decreased to 81 residential units, composed of 66 apartments and 15 condominiums.
- The restaurant space has been decreased from 35,091 square feet to 20,500 square feet. The outdoor seating has decreased from 5,280 square feet to 5,256 square feet.
- The parking structure has been decreased from 239,385 square feet to 207,017 square feet.
- The retail space has been increased from 22,410 square feet to 26,628 square feet.

Tables 1, 2 & 3 have been revised per the revisions noted above and follow in this report.

5. SEWER SYSTEM IMPACTS

The proposed Project as described in Section 1 of this report will have an estimated Average Daily wastewater generation of 78,183 GPD, (0.08 MGD) as shown in Table 1 which follows.

Table 1: ESTIMATED CHANGE IN SEWER GENERATION

Development	Average Daily Flow (MGD)*	Peak Dry Daily Flow (MGD)**	Peak Wet Daily Flow (MGD)***
Existing	0.04	0.08	0.10
Proposed	0.08	0.16	0.21
Change	+ 0.04	+ 0.08	+ 0.11

* Per Appendix Table 2
** A factor of 2 is used to adjust Average Daily Flow Rate to Peak Dry Daily Flow Rate
*** A factor of 1.3 is used to adjust Peak Dry Daily Flow Rate to Peak Wet Daily Flow Rate

6. ENVIRONMENTAL IMPACT

b) Project Impacts

At the completion of the three phase development, the Project will result in an increased wastewater flow as follows: Average Daily Flow 0.04 MGD, Peak Dry Daily Flow 0.08 MGD and Peak Wet Daily Flow of 0.11 MGD.

8. LEVEL OF SIGNIFICANCE AFTER MITIGATION

No significant unmitigated impacts to the regional sewer system would occur with the proposed project.

9. CUMULATIVE IMPACTS

The proposed project, in conjunction with the 35 related projects identified in Table 5, do have a significant cumulative impact on waste water system capacities as the combined projects would result in an overall increase in sewage effluent.

No other portions of the report will be adversely impacted as a result of the reduced building program.

Table 2: AVERAGE DAILY WASTEWATER GENERATION

Facility Description	Quantity	Units	SFC Flow* Rate (GPD)	Flow (GPD)
EXISTING				
Hotel Rooms (formerly used as a nursing home)	142	Room	150/room	21,300
Office	25,709	sf	200/1000 sf	5,142
Retail	5,450	sf	100/1000 sf	545
Restaurant (5,640 sf) ***	184	seats	50/seat	9,200
Parking Structure	7,500	sf	25/1000 sf	188
Total Flow				**36,375**
PROPOSED				
Condominium, (2 Bdrm Unit)	7	D.U.	200/D.U.	1,400
Condominium, (3 Bdrm Unit)	8	D.U.	250/D.U.	2,000
Residential (converted existing hotel to residential units -1 Bdrm Unit)	42	Room	150/D.U.	6,300
Residential (converted existing hotel to residential units -2 Bdrm Unit)	24	Room	200/D.U.	4,800
Retail	26,628	sf	100/1000 sf	2,663
Restaurant (20,500 sf) ***	667	Seats	50/seat	33,350
Restaurant outdoor seating (5,256sf) ***	171	Seats	50/seat	8,550
Office	69,726	sf	200/1000sf	13,945
Parking Structure	207,017	sf	25/1000 sf	5,175
Total Flow				**78,183**
Less Existing Use				-36,375
Less Additional Conservation**				-15,637
Total Wastewater Flow Increase				**26,171**

*Determined per Los Angeles County Sanitation District Estimated Average Daily Sewage Flows for Various Occupancy.
** 20% water conservation due to use of water efficient plumbing fixtures.
*** Assume 65% of area used for seating and 1 seat per 20 sf for restaurant quantity estimate

Table 3: PROPOSED PEAK DAILY WASTEWATER GENERATION

Average Daily Flow (MGD)*	Peak Dry Daily Flow (MGD)**	Peak Wet Daily Flow (MGD)***
0.08	0.16	0.21

*Per Table 2
** A factor of 2 is used to adjust Average Daily Flow to Peak Dry Daily Flow Rate
*** A factor of 1.3 is used to adjust Peak Dry Daily Flow Rate to Peak Wet Daily Flow Rate

EIR WATER SYSTEM TECHNICAL REPORT

2. DESCRIPTION OF THE PROJECT

The 80% residential project alternative is identical to the 100% program with the following differences:

- The office space has been decreased from 103,410 square feet to 69,726 square feet.
- The proposed 156 hotel rooms and 5 condominium units have been decreased to 81 residential units, composed of 66 apartments and 15 condominiums.
- The restaurant space has been decreased from 35,091 square feet to 20,500 square feet. The outdoor seating has decreased from 5,280 square feet to 5,256 square feet.
- The parking structure has been decreased from 239,385 square feet to 207,017 square feet.
- The retail space has been increased from 22,410 square feet to 26,628 square feet.

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5. ENVIRONMENTAL IMPACTS

b) Project Impacts

The proposed Project as described in Section 2 of this report will have an estimated Average Daily water use of 93,450 GPD, (0.09 MGP) as shown in Table 1.4 which follows.

Table 1.4: ESTIMATED CHANGE IN WATER USE

Development	Average Daily Flow (MGD)*	Peak Dry Daily Flow (MGD)**	Peak Wet Daily Flow (MGD)***
Existing	0.04	0.08	0.10
Proposed	0.09	0.18	0.23
Change	+ 0.05	+ 0.10	+ 0.13

* Per Appendix Table 2
** A factor of 2 is used to adjust Average Daily Flow Rate to Peak Dry Daily Flow Rate
*** A factor of 1.3 is used to adjust Peak Dry Daily Flow Rate to Peak Wet Daily Flow Rate

At the completion of the three phase development, the Project will result in an increased water use demand as follows: Average Daily Flow 0.05 MGD, Peak Dry Daily Flow 0.10 MGD and Peak Wet Daily Flow of 0.13 MGD.

i) Project Design Features

See Appendix Table 2 for proposed estimated water use and see Table 3 for estimated peak daily flow of 0.23 mgd.

6. LEVEL OF IMPACT AFTER MITIGATION

The project would neither conflict with water supply planning undertaken by the applicable water district nor create a demand that would exceed existing water supply entitlements. Consequently, no significant unmitigated impacts to the regional water supply would occur with the proposed project.

7. CUMULATIVE IMPACTS

The proposed project, in conjunction with the 35 related projects identified in Table 4 in the Appendix, do have a significant cumulative impact on water system capacities as the combined projects would result in an overall increase in water usage. While the proposed project would not result in a project specific significant impact to existing water system facilities or available capacities, the overall increase in water usage through continued

development of the area would impact existing capacities. It is assumed that this impact will be minimized since other known development projects will be required to employ water conservation measures that are similar to those proposed on this project.

No other portions of the report will be adversely impacted as a result of the reduced building program.

Table 2: ESTIMATED INCREASE IN WATER USE

Facility Description	Quantity	Units	Water Use Rate (GPD)[1]	Water Use	
				GPD	acre-ft/yr
EXISTING					
Bank / Office	25,709	sf	200/1000 sf	5,142	5.8
Hotel Rooms (formerly used as a nursing home with water generation of 150 gpd/room)	142	Room	150/room	21,300	23.9
Retail	5,450	sf	100/1000 sf	545	0.6
Restaurant/Cafeteria (5,650 sf)[4]	184	seats	50/seat	9,200	10.3
Parking Structure	7,500	sf	25/1000 sf	188	0.2
			Subtotal	36,375	40.7
PROPOSED					
Outdoor Water Use[2]				20,442	22.9
Office	69,726	sf	200/1000sf	13,945	15.6
Condominium,(2 Bdrm Unit)	7	D.U.	200/D.U.	1,400	1.6
Condominium,(3 Bdrm Unit)	8	D.U.	250/D.U.	2,000	2.2
Residential (converted existing hotel to residential units -1 Bdrm Unit)	42	Room	150/room	6,300	7.1
Residential (converted existing hotel to residential units -2 Bdrm Unit)	24	Room	200/room	4,800	5.4
Retail	26,628	sf	100/1000 sf	2,663	3.0
Restaurant (20,500 sf)[4]	667	Seats	50/seat	33,350	37.4
Restaurant outdoor seating (5,256sf) ***	171	Seats	50/seat	8,550	9.6
Parking Structure	207,017	sf	25/1000 sf	5,175	5.8
			Subtotal	93,450	104.8
			Less Existing Use	-36,375	-40.7
			Less Additional Conservation[3]	-18,690	-20.9
			Total Potable Water Use Increase	**38,385**	**13.2**

(1) Determined per Los Angeles County Design Guideline Estimated Average Daily Sewage Flows for Various Occupancy, per Table 4.
(2) Estimated to be 28% of indoor usage for commercial use, 18% for multi-family residential.
(3) Water Conservation due to additional conservation commitments agreed to by the developer (20%)
(4) Assume 65% of area is used for seating and 1 seat per 20 sf for restaurant quantity estimate

Table 3: PROPOSED DOMESTIC WATER DEMAND

Average Daily Flow (MGD)*	Peak Dry Daily Flow (MGD)**	Peak Wet Daily Flow (MGD)***
0.09	0.18	0.23

* Per Table 2
** A factor of 2 is used to adjust Average Daily Flow Rate to Peak Dry Daily Flow Rate
*** A factor of 1.3 is used to adjust Peak Dry Daily Flow Rate to Peak Wet Daily Flow Rate

EIR WASTEWATER SYSTEM RESIDENTIAL OPTION ALTERNATIVE 4

Table 2: AVERAGE DAILY WASTEWATER GENERATION

Facility Description	Quantity	Units	SFC Flow* Rate (GPD)	Flow (GPD)
EXISTING				
Hotel Rooms (formerly used as a nursing home)	136	Room	150/room	20,400
Office	24,885	sf	200/1000 sf	4,977
Retail	5,371	sf	100/1000 sf	537
Restaurant (5,640 sf) ***	184	seats	50/seat	9,200
Parking Structure	7,500	sf	25/1000 sf	188
Total Flow				**35,302**
PROPOSED				
Hotel Rooms	66	Room	150/room	9,900
Retail	16,500	sf	100/1000 sf	1,650
Restaurant (10,000 sf) ***	325	Seats	50/seat	16,250
Office	81,800	sf	200/1000sf	16,360
Parking Structure	207,017	sf	25/1000 sf	5,175
Total Flow				**49,335**
Less Existing Use				-35,302
Less Additional Conservation**				-9,867
Total Wastewater Flow Increase				**4,166**

*Determined per Los Angeles County Sanitation District Estimated Average Daily Sewage Flows for Various Occupancy.
** 20% water conservation due to use of water efficient plumbing fixtures.
*** Assume 65% of area used for seating and 1 seat per 20 sf for restaurant quantity estimate

Table 3: PROPOSED PEAK DAILY WASTEWATER GENERATION

Average Daily Flow (MGD)*	Peak Dry Daily Flow (MGD)**	Peak Wet Daily Flow (MGD)***
0.05	0.10	0.13

*****Per Table 2
** A factor of 2 is used to adjust Average Daily Flow to Peak Dry Daily Flow Rate
*** A factor of 1.3 is used to adjust Peak Dry Daily Flow Rate to Peak Wet Daily Flow Rate