

APPENDIX M-4:
DETAILED CALCULATIONS FOR CUMULATIVE
ENERGY IMPACTS (INCLUDING BACKGROUND
GROWTH DETAILED BREAKDOWN) AND FACTOR
DERIVATIONS

**Playa Vista - Proposed Project
Related Projects - Electricity Consumption**

Project #	Project Name	Project Location	Residential (d.u.)	Office (s.f.)	Hotel (rooms)	Child Institutional (s.f.)	Warehouse (s.f.)	Theater (seats) ¹²	Restaurant (s.f.) ¹³	Industrial (s.f.) ¹³	Parking (spaces) ¹³	Landscaping (acres)
Factor	kWh/yr or kWh/day ¹¹		5,628.5	12.95	13.55	10.5	0.0	4.35	13.65	47.45	346.0	2.6
1	Regatta	4251 Lincoln Bl	612	48,000								
2	Multi-Media Office	4735 S. Alta Rd										
3	Apartment Complex	8050 Manchester Av	246	280,000								
4	Center Drive	6050 Center Dr.										
5	Decon Project	Lincoln Blvd/Manchester Av	547	29,000								
6	Howard Hughes Center	Sepulveda / H. Hughes Pkwy		1,437,081	600							
				64,388								
7	Bank of America	4141 Lincoln Bl		51,470								
8	Wishore Bl Temple School	Barrington Av / Olympic Bl		32,000	5,500				4,250			
9	Apartment	Pershing/Mandchester	49									
10	School	9760 Pico Bl										
11	20th Century Fox Expansion	10201 Pico Bl								77,000		
12	West Bluff	7400 West 80th St	120									
13	LMJ Expansion	7101 West 80th St										
14	Gas Station/Fast Food	7300 La Tijera Bl										
15	LAX Master Plan	L.A. International Airport										
16	Continental City - Phase I (2005)	Aviation Bl / Imperial Fwy										
17	LAX Northside	Westchester Pkwy / Loyola Bl		100,000	1,050				1,559	6,900,000		
				1,305,000	65,000					3,000,000		
				2,077,050	35,000					1,695,000		
										332,500		
										797,400		
18	Playa Vista Phase I		3,246								1,815	
19	In-R-Out Parking	6335 W. 82nd St										
20	Sanitaur	5900 Jefferson Bl		69,300								
21	Knowlton Av Senior Housing	Knowlton / La Tijera	187									
22	Shopping Center	3737 Crenshaw Bl										
23	Shopping Center	9385 Venice Bl										
24	Mixed Use Project	3480 S. La Brea		20,000								
25	Santa Barbara Plaza	Marlin Luther King Jr. 3rd/Highway Rd										
26	Sandella Apartments	3101 Sawdelle Bl	203	500,000								
27	Office Building	3787 Venice Bl		45,712								
28	Western Office Building	11-10 W. Pico Bl		74,653								
29	Warehouse	3450 S. La Brea Av										
30	Apartment	Pershing/Falbert	305									
31	Playa Vista Phase II		2,600									
32	Total s.f./d.u. rooms		8,318	175,020	150,000	40,300						
33	Total Electricity Consumption (kwh/yr)		6,083,738	876,564	1,650	428,300				13,583,500	1,815	
34	Total Cumulative Consumption (kwh/yr)		66,807,227	78,974,658	11,977,442	4,507,600				153,237,750	67,710	
35	Total Consumption (with Background Growth)		315,021,334	7,897,468	1,197,744	450,765				15,322,175	61,710	
36			362,009,658	86,806,124	13,065,186	4,958,415				16,654,005	67,810	
Background Growth												
Background Residential Growth (25% factor):												
Background Commercial Growth (70% factor):												
Background Growth Yrly Generation Total (mwh)												
98,392,317												
Notes:												
1	Assumed 850 s.f. per hotel room											
2	Assumed 25 s.f. per school room											
3	Assumed 100 s.f. per office room											
4	Assumed 35 s.f. per restaurant seat											
5	Assumed 210 s.f. per school student											
6	Used high school factor for institutional											
7	Used retail factor for theater											
8	Assumes 21,000 sq ft hospital room @ 850 s.f. per room											
9	Assumes 100 s.f. per office room											
10	Travels value are included in account for small developments that do not require environmental review											
11	Assumed 230 s.f. per local storage space (data file under warehouse use)											
12	Assumed 154 s.f. per parking space @ 2.2 MW/s.f. (percentage of total avg. usage for commercial floor plan)											
13	Assumed 900 s.f. per LMI dormitory room											
Background Growth												
Background Residential Growth (25% factor):												
Background Commercial Growth (70% factor):												
Background Growth Yrly Generation Total (mwh)												
98,392,317												
Notes:												
1	Assumed 850 s.f. per hotel room											
2	Assumed 25 s.f. per school room											
3	Assumed 100 s.f. per office room											
4	Assumed 35 s.f. per restaurant seat											
5	Assumed 210 s.f. per school student											
6	Used high school factor for institutional											
7	Used retail factor for theater											

Playa Vista - Proposed Project

Project #	Project Name	Project Location	Residential (du)	Office (sq ft)	Retail (sq ft)	Hotel (rooms)	Other Institutional (sq ft)	Warehouse (sq ft)	Thermal (sq ft)	Industrial (sq ft)	Industrial (sq ft)	Parking (spaces)	Landscaping (sq ft)
Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6	Factor 7	Factor 8	Factor 9	Factor 10	Factor 11	Factor 12	Factor 13	Factor 14
1	Regalia	4261 Lincoln Bl	500	20	20	40	20	20	20	20	20	20	20
2	Multi-Media Office	4755 S. Alia Rd	812	48,000									
3	Apartment Complex	8000 Marchester Av	248	280,000									
4	Center Drive	8060 Center Dr											
5	Decision Project	Lincoln Bl/Marchester Av	547	1,467,031	29,000								
6	Howard Hughes Center	Seputveda / H. Hughes Pkwy			100,000								
7	Barlet's Harry Davidson	4141 Lincoln Bl		32,300	34,368	300							
8	Wishart Bl Temple School	Barrington Av / Olympic Bl			51,470		89,190						
9	Westbay	10-100 Jefferson Bl		123,283	5,500		25,150		4,250				
10	Apparatus	Packaging Marchester	49										
11	Terra Solary Mer	1428 2nd St		11,000									
12	Mixed Used (Residential/Comm)	1448 9th St	48		1,000								
13	BBC Champion (H)	11937 Wisharia Bl											
14	Virginia Avenue Park	Pico St / Cloverfield Bl			70,115								
15	100 % Affordable Senior Apartment	1135-44 4th St	68				475,000						
16	St. Johns Medical Center	1328 22nd St					799,000						
17	Master Plan						94,800						
18	School	1649 7th St					30,000						
19	20th Century Fox Expansion	16201 Pico Bl											
20	Santa Monica YMCA	1332 8th St					18,000						
21	Westside Media Project Phase I	S/S Olympic Bl & W Centinela Av & Bundy Dr		165,000									
22	Library Expansion	627 Santa Monica Bl			155,000								
23	Rand Corporation	Mar/Celebrato		305,000	SF		58,000						
24	West Bluff	7400 West 80th St	120										
25	LAU Expansion	7101 West 80th St					115,000						
26	Airport Park	Douglas Loop											
27	Flight Bay Lab	561 N. Nash St		55,772									
28	Gas Station/Fast Food	7300 La Tijera Bl											
29	Office	2250 E. El Segundo Bl		38,000									
30	Office	11835 La Cienega Bl		173,000									
31	Cover City Retail / Theater	Washington / Culver											
32	LA Air Force Base-Area A	2400-2460 El Segundo Bl			940,000	320							
33	LA Air Force Base-Area B	Aviation Bl/El Segundo Bl			53,750								
34	LAX Master Plan	LAX International Airport											
35	Continental City - Phase I (2005)	Aviation Bl / Imperial Hwy			100,000								
36	LAX Northside	Westchester Pkwy / Loyola Bl	Office	1,305,030	95,000	1,050							
37	Marina del Rey Development												
37a	Parcel 90/1CRFF		531			288							
37b	Parcel 44U			3,000		226							
37c	Parcel 77W												
37d	Parcel 55/56S/W			1,700		144							
37e	Parcel GR					175							
37f	Parcel IR					200							
37g	Parcel NF					180							
37h	Parcel OT												
37i	Parcel 145R					276							
37j	Parcel 27R					133							
37k	Parcel 100S/101S		780										
37l	Parcel K6												
37m	Parcel 140V		179										
37n	Parcel 95S/LLS				55,870								
37o	Parcel 46/ 32/ GG				295,000								
37p	Parcel 64		479										
37q	Parcel 12 & 15 (a)		514										
37r	Parcel 20(a)(c)		99										
37s	Parcel 111 & 112(a)		120										
38	LA Air Force Base-Hawthorne	Marine Bl/Aviation Bl											
39	Civic Center/Melrose Development	Valley Dr/Manhattan Beach Bl	208										
40	Playa Vista Phase I	Playa Vista	3,246	2,077,050	35,000	35	6,400						
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**Playa Vista - Proposed Project
Related Projects - Natural Gas Consumption**

Project #	Project Name	Project Location	Residents (du)	Offices (sq ft)	Retail (sq ft)	Hotel (rooms)	Chw/hotel/retail (sq ft)	Main (sq ft)	Warehouse (sq ft)	Heater (Btu)	Restaurant (sq ft)	Industrial (sq ft)	Parking (spaces)	Landscaping (sq ft)
41	Office	330 S. Sepulveda Bl		56,000										
42	In-N-Out Parking	6335 W. 92nd St											1,815	
43	Retail	5259 Sepulveda Bl			14,728									
44	Residential	5290 Sepulveda Bl	57					36,500						
45	Culver City Senior Center	Culver Blvd/Oxford Av					27,270							
46	Retail	1000 W. Manchester Bl			901,520									
47	School	830 N. La Brea Bl					30,112							
48	Faithful Church Center	E of La Cienega					55,000							
49	Auto Dealership	Pacific Ave/405 NB Ramps												
50	Airport Marina Ford	Carmichael E of Bristol												
51	Hayden Av Project	3505 Hayden Av		58,000										
52	Office/Retail	El Segundo Bu/Hawthorne Bl		850,000								102,000		
53	Samitaur	5800 Jefferson Bl		69,300										
54	Mica Site	3555 Hayden Av		15,000										
55	Pratt Coffee Architects	9599 Jefferson Bl		39,285								187,600		
56	Grand Avenue Courtyard	1950 E. Grand Avenue		93,569							1,000	15,000		
57	Sony Pictures Studios	10202 Washington Bl		1,102,500										
58	Fox Hills Mall Expansion	Sepulveda Bl			254,451									
59	Commercial	1738 Ocean Av		58,330	8,000						3,720			
60	Hotel	1748 Ocean Av				175					5,000			
61	888 N. Sepulveda Bl	Sepulveda Bl, El Segundo		120,610										
62	Maxair Theater Site	210 Santa Monica Bl			45,000									
63	898 N. Sepulveda Bl	Sepulveda Bl, El Segundo		87,000										
64	2300 E. Imperial Hwy	Imperial Hwy, El Segundo		100,000										
65	Knowlton Av Senior Housing	Knowlton La Tijera	167											
66	Lantana Project	3030 Olympic Boulevard		84,105										
67	Retail	3131 Exposition Boulevard		162,000	36,529									
68	Sea Castle Apartments	1725 The Promenade												
69	Santa Monica UCLA Hospital	1502 Wilshire Bl	159					66,140						
70	Convalescent Hospital	1338 20th St				75		60,500						
71	Hotel	1249-1265 20th St												
72	Assisted Living Facility	1312 15th St	81											
73	Santa Monica Public Safety Facility	1685 Main St		118,700										
74	McDonald's Mixed Use	1540 2nd St		84,486										
75	Transportation Facility Master Plan/Colorado Av	2901 Rosecrans		8,000	40,000									
76	COC	2901 Rosecrans		230,056										
77	Xerox Phase IV	1851 -1861 El Segundo Bl		255,242		350								
78	Pioneer Boulangerie	2012 & 2029 Main St	133		19,000									
79	Motel	445 & 475 Continental		300,000										
80	El Segundo Corporate Campus	700 N. Nash		740,300	75,000	100	7,000				75,000	26,000		
81	Commercial	800 N. Nash		7,000	16,000							140,000		
82	Corporate Pointe - I	155-555 N. Nash		125,000										
83	Corporate Pointe - II	S. Olson Av/SR-90		650,000										
84	Commercial	SW Corner of Douglas & Mariposa		250,000							1,000			
85	Shopping Center	3737 Canshaw Bl		99,450										
86	Shopping Center	8685 Venice Bl			63,674									
87	National Hayden Partners LLC	National Blvd/Hayden Ave		37,900	139,802							88,500		
88	Mixed-Use	1430 Lincoln Bl	280		197,000									
89	Mixed-Use Project	3480 S. La Brea		23,000	78,750									
90	Santa Barbara Plaza	Martin Luther King Jr. Blvd/Buckingham Rd		500,000										
91	Sawelle Apartments	3101 Sawelle Bl	206											
92	Office Building	8787 Venice Bl		45,712										
93	Western Office Building	11110 W. Pico Bl		74,853										
94	Warehouse	3450 S. La Brea Av							190,000					
95	Apartment	Faithful/Albani	305											
96	Santa Monica Studios	3025 Olympic Bl @ Nebraska												
97	Playa Vista Phase II	Playa Vista	2,600	175,000	50,000	0	40,000	0				379,000		
Total (sq ft/du/rooms)														
				12,109	14,354,998	3,975,987	4,307	2,156,022	0	357,868	3,381	102,928	2,935	12
				84,867,479	29,184,762	11,629,446	17,572,560	4,372,044	0	715,736	226,176	268,059	3,782,625	0
				133,680,768	52,366,764	18,662,376	19,559,016	4,742,246	0	781,516	22,913	82,933	378,253	0
				165,116,668	56,066,971	12,882,376				240,706	1,014,065	4,786,776	0	0
Total Consumption (with Background Growth)														
Background Growth														
				81,084,220										
				76,034,863										
				(This value is the projected non-residential demand multiplied by 1.25)										
				(This value is the projected non-residential demand multiplied by 1.10)										
				3,108	1,458,440	397,567	431	215,632	0	35,757	393	19,293	1,567,266	1
				Background Growth										
				Background Growth (25% factor)										
				Background Growth (10% factor)										
				Background Growth (Total factor)										

Playa Vista - Proposed Project
Related Projects - Natural Gas Consumption

Project #	Project Name	Project Location	Residential (d.s.)	Office (s.f.)	Retail (s.f.)	Total (rooms)	Civic/Institutional (s.f.)	Marina (s.s.s.)	Warehouse (s.f.)	Theater (seats)	Restaurant (s.f.)	Industrial (s.f.)	Parking (spaces)	Landscaping (trees)
		Total with Background Growth	15,190	15,042,935	4,373,234	4,733	2,371,624	0	393,665	3,730	212,222	17,129,263	2,565	13
1	Assumed 150 s.f. per hotel room													
2	Assumed 25 s.f. per theater seat													
3	Assumed 33 s.f. per restaurant seat													
4	Assumed 212 s.f. per school student													
5	Used office factor for mixed-use office													
6	Assumed 100 s.f. per average unit average													

7. These values are included to account for small developments that do not require uniform treatment.
8. Assumed 235 s.f. per room storage space (classified under warehouse use).
9. Assumed 154 s.f. per parking space.
10. Assumed 900 s.f. per LNU dormitory room.
11. Assumed 1,000,000 s.f. per industrial natural gas customer (based on average unit average per facility among industrial components of related projects above).
12. Assumed 2 beds per hospital room @ 850 s.f. each room

Consumption/Generation Factor Derivations for Energy and Utility Sections for Playa Vista Second Phase EIS/EIR

ENERGY

Electricity

The following electricity consumption factors are from the South Coast Air Quality Management District's *CEQA Air Quality Handbook* (April 1993, as updated November 1993), Table A9-11-A:

Residential – 5626.50 Kilowatt-hours (kWh)/dwelling unit (d.u.)/year (yr.)

Office – 12.95 kWh/square foot (s.f.)/yr.

Retail – 13.55 kWh/s.f./yr.

Hotel – 9.95 kWh/s.f./yr. → 850 s.f./room (assumed) * 9.95 = 8457.5 kWh/room/yr.

Civic/Institutional – 10.50 kWh/s.f./yr. (used Miscellaneous factor for this land use)

Marina – 0.0 kWh/slip/yr. (electricity usage for Marina slips was considered negligible)

Warehouse – 4.35 kWh/s.f./yr.

Theater – 13.55 kWh/s.f./yr. → 23 s.f./seat (assumed) * 13.55 = 311.65 kWh/seat/yr.

Restaurant – 47.45 kWh/s.f./yr.

Industrial – 10.50 kWh/s.f./yr. (used Miscellaneous factor for this land use)

Parking – 47.45 kWh/s.f./yr. (Retail factor) * (4.55% of total average commercial usage for outdoor lighting, Table A9-11-E of the *Air Quality Handbook*) = 2.2 kWh/s.f./yr. for outdoor lighting → 2.2 kWh/s.f./yr. * 154 s.f./parking space (assumed) = 338.8 kWh/space/yr. → 340.0 kWh/space/yr. (rounded up for simplicity)

Natural Gas

The following natural gas consumption factors are from the South Coast Air Quality Management District's *CEQA Air Quality Handbook* (April 1993, as updated November 1993), Table A9-12-A:

Residential – 6665.0 cubic feet (c.f.)/d.u./month (single-family units) ; 4011.5 c.f./d.u./month (multi-family units) → (6665.0 + 4011.5)/2 = 5338.25 c.f./d.u./month (average factor for single- and multi-family units) → 5338.0 c.f./d.u./month (rounded for simplicity)

Office – 2.0 c.f./s.f./month

Retail – 2.9 c.f./s.f./month

Hotel – 4.8 c.f./s.f./month

Civic/Institutional – 2.0 c.f./s.f./month (used Office factor for this land use)

Marina – 0 c.f./slip/month (natural gas consumption for Marina slips was considered negligible)

Warehouse – 2.0 c.f./s.f./month (used Office factor for this land use)

Theater – 2.9 c.f./s.f./month (Retail factor) → 2.9 * 23 s.f./seat (assumed) = 66.7 c.f./seat/month

Restaurant – 4.8 c.f./s.f./month (used Hotel/Motel factor for this land use)

Industrial – 2,939.6 thousand c.f. (k.c.f.)/parcel/month → (2,939,600 / 27,000 s.f./parcel (assumed)) = 108.87 c.f./s.f./month

Parking – 0 c.f./space/month (natural gas consumption for parking lots was considered negligible)

Operational Fuel Consumption

The following natural gas consumption factors are derived from the South Coast Air Quality Management District's *CEQA Air Quality Handbook* (April 1993, as updated November 1993), Table A9-5-A-1, as well as average trip length from the *URBEMIS 7G Air Quality Model, Version 3.1*, which analyzes the South Coast Air Basin for urbanized areas within Los Angeles County:

The *URBEMIS* model reported an average trip length of 6.773 miles within urban Los Angeles County, and assumes a fuel economy of 25 miles per gallon on average (0.04 gallons per mile). To calculate fuel

consumption, the average trip length divided by the fuel economy yields a product of fuel consumed per average trip:

$$6.773 \text{ miles (average)} / 25 \text{ miles per gallon} = 0.27092 \text{ gallons per day (gpd) per average trip}$$

Consumption factors for land use take into account weekday, Saturday, and Sunday trips using a weighted average number of trips per day:

$$((\text{Weekday trips} * 5) + (\text{Saturday trips} * 1) + (\text{Sunday trips} * 1)) / 7 \text{ days per week} = \text{Weighted average}$$

In the following fuel consumption factors, the weighted average number of daily trips (ADT = average daily trips) for each land use type are multiplied by 0.27092 (average fuel consumed per trip) to describe fuel consumed on average per square foot, dwelling unit, hotel room, or theater seat of land use:

Residential – 6.051 (ADT Weighted Average) * 0.27092 gallons per trip (gpt) = **1.639 gpd/ d.u.**

Office – 16.58 (ADT Weighted Average) * 0.27092 gpt = **0.004492 gpd/s.f.**

Retail – 66.613 (ADT Weighted Average) * 0.27092 gpt = **0.01805 gpd/s.f.**

Hotel – 8.926 (ADT Weighted Average) * 0.27092 gpt = **2.4182 gpd/room**

Civic/Institutional – 21.043 (ADT Weighted Average) * 0.27092 gpt = **0.005701 gpd/s.f.**

Marina – 3.489 (ADT Weighted Average) * 0.27092 gpt = **0.94524 gpd/slip**

Warehouse – 3.773 (ADT Weighted Average) * 0.27092 gpt = **0.001022 gpd/s.f.**

Theater – 1.841 (ADT Weighted Average) * 0.27092 gpt = **0.49877 gpd/seat**

Restaurant – 209.371 (ADT Weighted Average) * 0.27092 gpt = **0.056723 gpd/s.f.**

Industrial – 5.264 (ADT Weighted Average) * 0.27092 gpt = **0.001426 gpd/s.f.**

Parking – 0.0 (Trips associated with parking are considered negligible) * 0.27092 gpt = **0.0 gpd/space**

UTILITIES

Water Consumption

The following water consumption factors are from the City of Los Angeles *Draft L.A. CEQA Thresholds Guide* (May, 1998), for sewerage generation rates (Exhibit K.2-11). This assumes that all potable water becomes wastewater, and therefore, all sewerage generated was once an equal volume of potable water. Marina consumption factor is from Camp Dresser & McKee Inc., *Conceptual Pre-Design: Water Reclamation and Solid Waste Processing Facilities*, June 1990.

Residential – Studio – **80.0 gallons per day (gpd) / d.u.**

Residential – One Bedroom – **120.0 gpd/d.u.**

Residential – Two Bedroom – **160.0 gpd/d.u.**

Residential – Three Bedroom – **200.0 gpd/d.u.**

Residential – Four Bedroom – **240.0 gpd/d.u.**

Office – **150.0 gpd/1000 s.f. (k.s.f.)**

Retail – **80.0 gpd/k.s.f.**

Hotel – **130.0 gpd/room**

Civic/Institutional – **80.0 gpd/k.s.f.**

Marina – **13 gpd/slip**

Note: For the cumulative projects analysis, a composite Residential consumption factors was derived (in order to have a single residential factor, as related projects are not differentiated by housing type) for simplicity of analysis. It is the average consumption of each housing type, which is equal to 160.0 gpd/d.u.

Wastewater Generation

The following wastewater generation factors are from the City of Los Angeles *Draft L.A. CEQA Thresholds Guide* (May, 1998), for sewerage generation rates (Exhibit K.2-11). These generation rates are identical to the consumption factors above for potable water, with the exception of office uses, where

reclaimed water is used for toilet flushing and in cooling towers. This results in a difference of 30 gpd/k.s.f. for office uses between the water consumption and wastewater generation factors.

Residential – 160.0 gpd/d.u.

Office – 180.0 gpd/1000 k.s.f.

Retail – 80.0 gpd/k.s.f.

Hotel – 130.0 gpd/room

Civic/Institutional – 80.0 gpd/k.s.f.

Marina – 13 gpd/slip

Solid Waste Generation

The following solid waste generation factors are from the California Integrated Waste Management Board's website, Waste Characterization database: <http://www.ciwmb.ca.gov/WasteChar/WasteGenRates>. The solid waste generation factor for Marina slips is from *Master Plan for Playa Vista, Draft Program EIR*, September 28, 1992, which used the actual solid waste generation rate per slip from King's Harbor Marina. The solid waste generation factor for Restaurant uses is from *Master Plan for Playa Vista, Draft Program EIR*, September 28, 1992, from which a composite factor was derived from the "sit down" and "fast food" restaurant factors.

Residential – (12.23 lbs./household/day [Residential factor]) / (2000 lbs./ton) = 0.006115 tons per day (t.p.d.)/d.u. → 0.00612 t.p.d./d.u.

Office – (0.006 lbs./s.f./day [Office factor]) / (2000 lbs./ton) = 0.000003 t.p.d./s.f.

Retail – (3.12 lbs./100 s.f./day [Supermarket factor]) / (2000 lbs./ton) = 0.00156 tpd/100 s.f./day → 0.0000156 t.p.d./s.f./day

Hotel – (4.0 lbs./room/day [Hotel/Motel factor, assuming 750 s.f./room]) / (2000 lbs./ton) = 0.002 t.p.d./room → (0.002 t.p.d./room) / (750 s.f./room) = 0.0000026 t.p.d./s.f. * 850 s.f./room (assumed for Playa Vista Second Phase Project) = 0.00221 t.p.d./room

Civic/Institutional – (0.007 lbs./s.f./day [Public/Institutional factor]) / (2000 lbs./ton) = 0.0000035 t.p.d./s.f.

Marina – 0.002 t.p.d./slip

Warehouse – (0.0108 tons/s.f./yr. [Warehouse factor]) / (365 days/yr.) = 0.0000295 t.p.d./s.f.

Theater – (3.12 lbs./100 s.f./day [Other Services factor]) / (2000 lbs./ton) = 0.00156 t.p.d./100 s.f. → (0.00156 t.p.d.) / (100 s.f.) = 0.0000156 t.p.d./s.f. → (0.0000156 t.p.d./s.f.) * (23 s.f./theater seat [assumed]) = 0.000359 t.p.d./seat

Restaurant – (0.00000696 t.p.d./s.f. ["sit down" restaurant factor] * 0.00000607 t.p.d./s.f. ["fast food" restaurant factor]) = 0.00001303 / 2 = 0.000006515 → 0.0000065 t.p.d./s.f.

Industrial – (62.5 lbs./k.s.f./day [Industrial factor]) / (2000 lbs./ton) = 0.03125 t.p.d./k.s.f. → (0.03125 t.p.d./k.s.f.) / (1000 s.f./k.s.f.) = 0.00003125 → 0.0000312 t.p.d./s.f.

Parking – 0.0 lbs./space/day (solid waste generation for parking is considered negligible) → 0.0 t.p.d./space