

APPENDIX D

GHG Emissions Summary

Existing GHG Emissions Inside

Section I: Buildings

Type (Residential) or Principal Activity (Commercial)	# Units	Square Feet (in thousands of square feet)	Emissions Per Unit or Per Thousand Square Feet (MTCO2e)			Un-Mitig BAU Lifespan Emissions (MTCO2e)	Un-Mitig BAU Annualized (MTCO2e)
			Embodied	Energy	Transportation		
Single-Family Home.....	57651		98	672	792	90,041,586	1,555,264
Multi-Family Unit in Large Building	19801		33	357	766	22,883,905	284,106
Multi-Family Unit in Small Building	7605		54	681	766	11,408,846	141,642
Mobile Home.....	10263		41	475	709	12,580,209	217,295
Education		12499	39	646	361	13,067,097	208,917
Food Sales		0	39	1,541	282	0	0
Food Service		0	39	1,994	561	0	0
Health Care Inpatient		0	39	1,938	582	0	0
Health Care Outpatient		0	39	737	571	0	0
Lodging		0	39	777	117	0	0
Retail		14640	39	577	247	12,630,879	201,943
Office		12217	39	723	588	16,485,095	263,564
Public Assembly		0	39	733	150	0	0
Public Order and Safety		3024	39	899	374	3,964,675	63,387
Religious Worship		0	39	339	129	0	0
Service		0	39	599	266	0	0
Warehouse and Storage		3024	39	352	181	1,728,738	27,639
Other		18534	39	1,278	257	29,175,624	466,461
Vacant		0	39	162	47	0	0
		63,937.0					
Section II: Pavement.....							
Pavement.....		3,196.85				159,843	2,664
Total Project Emissions:						214,126,495	3,432,881

Alternate 1-No Action GHG Increases

Type (Residential) or Principal Activity (Commercial)	# Units	Square Feet (in thousands of square feet)	Emissions Per Unit or Per Thousand Square Feet (MTCO2e)			Un-Mitig BAU Lifespan Emissions (MTCO2e)	Un-Mitig BAU Annualized (MTCO2e)
			Embodied	Energy	Future CAFÉ Transportation		
Single-Family Home.....	10535		98	672	287	11,135,010	192,332
Multi-Family Unit in Large Building	8272		33	357	277	5,522,031	68,557
Multi-Family Unit in Small Building	2561		54	681	277	2,591,833	32,178
Mobile Home.....	0		41	475	257	0	0
Education		4938	39	646	131	4,025,546	64,361
Food Sales		0	39	1,541	102	0	0
Food Service		0	39	1,994	203	0	0
Health Care Inpatient		0	39	1,938	211	0	0
Health Care Outpatient		0	39	737	207	0	0
Lodging		0	39	777	42	0	0
Retail		5784	39	577	89	4,080,380	65,237
Office		4827	39	723	213	4,704,935	75,223
Public Assembly		0	39	733	55	0	0
Public Order and Safety		1155	39	899	136	1,239,551	19,818
Religious Worship		0	39	339	47	0	0
Service		0	39	599	96	0	0
Warehouse and Storage		1862	39	352	66	848,958	13,573
Other		7082	39	1,278	93	9,987,999	159,688
Vacant		0	39	162	17	0	0
		25,649.3					
Section II: Pavement.....							
Pavement.....		1,282.47				64,123	1,069
Total Project Emissions:						44,200,367	692,035

Alt 2 GHG Increases

Type (Residential) or Principal Activity (Commercial)	# Units	Square Feet (in thousands of square feet)	Emissions Per Unit or Per Thousand Square Feet (MTCO2e)			Un-Mitig BAU Lifespan Emissions (MTCO2e)	Un-Mitig BAU Annualized (MTCO2e)
			Embodied	Energy	Future CAFÉ Transportation		
Single-Family Home.....	19825		98	672	287	20,954,112	361,935
Multi-Family Unit in Large Building	10364		33	357	277	6,918,560	85,895
Multi-Family Unit in Small Building	2686		54	681	277	2,718,338	33,748
Mobile Home.....	0		41	475	257	0	0
Education		4198	39	646	131	3,421,702	54,706
Food Sales		0	39	1,541	102	0	0
Food Service		0	39	1,994	203	0	0
Health Care Inpatient		0	39	1,938	211	0	0
Health Care Outpatient		0	39	737	207	0	0
Lodging		0	39	777	42	0	0
Retail		4917	39	577	89	3,468,311	55,451
Office		4103	39	723	213	3,999,181	63,939
Public Assembly		0	39	733	55	0	0
Public Order and Safety		898	39	899	136	963,620	15,406
Religious Worship		0	39	339	47	0	0
Service		0	39	599	96	0	0
Warehouse and Storage		1447	39	352	66	659,975	10,552
Other		5506	39	1,278	93	7,764,613	124,141
Vacant		0	39	162	17	0	0
		21,068.6					
Section II: Pavement.....							
Pavement.....		1,053.43				52,672	878
Total Project Emissions:						50,921,083	806,651

Alt 3 GHG Increases

Type (Residential) or Principal Activity (Commercial)	# Units	Square Feet (in thousands of square feet)	Emissions Per Unit or Per Thousand Square Feet (MTCO2e)			Un-Mitig BAU Lifespan Emissions (MTCO2e)	Un-Mitig BAU Annualized (MTCO2e)
			Embodied	Energy	Future CAFÉ Transportation		
Single-Family Home.....	18999		98	672	287	20,081,069	346,855
Multi-Family Unit in Large Building	12899		33	357	277	8,610,817	106,904
Multi-Family Unit in Small Building	4295		54	681	277	4,346,709	53,965
Mobile Home.....	0		41	475	257	0	0
Education		5686	39	646	131	4,634,792	74,101
Food Sales		0	39	1,541	102	0	0
Food Service		0	39	1,994	203	0	0
Health Care Inpatient		0	39	1,938	211	0	0
Health Care Outpatient		0	39	737	207	0	0
Lodging		0	39	777	42	0	0
Retail		6660	39	577	89	4,697,925	75,111
Office		5558	39	723	213	5,417,003	86,607
Public Assembly		0	39	733	55	0	0
Public Order and Safety		1255	39	899	136	1,346,325	21,525
Religious Worship		0	39	339	47	0	0
Service		0	39	599	96	0	0
Warehouse and Storage		2022	39	352	66	922,086	14,742
Other		7692	39	1,278	93	10,848,354	173,444
Vacant		0	39	162	17	0	0
		28,872.7					
Section II: Pavement.....							
Pavement.....		1,443.63				72,182	1,203
Total Project Emissions:						60,977,262	954,457

Alt 4 GHG Increases

Type (Residential) or Principal Activity (Commercial)	# Units	Square Feet (in thousands of square feet)	Emissions Per Unit or Per Thousand Square Feet (MTCO2e)			Un-Mitig BAU Lifespan Emissions (MTCO2e)	Un-Mitig BAU Annualized (MTCO2e)
			Embodied	Energy	Future CAFÉ Transportation		
Single-Family Home.....	22522		98	672	287	23,804,717	411,172
Multi-Family Unit in Large Building	12575		33	357	277	8,394,528	104,219
Multi-Family Unit in Small Building	3923		54	681	277	3,970,231	49,291
Mobile Home.....	0		41	475	257	0	0
Education		6922	39	646	131	5,642,283	90,209
Food Sales		0	39	1,541	102	0	0
Food Service		0	39	1,994	203	0	0
Health Care Inpatient		0	39	1,938	211	0	0
Health Care Outpatient		0	39	737	207	0	0
Lodging		0	39	777	42	0	0
Retail		8108	39	577	89	5,719,138	91,438
Office		6766	39	723	213	6,594,527	105,433
Public Assembly		0	39	733	55	0	0
Public Order and Safety		1422	39	899	136	1,525,132	24,384
Religious Worship		0	39	339	47	0	0
Service		0	39	599	96	0	0
Warehouse and Storage		2290	39	352	66	1,044,549	16,700
Other		8714	39	1,278	93	12,289,141	196,479
Vacant		0	39	162	17	0	0
		34,221.3					
Section II: Pavement.....							
Pavement.....		1,711.06				85,553	1,426
Total Project Emissions:						69,069,799	1,090,751

Soil Carbon Emissions (Increase above existing)

Construction Carbon	Alt 1	Alt 2	Alt 3	Alt 4
Building Size	0			
Total Area (SF)	0			
Stories above ground	0			
Stories below ground	0			
Primary structural sytem	mix (wood/concrete/steel)			
Ecoregion	Northwest forested mountains			
Existing Vegetation	Shrubland			
Installed Vegetation	0			
Landscape disturbed (SF)	107,898,120	198,938,520	173,499,480	198,807,840
Landscape installed (SF)	0			
Embodied "Carbon Soil" (Tons CO _{2e})	25,896	47,745	41,640	47,714

Source: buildcarbonneutral.org