
APPENDIX N: EBPSP ALTERNATIVES ANALYSIS



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TECHNICAL MEMORANDUM

DATE: February 6, 2026
TO: Amy Flores, T&B Planning
FROM: Haseeb Qureshi, Urban Crossroads, Inc.
JOB NO: 16285-07A Impact Assessment

SUBJECT: EUCALYPTUS BUSINESS PARK SPECIFIC PLAN EXISTING LAND USE DESIGNATION ALTERNATIVE TRAFFIC, AIR QUALITY, ENERGY, GREENHOUSE GAS, AND NOISE ASSESSMENT

Urban Crossroads, Inc. is pleased to provide the following Traffic, Air Quality, Energy, Greenhouse Gas, and Noise Assessment for the Eucalyptus Business Park Specific Plan (EBPSP) Project (Project). The Project site is located generally south of Ontario Ranch Road, west of Walker Avenue, east of Campus Avenue, and north of Eucalyptus Avenue in the City of Ontario.

PROJECT OVERVIEW

The purpose of this memo is to preliminarily evaluate the potential traffic, air quality, energy, greenhouse gas (GHG), and noise impacts of buildout of the EBPSP area under the site's existing land use designations. That Ontario Plan (TOP) 2050 Environmental Impact Report (EIR) assumed buildout of 2,195 residential units for the portion of the site designated as Medium Density Residential and 1.6 million square feet of non-residential uses for the portion of the site designated as Mixed Use.

Since construction would occupy the same development area under either the EBPSP or the alternative, the following discussions focus on operational impact.

TRAFFIC IMPACTS

Using the assumptions from the TOP 2050 EIR for the site (2,195 residential units and 1.6 million square feet of non-residential mixed use) the trip generation that could be expected under the Existing Land Use Designations Alternative was developed and compared to the EBPSP, as shown below.

The Business Park (Institute of Transportation Engineers or ITE Land Use Code 770) land use category was utilized for 1,606,357 square feet of the non-residential mixed use. This land use category assumes a variety of uses where buildings are typically served by a roll-up, grade-level garage door as opposed to dock-high doors. These spaces typically include a mix of offices, retail, and wholesale stores, restaurants, recreational areas, warehousing, manufacturing, light industrial, and scientific research functions. The Multifamily (Low-Rise) Housing (ITE Land Use Code 220) land use category assumes two to three floors of residences and can include stacked townhouses or apartment/multiplex buildings.

As shown below, traffic under this alternative would increase by 17,378 trips when compared to the EBSP. Given the increase in trip generation, it can reasonably be expected that the Existing Land Use Designations Alternative would also increase VMT.

TABLE 1: TRIP GENERATION

Land Use	Quantity	Units ¹	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
Actual Vehicles:									
Business Park	1,606.357	TSF	1,225	269	1,494	368	901	1,269	16,016
Internal Capture			-14	0	-14	-17	-17	-34	-406
Multifamily Residential	2,195	DU	216	684	900	708	434	1,142	13,632
Internal Capture			0	-14	-14	-17	-17	-34	-406
Alternative Total Trips			1,427	939	2,366	1,042	1,301	2,343	28,836
Proposed Project			696	249	945	448	750	1,198	11,458
Net Change (Alternative - Proposed)			731	690	1,421	594	551	1,145	17,378

¹ TSF = Thousand Square Feet; DU = Dwelling Units

AIR QUALITY IMPACTS

Operational activities associated with either the EBSP or this alternative would result in emissions of volatile organic compounds (VOCs), nitrogen oxides (NO_x), sulfur oxides (SO_x), carbon monoxide (CO), respirable particulate matter with a diameter of 10 microns or less (PM₁₀), fine particulate matter with a diameter of 2.5 microns or less and (PM_{2.5}). Emissions calculated for the Existing Land Use Designations Alternative are presented below.

As shown in the table below, operations of the Existing Land Use Designations Alternative would exceed the numerical thresholds of significance established by the South Coast Quality Management District (SCAQMD) for emissions of VOCs, NO_x, CO, PM₁₀, and PM_{2.5}. The PM_{2.5} exceedance occurring under this alternative would not occur under the EBSP buildout conditions. Additionally, while both scenarios would exceed the CO threshold, emissions under this alternative (1,398.93 lbs/day during the summer scenario and 1,012.88 lbs/day during the winter scenario) would be substantially greater when compared to the EBSP (758.99 lbs/day during the summer scenario and 563.29 lbs/day during the winter scenario). This is primarily due to the increased trip generation under this alternative.

TABLE 2: TOTAL ALTERNATIVE REGIONAL OPERATIONAL EMISSIONS

Source	Emissions (lbs/day)					
	VOC	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
Summer						
Mobile Source	91.83	125.21	1,072.98	3.27	307.97	79.72
Area Source	116.61	38.16	210.38	0.24	3.12	3.08
Energy Source	1.19	21.07	13.87	0.13	1.65	1.65
Stationary Source	1.80	5.05	4.60	0.01	0.27	0.27
On-Site Equipment Source	0.69	2.23	97.09	0.00	0.18	0.16
Maximum Daily Emissions	212.13	191.71	1,398.93	3.65	313.18	84.87
SCAQMD Regional Thresholds	55	55	550	150	150	55
Threshold Exceeded?	YES	YES	YES	NO	YES	YES
Winter						
Mobile Source	87.26	133.72	881.82	3.07	307.97	79.72
Area Source	94.37	36.41	15.49	0.23	2.94	2.94
Energy Source	1.19	21.07	13.87	0.13	1.65	1.65
Stationary Source	1.80	5.05	4.60	0.01	0.27	0.27
On-Site Equipment Source	0.69	2.23	97.09	0.00	0.18	0.16
Maximum Daily Emissions	185.31	198.47	1,012.88	3.44	313.00	84.74
SCAQMD Regional Thresholds	55	55	550	150	150	55
Threshold Exceeded?	YES	YES	YES	NO	YES	YES

ENERGY IMPACTS

The Existing Land Use Designations Alternative would reduce the amount of employment generating building square footage but would increase the number of residential units and residents. In general, business park uses have a higher energy demand than residential. Therefore, building energy demand would be reduced compared to the EBSP. However, this alternative would result in a substantial increase in vehicle trips compared to the EBSP. Therefore, fuel consumption would increase under this alternative.

GHG IMPACTS

GHG emissions that could be expected from operations of the Existing Land Use Designations Alternative are presented below.

As shown below, emissions associated with the land use mix under the alternative are estimated at 58,625.00 metric tons of carbon dioxide equivalent per year (MTCO₂e/yr). When compared to the emissions associated with the EBSP (45,538.89 MTCO₂e/yr), the Existing Land Use Designations Alternative would result in an increase of 13,086.11 MTCO₂e/yr.

TABLE 3: TOTAL PROJECT GHG EMISSIONS

Source	Emissions (MT/yr)				
	CO ₂ T	CH ₄	N ₂ O	R	Total CO ₂ e
Mobile Source	46,232.82	1.82	2.52	40.64	47,071.08
Area Source	594.43	0.01	0.00	0.00	595.23
Energy Source	8,811.58	0.95	0.08	0.00	8,858.50
Water Source	423.18	12.30	0.30	0.00	818.96
Waste Source	278.12	27.80	0.00	0.00	973.03
Refrigerants	0.00	0.00	0.00	2.93	2.93
Stationary Sources	20.94	0.00	0.00	0.00	21.01
On-Site Equipment Source	0.00	0.00	0.00	0.00	284.25
Total CO ₂ e (All Sources)	58,625.00				

NOISE IMPACTS

The Existing Land Use Designations Alternative would generate approximately 28,836 daily vehicle trips, primarily passenger vehicles, compared to 9,596 daily trips under the EBSP, which would include 1,218 daily truck trips. Although this alternative would substantially increase overall traffic volumes, the reduction in heavy-duty truck activity is an important consideration for traffic noise. Heavy-duty trucks contribute disproportionately to roadway noise compared to passenger vehicles due to higher engine, exhaust, and tire-pavement noise characteristics. As a result, increases in traffic volumes dominated by passenger vehicles typically result in smaller incremental noise increases than traffic streams with a higher truck component. As such, despite the substantial increase in trips, off-site vehicular noise impacts are assumed to be comparable to the EBSP.