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November 25, 2024

Nagham Sabah
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RE: Harbison Canyon Residential Development - PDS2022-TPM-21316, PDS2022-ER-21-14-001- Greenhouse Gas Screening Letter San Diego County

The purpose of this greenhouse gas (GHG) screening assessment, conducted for the Harbison Canyon TPM (TPM 21316) Residential Development (Project), is to determine GHG significance under the California Environmental Quality Act (CEQA) from both the construction and operations of the Project. More specifically, this screening analysis is to provide documentation showing Project conformance with greenhouse gas laws and regulations. Specific GHG regulations and policies are attached to this letter in ***Attachment A***.

The County has recently completed and adopted its 2024 Climate Action Plan (CAP) (County of San Diego, 2024), which was developed to ensure consistency with California's 2022 Scoping Plan for determining GHG compliance under CEQA (CARB, 2022). The 2022 plan serves as a roadmap, providing general recommendations that local agencies can adopt to help the State achieve its goal of carbon neutrality by 2045 or earlier. The 2022 Scoping Plan expands upon earlier efforts by targeting a reduction of anthropogenic emissions to 85 percent below 1990 levels by 2045.

Under the CAP, recommendations such as implementing Tier 2 standards from CalGreen, which include enhanced energy efficiency measures, installation of solar energy systems, and development of electric vehicle infrastructure, are included to reduce GHG emissions and align with the Scoping Plan's long-term goals.

The project is Tentative Parcel Map to divide a 12.37-acre parcel into 4 single-family lots with 1 remainder parcel. There is one existing single-family to remain on Parcel 4, and another existing single-family home to remain on the remainder parcel. Therefore, three additional homes will be constructed. The project fronts Harbison Canyon Road (a public road), and access would be provided by the proposed 40' private road easement. The site is subject to the General Plan Regional Category Rural, Land Use Designation Semi-Rural 1 (SR-1). Zoning for the site is General Agriculture (A72). Based on this, the project would not require any zone changes.

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Construction is anticipated to start in early 2026 and be completed as soon as one year later. The first full year of operations is expected in 2027. Earthwork activities would be balanced, and import/export would not be required.

Greenhouse Gas impacts related to construction and daily operations were calculated using CalEEMod Version 2022.1 air quality model, which was developed by South Coast Air Quality Management District (SCAQMD) in 2022. The CalEEMod input/output model is provided in ***Attachment B***.

Project design features (PDF 1-3) are included in the Project however PDFs 2 and -3 have not been modeled. PDF 1 was included in CalEEMod so it is included in the emissions quantification outputs. The applicant has agreed to implement all PDFs and will be included in the Project's Conditions of Approval. A list of the PDFs is provided below and within this analysis.

PDF 1: The Project will not install natural gas or propane and will be 100% electric.
PDF 2: The Project would install at least 2 kilowatts (kW) of solar on each of the new residential units (6,000 kW Total between all three residential units).
PDF 3: The Project will be consistent with CalGreen Tier 2 requirements for single family residences and will require that each new residential unit will install the wiring for Electric Vehicle (EV) supply Equipment (EVSE). – Three Total (California - CGBSC, 2022).

Construction Activities

CalEEMod has been updated to reflect the anticipated construction activities and dates identified in Table 1. Based on the construction model outputs shown in Table 2, we find that construction of the project will produce approximately 94.4 MT CO_2e/year during the construction period. Since GHG emissions are typically reported on an annual basis, it is acceptable to average the total construction emission over the life of the Project, which is assumed to be 30 years. This methodology was recommended by SCAQMD (SCAQMD, 2008). Based on this, the project would add 3.15 MT CO_2e per year.

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Table 1: Expected Construction Equipment

Equipment Identification	Proposed Start	Proposed Complete	Quantity
Site Preparation	1/1/2026	1/21/2026	
Rubber Tired Dozers			1
Tractors/Loaders/Backhoes			2
Grading	1/22/2026	2/11/2026	
Graders			1
Tractors/Loaders/Backhoes			1
Excavators			1
Building Construction	2/12/2026	11/18/2026	
Forklifts			1
Generator Sets			1
Welders			1
Tractors/Loaders/Backhoes			1
Building Construction	6/1/2026	6/8/2026	
Cranes			1
Paving	11/1/2026	11/13/2026	
Pavers			1
Paving Equipment			1
Rollers			1
Architectural Coating	11/1/2026	11/13/2026	
Air Compressors			1
This equipment and durations were selected based on CalEEMod defaults in CalEEMod 2022.1			

Table 2: Expected Construction CO_2e Emissions Summary MT/Year

Year	NBio-CO2	Total CO2	CH4	N2O	Refrigerants	CO2e
2026	94	94	< 0.005	< 0.005	< 0.005	94.4
Yearly Average Construction Emissions (Metric Tons/year over 30 years)						**3.15**

Operations

Project operations would be expected in 2027. CalEEMod 2022.1 was also utilized for the operational GHG emissions calculations. CalEEMod default settings were utilized for all sources. The Project would also include Solar and EVSE per CalGreen Tier 2 requirements which would be generally consistent with goals for the State to achieve goals outlined in the 2022 Scoping Plan.

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Based upon the CalEEMod calculations, the annual emissions from operations and construction would be 78.97 MT CO_2e per year which reflects an all-electric design. The results of the modeling are provided in Table 3 below and reflect an all electric project without natural gas or propane usage onsite.

Table 3: Operational Emissions Summary MT/Year

Year	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	Refrigeration GHG emissions	CO2e (MT/Yr)
Mobile	*	62.8	62.8	< 0.005	< 0.005	0.09	63.6
Area	3.1	1.33	4.43	< 0.005	< 0.005	*	4.57
Energy	*	5.78	5.78	< 0.005	< 0.005	*	5.80
Water	0.03	1.1	1.14	< 0.005	< 0.005	*	1.25
Waste	0.17	0	0.17	0.02	0	*	0.59
Building Refrigeration	*	*	*	*	*	0.01	0.01
Amortized Construction Emissions (Table 5.1 above)							**3.15**
Total Operations (MT/Year)							**78.97**

Data is presented in decimal format and may have rounding errors.
* No Data Provided

2022 Scoping Plan Consistency

The Proposed Project would generate 78.97 MT CO_2e per year after the Project is fully operational. These emissions would be decreased as State and Local policies are changed to reflect goals outlined in the 2022 Scoping Plan, many of which are external to the Project. The County of San Diego is working to prepare a CAP as suggested by the 2022 Scoping Plan. As noted, the Project would include PDFs which includes the installation of solar panels and the installation of EVSE which are consistent with recommendation in the 2022 Scoping Plan.

With the incorporation of the PDFs, the Project would reduce GHG emissions and would be consistent with the 2022 Scoping Plan roadmap. In addition, the Project would be consistent with the County's General Plan since the Project would not require zoning modifications. In addition, the Project would be consistent with SANDAGs RTP/SCS since EVSE can be installed. Increasing EVSE helps incentivize adoption of EV. Without a qualified CAP or local adopted thresholds, the significance of the proposed Project's GHG emissions is based on consistency with these plans for reducing GHG emissions.

As discussed above, the project would be considered less than significant for GHG emissions. If you have any questions, please do not hesitate to contact me directly at (760) 473-1253.

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Sincerely,
Ldn Consulting, Inc.

DRAFT

Jeremy Louden

Attachments:

Attachment A: GHG Regulatory Requirements

Attachment B: CALEEMOD Inputs/Outputs

Sources:

California - CGBSC. (2022). *2022 California Green Building Standards Code, Title 24, Part 11 (CALGreen)*. Retrieved from https://codes.iccsafe.org/content/CAGBC2022P1/chapter-5-nonresidential-mandatory-measures#CAGBC2022P1_Ch05_SubCh5.1

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CARB. (2022). *Appendix D - Local Actions.* Retrieved from https://ww2.arb.ca.gov/sites/default/files/2022-11/2022-sp-appendix-d-local-actions.pdf

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