November 18, 2019

Sean Oberbauer
Land Use & Environmental Planner
San Diego County, Planning & Development Services
Sean.oberbauer@sdcounty.ca.gov

Project No. PDS2017-STP-17-028 (Mega Mart, KA Enterprises) – San Diego Climate Action Plan Consistency Review Checklist (Dated August 2019) and Greenhouse Gas Memo

Dear Mr. Oberbauer:

This memo outlines the project’s consistency with the County’s Climate Action Plan (CAP), and contains a detailed overview of how the project meets applicable CAP measures. The information contained in this memo is intended to clarify and accompany the CAP Consistency Review Checklist completed for Project No. PDS2017-STP-17-028 (Mega Mart, KA Enterprises), dated August 2019.

The County’s 2018 Guidelines for Determining Significance: Climate Change contains the following threshold of significance, which was adopted with the CAP:

A proposed project would have a less than significant cumulatively considerable contribution to climate change impacts if it is found to be consistent with the County’s Climate Action Plan; and, would normally have a cumulatively considerable contribution to climate change impacts if it is found to be inconsistent with the County’s Climate Action Plan.

Furthermore, the CAP states, “if a project can show consistency with the land use projections and applicable greenhouse gas (GHG) reduction measures in the CAP, the level of environmental review for the project required under the California Environmental Quality Act (CEQA) with respect to GHG emissions can be streamlined” (San Diego County 2018). In January 2019, San Diego Superior Court ruled that for CEQA purposes, the CAP represents the applicable planning document for which projects should comply, and compliance is demonstrated through completion of the County’s CAP Consistency Review Checklist (CAP Checklist). Therefore, this project is analyzed using the County’s CAP Consistency Review Checklist (CAP Checklist), which aims to streamline the review process for discretionary projects that require environmental review pursuant to CEQA, and CAPCOA’s 900 metric tons of carbon dioxide equivalent (per County comment 14-17 as stated below).
This memo also includes information about the project’s estimated GHG emissions and impacts on climate change, in response to the County’s comments (numbers 14-16 and 14-17) dated February 22, 2019. The following information is included below:

- Per comment 14-17: Estimated project GHG emissions based on modeling completed in CalEEMod (v. 2016.3.2) are compared to CAPCOA’s screening criterion, i.e. 900 metric tons of carbon dioxide equivalent (MT CO₂e). The 900 MT CO₂e screening threshold was determined by CAPCOA as an emission level that would indicate project emissions would result in less than cumulatively significant impacts and would not interfere with the ability of the state to achieve state reduction targets. CAPCOA’s 900 MT CO₂e for land use development projects is based on the idea of capturing GHG emission from at least 90 percent (and likely more) of new residential and commercial land use development. The 900 MT CO₂e screening threshold is intended to identify projects that would not interfere with implementation of Executive Order S-3-05 which aims to reduce GHG emissions to 1990 levels by 2020, and 80 percent below 1990 levels by 2050. The CAPCOA guidance indicates that projects that do not exceed the 900 MT CO₂e threshold would be consistent with state reduction targets identified by AB 32. Under SB 32, the state has revised its commitment to also reduce its GHG emissions to 40 percent below 1990 levels by 2030. Based on a linear regression under the assumption that CAPCOA’s 900 MT CO₂e threshold is applicable for projects up to operational year 2020, an annual reduction of approximately 5 percent is applied to projects with operational years of 2021 to 2030 to demonstrate compliance with the SB 32 target by 2030. Based on the annual reduction rate, the 2021 project specific screening level would be 855 MT CO₂e based on an operational year of 2021. The analysis provided in this memo is intended to support the CAP Consistency Review Checklist (dated August 2019) for this project and is for informational purposes.

- Per comment 14-17: Qualitative discussion regarding project features that would result in GHG emissions reduction
- Per comment 14-16: Conclusion stating that the project’s impacts on climate change would be less than significant, based on the analysis provided

CAP Consistency Review Checklist: Step 1

As stated in the CAP Consistency Review Checklist, dated August 2019, the project site consists of assessor’s parcel numbers 186-093-19, 186-093-23, and 186-093-37, which all have San Diego General Plan land use designation of “General Commercial” and zoning designations of C36. Implementation of the project does not require a General Plan or zoning designation amendment since proposed commercial uses are consistent with existing designations. Therefore, the project complies with Step 1, Checklist Item 1 and the submittal of a GHG study is not necessary for this project.

CAP Consistency Review Checklist: Step 2

---

CAP Measures 2a, Shared and Reduced Parking, and 6a, Reduce Outdoor Water Use, were considered for the proposed project. CAP Measures 3a, 4a, 5a, 7a, 8a, and 9a are not applicable to the project based on the proposed land use (gas station and convenience store) and proposed intensity. The applicability of each remaining CAP Measures is further discussed in the CAP Consistency Review Checklist completed for the project.

**CAP Measure 2a**

The project would have an estimated three employees per eight-hour shift. The project would operate 24-hours per day, for a total of three shifts per day, with a total of approximately nine employees throughout the work day. Therefore, CAP Measure 1a, Reducing Vehicle Miles Traveled, does not apply to the project. CAP Measure 2a, Shared and Reduced Parking, is considered, though determined not applicable to the project for the following reasons:

- The project site is not adjacent to any other commercial development with which to share parking facilities. Existing development in the project site vicinity generally consists of sparse residential development, existing roads, and I-15. Therefore, the implementation of shared parking facilities would not be possible for the project.

- The estimated nine project employees would require approximately three parking spaces per shift. The provision of one carpool/vanpool-only parking space for employee use would achieve a >10% reduction in VMTs. Due to the itinerant nature of customers who would visit the proposed gas station and convenience store and the small number of project employees, the designation of one carpool/vanpool-only parking space would be an inefficient use of parking spaces on site. Therefore, the implementation of a carpool/vanpool-only parking space was determined not be appropriate for the project.

- The project site is not located in a highly developed area that would warrant shuttle facilities. There are no existing public transit stops in the project site vicinity, and the project would not have enough employees to implement a commuter shuttle. Therefore, the implementation of a shuttle facility on site would not be possible for the project.

- Based on the proposed uses (gas station and convenience store), most project generated trips would be pass-by trips rather than intentional consumer trips (such as to a retail/commercial shopping center). As such, customers of the proposed gas station and convenience store would be itinerant in nature and would not stay long enough to charge an electric vehicle. Therefore, the implementation of an electric vehicle-only parking space was determined not appropriate for the project.

Therefore, the response to CAP Measure 2b states: The applicant estimates that the proposed project would have approximately three employees per 8-hour shift. The proposed project would operate 24-hours per day, for a total of 3 shifts per day, with a total of approximately nine employees throughout the workday. There are no existing commercial or office uses within which the project site could share parking; there are too few employees per shift to designate a carpool/vanpool-only parking space; there are no existing public transit stops or existing development that would demand a shuttle facility on the site.

---


project site; and customers who would visit the proposed gas station and convenience store would most likely not stay long enough to charge an electric vehicle. The VMT associated with this project is generally related to other uses and would be considered pass-by trips. Any VMT reductions associated with the project would be applied to a small percentage of trips, as it would only serve few employees per shift to reduce the estimated employee trips. Therefore, due to the location, existing development, and itinerant nature of project customers, Measure 2a does not apply to the project.

CAP Measure 6a

CAP Measure 6a is considered for the project and determined to be applicable. The project would have a landscaped area of 25,163 square feet, planted with native hydroseed down over the septic areas, and a total of 8,061 square feet of landscaped areas around the rest of the project site. A landscape irrigation plan has not yet been requested by the County, and a 40% reduction in MAWA can be calculated once the irrigation design is complete.

Therefore, the response to CAP Measure 6b states: A Landscape Document Package that is compliant with the County's Water Conservation in Landscaping Ordinance will be submitted. The project would have a landscaped area of 25,163 square feet, planted with native hydroseed down over the septic areas, and a total of 8,061 square feet of landscaped areas around the rest of the project site. A landscape irrigation plan has not yet been requested, and a 40% reduction in MAWA could only be calculated once the irrigation design is complete. The applicant will provide an irrigation plan to the County that demonstrates a 40% reduction in MAWA.

CalEEMod Results

All project emissions estimates were calculated using the California Emissions Estimator Model (CalEEMod) software version 2016.3.2. CalEEMod reports and calculations are included as an attachment to this memo.

The project’s estimated GHG emissions were compared to a project specific 2021 threshold of 855 MT CO₂e screening threshold, per the County’s comment (number 14-17, dated February 22, 2019).

CalEEMod Assumptions

Construction Emissions

Construction of the project would generate temporary GHG emissions primarily from operation of construction equipment onsite, from vehicles transporting construction workers to and from the project site, and heavy trucks to import earth materials onsite. Construction equipment used for site preparation and grading typically generate the greatest amount of emissions.

The project applicant provided the construction schedule, which states construction may commence in January 2020 and may be completed by July 2020 (approximately seven months total). Proposed construction phases and associated durations include the following:

- Demolition (two weeks)
- Site Preparation (four weeks)
- Grading (two weeks)
- Building Construction (two to three months)
- Paving (three weeks)
- Architectural Coating (two weeks)
Emissions associated with the construction period were estimated in CalEEMod based on the projected maximum amount of equipment that would be used onsite at any given time during construction activities.

Proposed development would require the demolition and the clearing of the existing site prior to regrading and future site preparation. A total of 680 cubic yards (CY) of debris and soil will be removed from the existing site prior to the start of grading operations. Of these removals materials approximately 148 CY will be debris filled soil with roots and organics, while approximately 532 CY of export will be demolition wastes such as concrete and asphalt. Approximately 2,020 CY of cut soil will be excavated and compacted across the site including the remedial grading. The project will import 4,691 CY of clean fill dirt to build up the site to the proposed improvement subgrades. Construction is expected to occur over seven months, based on applicant provided construction schedule, with project opening scheduled for 2021.

Operational Emissions
CalEEMod calculates operational emissions from the project, which include carbon dioxide (CO₂), nitrogen oxide (N₂O), and methane (CH₄). For mobile sources, CO₂ and CH₄ emissions from vehicle trips to and from the project site were quantified using CalEEMod. Because CalEEMod does not calculate N₂O emissions from mobile sources, N₂O emissions were quantified using the CCAR General Reporting Protocol (CCAR 2009) direct emissions factors for mobile combustion (see Attachment for calculations). Trips rates in CalEEMod were adjusted based on trip generation numbers from the traffic report completed for the proposed project (Darnell & Associates, Inc. 2019). These trip rates were used to derive total annual mileage in CalEEMod. Emission rates for N₂O emissions were based on vehicle mix output generated by CalEEMod and the emission factors found in the CCAR General Reporting Protocol.

Project Impacts

Construction Emissions
Based on information from the project applicant, it is assumed that construction activity would occur over a period of approximately seven months. As shown in Table 1, construction activity for the project would generate an estimated 257 MT CO₂e. When amortized over a 30-year period, construction of the project would generate about 9 MT CO₂e per year.

Table 1 Estimated Construction Emissions of Greenhouse Gases

<table>
<thead>
<tr>
<th></th>
<th>Annual Emissions MT of CO₂e</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>257</td>
</tr>
<tr>
<td>Amortized over 30 years</td>
<td>9</td>
</tr>
</tbody>
</table>

See Appendix A for CalEEMod results

Combined Construction, Stationary, and Mobile Source Emissions

Table combines the amortized construction (Table 1), operational, and mobile GHG emissions associated with the project. The annual emissions would total approximately 608 MT CO₂e. These emissions would not exceed the adjusted CAPCOA screening threshold of 855 MT per year for non-office commercial projects.
Since GHG emissions would not exceed CAPCOA’s adjusted screening threshold, the project would not generate a substantial increase in GHG emissions and project impacts on climate change would be considered less than significant.

### Table 2  Combined Annual Emissions MT of CO₂e/year

<table>
<thead>
<tr>
<th>Emission Source</th>
<th>Project Emissions (MT CO₂e)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction</td>
<td>9</td>
</tr>
<tr>
<td>Operational</td>
<td></td>
</tr>
<tr>
<td>Area</td>
<td>&lt;0.1</td>
</tr>
<tr>
<td>Energy</td>
<td>23</td>
</tr>
<tr>
<td>Solid Waste</td>
<td>10</td>
</tr>
<tr>
<td>Water</td>
<td>3</td>
</tr>
<tr>
<td>Mobile</td>
<td></td>
</tr>
<tr>
<td>CO₂ and CH₄</td>
<td>541</td>
</tr>
<tr>
<td>N₂O</td>
<td>21</td>
</tr>
<tr>
<td>Total</td>
<td>607</td>
</tr>
<tr>
<td>Adjusted CAPCOA Screening Threshold for Projects Operational in 2021</td>
<td>855</td>
</tr>
<tr>
<td>Exceeds Threshold?</td>
<td>No</td>
</tr>
</tbody>
</table>

Source: Calculations were made in CalEEMod, see Appendix A for full model output. Values have been rounded.
Project Features

Additional project design features that would result in reduced GHG emissions include low-flow plumbing fixtures, a high-reflectivity cool roof (Dura-last) and project compliance Title 24 energy standards.

The site plan indicates landscaping along the perimeter of the convenience store and gas station parking and canopy area. The project would have a landscaped area of 25,163 square feet, planted with native hydroseed down over the septic areas, and a total of 8,061 square feet of landscaped areas around the rest of the project site. The project applicant will provide an irrigation plan for the project site that demonstrates a 40 percent reduction in Maximum Applied Water Allowance (MAWA) for outdoor water use in the proposed landscaped areas, and the project would be in compliance with CAP checklist measure 6a/b pertaining to reduced outdoor water use for a non-residential development project.

The County requires that 90 percent of inerts and 70 percent of all other materials must be recycled from construction projects, per County Ordinance Section 68.508 through 68.518 (Diversion of Construction and Demolition Materials from Landfill Disposal). The project would be in compliance with County ordinances upon submission of a Construction and Demolition Debris Management Plan prior to the issuance of a building permit. Project operations and waste management methods would be consistent with the County’s Strategic Plan to Reduce Waste (2017) through the support of commercial composting programs to reduce organic waste and comply with established waste diversion requirements.

Conclusion

The project is consistent with existing land use and zoning designations and complies with the County’s CAP Step 1. CAP Step 2 measures considered for the project include Measure 2a/2b, Shared and Reduced Parking, and Measure 6a/6b, Reduce Outdoor Water Use. Upon further consideration, Measure 2a/2b was determined to be not applicable to the project due to the nature of the project (gas station and convenience store with itinerant customers and majority of the trips being pass-by; few employees) and the location of the project site (sparse development with few opportunities for shared parking and no public transit connections). The applicant intends to comply with Measure 6a/6b and would ensure project irrigation plans meet the 40 percent reduction in MAWA prior to building permit issuance. Therefore, the project would comply with the County’s CAP.

Estimated GHG emissions from project construction and operation were compared to an adjusted screening threshold of 864 MT CO₂e for projects with a 2021 operational year based on CAPCOA’s 900 MT CO₂e per County’s comment dated February 22, 2019 and SB 32 consistency for the 2030 emissions reduction target. The project is estimated to generate a combined (amortized construction plus operations) annual GHG emission of 607 MT CO₂e, which would be below the adjusted CAPCOA screening threshold. The project would also incorporate the following design features that would further reduce project GHG emissions than compared to similar uses: low-flow plumbing fixtures, high-reflectivity cool roof for proposed structures, planting of native vegetation in proposed landscaped areas, 40 percent reduction in outdoor water use, and compliance with applicable existing County waste reduction targets. Therefore, the project’s impacts on climate change would be less than significant impact.
Sincerely,

Eugene Marini
KA ENTERPRISES | KA MANAGEMENT, INC. | KA MANAGEMENT VEGAS, INC. | www.kenterprises.net
5820 OBERLIN DRIVE, SUITE 201 | SAN DIEGO, CA | 92121 | C: 619.820.6180 | O: 858.281.6091

Attachment: CalEEMod Reports (Annual, Winter, Summer) and Calculations