



MEMORANDUM

Date: January 13, 2023
To: Erica Rippe, SWCA Environmental Consultants
From: Michelle Matson and Joe Fernandez, CCTC
Subject: Canyon Road Solar Project – Draft Transportation Impact Analysis

This memorandum evaluates transportation issues associated with the Canyon Road Solar Project proposed on Canyon Road in unincorporated Merced County just north of the Los Banos Creek Reservoir. The project proposes a nearly 14,000-module photovoltaic solar farm on 33 acres of a 318-acre parcel.

Typical operations of the proposed project would produce very few trips and have a less-than-significant impact to transportation. However, construction traffic could impact traffic operations by adding employee and construction vehicles. We recommend the following mitigation measures:

- Prepare a Construction Traffic Management Plan (CTMP) with input and approval from Caltrans District 10 and County Public Works to provide construction area signage, access routes, and timing.
- Utilize existing Canyon Road shared driveway or provide new shared driveway on Canyon Road maximizing sight distance. Two adjacent driveways are not recommended on Canyon Road.
- Replace the existing 15 mile per hour curve warning (W1-1 and W13-1P) signs on Canyon Road in each direction adjacent to the project access.

These recommendations would reduce the project's construction traffic impacts to a less-than-significant level.

PROJECT IMPACT ANALYSIS

This section evaluates potential transportation impacts of the project including the existing setting, trip generation, vehicle miles traveled, site access, and recommended TMP.

Existing Setting

The 318-acre project site contains mostly fallow grazing land, with various agricultural structures and irrigation facilities. West of the site there are existing solar farms. The following roadways provide access to the project.

Canyon Road provides access to the Los Banos Reservoir and the project site. There is a low water crossing just north of the reservoir entry kiosk. Water was observed passing over the roadway surface during the summer months. Langdon Road, South Arburua Road, Mervel Avenue, and SR 165 provide access to I-5 south of the project site from Canyon Road. Pioneer Road, Volta Road, and State Route (SR) 33/152 165 provide access to I-5 north of the site from Canyon Road.

State Route (SR) 33/152 at Ortigalita Road (three miles east of the Volta Road intersection) carried 23,000 average annual daily vehicles (AADT) in 2018, 2019 and 2020. No other roadway volumes were available.

Trip Generation

Project construction would require up to twelve round-trip truck trips per day and is expected to last for approximately four months. Construction would generally occur between 7:00 AM and 6:00 PM and the estimated 40 employees would park on site. Once operational, the project will be unmanned, with six routine inspections anticipated on-site per year and occasional visits from maintenance personnel.

Vehicle Miles Traveled

CEQA Guidelines §15064.3 covers the evaluation of a project’s transportation impacts and requires that the transportation impact analysis consider vehicle miles traveled (VMT). CEQA Guidelines §15064.3(a), states, “For the purposes of this section, ‘vehicle miles traveled’ refers to the amount and distance of automobile travel attributable to a project.” Here, the term “automobile” refers to on-road passenger vehicles, specifically cars and light trucks (Governor’s Office of Planning and Research, Technical Advisory on Evaluating Transportation Impact in CEQA (2018). Heavy duty trucks, such as those associated with materials and equipment delivery, would not be considered in the evaluation of VMT impacts under the requirements of CEQA Guidelines §15064.3.

OPR’s Technical Advisory cited above notes that projects that generate or attract fewer than 110 trips per day generally may be assumed to cause a less-than-significant impact. The County has not adopted VMT thresholds at this time but is expected to consider and possibly adopt the VMT Thresholds and Implementation Guidelines prepared for the Merced County Association of Governments (MCAG, November 2022). These Guidelines recommend a screening threshold of 1,000 trips per day for projects consistent with the lead agency’s General Plan.

The estimated project trip generation is well below the recommended screening thresholds from both OPR and MCAG. The project would have an insignificant impact to VMT.

Site Access

Access to I-5 to the south requires approximately ten miles of local road travel to reach a grade-separated diamond interchange. Northern access to I-5 is provided via an at-grade side-street-stop controlled intersection of SR 33/SR 152/Volta Road, which is approximately six to eight miles north of the project, depending on the route taken.

The primary site access is proposed on Canyon Road. The site plan shows a new driveway on Canyon Road just west of an existing shared driveway. Two adjacent driveways are not recommended on Canyon Road, particularly on a curve. We recommend the project utilize the existing Canyon Road shared driveway or provide a new shared driveway on Canyon Road maximizing sight distance. The existing 15 mile per hour curve warning (W1-1 and W13-1P) signs on Canyon Road east and west of the project access are older and may not meet current California Manual on Uniform Traffic Control Devices (CAMUTCD) retro-reflectivity standards and replacement is recommended.

A second access is also available from a historic unpaved road to the north connecting to Volta Road. Roadway improvements, including upgrading Volta Road to meet County standards where unpaved, may be required if construction traffic is anticipated along this route.

Recommended Traffic Management Plan (TMP)

We recommend that the applicant prepare and submit a Construction Traffic Management Plan (TMP) to The Merced County Public Works Department – Development Review and the California Department of Transportation District 10 offices for approval.

The TMP shall be prepared in accordance with both the California Department of Transportation Manual on Uniform Traffic Control Devices (CAMUTCD) and the Work Area Traffic Control Handbook and shall include, but not be limited to, the following items:

- Construction area signage;

- Timing and routes for deliveries of heavy equipment and building materials;
- Employee and emergency vehicle access to the project site;

Preparation and implementation of this TMP would reduce the temporary construction impacts to a less-than-significant level.

Please let us know if you have any questions.

REFERENCES

Caltrans Traffic Census Program. 2021. Accessed from <https://dot.ca.gov/programs/traffic-operations/census>

Governor's Office of Planning and Research, Technical Advisory on Evaluating Transportation Impact in CEQA (2018).

Merced County Association of Governments VMT Thresholds and Implementation Guidelines, November 2022.