

## Appendix M

### Trip Generation and Vehicle Miles Traveled Screening Analysis



March 25, 2021

Ms. Christine Saunders, Director of Environmental Services  
SAGECREST PLANNING & ENVIRONMENTAL  
2400 E Katella Avenue, Suite 800  
Anaheim, California 92806

**RE: Orange Palmyra Cemetery Project Trip Generation & Vehicle Miles Traveled Screening Analysis**  
Project No. 19358

Dear Ms. Saunders:

## INTRODUCTION

Ganddini Group, Inc. is pleased to provide this Trip Generation & Vehicle Miles Traveled Screening Analysis for the proposed Orange Palmyra Cemetery Project. The purpose of this analysis is to document the number of trips forecast to be generated and assess the potential project Vehicle Miles Traveled (VMT) impact for compliance with California Environmental Quality Act (CEQA) and Senate Bill 743 requirements. We trust the findings of this analysis will aid you and the City of Orange in assessing the project.

## PROJECT DESCRIPTION

The 5.95-acre project site is located at 290 South Yorba Street and 2205 east Palmyra Avenue in the City of Orange, California. The project site is currently developed with a former YMCA and BMX track.

The Proposed Project involves converting a 5,386 square foot former multi-purpose activity center (YMCA) to support activities associated with funeral and burial practices, with associated administrative offices, a 3,513-gravesite cemetery, and accessory parking, loading, pedestrian paths of travel, and landscaping ["Proposed Project"]. The proposed site plan is shown in Attachment A.

The majority of the Project Site would be utilized for gravesite purposes. Full buildout of the gravesite space would occur through a 20-year phased plan. A prepared grave consists of a four-sided bottomless pre-cast concrete grave liner (crypt) measuring approximately three-feet by six-feet. Due to religious constraints that prevent excavation equipment from traversing occupied crypts, the sequence of batches would commence in the most remote areas of the cemetery and proceed towards the main building. Phased construction of the gravesites would occur in batches of approximately 100-120 crypts. Once a precast crypt houses interred remains, the gravesite would be covered by pebbles and include installation of a gravestone and concrete border to surround each gravesite.

## OPERATIONAL CHARACTERISTICS

The Proposed Project would operate as a Muslim cemetery, open seven (7) days per week, from 8:00 a.m. to 5:00 p.m. with limited operations from 5:00 p.m. to 7:00 p.m. (by appointment only). Daily activities would vary during normal business hours and would typically consist of meetings with family members seeking to funeral arrangements (by appointment only), visitations to gravesites, scheduled funeral services, pre- and

post-burial family visitations (by appointment only), gravesite preparation for burial, and delivery of the remains of the deceased.

The Proposed Project entails a Muslim cemetery, which requires the timely burial of the deceased, usually within 24-48 hours after death. Consequently, the relatively short notice of the funeral service typically results in a more limited number of visitors as compared to funeral services associated with other religions/cultures.

The Proposed Project would entail approximately 20-25 funeral services per month, which would occur one at a time between 8:00 a.m. to 5:00 p.m.; services would not overlap. A typical funeral service would take place over an approximate four-to-five-hour period. Following the burial, guests would reconvene to the Prayer Hall and socialize. Post-burial memorial gatherings would occur over approximately a two-to-three-hours period, with the option to include indoor gathering in the Prayer Hall or outdoor gathering on the north outdoor patio.

## PROJECT TRIPS

Table 1 shows the project trip generation based upon rates obtained from the Institute of Transportation Engineers (ITE) *Trip Generation Manual* (10th Edition, 2017). Based on review of the Proposed Project operational characteristics and the ITE land use definition, ITE Land Use Code 566 – Cemetery was determined to adequately represent proposed activities. The number of trips generated is determined by multiplying the land use quantity by the trip generation rates for the respective time periods.

Since a typical cemetery generates more trips on weekends, the greater of the Saturday or Sunday trip generation is also included (in this case Sunday) for assessment of the potential trips that can be expected with the Proposed Project since funeral services are more likely to occur on any given day of the week. Furthermore, no trip generation credit has been applied for existing/previous uses to provide a conservative analysis.

As shown in Table 1, the Proposed Project is forecast to generate approximately 36 daily trips on a typical weekday, including 1 trip during the AM peak hour and 3 trips during the PM peak hour, and 83 daily trips on a typical Sunday, including 16 trips during the peak hour of the site.

## CRITERIA FOR THE PREPARATION OF TRAFFIC IMPACT ANALYSES

The criteria for assessing the need to prepare a transportation impact study is specified in the City of Orange *Traffic Impact Analysis Guidelines for Vehicle Miles Traveled and Level of Service Assessment* (July 2020) ["TIA Guidelines"].

### LEVEL OF SERVICE/GENERAL PLAN CONFORMANCE (NON-CEQA ASSESSMENT)

The City of Orange has established guidelines for assessing Level of Service (LOS) impacts for General Plan compliance. As specified in the City of Orange TIA Guidelines, the requirement to prepare a transportation impact study with Level of Service analysis should be based on the following criteria:

- When either the AM or PM peak hour project trip generation exceeds 100 vehicle trips.
- Projects that generate 1,600 or more average daily trips (ADT) on the Arterial Highway System.
- Projects that generate 51 or more vehicle trips during either the AM or PM peak hour to any intersection.

The Proposed Project is forecast to generate fewer than 50 trips during the weekday AM and PM peak hours, even if weekday trip generation is similar to the peak weekend trip generation of a typical cemetery; therefore, Level of Service analysis does not appear to be warranted based on the City's Traffic Impact Analysis Guidelines.

### **VEHICLE MILES TRAVELED (VMT) ANALYSIS (CEQA ASSESSMENT)**

The City of Orange has established guidelines for Vehicle Miles Traveled (VMT) impact for CEQA compliance. The VMT assessment has been prepared in accordance with methodology established in City of Orange TIA Guidelines, which identify screening criteria for certain types of projects that typically reduce VMT and may be presumed to result in a less than significant VMT impact. They are as follows:

- Projects Transit Priority Area (TPA) Screening
  - Projects located within a Transit Priority Area (TPA) as determined by review of the NOCC+ VMT Project Screening spreadsheet tool developed for screening of North County Cities.
- Projects Low VMT Area Screening
  - Projects located within a low VMT generating area as determined by the analyst (e.g. development in efficient areas of the County will reduce VMT per person/employee and is beneficial to the region)
- Project Type Screening
  - K-12 schools
  - Local parks
  - Day care centers
  - Local-serving retail less than 50,000 square feet including:
    - Gas stations
    - Banks
    - Restaurants, bars, cocktail lounges
    - Shopping center
  - Local-serving hotels (e.g. non-destination hotels)
  - Student housing projects on or adjacent to college campuses
  - Local-serving assembly uses (places of worship, community organizations)
  - Community institutions (public libraries, fire stations, local government)
  - Affordable, supportive or transitional housing
  - Assisted living facilities
  - Senior housing (as defined by HUD)
  - Projects generating less than 110 daily vehicle trips
    - This generally corresponds to the following "typical" development potentials:
      - 11 single family housing units
      - 16 multi-family, condominiums, or townhouse housing units
      - 10,000 square feet of office
      - 15,000 square feet of light industrial
      - 63,000 square feet of warehousing
      - 79,000 square feet of high cube transload and short-term storage warehouse
  - Redevelopment projects exemption for existing facilities, including additions to existing structures of up to 10,000 square feet, so long as the project is in an area where public infrastructure is available to allow for maximum planned development and the project is not in an environmentally sensitive area.

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The Proposed Project consists of redevelopment of a former recreational facility with less than 10,000 square feet of structures, no additional square footage proposed to be added to the existing structure, and daily trip generation less than 110 daily trips. Furthermore, the proposed project consists of a quasi-public land use with VMT characteristics comparable to those of a public park. Due to the need for timely funeral services, the Proposed Project is anticipated to reduce VMT by serving the local community's needs that would otherwise generate greater trip lengths to find a suitable similar facility.

In conclusion, the Proposed Project satisfies the City-established screening criteria for projects generating less than 110 daily trips and can be presumed to result in a less than significant VMT impact.

## CONCLUSIONS

The Proposed Project is forecast to generate approximately 36 daily trips on a typical weekday, including 1 trip during the AM peak hour and 3 trips during the PM peak hour, and 83 daily trips on a typical Sunday, including 16 trips during the peak hour of the site.

The Proposed Project is forecast to generate fewer than 50 trips during the weekday AM and PM peak hours, even if weekday trip generation is similar to the peak weekend trip generation of a typical cemetery; therefore, Level of Service analysis does not appear to be warranted based on the City's Traffic Impact Analysis Guidelines.

The Proposed Project satisfies the City-established screening criteria for projects generating less than 110 daily trips and can be presumed to result in a less than significant VMT impact.

It has been a pleasure to assist you with this project. Should you have any questions or if we can be of further assistance, please do not hesitate to call at (714) 795-3100.

Sincerely,  
GANDDINI GROUP, INC.



Perrie Ilercil, PE (AZ)  
Senior Engineer



Giancarlo Ganddini, TE, PTP  
Principal

**Table 1**  
**Project Trip Generation**

Trip Generation Rates													
Land Use	Source <sup>1</sup>	Unit <sup>2</sup>	Weekday							Sunday			
			AM Peak Hour			PM Peak Hour			Daily Rate	Peak Hour			Daily Rate
			% In	% Out	Rate	% In	% Out	Rate		% In	% Out	Rate	
Cemetery	ITE 566	AC	80%	20%	0.17	31%	69%	0.46	6.02	31%	69%	2.63	13.94

Trips Generated													
Land Use	Quantity	Unit <sup>2</sup>	Weekday							Sunday			
			AM Peak Hour			PM Peak Hour			Daily	Peak Hour			Daily
			In	Out	Total	In	Out	Total		In	Out	Rate	
Cemetery	5.95	AC	1	0	1	1	2	3	36	5	11	16	83

Notes:

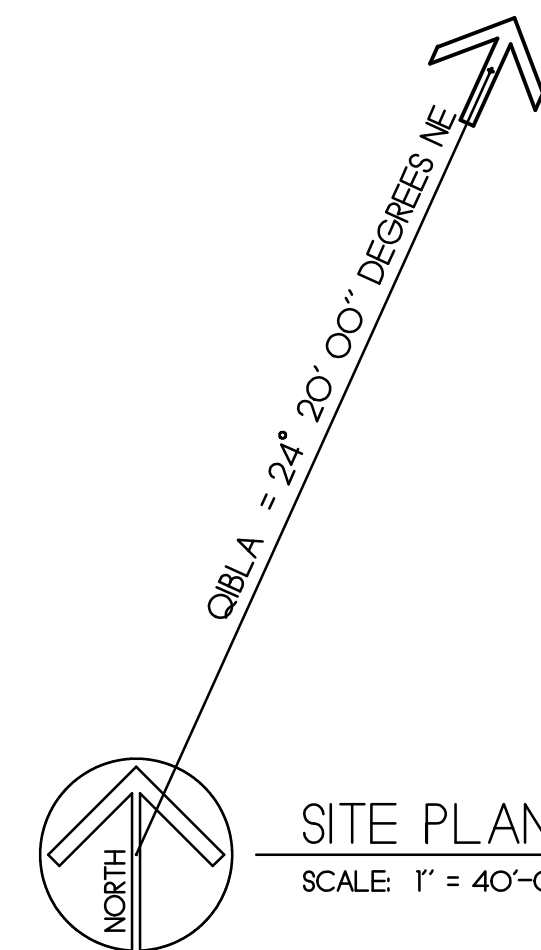
(1) Source: ITE = Institute of Transportation Engineers, *Trip Generation Manual* (10th Edition, 2017); ### = Land Use Code

(2) AC = Acres

**ATTACHMENT A**  
**SITE PLAN**



## PLOT DATE: 24 AUG 2020



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