

# Appendix I

## **Transportation**



# memorandum

date           October 4, 2019

to             Jamie Schmidt, Under Canvas

cc

from          Luke Evans, ESA; Shadde Rosenblum, ESA

subject       Trip Generation for Yosemite Under Canvas EIR

The purpose of this memorandum is to revise the trip generation rates used in the preparation of the Under Canvas Yosemite Initial Study/Mitigated Negative Declaration (IS/MND), which was published in February 2019.

## **Trip Generation Rates in IS/MND**

At the time the transportation analysis was conducted for the IS/MND, site-specific trip generation rates were not available. The Institute of Trip Engineers (ITE) Trip Generation Manual, which would normally be consulted to determine appropriate trip generation rates, does not have trip generation data/rates that fit with the unique characteristics of the Under Canvas product. For this reason, the trip generation characteristics for Yosemite Under Canvas were provided by Under Canvas based on their experience at similar existing (i.e., operational) camp sites. Under Canvas estimated that peak period traffic generated by the proposed Yosemite site would occur between 7:30 and 10:30am and 5:00 and 10:00pm. During these periods, Under Canvas estimated that there could be up to 25 vehicles per hour leaving in the morning and up to 25 vehicles per hour arriving in the evening.

## **Development of Site Specific Trip Generation Rates**

In the summer of 2019, ESA was contracted by Under Canvas to develop site specific trip generations for Under Canvas camp sites. The reason for this effort was to provide more precise and legally-defensible trip generation rates to be used in the environmental documentation for future Under Canvas sites, of which several are currently planned in California. This effort is documented in a memorandum titled, *Trip Generation for Under Canvas*, which was finalized on September 24, 2019 and is provided as Attachment A to this memorandum.

Site-specific trip generations rates were calculated using traffic data collected at Under Canvas Grand Canyon, which is considered by Under Canvas to be representative of a typical camp site with on-site characteristics that are consistent with characteristics at planned future camp sites. The results of the analysis indicated that each occupied tent generates approximately 2.6 daily one-way vehicle trips, and less than one trip per hour for the peak

hour of generator, and the weekday AM and PM peak hours. Further detail regarding the methodology and findings are provided in Attachment A.

### **Application of Site Specific Trip Generation Rates to Yosemite Site**

An Environmental Impact Report (EIR) is currently being prepared for the Yosemite site. The transportation analysis for the EIR will carry over the analysis conducted in the IS/MND, but the analysis will be updated/expanded to address public comments received on the IS/MND and to reflect any new data/project information. The trip generation estimates for the EIR will be revised based on the site-specific trip generation rates developed in the summer of 2019.

The Yosemite site is proposed to accommodate 99 tent sites. Using the daily trip generation rate of 2.6 daily one-way vehicle trips per occupied unit, the Yosemite site would generate approximately 257 vehicle trips per day at full occupancy. During the peak hour (i.e., maximum number of hourly vehicles entering/exiting the site), which would vary depending on the day of the week, up to 45 vehicles (13 inbound, 32 outbound) could be generated by Yosemite site. For the EIR, these site-specific trip generation numbers will be used, replacing the estimated trip generation numbers be used in the IS/MND.

For a Traffic Study to be required, the project must generate more than 500 vehicle trips per day or 50 vehicle trips at peak times (Tuolumne County, 2013).<sup>1</sup> Based on the site specific trip generation described above for the Yosemite site operating at full occupancy, similar to the IS/MND, a traffic study is not required as part of the EIR.<sup>2</sup> As such, similar to the IS/MND, the discussion of potential transportation and traffic impacts provided in the EIR will be largely qualitative.

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<sup>1</sup> *Tuolumne County General Plan and Regional Transportation Plan Evaluation and Analysis* (July 2013).

<sup>2</sup> As stated in the *Caltrans Guide for the Preparation of Traffic Impact Studies* (December 2002), the Caltrans threshold for a facility operating at LOS C or D, such as SR 120, is 50-100 peak hour trips.

**ATTACHMENT A:  
SITE-SPECIFIC TRIP GENERATION  
MEMORANDUM**

# memorandum

date September 24, 2019

to Jamie Schmidt; Under Canvas

cc

from Shadde Rosenblum, Luke Evans; ESA

subject Trip Generation for Under Canvas

This memorandum documents the development of use-specific trip generation rates for Under Canvas. This evaluation was conducted because the Institute of Trip Engineers (ITE) Trip Generation Manual does not have trip generation data/rates that fit with the unique characteristics of the Under Canvas product, and the hybrid rates (i.e., hotel/campsite) developed as part of previous planning efforts may misrepresent the trip generation potential of Under Canvas.

One existing Under Canvas site was selected to evaluate existing trip generation activity during summer peak activity: Under Canvas Grand Canyon, located at 979 Airpark Lane, Williams, AZ 86046. Under Canvas Grand Canyon has a total of 70 tent sites and provides onsite dining, daily housekeeping, and other camp amenities (e.g., lobby, yoga deck, volleyball court). On average, approximately 25 to 30 staff, including administration, maintenance, and housekeeping, are onsite daily. Consecutive three-day traffic counts (i.e., 72-hour) were conducted on Friday, August 23 through Sunday, August 25. The driveway location for pneumatic tube count placement was selected to ensure the isolation of vehicle trips associated solely with Under Canvas, so as not to capture vehicle trips associated with other nearby uses. The raw traffic counts are provided in Attachment A to this memorandum.

Once the traffic counts were processed and summarized by the traffic vendors, ESA was able to establish traffic volumes for the peak hour of activity (i.e., peak hour of generator), meaning the one-hour period of the day when the total of vehicles entering and exiting each site was highest, as well as daily traffic volumes. Since some traffic analyses require an analysis of weekday peak hour conditions, the Friday AM and PM peak hour volumes, which would occur sometime between 7:00 am and 9:00 am and between 4:00 pm and 6:00 pm, respectively, were also extracted from the data. Using the total number of occupied tents for the selected data collection dates, which was obtained from Under Canvas management, trip rates per occupied unit were calculated for each of the analyzed time periods. Finally, average trip generation rates were developed for each site for the entire 3-day period taking into account the number of occupied rooms and traffic volumes for each day. This information is shown below in Table 1.

Table 1: Grand Canyon Vehicle Volumes and Calculated Trip Rates

<b>GRAND CANYON</b>											
<b>Vehicle Volumes</b>											
		PEAK HOUR OF GENERATOR*			FRIDAY AM PEAK HOUR			FRIDAY PM PEAK HOUR			OCCUPIED
	DAILY	IN	OUT	TOTAL	IN	OUT	TOTAL	IN	OUT	TOTAL	ROOMS
FRI 8/23	129	4	18	22	4	13	17	5	3	8	34
SAT 8/24	108	7	11	18	N/A	N/A	N/A	N/A	N/A	N/A	51
SUN 8/25	80	5	10	15	N/A	N/A	N/A	N/A	N/A	N/A	37
<b>Trip Rates (per occupied unit)</b>											
		PEAK HOUR OF GENERATOR*			FRIDAY AM PEAK HOUR			FRIDAY PM PEAK HOUR			
	DAILY	IN	OUT	TOTAL	IN	OUT	TOTAL	IN	OUT	TOTAL	
FRI 8/16	3.79	0.12	0.53	0.65	0.12	0.38	0.50	0.15	0.09	0.24	
SAT 8/17	2.12	0.14	0.22	0.35	N/A	N/A	N/A	N/A	N/A	N/A	
SUN 8/18	2.16	0.14	0.27	0.41	N/A	N/A	N/A	N/A	N/A	N/A	
WEIGHTED AVERAGE	2.60	0.13	0.32	0.45	N/A	N/A	N/A	N/A	N/A	N/A	

\*Friday 9:15AM - 10:15AM; Saturday 2:45PM-3:45PM; Sunday 9:45AM-10:45AM

The results indicate that each occupied unit generates approximately 2.6 daily one-way vehicle trips, and less than one trip per hour for the peak hour of generator, and the weekday AM and PM peak hours.

## ATTACHMENT A: TRAFFIC DATA



**Prepared by: Field Data Services of Arizona/Veracity Traffic Group (520) 316-6745**

**Volumes for:** Friday, August 23, 2019

**City:** Williams

**Project#** 19-1408-001

**Location :** Under Canvas Grand Canyon Driveway

**DAY 1**

AM Period	NB	SB	EB	WB	PM Period	NB	SB	EB	WB	
00:00			0	0	12:00			0	1	
00:15			0	0	12:15			0	0	
00:30			0	0	12:30			1	0	
00:45			0	0	12:45			1	2	
01:00			0	0	13:00			1	2	
01:15			0	0	13:15			1	0	
01:30			0	0	13:30			0	0	
01:45			0	0	13:45			2	4	
02:00			0	0	14:00			0	2	
02:15			0	0	14:15			2	2	
02:30			0	0	14:30			3	1	
02:45			0	0	14:45			1	6	
03:00			0	0	15:00			3	1	
03:15			0	0	15:15			2	0	
03:30			0	0	15:30			3	3	
03:45			0	0	15:45			3	11	
04:00			0	0	16:00			1	0	
04:15			0	0	16:15			1	2	
04:30			0	0	16:30			1	1	
04:45			0	0	16:45			2	5	
05:00			0	0	17:00			0	1	
05:15			0	1	17:15			1	0	
05:30			1	0	17:30			0	0	
05:45			0	1	17:45			1	2	
06:00			0	0	18:00			2	0	
06:15			2	0	18:15			3	0	
06:30			0	3	18:30			1	0	
06:45			0	2	18:45			0	6	
07:00			0	1	19:00			1	0	
07:15			1	0	19:15			1	0	
07:30			0	0	19:30			0	0	
07:45			2	3	19:45			0	2	
08:00			1	3	20:00			0	0	
08:15			1	2	20:15			1	0	
08:30			1	4	20:30			0	0	
08:45			1	4	20:45			0	1	
09:00			0	2	21:00			0	0	
09:15			1	7	21:15			0	0	
09:30			0	6	21:30			0	0	
09:45			1	2	21:45			1	1	
10:00			2	3	22:00			0	0	
10:15			1	2	22:15			0	0	
10:30			1	2	22:30			0	1	
10:45			1	5	22:45			0	0	
11:00			2	2	23:00			0	1	
11:15			2	1	23:15			0	0	
11:30			2	0	23:30			0	0	
11:45			1	7	23:45			0	0	
<b>Total Vol.</b>			24	45	<b>69</b>			40	20	<b>60</b>

GPS Coordinates: 35.652085, -112.156675

Daily Totals				
NB	SB	EB	WB	Combined
		64	65	<b>129</b>

Split %	AM			PM		
	34.8%	65.2%	<b>53.5%</b>	66.7%	33.3%	<b>46.5%</b>
<b>Peak Hour</b>	10:45	08:45	<b>09:15</b>	15:00	14:00	<b>15:00</b>
<b>Volume</b>	7	19	<b>22</b>	11	6	<b>15</b>
<b>P.H.F.</b>	0.88	0.68	<b>0.69</b>	0.92	0.75	<b>0.63</b>

**Prepared by: Field Data Services of Arizona/Veracity Traffic Group (520) 316-6745**

**Volumes for:** Saturday, August 24, 2019

**City:** Williams

**Project#** 19-1408-001

**Location :** Under Canvas Grand Canyon Driveway

**DAY 2**

AM Period	NB	SB	EB	WB	PM Period	NB	SB	EB	WB			
00:00			0	0	12:00			0	0			
00:15			0	0	12:15			0	1			
00:30			0	0	12:30			1	1			
00:45			0	0	12:45			0	1	0	2	3
01:00			0	0	13:00			0	0			
01:15			0	0	13:15			2	0			
01:30			0	0	13:30			2	0			
01:45			0	0	13:45			5	9	0	0	9
02:00			0	0	14:00			2	2			
02:15			0	0	14:15			0	0			
02:30			0	0	14:30			1	2			
02:45			0	0	14:45			0	3	6	10	13
03:00			0	0	15:00			4	1			
03:15			0	0	15:15			1	2			
03:30			0	0	15:30			2	2			
03:45			0	0	15:45			3	10	2	7	17
04:00			0	0	16:00			2	2			
04:15			0	0	16:15			1	3			
04:30			0	0	16:30			1	1			
04:45			0	0	16:45			2	6	1	7	13
05:00			0	0	17:00			0	0			
05:15			0	0	17:15			1	1			
05:30			0	0	17:30			0	0			
05:45			0	0	17:45			1	2	2	3	5
06:00			0	0	18:00			2	3			
06:15			0	0	18:15			3	0			
06:30			0	1	18:30			2	0			
06:45			0	0	18:45			0	7	0	3	10
07:00			0	0	19:00			0	0			
07:15			0	0	19:15			2	0			
07:30			0	0	19:30			0	0			
07:45			2	2	19:45			0	2	0	0	2
08:00			0	2	20:00			2	0			
08:15			0	2	20:15			0	0			
08:30			0	2	20:30			3	0			
08:45			1	1	20:45			2	7	0	0	7
09:00			0	2	21:00			2	0			
09:15			0	1	21:15			0	1			
09:30			0	0	21:30			0	0			
09:45			0	0	21:45			0	2	0	1	3
10:00			0	2	22:00			0	0			
10:15			0	0	22:15			0	0			
10:30			1	3	22:30			0	0			
10:45			0	1	22:45			0	0	0	0	0
11:00			2	0	23:00			0	0			
11:15			0	0	23:15			0	0			
11:30			0	0	23:30			0	0			
11:45			0	2	23:45			0	0	0	0	0

**Total Vol.** 6 20 26 49 33 82

GPS Coordinates: 35.652085, -112.156675

		Daily Totals		
NB	SB	EB	WB	Combined
		55	53	108
AM		PM		
<b>Split %</b>		59.8%	40.2%	75.9%
<b>Peak Hour</b>	10:15 09:45 09:45	13:15	14:30	14:45
<b>Volume</b>	3 8 9	11	11	18
<b>P.H.F.</b>	0.38 0.67 0.56	0.55	0.46	0.75

**Prepared by: Field Data Services of Arizona/Veracity Traffic Group (520) 316-6745**

**Volumes for:** Sunday, August 25, 2019

**City:** Williams

**Project#** 19-1408-001

**Location :** Under Canvas Grand Canyon Driveway

**DAY 3**

AM Period	NB	SB	EB	WB	PM Period	NB	SB	EB	WB
00:00			0	0	12:00			0	0
00:15			0	0	12:15			0	0
00:30			0	0	12:30			0	1
00:45			0	0	12:45			1	1
01:00			0	0	13:00			1	1
01:15			0	0	13:15			0	0
01:30			0	0	13:30			0	0
01:45			0	0	13:45			1	2
02:00			0	0	14:00			0	0
02:15			0	0	14:15			1	0
02:30			0	0	14:30			1	1
02:45			0	0	14:45			2	4
03:00			0	0	15:00			0	0
03:15			0	0	15:15			0	0
03:30			0	0	15:30			0	1
03:45			0	0	15:45			2	2
04:00			0	0	16:00			1	1
04:15			0	0	16:15			0	0
04:30			0	0	16:30			1	1
04:45			0	0	16:45			1	3
05:00			0	0	17:00			2	0
05:15			0	0	17:15			0	1
05:30			0	0	17:30			1	1
05:45			0	0	17:45			0	3
06:00			2	0	18:00			0	2
06:15			0	0	18:15			1	1
06:30			0	0	18:30			0	0
06:45			0	2	18:45			0	1
07:00			1	0	19:00			2	0
07:15			0	0	19:15			1	0
07:30			0	0	19:30			0	0
07:45			1	2	19:45			1	4
08:00			0	1	20:00			0	0
08:15			1	2	20:15			1	0
08:30			1	1	20:30			0	0
08:45			0	2	20:45			0	1
09:00			0	2	21:00			0	0
09:15			2	2	21:15			0	0
09:30			1	1	21:30			0	1
09:45			1	4	21:45			0	0
10:00			1	1	22:00			0	0
10:15			2	3	22:15			0	0
10:30			1	3	22:30			0	0
10:45			0	4	22:45			0	0
11:00			1	1	23:00			0	0
11:15			2	0	23:15			0	0
11:30			0	1	23:30			0	0
11:45			1	4	23:45			0	0

**Total Vol.** 18 28 46 21 13 34

GPS Coordinates: 35.652085, -112.156675

Daily Totals				
NB	SB	EB	WB	Combined
		39	41	80

Split %	AM			PM		
	39.1%	60.9%	57.5%	61.8%	38.2%	42.5%
<b>Peak Hour</b>	09:15	09:45	09:45	14:00	17:15	14:00
<b>Volume</b>	5	10	15	4	4	6
<b>P.H.F.</b>	0.63	0.83	0.75	0.50	0.50	0.50