



Paul E. Basha, PE, PTOE
Traffic Engineering Manager
Suite 300, 7144 E. Stetson Drive
Scottsdale, Arizona 85251
Phone 480.505.3931
PBasha@SummitLandMgmt.com

23 September 2024

TO: City of Scottsdale

FROM: Paul E. Basha, PE, PTOE, Summit Land Management
Kayla Amado

RE: Traffic Statement for Garages at Westworld

Introduction

The developers of Apex Motor Sports are proposing to construct Garages at Westworld, luxury garages for collector vehicles, at the intersection of 99th Lane and McDowell Mountain Ranch Road in the City of Scottsdale, Arizona. The proposed development consists of 58 luxury vehicle garages, comprised of approximately 75,526 square feet on approximately 5.04 acres. The property is indicated in the greater vicinity aerial photograph in **Figure 1**.



Figure 1: Garages at Westworld General Location on Aerial Photograph

[illegible]

Figure 2: Garages at Westworld Site Plan

Traffic Data

Traffic counts were obtained on 10 July 2024 at the intersection of 99th Lane and McDowell Mountain Ranch Road. **Attachment 1** provides the complete traffic count data. Because traffic counts vary from month-to-month, often monthly factors are utilized to adjust a specific count month to an average for the year. The City of Scottsdale utilizes monthly factors developed by the Maricopa Association of Governments in 2007. **Table 1** provides these monthly factors. These factors indicate that counts in January, September, and October are the closest to typical. Counts in July are 93% of typical. The 2023 traffic counts were divided by 0.930 to represent the typical weekday traffic volume for the entire year.

Table 1: Monthly Factors

	Factor
January	1.003
February	1.045
March	1.040
April	1.044
May	1.022
June	0.972
July	0.930
August	0.975
September	0.995
October	0.994
November	1.008
December	0.974

Figure 3 below provides the 2024 adjusted day and peak hour traffic volumes, and the existing lane configurations, at the intersection of 99th Lane and McDowell Mountain Ranch Road.

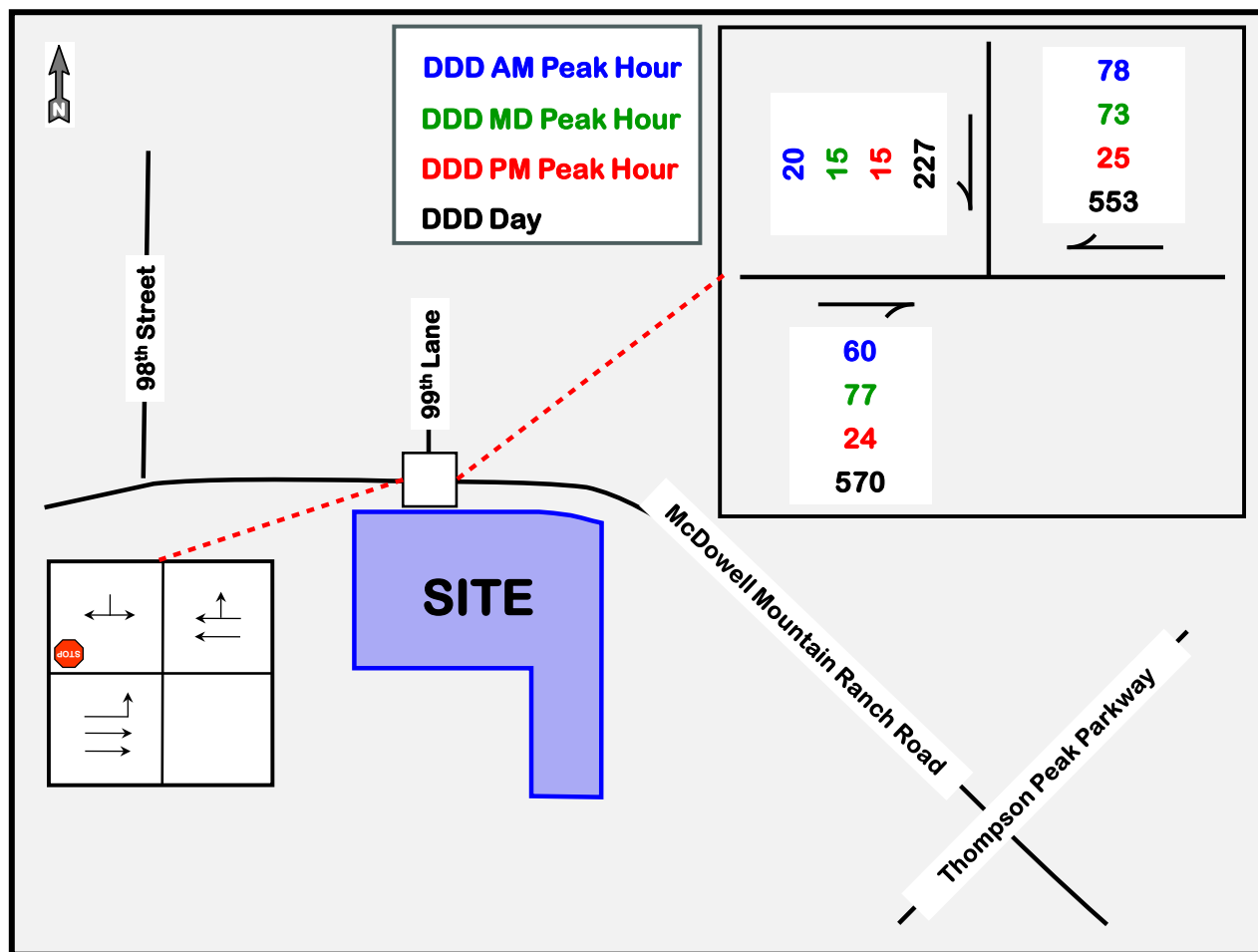


Figure 3: 2024 Adjusted Traffic Volumes and Lane Configurations

Trip Generation

Trip generation for proposed developments is estimated with the procedures and data contained within the Institute of Transportation Engineers *Trip Generation Manual, 11th Edition*, published in 2021. This document provides traffic volume data from existing developments throughout the United States and Canada, from 1980 through 2021, that can be utilized to estimate trips from proposed developments. The traffic data are provided for 179 land use categories separated into 10 major land use categories. The estimated traffic volume is dependent upon independent variables defined by the characteristics and size of each land use category. Data are typically provided for five (5) weekday time periods and four (4) weekend time periods.

There is no exact category for luxury vehicle garages in the *Trip Generation Manual, 11th Edition*. The closest appropriate land use category is Mini-Warehousing, land use code 151. This category best describes the property use. The luxury garages provide individual customized vehicle-homes for the storage of collector vehicles. These vehicles are collector items and driven sparingly. Four (4) independent variables are provided and were utilized: thousand feet of gross floor area, thousand square feet of net rentable area, hundred storage units, and occupied hundred storage units.

The average of the four (4) independent variables average rates was utilized, and the four (4) independent variables fitted curve equations were utilized, when available. The maximum of these two values for each time period was utilized to estimate the trip generation of the proposed luxury garages. The average of the four (4) independent variables average rates was utilized instead of the typical maximum value, as the maximum value was excessive – particularly for the daily volumes. The maximum daily volumes would be more than one (1) vehicle entering and one (1) vehicle exiting per day for each luxury garage. This is unreasonable for a vehicle storage facility. The results are provided, with both the maximum and average values, in **Attachment 2**.

The current zoning of the property is R1-35, providing a density of approximately 1.24 homes-per-acre. Therefore the 5.09 acres could accommodate six (6) individual houses. The land use category of Single-Family Detached Housing, land use code 220, was utilized to estimate the current zoning potential trip generation. The independent variable of dwelling unit was utilized. **Attachment 3** provides the results of the current zoning trip generation.

Table 2 provides a summary of the estimated trip generation for the proposed Garages at Westworld and the existing zoning for six (6) single-family detached houses.

Table 2: Trip Generation Summary

	GARAGES AT WESTWORLD			EXISTING ZONING (SIX HOUSES)		
	ENTERING	EXITING	TOTAL	ENTERING	EXITING	TOTAL
WEEKDAY DAILY	32	32	64	55	55	110
AM PEAK HOUR STREET	4	3	7	2	4	6
AM PEAK HOUR GENERATOR	4	3	7	3	8	11
PM PEAK HOUR STREET	4	3	7	4	3	7
PM PEAK HOUR GENERATOR	4	4	8	5	3	8
SATURDAY DAILY	55	54	109	32	31	63
PEAK HOUR GENERATOR	4	4	8	8	7	15
SUNDAY DAILY	24	23	46	26	25	51
PEAK HOUR GENERATOR	3	4	7	5	5	10

During peak hours, the estimated trip generation is essentially the same for the proposed luxury garages and six (6) single family detached homes. During weekdays, the luxury garages are estimated to generate fewer trips than those generated by six (6) homes. During Saturdays, the luxury garages are estimated to generate more trips than six (6) homes. During Sundays, the estimated trip generation is essentially the same for the proposed luxury garages and six (6) detached homes.

Conclusions With Luxury Garages

The existing traffic volumes at the intersection of 99th Lane and McDowell Mountain Ranch Road are very low. The estimated traffic volumes for the Garages at Westworld are also very low, and similar to the estimated traffic volumes that would occur conforming to the existing zoning.

Please contact me at (480) 505-3931 or pbasha@summitlandmgmt.com if you have any questions or would like to discuss this traffic statement.

Attachments:

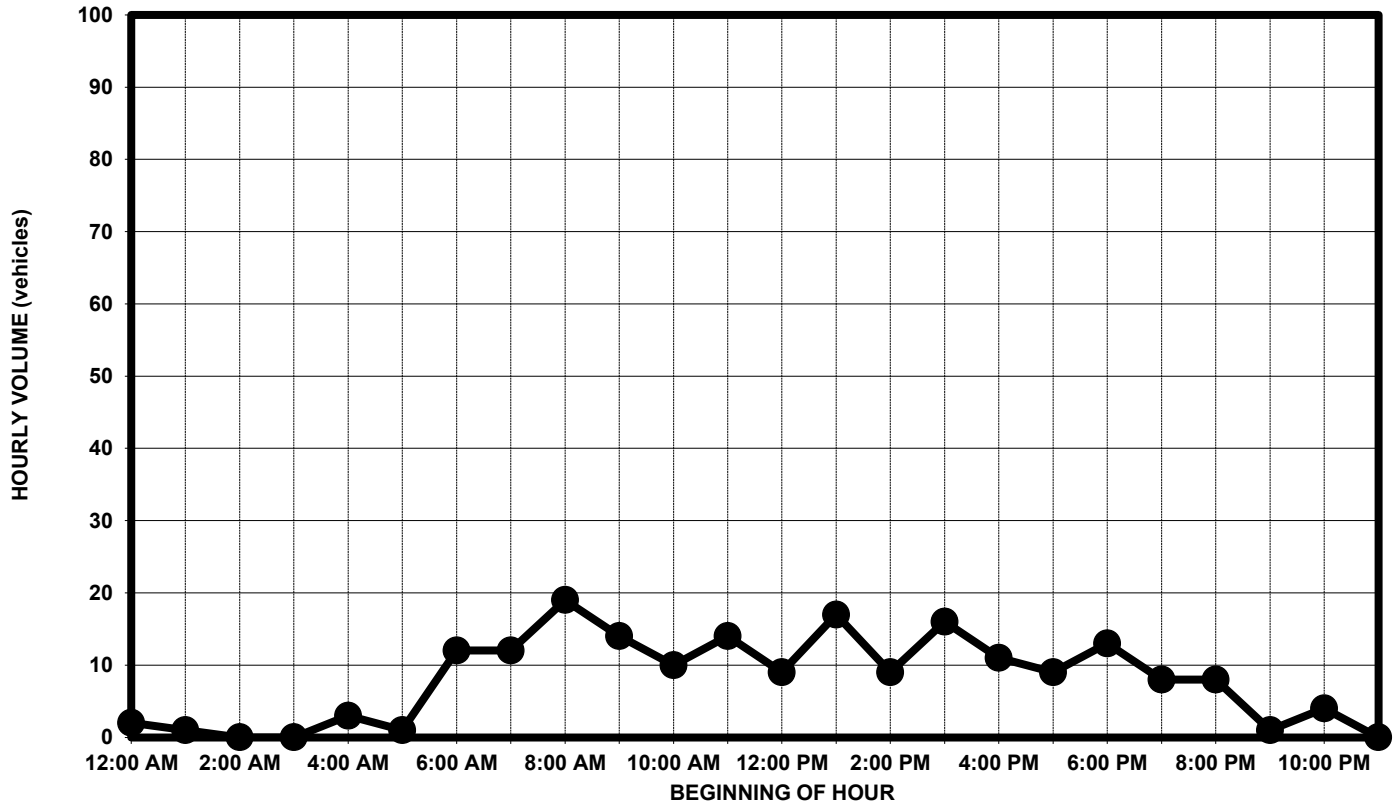
1. Traffic Counts
2. Trip Generation – Luxury Garages
3. Trip Generation – Single-family Houses

Attachment A

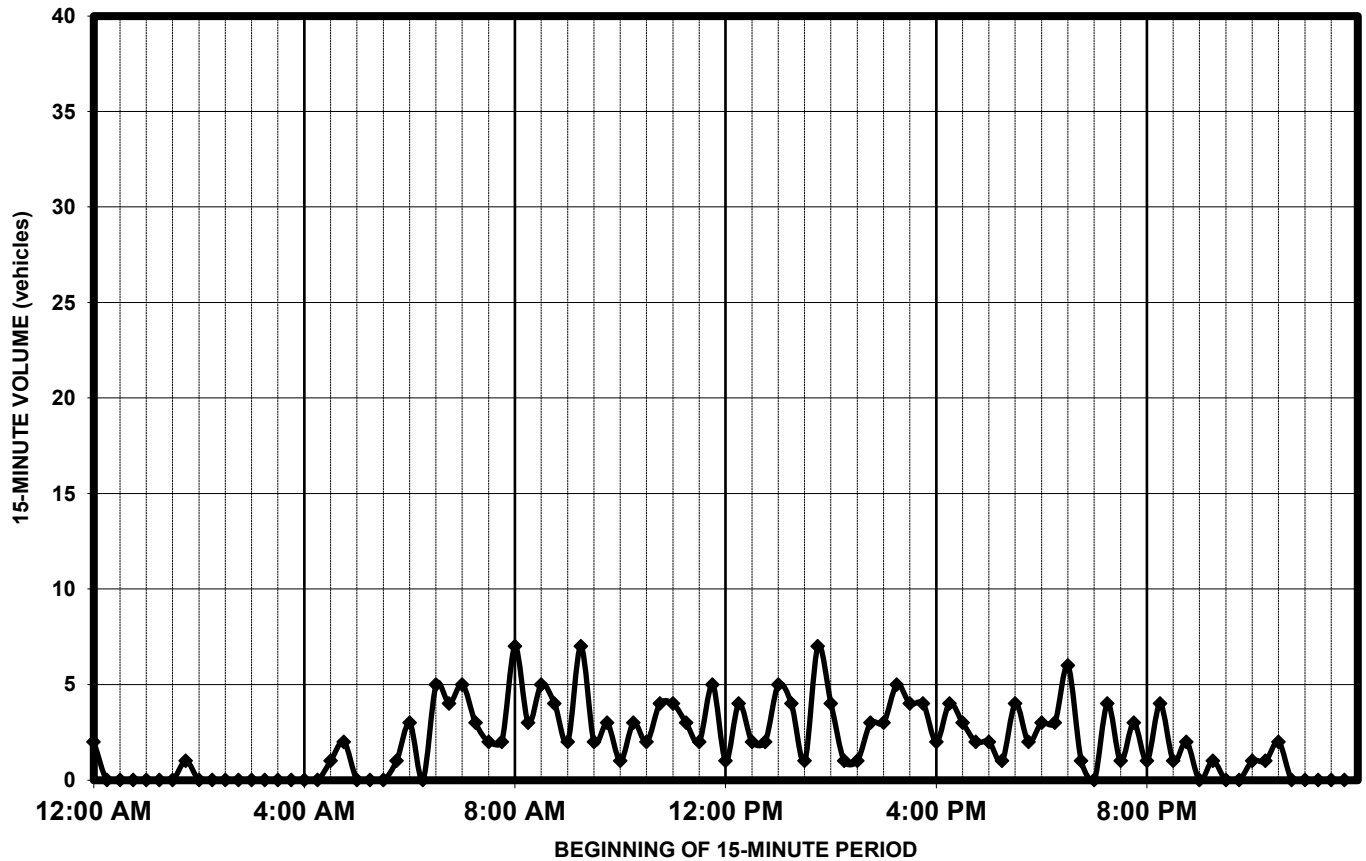
Traffic Counts



GARAGES AT WESTWORLD
MCDOWELL MOUNTAIN RANCH ROAD, EAST OF 99th LANE - WEDNESDAY 07/10/2024
SOUTHBOUND HOURLY VOLUMES



GARAGES AT WESTWORLD
MCDOWELL MOUNTAIN RANCH ROAD, EAST OF 99th PLACE - WEDNESDAY 07/10/2024
EASTBOUND 15-MINUTE TRAFFIC VOLUMES



GARAGES AT WESTWORLD

MCDOWELL MOUNTAIN RANCH ROAD, EAST OF 99th LANE - WEDNESDAY 07/10/2024

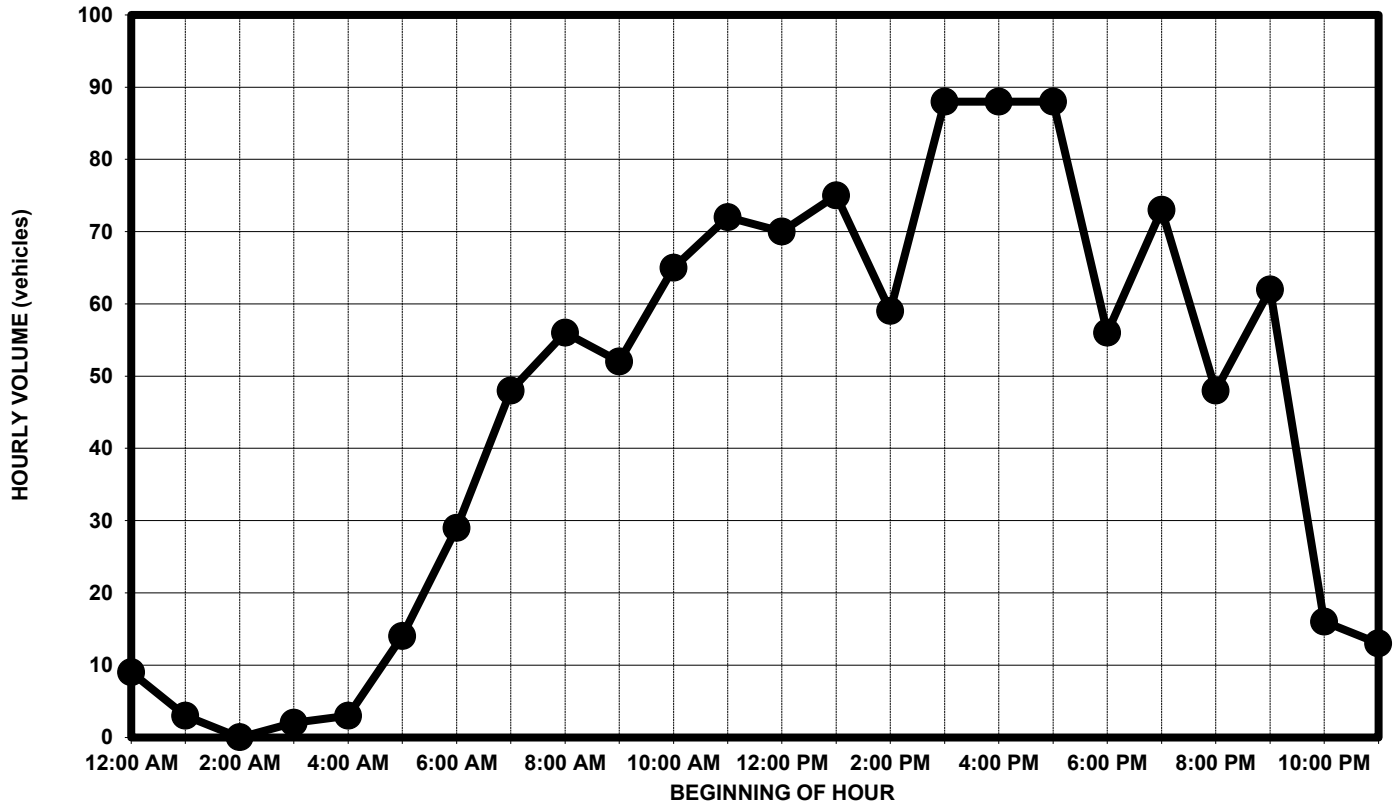
SOUTHBOUND 15-MINUTE TRAFFIC VOLUMES

BEGIN PERIOD	MORNING			EVENING		BEGIN PERIOD
	15 MINUTES	60 MINUTES		15 MINUTES	60 MINUTES	
12:00 AM	2	2		1	9	12:00 PM
12:15 AM	0	0		4	13	12:15 PM
12:30 AM	0	0		2	13	12:30 PM
12:45 AM	0	0		2	12	12:45 PM
1:00 AM	0	1		5	17	1:00 PM
1:15 AM	0	1		4	16	1:15 PM
1:30 AM	0	1		1	13	1:30 PM
1:45 AM	1	1		7	13	1:45 PM
2:00 AM	0	0		4	9	2:00 PM
2:15 AM	0	0		1	8	2:15 PM
2:30 AM	0	0		1	12	2:30 PM
2:45 AM	0	0		3	15	2:45 PM
3:00 AM	0	0		3	16	3:00 PM
3:15 AM	0	0		5	15	3:15 PM
3:30 AM	0	0		4	14	3:30 PM
3:45 AM	0	1		4	13	3:45 PM
4:00 AM	0	3		2	11	4:00 PM
4:15 AM	0	3		4	11	4:15 PM
4:30 AM	1	3		3	8	4:30 PM
4:45 AM	2	2		2	9	4:45 PM
5:00 AM	0	1		2	9	5:00 PM
5:15 AM	0	4		1	10	5:15 PM
5:30 AM	0	4		4	12	5:30 PM
5:45 AM	1	9		2	14	5:45 PM
6:00 AM	3	12		3	13	6:00 PM
6:15 AM	0	14		3	10	6:15 PM
6:30 AM	5	17		6	11	6:30 PM
6:45 AM	4	14		1	6	6:45 PM
7:00 AM	5	12		0	8	7:00 PM
7:15 AM	3	14		4	9	7:15 PM
7:30 AM	2	14		1	9	7:30 PM
7:45 AM	2	17		3	9	7:45 PM
8:00 AM	7	19		1	8	8:00 PM
8:15 AM	3	14		4	7	8:15 PM
8:30 AM	5	18		1	4	8:30 PM
8:45 AM	4	15		2	3	8:45 PM
9:00 AM	2	14		0	1	9:00 PM
9:15 AM	7	13		1	2	9:15 PM
9:30 AM	2	9		0	2	9:30 PM
9:45 AM	3	9		0	4	9:45 PM
10:00 AM	1	10		1	4	10:00 PM
10:15 AM	3	13		1	3	10:15 PM
10:30 AM	2	13		2	2	10:30 PM
10:45 AM	4	13		0	0	10:45 PM
11:00 AM	4	14		0	0	11:00 PM
11:15 AM	3	11		0	-	11:15 PM
11:30 AM	2	12		0	-	11:30 PM
11:45 AM	5	12		0	-	11:45 PM
AM PEAK VOLUME	7	19		7	17	PM PEAK VOLUME
PHF and TIME	0.68	8:00 AM		0.61	1:00 PM	PHF and TIME
DAILY VOLUME	193					

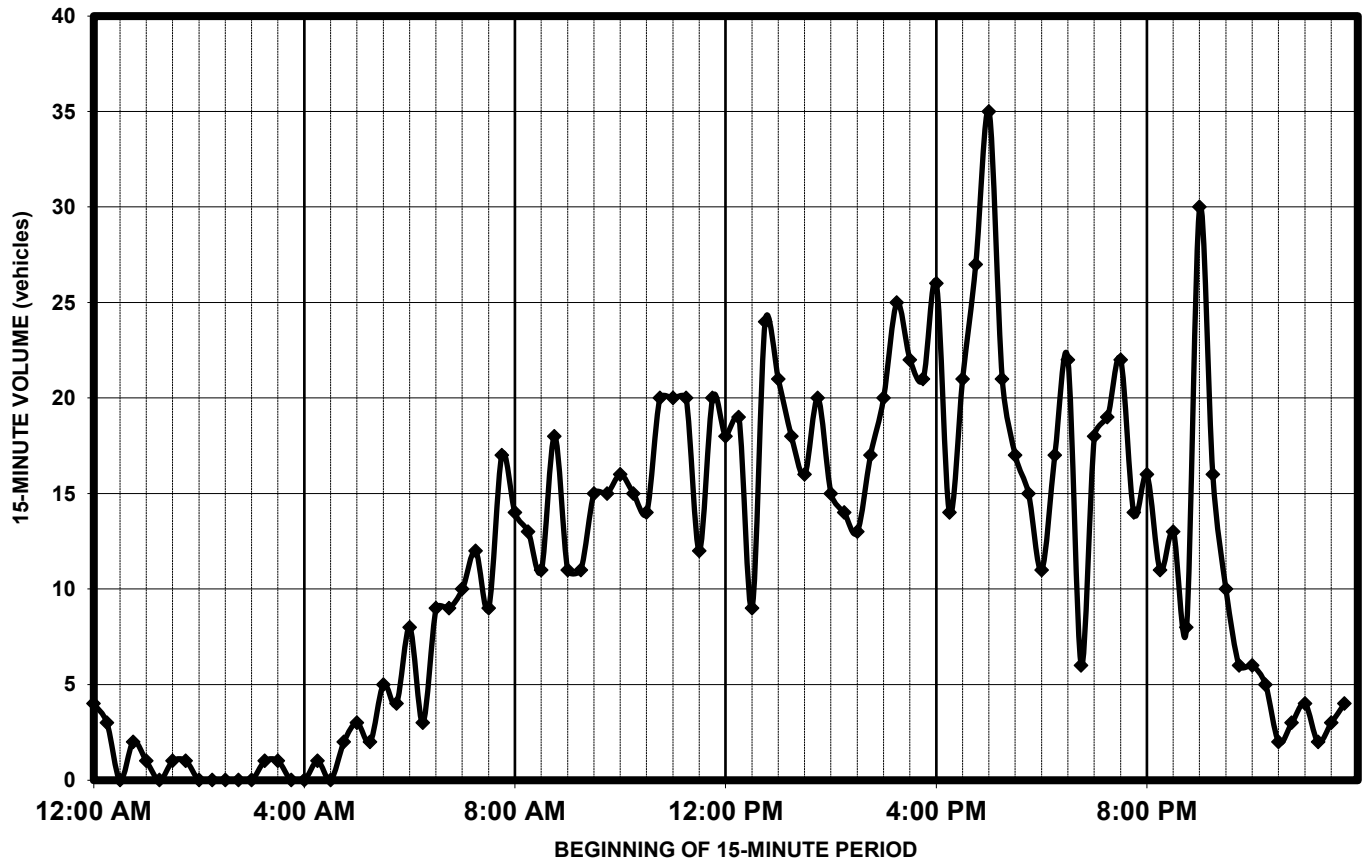
Analysis By: PEB Date: 07/10/2024



GARAGES AT WESTWORLD
MCDOWELL MOUNTAIN RANCH ROAD, EAST OF 99th LANE - WEDNESDAY 07/10/2024
EASTBOUND HOURLY VOLUMES



GARAGES AT WESTWORLD
MCDOWELL MOUNTAIN RANCH ROAD, EAST OF 99th PLACE - WEDNESDAY 07/10/2024
EASTBOUND 15-MINUTE TRAFFIC VOLUMES



GARAGES AT WESTWORLD

MCDOWELL MOUNTAIN RANCH ROAD, EAST OF 99th LANE - WEDNESDAY 07/10/2024

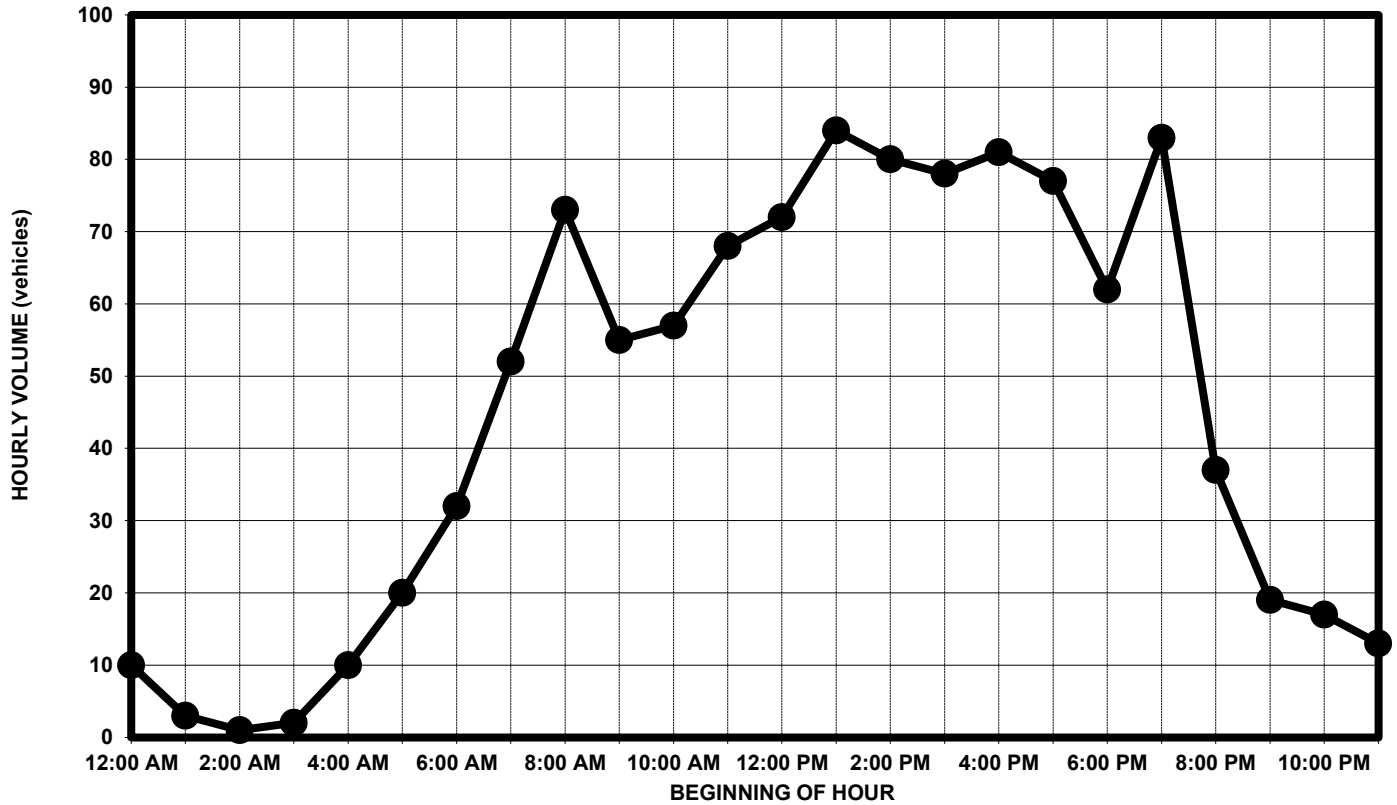
EASTBOUND 15-MINUTE TRAFFIC VOLUMES

BEGIN PERIOD	MORNING			EVENING		BEGIN PERIOD
	15 MINUTES	60 MINUTES		15 MINUTES	60 MINUTES	
12:00 AM	4	9		18	70	12:00 PM
12:15 AM	3	6		19	73	12:15 PM
12:30 AM	0	3		9	72	12:30 PM
12:45 AM	2	4		24	79	12:45 PM
1:00 AM	1	3		21	75	1:00 PM
1:15 AM	0	2		18	69	1:15 PM
1:30 AM	1	2		16	65	1:30 PM
1:45 AM	1	1		20	62	1:45 PM
2:00 AM	0	0		15	59	2:00 PM
2:15 AM	0	0		14	64	2:15 PM
2:30 AM	0	1		13	75	2:30 PM
2:45 AM	0	2		17	84	2:45 PM
3:00 AM	0	2		20	88	3:00 PM
3:15 AM	1	2		25	94	3:15 PM
3:30 AM	1	2		22	83	3:30 PM
3:45 AM	0	1		21	82	3:45 PM
4:00 AM	0	3		26	88	4:00 PM
4:15 AM	1	6		14	97	4:15 PM
4:30 AM	0	7		21	104	4:30 PM
4:45 AM	2	12		27	100	4:45 PM
5:00 AM	3	14		35	88	5:00 PM
5:15 AM	2	19		21	64	5:15 PM
5:30 AM	5	20		17	60	5:30 PM
5:45 AM	4	24		15	65	5:45 PM
6:00 AM	8	29		11	56	6:00 PM
6:15 AM	3	31		17	63	6:15 PM
6:30 AM	9	40		22	65	6:30 PM
6:45 AM	9	40		6	65	6:45 PM
7:00 AM	10	48		18	73	7:00 PM
7:15 AM	12	52		19	71	7:15 PM
7:30 AM	9	53		22	63	7:30 PM
7:45 AM	17	55		14	54	7:45 PM
8:00 AM	14	56		16	48	8:00 PM
8:15 AM	13	53		11	62	8:15 PM
8:30 AM	11	51		13	67	8:30 PM
8:45 AM	18	55		8	64	8:45 PM
9:00 AM	11	52		30	62	9:00 PM
9:15 AM	11	57		16	38	9:15 PM
9:30 AM	15	61		10	27	9:30 PM
9:45 AM	15	60		6	19	9:45 PM
10:00 AM	16	65		6	16	10:00 PM
10:15 AM	15	69		5	14	10:15 PM
10:30 AM	14	74		2	11	10:30 PM
10:45 AM	20	72		3	12	10:45 PM
11:00 AM	20	72		4	13	11:00 PM
11:15 AM	20	70		2	-	11:15 PM
11:30 AM	12	69		3	-	11:30 PM
11:45 AM	20	66		4	-	11:45 PM
AM PEAK VOLUME	20	74		35	104	PM PEAK VOLUME
PHF and TIME	0.93	10:30 AM		0.74	4:30 PM	PHF and TIME
DAILY VOLUME	1,089					

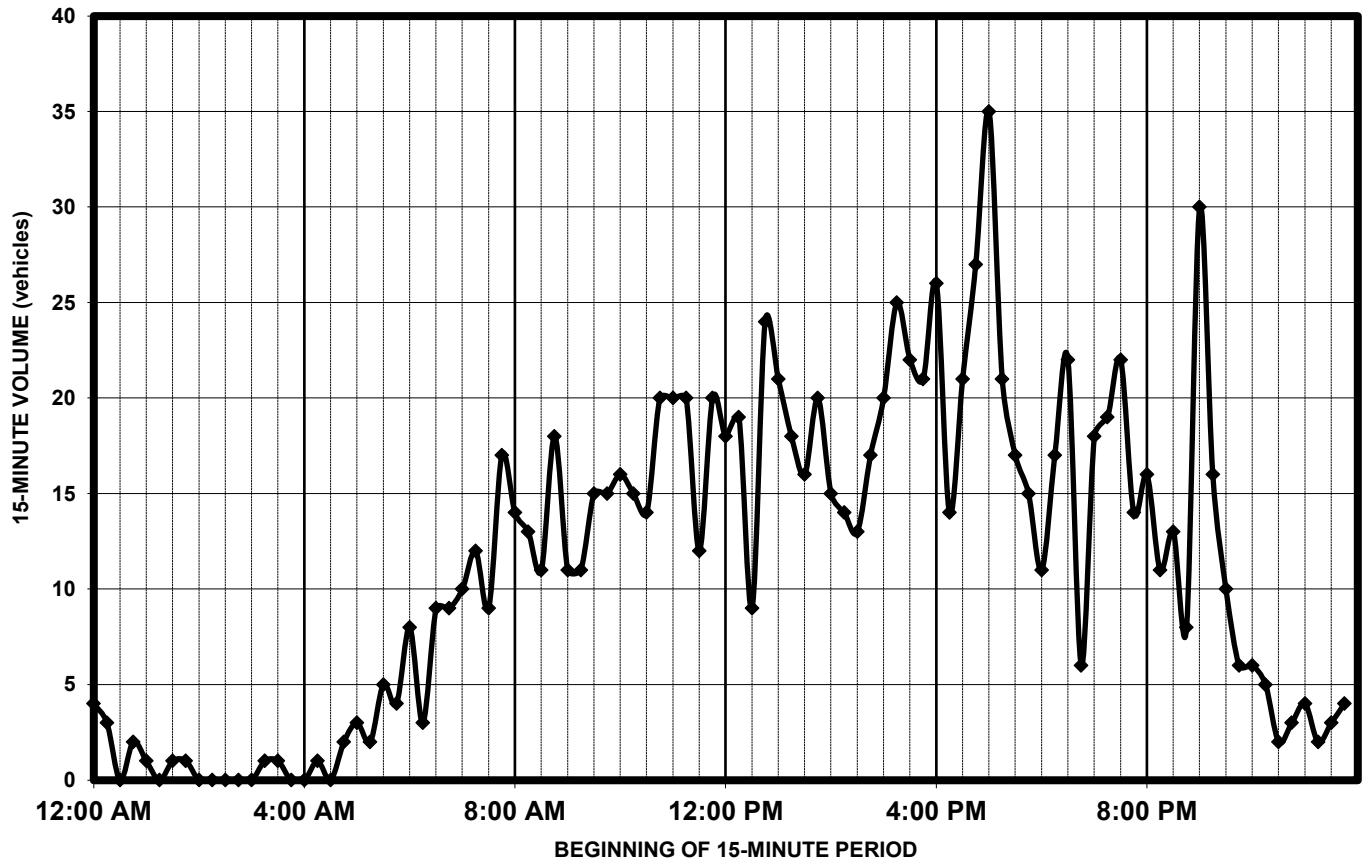
Analysis By: PEB Date: 07/10/2024



GARAGES AT WESTWORLD
MCDOWELL MOUNTAIN RANCH ROAD, EAST OF 99th LANE - WEDNESDAY 07/10/2024
WESTBOUND HOURLY VOLUMES



GARAGES AT WESTWORLD
MCDOWELL MOUNTAIN RANCH ROAD, EAST OF 99th PLACE - WEDNESDAY 07/10/2024
EASTBOUND 15-MINUTE TRAFFIC VOLUMES



GARAGES AT WESTWORLD

MCDOWELL MOUNTAIN RANCH ROAD, EAST OF 99th LANE - WEDNESDAY 07/10/2024

WESTBOUND 15-MINUTE TRAFFIC VOLUMES

BEGIN PERIOD	MORNING			EVENING		BEGIN PERIOD
	15 MINUTES	60 MINUTES		15 MINUTES	60 MINUTES	
12:00 AM	5	10		16	72	12:00 PM
12:15 AM	2	5		17	87	12:15 PM
12:30 AM	1	4		22	86	12:30 PM
12:45 AM	2	4		17	85	12:45 PM
1:00 AM	0	3		31	84	1:00 PM
1:15 AM	1	3		16	77	1:15 PM
1:30 AM	1	2		21	82	1:30 PM
1:45 AM	1	1		16	75	1:45 PM
2:00 AM	0	1		24	80	2:00 PM
2:15 AM	0	1		21	72	2:15 PM
2:30 AM	0	1		14	76	2:30 PM
2:45 AM	1	3		21	83	2:45 PM
3:00 AM	0	2		16	78	3:00 PM
3:15 AM	0	2		25	79	3:15 PM
3:30 AM	2	4		21	79	3:30 PM
3:45 AM	0	6		16	78	3:45 PM
4:00 AM	0	10		17	81	4:00 PM
4:15 AM	2	13		25	80	4:15 PM
4:30 AM	4	15		20	79	4:30 PM
4:45 AM	4	19		19	84	4:45 PM
5:00 AM	3	20		16	77	5:00 PM
5:15 AM	4	25		24	75	5:15 PM
5:30 AM	8	26		25	70	5:30 PM
5:45 AM	5	25		12	71	5:45 PM
6:00 AM	8	32		14	62	6:00 PM
6:15 AM	5	29		19	64	6:15 PM
6:30 AM	7	43		26	65	6:30 PM
6:45 AM	12	47		3	68	6:45 PM
7:00 AM	5	52		16	83	7:00 PM
7:15 AM	19	60		20	76	7:15 PM
7:30 AM	11	59		29	70	7:30 PM
7:45 AM	17	69		18	48	7:45 PM
8:00 AM	13	73		9	37	8:00 PM
8:15 AM	18	73		14	34	8:15 PM
8:30 AM	21	72		7	29	8:30 PM
8:45 AM	21	63		7	25	8:45 PM
9:00 AM	13	55		6	19	9:00 PM
9:15 AM	17	64		9	20	9:15 PM
9:30 AM	12	58		3	14	9:30 PM
9:45 AM	13	55		1	13	9:45 PM
10:00 AM	22	57		7	17	10:00 PM
10:15 AM	11	51		3	16	10:15 PM
10:30 AM	9	61		2	15	10:30 PM
10:45 AM	15	68		5	15	10:45 PM
11:00 AM	16	68		6	13	11:00 PM
11:15 AM	21	68		2	-	11:15 PM
11:30 AM	16	64		2	-	11:30 PM
11:45 AM	15	70		3	-	11:45 PM
AM PEAK VOLUME	21	73		31	87	PM PEAK VOLUME
PHF and TIME	0.87	2 peaks		0.70	12:15 PM	PHF and TIME
DAILY VOLUME	1,086					

Analysis By: PEB Date: 07/10/2024



GARAGES AT WESTWORLD

99th LANE and MCDOWELL MOUNTAIN RANCH ROAD - WEDNESDAY 07/10/2024

EXISTING 5:00 AM to 10:00 AM



BEGIN TIME	MCDOWELL MOUNTAIN RANCH ROAD EASTBOUND	MCDOWELL MOUNTAIN RANCH ROAD WESTBOUND	99th LANE NORTHBOUND	99th LANE SOUTHBOUND	ALL TOTAL	60 MINUTE TOTAL
	ALL	ALL	ALL	ALL		
5:00 AM	3	3	0	0	6	35
5:15 AM	2	4	0	0	6	48
5:30 AM	5	8	0	0	13	50
5:45 AM	4	5	0	1	10	58
6:00 AM	8	8	0	3	19	73
6:15 AM	3	5	0	0	8	74
6:30 AM	9	7	0	5	21	100
6:45 AM	9	12	0	4	25	101
7:00 AM	10	5	0	5	20	112
7:15 AM	12	19	0	3	34	126
7:30 AM	9	11	0	2	22	126
7:45 AM	17	17	0	2	36	141
8:00 AM	14	13	0	7	34	148
8:15 AM	13	18	0	3	34	140
8:30 AM	11	21	0	5	37	141
8:45 AM	18	21	0	4	43	133
9:00 AM	11	13	0	2	26	121
9:15 AM	11	17	0	7	35	134
9:30 AM	15	12	0	2	29	128
9:45 AM	15	13	0	3	31	124
AM PEAK	56	73	0	19	148	148
PHF	0.78	0.87		0.68		

GARAGES AT WESTWORLD

99th LANE and MCDOWELL MOUNTAIN RANCH ROAD - WEDNESDAY 07/10/2024



EXISTING 10:00 AM to 3:00 PM

BEGIN TIME	MCDOWELL MOUNTAIN RANCH ROAD EASTBOUND	MCDOWELL MOUNTAIN RANCH ROAD WESTBOUND	99th LANE NORTHBOUND	99th LANE SOUTHBOUND	ALL TOTAL	60 MIN. TOTAL
	ALL	ALL	ALL	ALL		
10:00 AM	16	22	0	1	39	132
10:15 AM	15	11	0	3	29	133
10:30 AM	14	9	0	2	25	148
10:45 AM	20	15	0	4	39	153
11:00 AM	20	16	0	4	40	154
11:15 AM	20	21	0	3	44	149
11:30 AM	12	16	0	2	30	120
11:45 AM	20	15	0	5	40	96
12:00 PM	18	16	0	1	35	60
12:15 PM	6	3	0	6	15	42
12:30 PM	3	2	0	1	6	38
12:45 PM	2	0	0	2	4	37
1:00 PM	9	4	0	4	17	48
1:15 PM	5	1	0	5	11	41
1:30 PM	4	0	0	1	5	47
1:45 PM	7	5	0	3	15	52
2:00 PM	3	2	0	5	10	48
2:15 PM	7	4	0	6	17	35
2:30 PM	4	3	0	3	10	29
2:45 PM	6	3	0	2	11	31
MD PEAK	72	68	0	14	154	154
PHF	0.90	0.81		0.70		

GARAGES AT WESTWORLD

99th LANE and MCDOWELL MOUNTAIN RANCH ROAD - WEDNESDAY 07/10/2024



EXISTING 3:00 PM to 8:00 PM

BEGIN TIME	MCDOWELL MOUNTAIN RANCH ROAD EASTBOUND	MCDOWELL MOUNTAIN RANCH ROAD WESTBOUND	99th LANE NORTHBOUND	99th LANE SOUTHBOUND	ALL TOTAL	60 MIN. TOTAL
	ALL	ALL	ALL	ALL		
3:00 PM	4	3	0	1	8	30
3:15 PM	5	3	0	1	9	34
3:30 PM	5	0	0	2	7	38
3:45 PM	2	2	0	2	6	41
4:00 PM	5	3	0	4	12	49
4:15 PM	4	5	0	4	13	50
4:30 PM	6	2	0	2	10	51
4:45 PM	7	3	0	4	14	58
5:00 PM	5	4	0	4	13	55
5:15 PM	3	7	0	4	14	59
5:30 PM	9	5	0	3	17	57
5:45 PM	3	5	0	3	11	47
6:00 PM	7	6	0	4	17	44
6:15 PM	4	5	0	3	12	34
6:30 PM	3	3	0	1	7	29
6:45 PM	4	2	0	2	8	28
7:00 PM	3	3	0	1	7	24
7:15 PM	1	3	0	3	7	35
7:30 PM	2	2	0	2	6	29
7:45 PM	1	1	0	2	4	31
PM PEAK	22	23	0	14	59	59
PHF	0.61	0.82		0.88		

Attachment B

Trip Generation – Luxury Garages



Garages at Westworld

PROJECT		GARAGES AT WESTWORLD						
PARCEL		ENTIRE						
ITE LAND USE CATEGORY AND CODE		MINI-WAREHOUSE - 151						
INDEPENDENT VARIABLE		THOUSAND SQUARE FEET						
SIZE		75.52						
						ENTERING	EXITING	TOTAL
WEEKDAY DAILY						50%	50%	
STUDIES and LOW, AVERAGE, AND HIGH SIZE		16	8	55	101			
MINIMUM RATE	LOW RATES ACCEPTABLE	0.38				15	14	29
AVERAGE RATE		1.45				55	55	110
MAXIMUM RATE	HIGH RATES ACCEPTABLE	3.25				123	122	245
STANDARD DEVIATION		0.92						
EQUATION: NOT PROVIDED		NA				NA	NA	NA
LARGEST OF AVERAGE OR EQUATION						55	55	110
AM PEAK HOUR ADJACENT STREET						59%	41%	
STUDIES and LOW, AVERAGE, AND HIGH SIZE		13	27	70	114			
MINIMUM RATE	LOW RATES ACCEPTABLE	0.04				2	1	3
AVERAGE RATE		0.09				4	3	7
MAXIMUM RATE	HIGH RATES ACCEPTABLE	0.17				8	5	13
STANDARD DEVIATION		0.05						
EQUATION: NOT PROVIDED		NA				NA	NA	NA
LARGEST OF AVERAGE OR EQUATION						4	3	7
AM PEAK HOUR GENERATOR						51%	49%	
STUDIES and LOW, AVERAGE, AND HIGH SIZE		11	8	66	114			
MINIMUM RATE	LOW RATES ACCEPTABLE	0.07				3	2	5
AVERAGE RATE		0.18				7	7	14
MAXIMUM RATE	HIGH RATES SUSPECT	0.79				31	29	60
STANDARD DEVIATION		0.16						
EQUATION: NOT PROVIDED		NA				NA	NA	NA
LARGEST OF AVERAGE OR EQUATION						7	7	14
PM PEAK HOUR ADJACENT STREET						47%	53%	
STUDIES and LOW, AVERAGE, AND HIGH SIZE		18	8	66	114			
MINIMUM RATE	LOW RATES ACCEPTABLE	0.02				1	1	2
AVERAGE RATE		0.15				5	6	11
MAXIMUM RATE	HIGH RATES SUSPECT	0.64				23	25	48
STANDARD DEVIATION		0.14						
EQUATION: NOT PROVIDED		NA				NA	NA	NA
LARGEST OF AVERAGE OR EQUATION						5	6	11
PM PEAK HOUR GENERATOR						51%	49%	
STUDIES and LOW, AVERAGE, AND HIGH SIZE		16	8	56	114			
MINIMUM RATE	LOW RATES ACCEPTABLE	0.06				3	2	5
AVERAGE RATE		0.18				7	7	14
MAXIMUM RATE	HIGH RATES SUSPECT	1.05				40	39	79
STANDARD DEVIATION		0.14						
EQUATION: NOT PROVIDED		NA				NA	NA	NA
LARGEST OF AVERAGE OR EQUATION						7	7	14

PROJECT		GARAGES AT WESTWORLD						
PARCEL		ENTIRE						
ITE LAND USE CATEGORY AND CODE		MINI-WAREHOUSE - 151						
INDEPENDENT VARIABLE		THOUSAND SQUARE FEET NET RENTABLE AREA						
SIZE		75.52						
				ENTERING		EXITING		TOTAL
WEEKDAY DAILY				50%		50%		
STUDIES and LOW, AVERAGE, AND HIGH SIZE		4	83	114	153			
MINIMUM RATE	LOW RATES ACCEPTABLE	1.19		45		45		90
AVERAGE RATE		1.65		63		62		125
MAXIMUM RATE	HIGH RATES ACCEPTABLE	2.17		82		82		164
STANDARD DEVIATION		0.47						
EQUATION: NOT PROVIDED		NA		NA		NA		NA
LARGEST OF AVERAGE OR EQUATION				63		62		125
AM PEAK HOUR ADJACENT STREET				52%		48%		
STUDIES and LOW, AVERAGE, AND HIGH SIZE		8	27	88	153			
MINIMUM RATE	LOW RATES ACCEPTABLE	0.04		2		1		3
AVERAGE RATE		0.10		4		4		8
MAXIMUM RATE	HIGH RATES ACCEPTABLE	0.19		7		7		14
STANDARD DEVIATION		0.06						
EQUATION: T = 0.12 * X - 1.70		R ² = 0.52		4		3		7
LARGEST OF AVERAGE OR EQUATION				4		4		8
AM PEAK HOUR GENERATOR				53%		47%		
STUDIES and LOW, AVERAGE, AND HIGH SIZE		9	50	93	153			
MINIMUM RATE	LOW RATES ACCEPTABLE	0.08		3		3		6
AVERAGE RATE		0.17		7		6		13
MAXIMUM RATE	HIGH RATES ACCEPTABLE	0.24		10		8		18
STANDARD DEVIATION		0.06						
EQUATION: NOT PROVIDED		NA		NA		NA		NA
LARGEST OF AVERAGE OR EQUATION				7		6		13
PM PEAK HOUR ADJACENT STREET				52%		48%		
STUDIES and LOW, AVERAGE, AND HIGH SIZE		8	27	88	153			
MINIMUM RATE	LOW RATES ACCEPTABLE	0.04		2		1		3
AVERAGE RATE		0.17		7		6		13
MAXIMUM RATE	HIGH RATES SUSPECT	0.64		25		23		48
STANDARD DEVIATION		0.12						
EQUATION: NOT PROVIDED		NA		NA		NA		NA
LARGEST OF AVERAGE OR EQUATION				7		6		13
PM PEAK HOUR GENERATOR				53%		47%		
STUDIES and LOW, AVERAGE, AND HIGH SIZE		8	60	98	153			
MINIMUM RATE	LOW RATES ACCEPTABLE	0.06		3		2		5
AVERAGE RATE		0.19		7		7		14
MAXIMUM RATE	HIGH RATES ACCEPTABLE	0.33		13		12		25
STANDARD DEVIATION		0.08						
EQUATION: NOT PROVIDED		NA		NA		NA		NA
LARGEST OF AVERAGE OR EQUATION				7		7		14

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PROJECT		GARAGES AT WESTWORLD				
PARCEL		ENTIRE				
ITE LAND USE CATEGORY AND CODE		MINI-WAREHOUSE - 151				
INDEPENDENT VARIABLE		HUNDRED STORAGE UNITS				
SIZE		0.58				
				ENTERING	EXITING	TOTAL
WEEKDAY DAILY				50%	50%	
STUDIES and LOW, AVERAGE, AND HIGH SIZE		6	1	5	1	
MINIMUM RATE	LOW RATES ACCEPTABLE	12.25		4	3	7
AVERAGE RATE		17.96		5	5	10
MAXIMUM RATE	HIGH RATES SUSPECT	33.33		10	9	19
STANDARD DEVIATION		4.13				
EQUATION: $T = 18.86 * X - 4.09$		$R^2 = 0.96$		4	3	7
LARGEST OF AVERAGE OR EQUATION				5	5	10
AM PEAK HOUR ADJACENT STREET				51%	49%	
STUDIES and LOW, AVERAGE, AND HIGH SIZE		7	3	7	11	
MINIMUM RATE	LOW RATES ACCEPTABLE	0.45		0	0	0
AVERAGE RATE		1.21		1	0	1
MAXIMUM RATE	HIGH RATES ACCEPTABLE	1.70		1	0	1
STANDARD DEVIATION		0.49				
EQUATION: $T = 1.64 * X - 2.90$		$R^2 = 0.49$		4	3	-2
LARGEST OF AVERAGE OR EQUATION				4	3	1
AM PEAK HOUR GENERATOR				58%	42%	
STUDIES and LOW, AVERAGE, AND HIGH SIZE		8	1	5	11	
MINIMUM RATE		1.02		1	0	1
AVERAGE RATE		2.04		1	0	1
MAXIMUM RATE		6.67		2	2	4
STANDARD DEVIATION		NA				
EQUATION: $LN(T) = 0.62 * LN(X) + 1.34$		$R^2 = 0.80$		2	1	3
LARGEST OF AVERAGE OR EQUATION				2	1	3
PM PEAK HOUR ADJACENT STREET				50%	50%	
STUDIES and LOW, AVERAGE, AND HIGH SIZE		9	1	5	11	
MINIMUM RATE	LOW RATES ACCEPTABLE	0.56		0	0	0
AVERAGE RATE		1.68		1	0	1
MAXIMUM RATE	HIGH RATES SUSPECT	8.33		3	2	5
STANDARD DEVIATION		1.37				
EQUATION: $LN(T) = 0.60 * LN(X) + 1.07$		$R^2 = 0.52$		1	1	2
LARGEST OF AVERAGE OR EQUATION				1	1	2
PM PEAK HOUR GENERATOR				48%	52%	
STUDIES and LOW, AVERAGE, AND HIGH SIZE		8	1	5	11	
MINIMUM RATE	LOW RATES ACCEPTABLE	0.79		0	0	0
AVERAGE RATE		2.07		0	1	1
MAXIMUM RATE	HIGH RATES SUSPECT	10.00		3	3	6
STANDARD DEVIATION		1.24				
EQUATION: $LN(T) = 0.59 * LN(X) + 1.43$		$R^2 = 0.72$		1	2	3
LARGEST OF AVERAGE OR EQUATION				1	2	3

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PROJECT					GARAGES AT WESTWORLD					
PARCEL					ENTIRE					
ITE LAND USE CATEGORY AND CODE					MINI-WAREHOUSE - 151					
INDEPENDENT VARIABLE					OCCUPIED HUNDRED STORAGE UNITS					
SIZE					0.58					
							ENTERING	EXITING	TOTAL	
WEEKDAY DAILY							50%	50%		
STUDIES and LOW, AVERAGE, AND HIGH SIZE					4	4	9	11		
MINIMUM RATE		LOW RATES SUSPECT			12.90		4	3	7	
AVERAGE RATE					19.19		6	5	11	
MAXIMUM RATE		HIGH RATES ACCEPTABLE			21.06		6	6	12	
STANDARD DEVIATION					3.03					
EQUATION: T = 25.95 * X - 59.45					R ² = 0.99		4	3	-44	
LARGEST OF AVERAGE OR EQUATION							6	5	11	
AM PEAK HOUR ADJACENT STREET							56%	44%		
STUDIES and LOW, AVERAGE, AND HIGH SIZE					5	4	9	11		
MINIMUM RATE		LOW RATES ACCEPTABLE			0.45		0	0	0	
AVERAGE RATE					1.34		1	0	1	
MAXIMUM RATE		HIGH RATES ACCEPTABLE			1.74		1	0	1	
STANDARD DEVIATION					0.54					
EQUATION: T = 1.82 * X - 4.21					R ² = 0.54		4	3	0	
LARGEST OF AVERAGE OR EQUATION							4	3	1	
AM PEAK HOUR GENERATOR							53%	47%		
STUDIES and LOW, AVERAGE, AND HIGH SIZE					5	4	9	11		
MINIMUM RATE		LOW RATES ACCEPTABLE			1.02		1	0	1	
AVERAGE RATE					1.82		1	0	1	
MAXIMUM RATE		HIGH RATES ACCEPTABLE			2.66		1	1	2	
STANDARD DEVIATION					0.64					
EQUATION: T = 2.60 * X - 6.93					R ² = 0.63		4	3	-5	
LARGEST OF AVERAGE OR EQUATION							4	3	1	
PM PEAK HOUR ADJACENT STREET							50%	50%		
STUDIES and LOW, AVERAGE, AND HIGH SIZE					5	4	9	11		
MINIMUM RATE		LOW RATES ACCEPTABLE			0.56		0	0	0	
AVERAGE RATE					1.54		1	0	1	
MAXIMUM RATE		HIGH RATES ACCEPTABLE			2.11		1	0	1	
STANDARD DEVIATION					0.63					
EQUATION: T = 2.50 * X - 8.42					R ² = 0.65		4	3	-7	
LARGEST OF AVERAGE OR EQUATION							4	3	1	
PM PEAK HOUR GENERATOR							47%	53%		
STUDIES and LOW, AVERAGE, AND HIGH SIZE					5	4	9	11		
MINIMUM RATE		LOW RATES ACCEPTABLE			0.79		0	0	0	
AVERAGE RATE					2.02		0	1	1	
MAXIMUM RATE		HIGH RATES ACCEPTABLE			2.49		0	1	1	
STANDARD DEVIATION					0.71					
EQUATION: T = 2.52 * X - 4.41					R ² = 0.55		4	3	-3	
LARGEST OF AVERAGE OR EQUATION							4	3	1	

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SUMMIT
LAND MANAGEMENT

PROJECT					GARAGES AT WESTWORLD				
PARCEL					ENTIRE				
ITE LAND USE CATEGORY AND CODE					MINI-WAREHOUSE - 151				
INDEPENDENT VARIABLE					OCCUPIED HUNDRED STORAGE UNITS				
SIZE					0.58				
							ENTERING	EXITING	SUM
SATURDAY DAILY							50%	50%	
STUDIES and LOW, AVERAGE, AND HIGH SIZE					3	9	10	11	
MINIMUM RATE		LOW RATES ACCEPTABLE			15.93		5	4	9
AVERAGE RATE					18.85		6	5	11
MAXIMUM RATE		HIGH RATES ACCEPTABLE			21.87		7	6	13
STANDARD DEVIATION					3.08				
EQUATION: NOT PROVIDED					NA		NA	NA	NA
LARGEST OF AVERAGE OR EQUATION							6	5	11
PEAK HOUR GENERATOR							59%	41%	
STUDIES and LOW, AVERAGE, AND HIGH SIZE					5	4	9	11	
MINIMUM RATE		LOW RATES ACCEPTABLE			0.56		0	0	0
AVERAGE RATE					2.81		1	1	2
MAXIMUM RATE		HIGH RATES ACCEPTABLE			5.07		2	1	3
STANDARD DEVIATION					1.42				
EQUATION: NOT PROVIDED					NA		NA	NA	NA
LARGEST OF AVERAGE OR EQUATION							1	1	2
SUNDAY DAILY							50%	50%	
STUDIES and LOW, AVERAGE, AND HIGH SIZE					3	9	10	11	
MINIMUM RATE		LOW RATES ACCEPTABLE			9.71		3	3	6
AVERAGE RATE					15.28		5	4	9
MAXIMUM RATE		HIGH RATES ACCEPTABLE			22.76		7	6	13
STANDARD DEVIATION					7.07				
EQUATION: NOT PROVIDED					NA		NA	NA	NA
LARGEST OF AVERAGE OR EQUATION							5	4	9
PEAK HOUR GENERATOR							45%	55%	
STUDIES and LOW, AVERAGE, AND HIGH SIZE					4	4	9	11	
MINIMUM RATE		LOW RATES ACCEPTABLE			1.95		0	1	1
AVERAGE RATE					2.39		0	1	1
MAXIMUM RATE		HIGH RATES ACCEPTABLE			2.76		1	1	2
STANDARD DEVIATION					0.36				
EQUATION: LN (T) = 0.97 * LN(X) + 0.92					R ² = 0.89		0	1	1
LARGEST OF AVERAGE OR EQUATION							0	1	1
Checked by: PEB 7/11/2024									
SUMMIT LAND MANAGEMENT									

PROJECT	GARAGES AT WESTWORLD								
PARCEL	ENTIRE								
ITE CATEGORY AND CODE	MINI-WAREHOUSE - 151								
LOCATION	GENERAL URBAN / SUBURBAN								
INDEPENDENT VARIABLE	THOUSAND SQUARE FEET, THOUSAND SQUARE FEET NET RENTABLE AREA, HUNDRED STORAGE UNITS, and OCCUPIED HUNDRED STORAGE UNITS								
SIZE	75.52, 75.52, 0.58, and 0.58								
	MAXIMUM OF AVERAGE RATES								
	AVERAGE RATE			EQUATION			LARGEST		
	IN	OUT	TOTAL	IN	OUT	TOTAL	IN	OUT	TOTAL
WEEKDAY DAILY	63	62	125	4	3	7	63	62	125
AM PEAK HOUR STREET	4	4	8	4	3	7	4	4	8
AM PEAK HOUR GENERATOR	7	7	14	4	3	7	7	7	14
PM PEAK HOUR STREET	7	6	13	4	3	7	7	6	13
PM PEAK HOUR GENERATOR	7	7	14	4	3	7	7	7	14
SATURDAY DAILY	67	67	134	55	54	109	67	67	134
PEAK HOUR GENERATOR	8	7	15	NA	NA	NA	8	7	15
SUNDAY DAILY	57	56	113	NA	NA	NA	57	56	113
PEAK HOUR GENERATOR	7	8	15	0	1	1	7	8	15
Checked by: PEB 7/11/2024 									

PROJECT	GARAGES AT WESTWORLD								
PARCEL	ENTIRE								
ITE CATEGORY AND CODE	MINI-WAREHOUSE - 151								
LOCATION	GENERAL URBAN / SUBURBAN								
INDEPENDENT VARIABLE	THOUSAND SQUARE FEET, THOUSAND SQUARE FEET NET RENTABLE AREA, HUNDRED STORAGE UNITS, and OCCUPIED HUNDRED STORAGE UNITS								
SIZE	75.52, 75.52, 0.58, and 0.58								
	AVERAGE OF AVERAGE RATES								
	AVERAGE RATE			EQUATION			LARGEST		
	IN	OUT	TOTAL	IN	OUT	TOTAL	IN	OUT	TOTAL
WEEKDAY DAILY	32	32	64	4	3	7	32	32	64
AM PEAK HOUR STREET	3	2	4	4	3	7	4	3	7
AM PEAK HOUR GENERATOR	4	3	7	3	2	5	4	3	7
PM PEAK HOUR STREET	4	3	7	3	2	5	4	3	7
PM PEAK HOUR GENERATOR	4	4	8	3	3	5	4	4	8
SATURDAY DAILY	31	30	61	55	54	109	55	54	109
PEAK HOUR GENERATOR	4	4	8	NA	NA	NA	4	4	8
SUNDAY DAILY	24	23	46	NA	NA	NA	24	23	46
PEAK HOUR GENERATOR	3	4	7	0	1	1	3	4	7
Checked by: PEB 7/11/2024 									

Attachment C

Trip Generation – Single-family Houses



PROJECT		GARAGES AT WESTWORLD				
PARCEL		ENTIRE				
ITE LAND USE CATEGORY AND CODE		SINGLE FAMILY DETACHED HOUSING - 210				
INDEPENDENT VARIABLE		DWELLING UNITS FOR FULL PROXY DATA				
SIZE		6				
			ENTERING	EXITING	TOTAL	
WEEKDAY DAILY			50%	50%		
STUDIES and LOW, AVERAGE, AND HIGH SIZE		174 10 246 2,945				
MINIMUM RATE	LOW RATES SUSPECT	4.65	14	14	28	
AVERAGE RATE		9.43	29	28	57	
MAXIMUM RATE	HIGH RATES SUSPECT	22.61	68	68	136	
STANDARD DEVIATION		2.13				
EQUATION: $LN(T) = 0.92 * LN(X) + 2.68$		$R^2 = 0.95$	38	38	76	
LARGEST OF AVERAGE OR EQUATION			38	38	76	
AM PEAK HOUR ADJACENT STREET			26%	74%		
STUDIES and LOW, AVERAGE, AND HIGH SIZE		192 5 226 2,945				
MINIMUM RATE	LOW RATES ACCEPTABLE	0.27	1	1	2	
AVERAGE RATE		0.70	1	3	4	
MAXIMUM RATE	HIGH RATES SUSPECT	2.27	4	10	14	
STANDARD DEVIATION		0.24				
EQUATION: $T = 0.91 * (X) + 0.12$		$R^2 = 0.90$	2	4	6	
LARGEST OF AVERAGE OR EQUATION			2	4	6	
AM PEAK HOUR GENERATOR			26%	74%		
STUDIES and LOW, AVERAGE, AND HIGH SIZE		217 13 217 2,945				
MINIMUM RATE	LOW RATES ACCEPTABLE	0.34	1	1	2	
AVERAGE RATE		0.75	1	4	5	
MAXIMUM RATE	HIGH RATES SUSPECT	2.27	4	10	14	
STANDARD DEVIATION		0.25				
EQUATION: $T = 0.71 * (X) + 7.23$		$R^2 = 0.91$	3	8	11	
LARGEST OF AVERAGE OR EQUATION			3	8	11	
PM PEAK HOUR ADJACENT STREET			63%	37%		
STUDIES and LOW, AVERAGE, AND HIGH SIZE		208 12 248 2,945				
MINIMUM RATE	LOW RATES ACCEPTABLE	0.35	1	1	2	
AVERAGE RATE		0.94	4	2	6	
MAXIMUM RATE	HIGH RATES SUSPECT	2.98	11	7	18	
STANDARD DEVIATION		0.31				
EQUATION: $LN(T) = 0.94 * LN(X) + 0.27$		$R^2 = 0.92$	4	3	7	
LARGEST OF AVERAGE OR EQUATION			4	3	7	
PM PEAK HOUR GENERATOR			64%	36%		
STUDIES and LOW, AVERAGE, AND HIGH SIZE		178 12 203 1,781				
MINIMUM RATE	LOW RATES ACCEPTABLE	0.49	2	1	3	
AVERAGE RATE		0.99	4	2	6	
MAXIMUM RATE	HIGH RATES SUSPECT	2.98	12	6	18	
STANDARD DEVIATION		0.28				
EQUATION: $LN(T) = 0.93 * LN(X) + 0.36$		$R^2 = 0.92$	5	3	8	
LARGEST OF AVERAGE OR EQUATION			5	3	8	

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PROJECT		GARAGES AT WESTWORLD			
PARCEL		ENTIRE			
ITE LAND USE CATEGORY AND CODE		SINGLE FAMILY DETACHED HOUSING - 210			
INDEPENDENT VARIABLE		DWELLING UNITS FOR FULL PROXY DATA			
SIZE		6			
		ENTERING		EXITING	
		50%		50%	
SUM					
SATURDAY DAILY					
STUDIES and LOW, AVERAGE, AND HIGH SIZE		63	15	179	1,000
MINIMUM RATE	LOW RATES SUSPECT	3.36		10	20
AVERAGE RATE		9.48		29	57
MAXIMUM RATE	HIGH RATES SUSPECT	16.52		50	99
STANDARD DEVIATION		2.26			
EQUATION: $LN(T) = 0.97 * LN(X) + 2.40$		$R^2 = 0.91$		32	63
LARGEST OF AVERAGE OR EQUATION				32	63
PEAK HOUR GENERATOR				54%	46%
STUDIES and LOW, AVERAGE, AND HIGH SIZE		42	15	152	644
MINIMUM RATE	LOW RATES ACCEPTABLE	0.41		1	2
AVERAGE RATE		0.92		3	6
MAXIMUM RATE	HIGH RATES SUSPECT	1.78		6	11
STANDARD DEVIATION		0.27			
EQUATION: $T = 0.86 * (X) + 9.72$		$R^2 = 0.89$		8	15
LARGEST OF AVERAGE OR EQUATION				8	15
SUNDAY DAILY				50%	50%
STUDIES and LOW, AVERAGE, AND HIGH SIZE		60	15	186	1,000
MINIMUM RATE	LOW RATES SUSPECT	2.61		8	16
AVERAGE RATE		8.48		26	51
MAXIMUM RATE	HIGH RATES SUSPECT	16.44		50	99
STANDARD DEVIATION		1.74			
EQUATION: $T = 8.86 * (X) - 70.09$		$R^2 = 0.94$		-9	-17
LARGEST OF AVERAGE OR EQUATION				26	51
PEAK HOUR GENERATOR				53%	47%
STUDIES and LOW, AVERAGE, AND HIGH SIZE		40	15	162	644
MINIMUM RATE	LOW RATES SUSPECT	0.36		1	2
AVERAGE RATE		0.83		3	5
MAXIMUM RATE	HIGH RATES SUSPECT	1.67		5	10
STANDARD DEVIATION		0.19			
EQUATION: $T = 0.80 * (X) + 4.76$		$R^2 = 0.92$		5	10
LARGEST OF AVERAGE OR EQUATION				5	10

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