

Appendix N

Alternative VMT Calculations



**Table A-1
PROJECT TRIP GENERATION FORECAST
Existing Zoning Alternative**

TRIP GENERATION RATES [1]									
ITE LAND USE CATEGORY	ITE LAND USE CODE	VARIABLE	WEEKDAY DAILY	WEEKDAY AM PEAK HOUR			WEEKDAY PM PEAK HOUR		
				IN (%)	OUT (%)	TOTAL	IN (%)	OUT (%)	TOTAL
				Single-Family Detached Housing	210	Per Dwelling Unit	9.43	25%	75%
Multi-Family Housing (Low-Rise)	220	Per Dwelling Unit	6.74	24%	76%	0.40	63%	37%	0.51
Golf Course	430	Per Hole	30.38	79%	21%	1.76	53%	47%	2.91
Golf Driving Range	432	Per Driving Position	13.65	61%	39%	0.40	45%	55%	1.25

PROJECT TRIP GENERATION FORECAST									
LAND USE	ITE LAND USE CODE	SIZE	DAILY TRIP ENDS [2] VOLUMES	AM PEAK HOUR VOLUMES [2]			PM PEAK HOUR VOLUMES [2]		
				IN	OUT	TOTAL	IN	OUT	TOTAL
<i>Proposed Project</i>									
Single-Family Residential (PA 1)	210	26 DU	245	5	13	18	15	9	24
Single-Family Residential (PA 2)	210	16 DU	151	3	8	11	9	6	15
Single-Family Residential (PA 3)	210	4 DU	38	1	2	3	3	1	4
Multi-Family Housing (PA 3)	220	26 DU	175	2	8	10	8	5	13
Single-Family Residential (PA 4)	210	5 DU	47	1	3	4	3	2	5
Single-Family Residential (PA 5)	210	19 DU	179	3	10	13	11	7	18
Single-Family Residential (PA 6)	210	1 DU	9	0	1	1	1	0	1
<i>Subtotal Proposed Project</i>			844	15	45	60	50	30	80
<i>Existing Uses to be Removed</i>									
Royal Vista Golf Holes	430	(13) Holes	(395)	(18)	(5)	(23)	(20)	(18)	(38)
Royal Vista Driving Range	432	(27) Driv. Pos.	(369)	(7)	(4)	(11)	(15)	(19)	(34)
<i>Subtotal Existing Uses</i>			(764)	(25)	(9)	(34)	(35)	(37)	(72)
<i>NET NEW PROJECT TRIPS</i>			80	(10)	36	26	15	(7)	8

[1] Source: ITE "Trip Generation Manual", 11th Edition, 2021.

[2] Trips are one-way traffic movements, entering or leaving.

Table B-1
PROJECT TRIP GENERATION FORECAST
322 DU Alternative

TRIP GENERATION RATES [1]									
ITE LAND USE CATEGORY	ITE LAND USE CODE	VARIABLE	WEEKDAY DAILY	WEEKDAY AM PEAK HOUR			WEEKDAY PM PEAK HOUR		
				IN (%)	OUT (%)	TOTAL	IN (%)	OUT (%)	TOTAL
				Single-Family Detached Housing	210	Per Dwelling Unit	9.43	25%	75%
Multi-Family Housing (Low-Rise)	220	Per Dwelling Unit	6.74	24%	76%	0.40	63%	37%	0.51
Public Park	411	Per Acre	0.78	59%	41%	0.02	55%	45%	0.11
Golf Course	430	Per Hole	30.38	79%	21%	1.76	53%	47%	2.91
Golf Driving Range	432	Per Driving Position	13.65	61%	39%	0.40	45%	55%	1.25

PROJECT TRIP GENERATION FORECAST									
LAND USE	ITE LAND USE CODE	SIZE	DAILY TRIP ENDS [2] VOLUMES	AM PEAK HOUR VOLUMES [2]			PM PEAK HOUR VOLUMES [2]		
				IN	OUT	TOTAL	IN	OUT	TOTAL
				<i>Proposed Project</i>					
Single-Family Residential (PA 1)	210	146 DU	1,377	26	76	102	86	51	137
Single-Family Residential (PA 2)	210	32 DU	302	6	16	22	19	11	30
Multi-Family Housing (PA 3)	220	72 DU	485	7	22	29	23	14	37
Single-Family Residential (PA 5)	210	72 DU	679	13	37	50	43	25	68
Open Space (PA 4 and 6) - Less Walk-In Adjustment (50%) [3]	411	7.40 Acres	6 (3)	Nom. Nom.	Nom. Nom.	Nom. Nom.	1 (1)	Nom. Nom.	1 (1)
<i>Subtotal Proposed Project</i>			2,846	52	151	203	171	101	272
<i>Existing Uses to be Removed</i>									
Royal Vista Golf Holes	430	(13) Holes	(395)	(18)	(5)	(23)	(20)	(18)	(38)
Royal Vista Driving Range	432	(27) Driv. Pos.	(369)	(7)	(4)	(11)	(15)	(19)	(34)
<i>Subtotal Existing Uses</i>			(764)	(25)	(9)	(34)	(35)	(37)	(72)
<i>NET NEW PROJECT TRIPS</i>			2,082	27	142	169	136	64	200

[1] Source: ITE "Trip Generation Manual", 11th Edition, 2021.

[2] Trips are one-way traffic movements, entering or leaving.

[3] The 5.81-acre open space planned for PA 4 and the 1.59-acre open space planned for PA 6 (providing a total of 7.40 acres of open space) are intended to be neighborhood-serving in nature. A walk-in adjustment of 50% has been applied in order to account for the anticipated use of the open space by residents of the proposed project as well as the general public, including residents from the existing neighborhoods nearby.

"Nom." = Nominal trips.

Table B-2
SUMMARY OF VEHICLE MILES TRAVELED (VMT) ANALYSIS [1]
322 DU Alternative

VMT ANALYSIS CONDITIONS	PA 1, 2, AND 3 (TAZ 22375100)	PA 5 (TAZ 22379100)
Baseline VMT per Capita Forecast From VMT Tool [2]	18.7	21.6
<i>VMT Reductions Due to Project Design Features [3]</i>	<i>-11.98%</i>	<i>-1.96%</i>
<u>Project-Generated VMT per Capita [4]</u>	<u>16.5</u>	<u>21.2</u>
Significant Impact? (Yes/No) [5]	YES	YES

- [1] Refer to *Section 4.0* of the Transportation Impact Analysis for the Royal Vista Residential and Parks project for further explanation of the VMT analysis procedures presented herein.
- [2] The LA County Public Works VMT Tool Version 1.0 Worksheets are attached.
- [3] Measure T-1: Increase Residential Density has been applied as a project design feature. The VMT reduction calculation worksheets are attached.
- [4] PA 1 - 4: Baseline VMT * (1-0.1198) = Project Generated VMT
 PA 5 & 6: Baseline VMT * (1-0.0196) = Project Generated VMT
- [5] A significant impact occurs when the project-generated VMT per Capita exceeds the South County threshold of 10.0 VMT per Capita.

COUNTY OF LOS ANGELES VMT TOOL

version 1.0

Project Information

Project Name	Analysis Year
Royal Vista Residential Project (Lots 1, 2, and 3) - 322 DU Alternative	2022
Parcel Number (TAZ# 22375100)	
8762022002, 8762023001, 8762023002	

Project Land Use Information

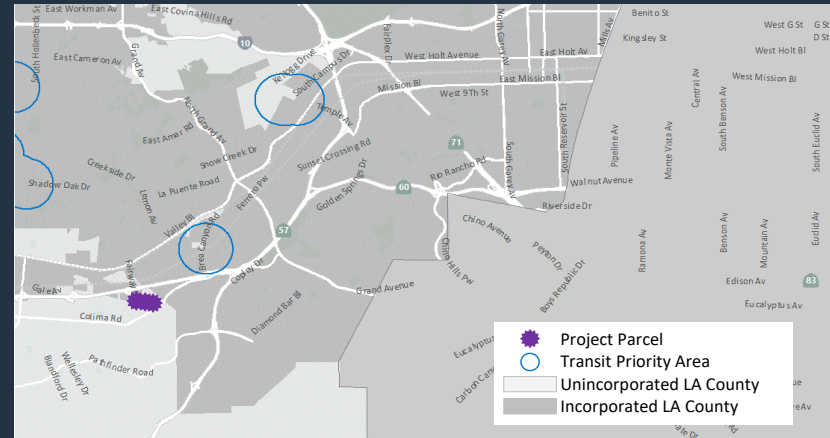
	Values	Unit
Residential - Single-Family Housing	178	DU
Residential - Multifamily Housing	72	DU
Residential - Affordable Housing		DU
Office - General Office		KSF
Office - Medical Office		KSF
Retail - Shopping Center, Restaurant, Services		KSF
Industrial - Warehousing		KSF
Industrial - Light Industrial		KSF
Custom Land Use (ignores all other land use entries)		Daily Trips

Project Daily Trips: 2,072

Screening Criteria for County of Los Angeles

	Value
Is the project screened in a Transit Priority Area?	No
Is the project's residential land uses 100% affordable housing?	N/A
Is the project's local service retail land uses under 50,000 square foot?	N/A
Does the project generate fewer than 110 daily trips? (enter project land use in the section above)	No

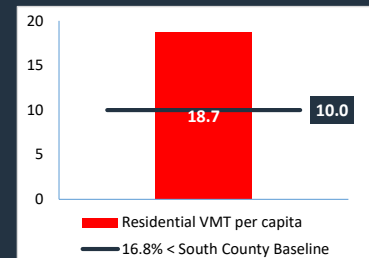
Project Location and VMT Information



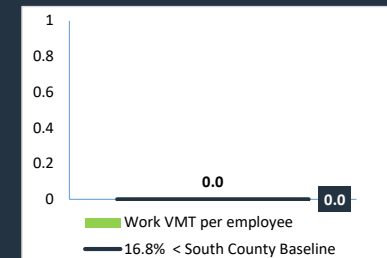
Project Summary Information

South County Residential VMT Baseline (12.0)	16.8%	% Threshold for Screening
South County Work VMT Baseline (16.4)	16.8%	% Threshold for Screening

Residential VMT per capita



Work VMT per employee



The project is not presumed to have a less than significant impact on VMT, therefore a CEQA VMT analysis may be required. Please refer to the Transportation Impact Analysis Guidelines on how to proceed forward.

COUNTY OF LOS ANGELES VMT TOOL

version 1.0

Project Information

Project Name	Analysis Year
Royal Vista Residential Project (Lot 5) - 322 DU Alternative	2022
Parcel Number (TAZ# 22379100)	
8764002006	

Project Land Use Information

	Values	Unit
Residential - Single-Family Housing	72	DU
Residential - Multifamily Housing		DU
Residential - Affordable Housing		DU
Office - General Office		KSF
Office - Medical Office		KSF
Retail - Shopping Center, Restaurant, Services		KSF
Industrial - Warehousing		KSF
Industrial - Light Industrial		KSF
Custom Land Use (ignores all other land use entries)		Daily Trips

Project Daily Trips: 680

Screening Criteria for County of Los Angeles

	Value
Is the project screened in a Transit Priority Area?	No
Is the project's residential land uses 100% affordable housing?	N/A
Is the project's local service retail land uses under 50,000 square foot?	N/A
Does the project generate fewer than 110 daily trips? (enter project land use in the section above)	No

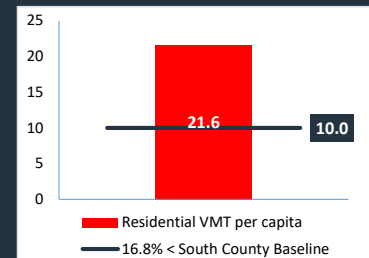
Project Location and VMT Information



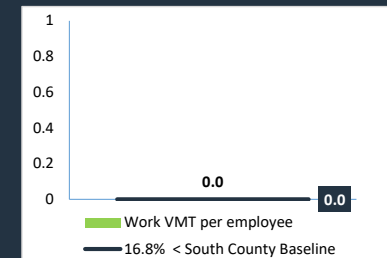
Project Summary Information

South County Residential VMT Baseline (12.0)	16.8%	% Threshold for Screening
South County Work VMT Baseline (16.4)	16.8%	% Threshold for Screening

Residential VMT per capita



Work VMT per employee



The project is not presumed to have a less than significant impact on VMT, therefore a CEQA VMT analysis may be required. Please refer to the Transportation Impact Analysis Guidelines on how to proceed forward.

CAPCOA 2021 Handbook VMT Reduction Calculation Worksheets

322 DU Alternative

TAZ 22375100

Measure T-1. Increase Residential Density	
Measure Scale	Project/Site
Max VMT Mitigation Potential	30.0%

Baseline Residential Density [1]		
	Residential Dwelling Units (DU)	459
	Acres of Developable Land (Acres) [2]	206.6
C	Number of Dwelling Units per Acre (DU/Acre)	2.22

Residential Density with Project		
	Residential Dwelling Units with Project (DU) [3]	709
	Acres of Developable Land (Acres) [2]	206.6
B	Number of Dwelling Units per Acre (DU/Acre)	3.43

Project VMT Reduction Due to Increased Residential Density		
	Percent Increase in Housing Units per Acre [4]	54.47%
D	Elasticity of VMT with respect to residential density	0.22
A	VMT Reduction = $(B-C)/C \times D$	11.98%
	VMT Reduction	11.98%

- [1] Baseline residential density based on dwelling unit and area information obtained from the Los Angeles County Office of the Assessor's parcel-level data for all parcels located within TAZ 22375100.
- [2] The acres of developable land represents the sum of all parcel areas, excluding the public right-of-way and land owned by public agencies.
- [3] The 322 Units Alternative would result in 250 new dwelling units in the TAZ.
- [4] Determined by calculating $(B-C)/C$.

CAPCOA 2021 Handbook VMT Reduction Calculation Worksheets

322 DU Alternative

TAZ 22379100

Measure T-1. Increase Residential Density	
Measure Scale	Project/Site
Max VMT Mitigation Potential	30.0%

Baseline Residential Density [1]		
	Residential Dwelling Units (DU)	809
	Acres of Developable Land (Acres) [2]	329.8
C	Number of Dwelling Units per Acre (DU/Acre)	2.45

Residential Density with Project		
	Residential Dwelling Units with Project (DU) [3]	881
	Acres of Developable Land (Acres) [2]	329.8
B	Number of Dwelling Units per Acre (DU/Acre)	2.67

Project VMT Reduction Due to Increased Residential Density		
	Percent Increase in Housing Units per Acre [4]	8.90%
D	Elasticity of VMT with respect to residential density	0.22
A	VMT Reduction = $(B-C)/C \times D$	1.96%
	VMT Reduction	1.96%

- [1] Baseline residential density based on dwelling unit and area information obtained from the Los Angeles County Office of the Assessor's parcel-level data for all parcels located within TAZ 22379100.
- [2] The acres of developable land represents the sum of all parcel areas, excluding the public right-of-way and land owned by public agencies.
- [3] The 322 Units Alternative would result in 72 new dwelling units in the TAZ.
- [4] Determined by calculating $(B-C)/C$.

Table C-1
PROJECT TRIP GENERATION FORECAST
Mixed-Use Alternative

TRIP GENERATION RATES [1]									
ITE LAND USE CATEGORY	ITE LAND USE CODE	VARIABLE	WEEKDAY DAILY	WEEKDAY AM PEAK HOUR			WEEKDAY PM PEAK HOUR		
				IN (%)	OUT (%)	TOTAL	IN (%)	OUT (%)	TOTAL
				Single-Family Detached Housing	210	Per Dwelling Unit	9.43	25%	75%
Multi-Family Housing (Low-Rise)	220	Per Dwelling Unit	6.74	24%	76%	0.40	63%	37%	0.51
Public Park	411	Per Acre	0.78	59%	41%	0.02	55%	45%	0.11
Golf Course	430	Per Hole	30.38	79%	21%	1.76	53%	47%	2.91
Golf Driving Range	432	Per Driving Position	13.65	61%	39%	0.40	45%	55%	1.25
Strip Retail Plaza (<40k)	822	Per 1,000 SF GLA	54.45	60%	40%	2.36	50%	50%	6.59

PROJECT TRIP GENERATION FORECAST									
LAND USE	ITE LAND USE CODE	SIZE	DAILY TRIP ENDS [2] VOLUMES	AM PEAK HOUR VOLUMES [2]			PM PEAK HOUR VOLUMES [2]		
				IN	OUT	TOTAL	IN	OUT	TOTAL
				<u>Proposed Project</u>					
Single-Family Residential (PA 1)	210	146 DU	1,377	26	76	102	86	51	137
Single-Family Residential (PA 2)	210	32 DU	302	6	16	22	19	11	30
Commercial Retail (PA 3)	822	36,000 GLSF	1,960	51	34	85	119	118	237
Condominium (PA 4)	220	74 DU	499	7	23	30	24	14	38
Single-Family Residential (PA 5)	210	72 DU	679	13	37	50	43	25	68
Open Space (PA 6) - Less Walk-In Adjustment (50%) [3]	411	1.59 Acres	1 (1)	Nom. Nom.	Nom. Nom.	Nom. Nom.	Nom. Nom.	Nom. Nom.	Nom. Nom.
<u>Subtotal Proposed Project</u>			4,817	103	186	289	291	219	510
<u>Existing Uses to be Removed</u>									
Royal Vista Golf Holes	430	(13) Holes	(395)	(18)	(5)	(23)	(20)	(18)	(38)
Royal Vista Driving Range	432	(27) Driv. Pos.	(369)	(7)	(4)	(11)	(15)	(19)	(34)
<u>Subtotal Existing Uses</u>			(764)	(25)	(9)	(34)	(35)	(37)	(72)
<u>NET NEW PROJECT TRIPS</u>			4,053	78	177	255	256	182	438

[1] Source: ITE "Trip Generation Manual", 11th Edition, 2021.

[2] Trips are one-way traffic movements, entering or leaving.

[3] The 1.59-acre open space planned for PA 6 is intended to be neighborhood-serving in nature. A walk-in adjustment of 50% has been applied in order to account for the anticipated use of the open space by residents of the proposed project as well as the general public, including residents from the existing neighborhoods nearby.

"Nom." = Nominal trips.

Table C-2
SUMMARY OF VEHICLE MILES TRAVELED (VMT) ANALYSIS [1]
Mixed-Use Alternative

VMT ANALYSIS CONDITIONS	PA 1, 2, AND 4 (TAZ 22375100)	PA 5 (TAZ 22379100)
Baseline VMT per Capita Forecast From VMT Tool [2]	18.7	21.6
<i>VMT Reductions Due to Project Design Features [3]</i>	-12.08%	-1.96%
<u>Project-Generated VMT per Capita [4]</u>	<u>16.4</u>	<u>21.2</u>
Significant Impact? (Yes/No) [5]	YES	YES

- [1] Refer to *Section 4.0* of the Transportation Impact Analysis for the Royal Vista Residential and Parks project for further explanation of the VMT analysis procedures presented herein.
- [2] The LA County Public Works VMT Tool Version 1.0 Worksheets are attached.
- [3] Measure T-1: Increase Residential Density has been applied as a project design feature. The VMT reduction calculation worksheets are attached.
- [4] PA 1 - 4: Baseline VMT * (1-0.1208) = Project Generated VMT
 PA 5 & 6: Baseline VMT * (1-0.0196) = Project Generated VMT
- [5] A significant impact occurs when the project-generated VMT per Capita exceeds the South County threshold of 10.0 VMT per Capita.

COUNTY OF LOS ANGELES VMT TOOL

version 1.0

Project Information

Project Name	Analysis Year
Royal Vista Residential Project (Lots 1 through 4) - Mixed-Use Alternative	2022
Parcel Number (TAZ# 22375100)	
8762022002, 8762023001, 8762023002	

Project Land Use Information

	Values	Unit
Residential - Single-Family Housing	178	DU
Residential - Multifamily Housing	74	DU
Residential - Affordable Housing		DU
Office - General Office		KSF
Office - Medical Office		KSF
Retail - Shopping Center, Restaurant, Services	36,000	KSF
Industrial - Warehousing		KSF
Industrial - Light Industrial		KSF
Custom Land Use (ignores all other land use entries)		Daily Trips

Project Daily Trips: 3,442

Screening Criteria for County of Los Angeles

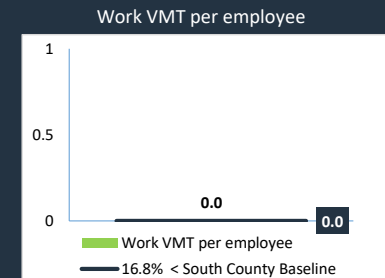
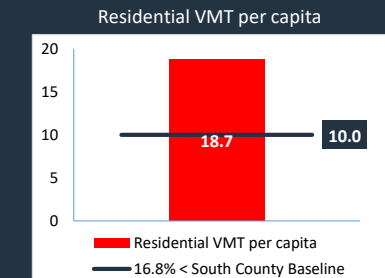
	Value
Is the project screened in a Transit Priority Area?	No
Is the project's residential land uses 100% affordable housing?	N/A
Is the project's local service retail land uses under 50,000 square foot?	Yes
Does the project generate fewer than 110 daily trips? (enter project land use in the section above)	No

Project Location and VMT Information



Project Summary Information

South County Residential VMT Baseline (12.0)	16.8%	% Threshold for Screening
South County Work VMT Baseline (16.4)	16.8%	% Threshold for Screening



The retail portion of this project is presumed to have a less than significant impact on VMT, therefore a CEQA VMT analysis for the retail portion is not required. The project is not presumed to have a less than significant impact on VMT, therefore a CEQA VMT analysis may be required. Please refer to the Transportation Impact Analysis Guidelines on how to proceed forward.

COUNTY OF LOS ANGELES VMT TOOL

version 1.0

Project Information

Project Name	Analysis Year
Royal Vista Residential Project (Lot 5 and 6) - Mixed-Use Alternative	2022
Parcel Number (TAZ# 22379100)	
8764002006	

Project Land Use Information

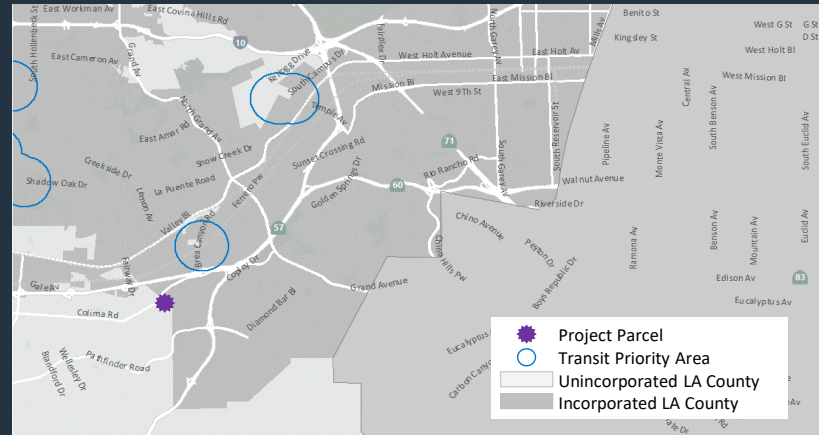
	Values	Unit
Residential - Single-Family Housing	72	DU
Residential - Multifamily Housing		DU
Residential - Affordable Housing		DU
Office - General Office		KSF
Office - Medical Office		KSF
Retail - Shopping Center, Restaurant, Services		KSF
Industrial - Warehousing		KSF
Industrial - Light Industrial		KSF
Custom Land Use (ignores all other land use entries)		Daily Trips

Project Daily Trips: 680

Screening Criteria for County of Los Angeles

	Value
Is the project screened in a Transit Priority Area?	No
Is the project's residential land uses 100% affordable housing?	N/A
Is the project's local service retail land uses under 50,000 square foot?	N/A
Does the project generate fewer than 110 daily trips? (enter project land use in the section above)	No

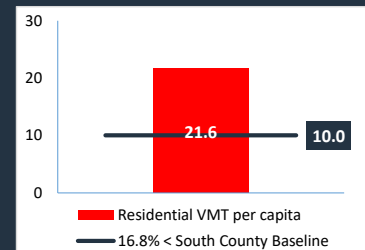
Project Location and VMT Information



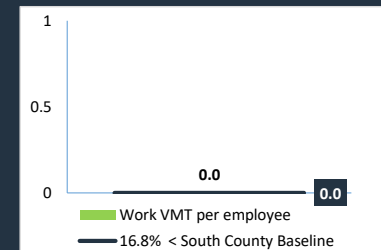
Project Summary Information

South County Residential VMT Baseline (12.0)	16.8%	% Threshold for Screening
South County Work VMT Baseline (16.4)	16.8%	% Threshold for Screening

Residential VMT per capita



Work VMT per employee



The project is not presumed to have a less than significant impact on VMT, therefore a CEQA VMT analysis may be required. Please refer to the Transportation Impact Analysis Guidelines on how to proceed forward.

CAPCOA 2021 Handbook VMT Reduction Calculation Worksheets

Mixed-Use Alternative

TAZ 22375100

Measure T-1. Increase Residential Density	
Measure Scale	Project/Site
Max VMT Mitigation Potential	30.0%

Baseline Residential Density [1]		
	Residential Dwelling Units (DU)	459
	Acres of Developable Land (Acres) [2]	206.6
C	Number of Dwelling Units per Acre (DU/Acre)	2.22

Residential Density with Project		
	Residential Dwelling Units with Project (DU) [3]	711
	Acres of Developable Land (Acres) [2]	206.6
B	Number of Dwelling Units per Acre (DU/Acre)	3.44

Project VMT Reduction Due to Increased Residential Density		
	Percent Increase in Housing Units per Acre [4]	54.90%
D	Elasticity of VMT with respect to residential density	0.22
A	VMT Reduction = $(B-C)/C \times D$	12.08%
	VMT Reduction	12.08%

- [1] Baseline residential density based on dwelling unit and area information obtained from the Los Angeles County Office of the Assessor's parcel-level data for all parcels located within TAZ 22375100.
- [2] The acres of developable land represents the sum of all parcel areas, excluding the public right-of-way and land owned by public agencies.
- [3] The Mixed-Use Alternative would result in 252 new dwelling units in the TAZ.
- [4] Determined by calculating $(B-C)/C$.

CAPCOA 2021 Handbook VMT Reduction Calculation Worksheets

Mixed-Use Alternative

TAZ 22379100

Measure T-1. Increase Residential Density	
Measure Scale	Project/Site
Max VMT Mitigation Potential	30.0%

Baseline Residential Density [1]		
	Residential Dwelling Units (DU)	809
	Acres of Developable Land (Acres) [2]	329.8
C	Number of Dwelling Units per Acre (DU/Acre)	2.45

Residential Density with Project		
	Residential Dwelling Units with Project (DU) [3]	881
	Acres of Developable Land (Acres) [2]	329.8
B	Number of Dwelling Units per Acre (DU/Acre)	2.67

Project VMT Reduction Due to Increased Residential Density		
	Percent Increase in Housing Units per Acre [4]	8.90%
D	Elasticity of VMT with respect to residential density	0.22
A	VMT Reduction = $(B-C)/C \times D$	1.96%
	VMT Reduction	1.96%

- [1] Baseline residential density based on dwelling unit and area information obtained from the Los Angeles County Office of the Assessor's parcel-level data for all parcels located within TAZ 22379100.
- [2] The acres of developable land represents the sum of all parcel areas, excluding the public right-of-way and land owned by public agencies.
- [3] The Mixed-Use Alternative would result in 72 new dwelling units in the TAZ.
- [4] Determined by calculating $(B-C)/C$.

