



April 29, 2022

Loren Morland  
Classic SRJ Land, LLC  
2138 Flying Horse Club Drive  
Colorado Springs, Colorado 80921

**RE: The Villages at Sterling Ranch East Preliminary Plan / Traffic Generation Analysis  
El Paso County, Colorado**

This document has not been approved  
by El Paso County, and cannot be  
relied upon for this conformance letter

Dear Mr. Moreland,

SM ROCHA, LLC is pleased to provide traffic generation information for the development entitled The Village at Sterling Ranch East Preliminary Plan. This development is located on the southeast corner of future Briargate Parkway and future Sterling Ranch Road intersection in El Paso County, Colorado.

The intent of this analysis is to present traffic volumes likely generated by the proposed development, provide a traffic volume comparison to previous land use assumptions defined in Sterling Ranch Sketch Plan Amendment and related traffic analysis<sup>1</sup>, and consider potential impacts to the adjacent roadway network.

The following is a summary of analysis results.

**Site Description and Access**

Land for the development is currently vacant and surrounded by an existing or proposed mix of light industrial, commercial, institutional, and residential land uses. The proposed development is understood to entail new construction accommodations for 246 residential dwelling units.

Proposed access to the development is provided at the following locations:

Briargate Parkway

- Full-movement intersection at Sterling Ranch Road,

Add Project #  
"PUDSP-22-006"

<sup>1</sup> Sterling Ranch Sketch Plan Amendment, Traffic Generation Analysis, SM ROCHA LLC, April 25, 2022.

Sterling Ranch Road (South of Briargate Parkway)

- Full-movement access at southwest corner of development site (herein referred to as future collector street – Oak Park). Oak Park intersection with Sterling Ranch Road aligns with full-movement access of middle school as proposed with the Sterling Ranch East (Phase I) Preliminary Plan. Oak Park is located approximately 950 feet south of Briargate Parkway.

Oak Park (East of Sterling Ranch Road)

- Full-movement access at midpoint of development that forms new residential local street (St. Louis) intersection. This intersection is located approximately 315 feet east of Sterling Ranch Road.
- Full-movement access at southeast corner of development site. This access creates a new residential local street (Indianapolis) intersection on Oak Park about 750 feet east of Sterling Ranch Road.

General site location is shown on Figure 1.

A conceptual site plan, as prepared by Classic Consulting, including proposed access locations is shown on Figure 2. This plan is provided for illustrative purposes.

The referenced Sketch Plan Amendment traffic analysis separated the proposed development area into traffic analysis zones (TAZs). The proposed development entails TAZ 15 from the Sterling Ranch Sketch Plan Amendment.

Figure 3, provided for reference, is a copy of the Sketch Plan Amendment TAZ figure which has been modified (highlighted) to illustrate the TAZ considered for the proposed development.



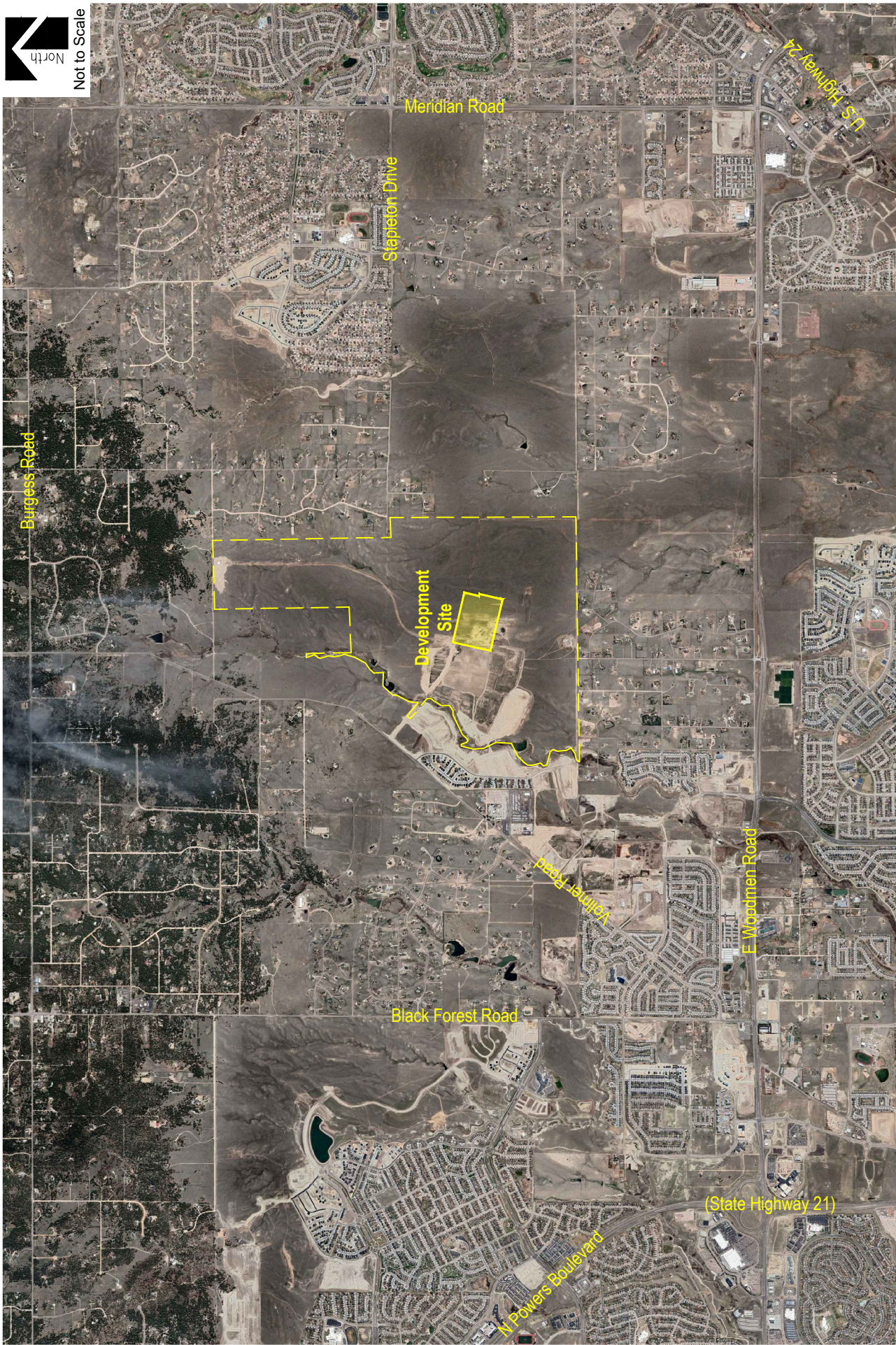
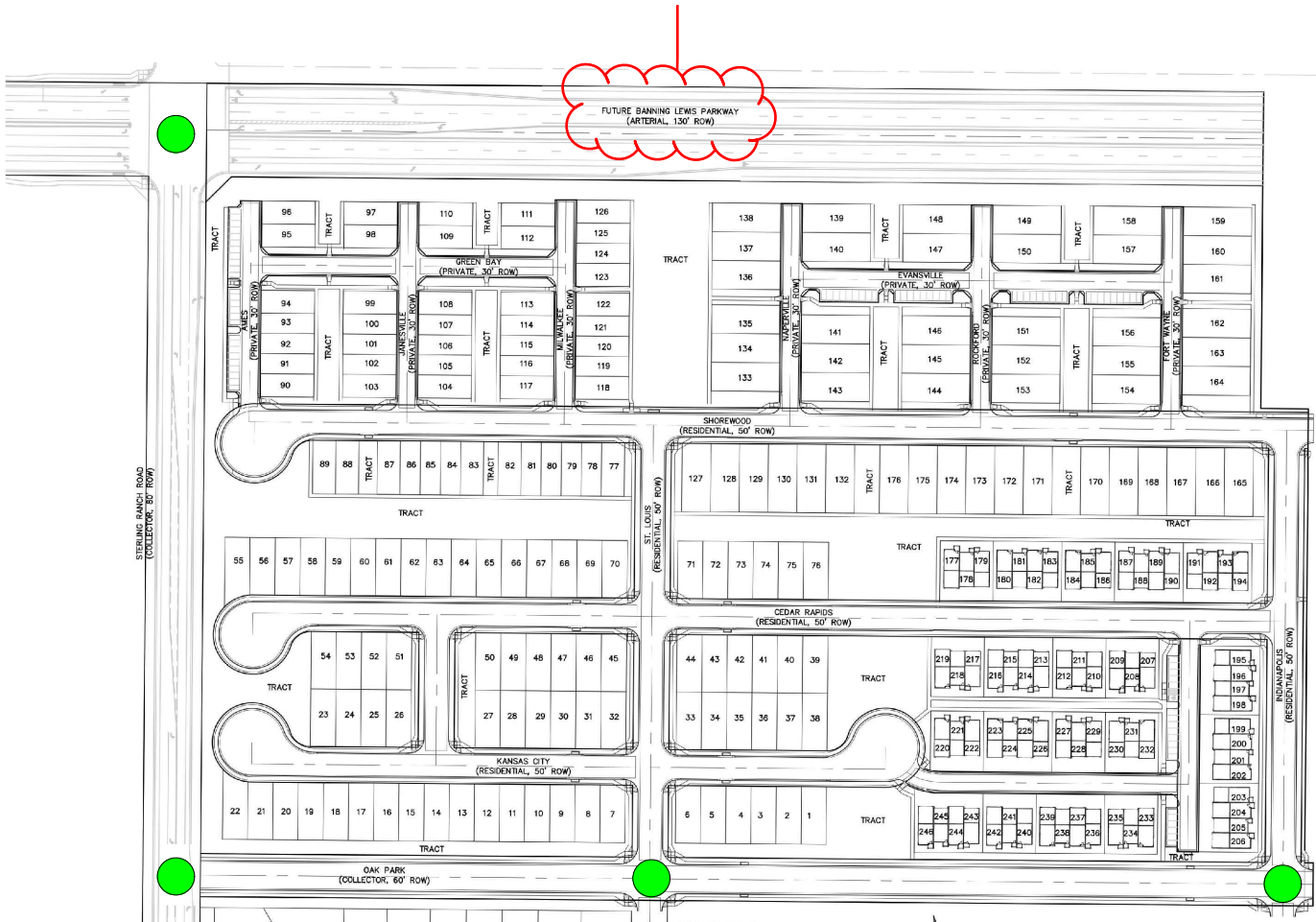


Figure 1  
SITE LOCATION





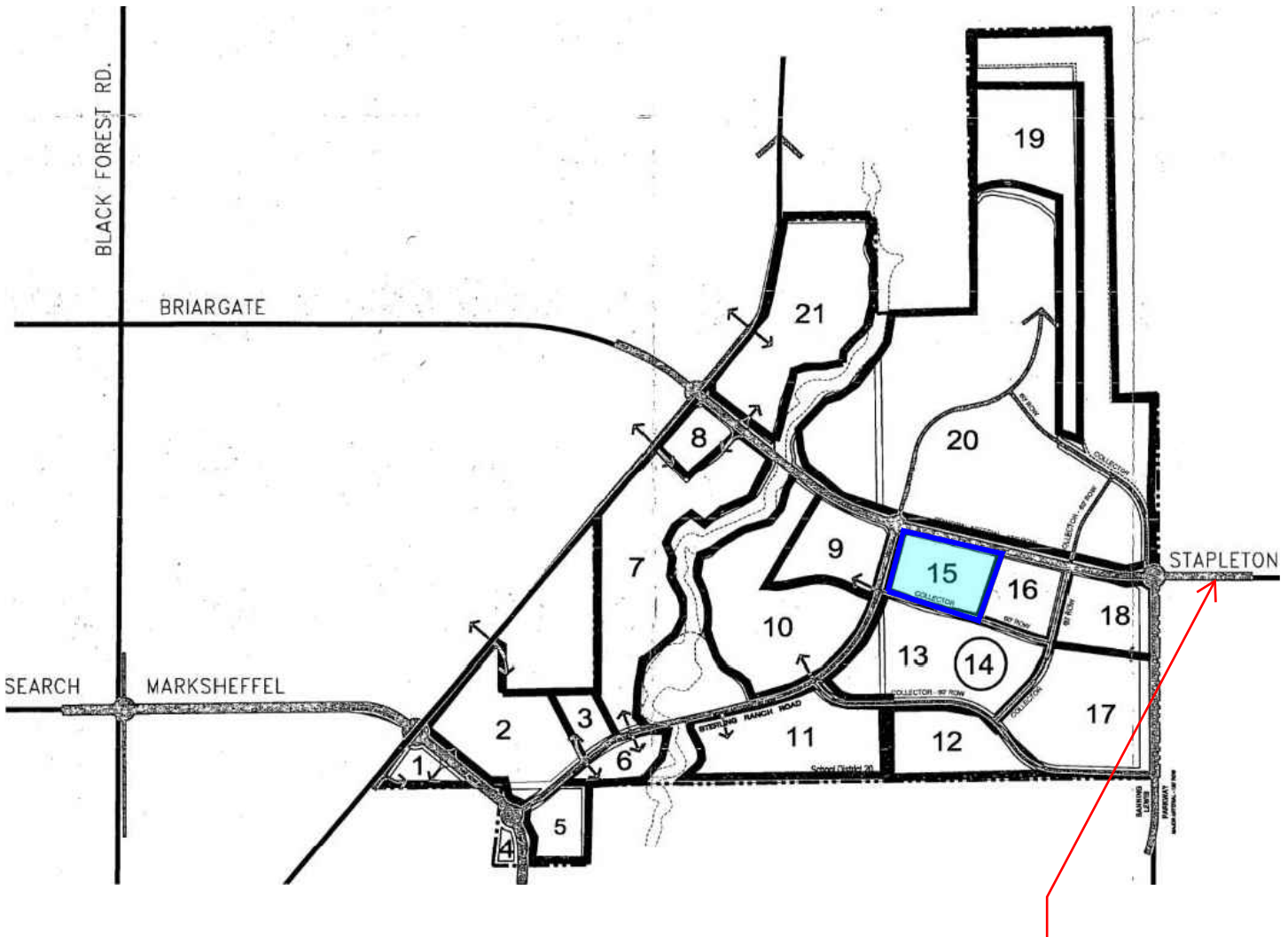
Briargate Parkway?



**LEGEND**

● Full-Movement Intersection





Stapleton appears to be 1/2 mile north of Briargate.



## Vehicle Trip Generation

Standard traffic generation characteristics compiled by the Institute of Transportation Engineers (ITE) in their report entitled Trip Generation Manual, 11<sup>th</sup> Edition, were applied to the proposed land uses in order to estimate the average daily traffic (ADT) and peak hour vehicle trips. A vehicle trip is defined as a one-way vehicle movement from point of origin to point of destination.

Table 1 presents average trip generation rates for the development area proposed. Use of average trip generation rates presents a conservative analysis and is consistent with the referenced Sketch Plan Amendment and associated traffic analysis. ITE land use codes described below were used for analysis and comparison because of their best fit to the previously assumed and proposed land use.

**Table 1 – Trip Generation Rates**

ITE CODE	LAND USE	UNIT	TRIP GENERATION RATES						
			24 HOUR	AM PEAK HOUR			PM PEAK HOUR		
				ENTER	EXIT	TOTAL	ENTER	EXIT	TOTAL
210	Single-Family Detached Housing	DU	9.43	0.18	0.52	0.70	0.59	0.35	0.94
220	Multifamily (Low-Rise)	DU	6.74	0.10	0.30	0.40	0.32	0.19	0.51

Key: DU = Dwelling Units.

Note: All data and calculations above are subject to being rounded to nearest value.

Table 2 summarizes the projected ADT and peak hour traffic volumes likely generated by the land use area proposed, upon assumed build-out, and provides comparison to traffic volume estimates of assumed land uses and densities as described in the Sketch Plan Amendment.

**Table 2 – Trip Generation Summary**

ITE TAZ	CODE	LAND USE	SIZE	TOTAL TRIPS GENERATED						
				24 HOUR	AM PEAK HOUR			PM PEAK HOUR		
					ENTER	EXIT	TOTAL	ENTER	EXIT	TOTAL
<u>Sterling Ranch Sketch Plan Amendment</u> **										
15	210	Single-Family Detached Housing	176 DU	1,660	32	91	123	104	61	165
15	220	Multifamily (Low-Rise)	70 DU	472	7	21	28	22	13	35
<i>Previously Assumed Total:</i>				2,132	39	112	151	126	74	200
<u>Villages at Sterling Ranch East - Proposed</u>										
15	210	Single-Family Detached Housing	176 DU	1,660	32	91	123	104	61	165
15	220	Multifamily (Low-Rise)	70 DU	472	7	21	28	22	13	35
<i>Proposed Total:</i>				2,132	39	112	151	126	74	200
<b><i>Difference Total:</i></b>				0	0	0	0	0	0	0

Key: \*\* = Trip generation information from ITE's Trip Generation Manual, 11<sup>th</sup> Edition.

Note: All data and calculations above are subject to being rounded to nearest value.

As Table 2 shows, the proposed development has the potential to generate approximately 2,132 additional daily trips with 151 of those occurring during the morning peak hour and 200 during the afternoon peak hour.

Table 2 further illustrates no change in traffic volume generation as originally estimated in the Sterling Ranch Sketch Plan Amendment.

### **Adjustments to Trip Generation Rates**

A development of this type is not likely to attract trips from within area land uses nor pass-by or diverted link trips from the adjacent roadway system, therefore no trip reduction was taken in this analysis.

### **Development Impacts**

As Table 2 shows, there is no increase in daily and peak hour traffic volumes anticipated for the proposed development. Moreover, no negative impact to operations of roadways and intersections or roadway classifications, as previously planned and approved for the overall Sterling Ranch development area, is anticipated.

### **Street Classifications**

Recommended classifications for proposed internal streets is a combination of urban local and urban local (low volume) as shown in the proposed preliminary plan document. Internal street intersections including site access intersections with Sterling Ranch Road and Oak Park are proposed to operate under a stop-controlled condition. A stop-controlled intersection is defined as a roadway intersection where vehicle rights-of-way are controlled by one or more “STOP” signs.

Classifications for Sterling Ranch Road (2-lane urban non-residential collector with painted center median) and Briargate Parkway (4-lane urban principal arterial) are already determined. The intersection of Briargate Parkway and Sterling Ranch Road is envisioned to operate under traffic signal control.

The envisioned classification of future Oak Park is a two-lane residential collector with a 60-foot right-of-way width.

### **Roadway Improvements**

Consistent with roadway improvements recommended with adjacent development occurring along the Sterling Ranch Road corridor, right-turn and left-turn deceleration lanes are recommended at proposed site access (intersection with Oak Park). These turn lanes, pursuant to County design

How long?



standards along with referenced intersection control, are included in the street improvement plans<sup>2</sup> for Sterling Ranch Road currently under County review. No deviation to proposed street improvement plans for Sterling Ranch Road is recommended.

How long?

Pursuant to County design standards and the classification of future Oak Park eastbound and westbound right-turn or left-turn deceleration lanes are not required at intersections with St. Louis or Indianapolis. However, application of a left-turn deceleration lane could be provided by way of a painted center median. No other auxiliary lanes are recommended for this future intersection at this time.

Should be part of this submittal per ECM Section B.8

Interim or ultimate roadway improvements, or fare share contribution, for Oak Park is to be later developed through the Preliminary Plan review.

Include discussions on deviations for proposed for internal local roads.

## Conclusion

This analysis assessed traffic generation for The Village at Sterling Ranch East Preliminary Plan, provided a traffic volume comparison to land use assumptions for the applicable Sketch Plan Amendment area, and considered potential impacts to the adjacent roadway network.

It is our professional opinion that the proposed site-generated traffic resulting from the proposed development is expected to create no negative impact to traffic operations for the surrounding roadway network (existing or proposed), nor cause change to previously approved roadway classifications or current roadway design plans. Analysis of site-generated traffic concludes that proposed development traffic volume is in compliance with that assumed in the Sketch Plan Amendment. All conclusions and recommendations presented in previously approved referenced studies or improvement plans remain valid. These statements may need to be revised once turn lane length calculations are performed.

## Traffic Engineer's Statement

The attached traffic report and supporting information were prepared under my responsible charge and they comport with the standard of care. So far as is consistent with the standard of care, said report was prepared in general conformance with the criteria established by the County for traffic reports.

<sup>2</sup> Sterling Ranch Road & Briargate Parkway Street Plans, JR Engineering, February 10, 2022.



We trust that our findings will assist in the planning and approval of The Village at Sterling Ranch East Preliminary Plan. Please contact us should further assistance be needed.

Sincerely,

**SM ROCHA, LLC**  
Traffic and Transportation Consultants



Mike Rocha  
Principal



Fred Lantz, PE  
Traffic Engineer

**Developer's Statement**

I, the Developer, have read and will comply with all commitments made on my behalf within this report.

**Sign and Date.**

\_\_\_\_\_  
Developer

\_\_\_\_\_  
Date

# Traffic Impact Study\_v1.pdf Markup Summary

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## AutoCAD SHX Text (3)

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## CDurham (3)

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or median. No other auxiliary lanes are recommended for 1  
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Include discussions on deviations for proposed for  
internal local roads.

Provide signature page  
per ECM Appendix B.8

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Provide signature page per ECM Appendix B.8

Developers' statement and traffic engineer's statement are on last page.

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Developers' statement and traffic engineer's statement are on last page.



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Briargate Parkway?



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Stapleton appears to be 1/2 mile north of Briargate.

improvements recommended with adjacent development on corridor. Right-turn and left-turn deceleration lanes are recommended at intersection with Oak Park. These turn lanes, pursuant to C

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right-turn and left-turn deceleration lanes

a two-lane residential collector with a 60-foot right-  
How long?  
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How long?





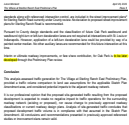
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It would be helpful to include relevant sheets as an attachment.

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left-turn deceleration lane



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to be later developed

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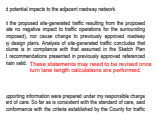
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How long?

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 Should be part of this submittal per ECM Section B.8  
 results, or fare share contribution, for Oak Park is to be later

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Should be part of this submittal per ECM Section B.8



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These statements may need to be revised once turn lane length calculations are performed.

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Sign and Date.

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