



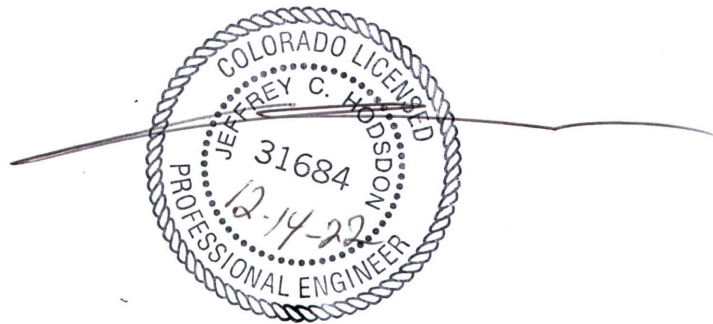
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Villas at Claremont Ranch
Traffic Impact Analysis
PCD File No. SF2228
(LSC #204130)
December 14, 2022



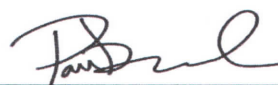
Traffic Engineer's Statement

This 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.



Developer's Statement

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



12/14/2022

Date

LSC Responses to TIS comments

Page: 1


 Number: 1 Author: jchodsdon Subject: Sticky Note Date: 1/25/2023 12:03:47
LSC Responses to EPC TIS Redline Comments

Table 3: Queuing Analysis Results (Short-Term Total Traffic Volumes)

Intersection	Lane	Storage	95 th Percentile Queue (ft)	
		Length (ft)	AM	PM
Marksheffel/ Meadowbrook	EBL (duals)	220'	39'	128'
	EBT	---	14'	55'
	EBR	200'	0'	54'
	WBL	300'	156'	60'
	WBT	---	38'	27'
	WBR	190'	58'	0'
	SBT	---	476*	193'
	SBL	340'	22'	24'
	NBL	405'	24'	30'
Meadowbrook/ Greengate View	EBL	85'	0'	0'

* The SBL queue in the Synchro report reflects through traffic blockage of the entry to the SBL turn lane and not left-turn traffic overflowing into the adjacent through lane

The southbound left-turn queue on Marksheffel Road approaching Meadowbrook Parkway is projected to be 24 feet long during the short-term evening peak hour, based on the projected short-term total traffic volumes. During the morning peak hour, the southbound through-lane queue is longer than the left-turn auxiliary lane. As a result, the southbound through lane will occasionally block left-turning vehicles from getting into the left-turn lane. This is not a significant problem as the southbound left-turning traffic is relatively light and safety is not affected. The southbound left-turn auxiliary lane cannot be lengthened due to the existing bridge structure. In the future, El Paso County may decide to utilize the southbound Marksheffel width to implement three southbound through lanes at the Marksheffel/Meadowbrook intersection and potentially at intersections to the north as well.

The proposed westbound left-turn queue at Marksheffel/Meadowbrook is projected to be less than 190 feet. This available stacking distance would provide adequate storage capacity for projected volumes for the westbound approach, while the eastbound right-turn at Fieldside View (the west site access) is expected to have a queue of less than one vehicle.

2040 Background Plus Site-Generated Condition

The table below shows the anticipated available left-turn stacking lengths and the available stacking distance between the two intersections for the westbound through lane. The latter distance is a function of the intersection spacing. These left-turn stacking lengths have been determined based on this queuing analysis and access spacing.

The long-term analysis assumes dual westbound left-turn lanes on the Meadowbrook Parkway westbound approach to Marksheffel Road and the addition of a third southbound through lane.

Number: 1 Author: CDurham Subject: Callout Date: 1/17/2023 07:58:35

[Missing SBR](#)

 Author: jchodsdon Subject: Sticky Note Date: 1/25/2023 12:01:46

LSC Response: The SBR has been added to the table as requested.

Note (not related to the SBR)/FYI: a stray reference to the SBL queue in the table footer was removed in this version of the report as the SBL turn traffic (and associated queue) is far below the level of potentially overflowing the SBL turn lane.

Table 4: Queuing Analysis Results (2040 Background Plus Site-generated Traffic)

Intersection	Lane	Storage	95 th Percentile Queue (ft)	
		Length (ft)	AM	PM
Marksheffel/ Meadowbrook	EBL (duals)	220'	99'	259'
	EBT	---	19'	67'
	EBR	200'	0'	69'
	WBL (duals)*	300'	228'	130'
	WBT	---	39'	57'
	WBR	190'	61'	22'
	SBT	---	471'	245'
	SBL	340'	50'	138'
	NBL	405'	47'	12'
Meadowbrook/ Greengate View	EBL	85'	0'	0'
* Assuming dual left turn lanes ** The SBL queue in the Synchro report reflects through traffic blockage of the entry to the SBL turn lane and not left-turn traffic overflowing into the adjacent through lane				

The queuing analysis indicates the projected 95th percentile queue for the westbound left-turn movement on Meadowbrook at Marksheffel would reach a maximum length of 228 feet. The projected 95th percentile queue for the eastbound left-turn lane onto Fieldside View (the west site access on Meadowbrook Parkway) is projected to reach a length of less than one vehicle.


The projected southbound left-turn queue on Marksheffel Road approaching Meadowbrook Parkway is projected to be about 138 feet long during the 2040 evening peak hour. During the morning peak hour, the southbound through queue length is anticipated to be 471 feet, which would block the left-turning vehicles from getting into the turn lane. The full-width lane length not including taper is about 340 feet for the southbound left movement.

ECM ACCESS CRITERIA


The two site access points, Greengate View and Fieldside View, are planned to be private streets and as such, criteria in *ECM* section 2.4.1 applies. Corner clearance to intersections would be satisfied and the access points would be separated by a distance exceeding the sight-distance requirement. The access points would have adequate intersection sight distance (provided landscaping, site improvements, etc. are kept out of the line of sight “triangles”).

PEDESTRIAN AND BICYCLE ACCOMMODATION

There are currently sidewalks along Marksheffel Road adjacent to the site. Additionally, sidewalks will be constructed on Meadowbrook Parkway adjacent to the site, which will connect to the existing sidewalk to the east. There is a 12-foot-wide paved concrete trail along the west side of

 Number: 1 Author: CDurham Subject: Callout Date: 1/17/2023 11:39:22

[Missing SBR](#)

 Author: jchodsdon Subject: Sticky Note Date: 1/25/2023 11:56:00

LSC Response: The SBR has been added to the table as requested.