MEMORANDUM

To: City of Littleton Public Works and Development Review

From: Cassie Slade, PE, PTOE

Date: April 23, 2025

Project: 589 Littleton Boulevard Rezoning

Subject: Traffic Analysis Memo

The Fox Tuttle Transportation Group has completed a traffic analysis for the proposed rezoning of the property at 589 Littleton Boulevard in Littleton, Colorado. The property is located in the northwest corner of Littleton Boulevard and Delaware Street. The project is proposing to change the current zoning from Neighborhood Commercial (NC) to Corridor Mixed (CM). The subject property is shown in **Figure 1.**

Figure 1. Map of Property to be Rezoned

The purpose of this "traffic analysis memo" is to compare the potential development traffic between the existing and proposed zoning.

Trip Generation Comparison for Rezoning

Based on the definitions in the City of Littleton's *Code and Charter*, the NC zoning allows continued use of single-family homes and may transition into business and commercial uses. The CM zoning provides the broadest range of residential and commercial land uses and is for properties along major corridors. For the purpose of this rezoning, the highest trip generating land uses permitted by right were compared to further understand the possible development of the property with existing zoning, proposed zoning, and proposed project. **Table 1** lists the high generators and if they are permitted within each zoning designation.

Table 1: Highest Trip Generators per Zoning Designation

	Existing: Neighborhood Commercial (NC)	**Proposed: Corridor Mixed (CM)**
Coffee Shop	Yes (no drive thru)	Yes
Fast-Food Restaurant with Drive-In	No	Yes
Grocery Store	Yes	Yes
Home Improvement Center	No	Yes
Daycare	Yes	Yes
Duplex/Townhomes	Yes	Yes

Both zoning designations allow the same highest peak hour trip generator, which is a coffee shop however the NC zoning does not allow a drive thru without a public hearing. To determine the amount of development allowed on the site, the acreage was converted to square feet and then it was assumed there would be an Floor Area Ratio (FAR)[1] of 0.25 to 0.30. This equates to 16,000

[1] Floor Area Ratio is a measure used to determine the density that can be built on a property. It is calculated by dividing the total floor area of the building by the area of the land. Essentially, FAR indicates how much building area can be constructed on a specific piece of land.

to 19,600 square feet of development. Typical sizes for each land use type were determined from existing similar businesses, ITE trip generation averages, and experience from other projects. It was also assumed how many businesses would be on this site based on access, need for parking, and compatibility between land uses.

A trip generation estimate was performed to determine the traffic characteristics of the existing and proposed zoning. The trip rates contained in the Institute of Transportation Engineers (ITE) *Trip Generation Handbook and Manual*[2] were applied to estimate the traffic for each potential scenario. **Table 2** provides the trip generation estimates for various scenarios that would be permitted by right land uses for the weekday, AM peak hour, and PM peak hour.

Table 2: Trip Generation for Highest Generators per Zoning Designation

	Land Use	Land Use Code	Size	Unit	Average Weekday Trips				AM Peak Hour				PM Peak Hour			
					Rate	Total	In	Out	Rate	Total	In	Out	Rate	Total	In	Out
Scenario 1 for NC	Coffee/Donut Shop without Drive-Through Window	936	3	ksf	444.07	1,332	666	666	93.08	279	142	137	32.29	97	49	48
	2x High-Turnover (Sit-Down) Restaurant	932	11.0	ksf	107.20	1,179	590	589	9.57	105	58	47	9.05	100	61	39
	Total Trips				***Daily:***	***2,511***	***1,256***	***1,255***	***AM:***	***384***	***200***	***184***	***PM:***	***197***	***110***	***87***
Scenario 2 for NC	Supermarket	850	20.0	ksf	93.84	1,877	939	938	2.86	57	34	23	8.95	179	90	89
	Total Trips				***Daily:***	***1,877***	***939***	***938***	***AM:***	***57***	***34***	***23***	***PM:***	***179***	***90***	***89***
Scenario 1 for CM	Fast-Food Restaurant with Drive-Thru	934	4	ksf	467.48	1,870	935	935	44.61	178	91	87	33.03	132	69	63
	Fast-Food Restaurant with Drive-Thru	934	4	ksf	467.48	1,870	935	935	44.61	178	91	87	33.03	132	69	63
	Total Trips				***Daily:***	***3,740***	***1,870***	***1,870***	***AM:***	***356***	***182***	***174***	***PM:***	***264***	***138***	***126***
Scenario 2 for CM	Coffee/Donut Shop with Drive-Through Window	937	2.5	ksf	533.57	1,334	667	667	85.88	215	110	105	38.99	97	49	48
	Fast-Food Restaurant with Drive-Thru	934	4	ksf	467.48	1,870	935	935	44.61	178	91	87	33.03	132	69	63
	Total Trips				***Daily:***	***3,204***	***1,602***	***1,602***	***AM:***	***393***	***201***	***192***	***PM:***	***229***	***118***	***111***

2 *Trip Generation Handbook and Manual, 11th Edition*, Institute of Transportation Engineers, 2021.

It can be seen in **Table 2** that allowable land uses for the existing and proposed zoning designations have similar trip generation estimates. Comparing the highest scenarios for each zoning indicates that the proposed CM zoning will have a higher daily volume and PM peak hour volume, but lower AM peak hour volume than the existing NC zoning. The lower AM peak hour for CM zoning was estimated to generate 28 fewer trips than the CM zoning (approximately one less vehicle every two minutes). The higher PM peak for CM zoning was estimated to generate 67 more trips than the NC zoning (approximately one more vehicle per minute).

Conclusions

Any future redevelopment of the site will be analyzed for transportation impacts and that future developers will be required to mitigate any adverse impacts per the City of Littleton standards.

I hope that the contents of this memorandum are helpful to you. If you have any questions, please feel free to give me a call.

Sincerely,
FOX TUTTLE TRANSPORTATION GROUP, LLC

Cassie Slade

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Principal