

Exhibit C to the Section C Addendum

Trip Generation Report



June 29th, 2023

Andy Priolo
 Circle K Stores Inc.
 1100 Situs Court, Suite 100
 Raleigh, NC 27606
 919-566-1714

RE: Circle K (Manns Farm) Trip Generation Memorandum

Dear Mr. Priolo,

Timmons Group is providing traffic engineering services for the proposed commercial development located at 11339 US Hwy 15/501 N in Chapel Hill, NC. The proposed development will consist of a 6,900 square-foot (SF) auto parts store and a 5,200 SF C-Store with 16 vehicle fueling positions (VFP). Per NCDOT standards, a Traffic Impact Analysis (TIA) is required when projected peak hour trips exceed 150 vehicles per hour (VPH) or daily trips exceed 3,000 vehicles per day (VPD).

The site-generated trips shown in **Table 1** are based on trip generation information provided in the 11th Edition of the Institute of Transportation Engineers' (ITE's) *Trip Generation Manual* and the anticipated development size. The trip generation was calculated using the proposed square footage as the independent variable as well as the provided rate (automobile parts sales) and regression equation (gas station).

Table 1: Trip Generation Summary

ITE Land Use Code	Independent Variable	AM Peak Hour			PM Peak Hour			Daily Traffic
		In	Out	Total	In	Out	Total	
843 – Automobile Parts Sales	6,900 SF	10	7	17	16	18	34	377
945 – Convenience Store / Gas Station – VFP (16-24)	5,200 SF	216	217	433	182	182	364	4,114
Subtotal:		226	224	450	198	200	398	4,491
Pass-By LUC 843 (43% PM):		--	--	--	-7	-8	-15	--
Pass-By LUC 945 (62% AM / 56% PM):		-134	-135	-269	-102	-102	-204	--
Total:		92	89	181	89	90	179	4,491

SOURCE: Institute of Transportation Engineers' *Trip Generation Manual* 11th Edition

Prior to pass-by trip reductions, AM peak hour trips totaled 226 incoming and 224 outgoing where PM trips totaled 198 incoming and 200 outgoing. Average daily traffic (ADT) volumes totaled 4,491 VPD.

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Per NCDOT standards and procedures, pass-by percentages were applied to projected traffic volumes. For LUC 842, a 43% PM peak hour pass-by percentage was applied to projected traffic site volumes. For LUC 945, 62% and 56% AM and PM peak hour pass-by percentages (respectively) were applied to projected traffic site volumes. Following these reductions, AM peak hour trips totaled 92 incoming and 89 outgoing where PM trips totaled 89 incoming and 90 outgoing.

As shown in **Table 1**, projected trips meet NCDOT's peak hour trip threshold (150 VPD) and daily trip threshold (3,000 VPD). Therefore, a TIA is required due to the development's construction.

Should you have any questions regarding this memorandum, do not hesitate to contact me.

Sincerely,

Jeffrey P. Hochanadel, PE, PTOE
Principal | North Carolina Transportation Group Leader