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Project: (220825)

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RE: 6179 LUNDY'S LANE, NIAGARA FALLS, ON TRIP GENERATION AND PARKING LETTER ADDENDUM

In January 2024, Paradigm Transportation Solution Limited (Paradigm) prepared a Transportation and Parking Study¹ for the property at 6179 Lunch's Lane in the City of Niagara Falls.

The January 2024 study assumed the site would include single nine-storey tower, providing 131 residential units, and 294 m² (3,163 sq.ft.) of ground floor retail. The estimated trip generation for the development was estimated to be 53 AM and 72 PM peak hour trips.

A total of 159 parking spaces were proposed (147 residential spaces and 12 retail spaces) to serve the overall development. Residential parking provisions was proposed at a rate of 1.12 parking spaces per unit, whereas commercial parking provisions was proposed at a rate of 1.00 parking spaces per 25m².

Since submitting the January 2024 Study, the site plan has been revised to a ten-storey building with 144 residential units and 294 m² (3,163 sq.ft.) of ground floor retail. The proposed 159 parking spaces remain unchanged.

Trip Generation

The Institute of Transportation Engineers (ITE) Trip Generation² was referenced to estimate the peak hour vehicular traffic generated by the proposed development. The following Land Use Codes (LUC) were used:

¹ Paradigm, 220825: 6179 Lundy's Lane, Niagara Falls, ON – Transportation Impact & Parking Study, January 2024

² *Trip Generation 11th Edition*, Institute of Transportation Engineers, Washington D.C., 2022

- ▶ Multifamily Housing (Mid-Rise) (LUC 221); and
- ▶ Retail Plaza (<40k sq.ft. GFA) (LUC 822)

Table 1 summarizes the estimated trip generation. The site is estimated to generate approximately 59 AM peak hour trips and 78 PM peak hour trips. To remain conservative, no trip reductions in alternative modes of transportation have been applied.

Additionally, no pass-by trips have been accounted for the retail component representing a conservative approach.

TABLE 1: TRIP GENERATION ESTIMATES

ITE Land Use Code / Number of Units	Trips	AM Peak Hour				PM Peak Hour			
		Rate	In	Out	Sum	Rate	In	Out	Sum
221 - Multifamily Housing (Mid-Rise) - 144 Units	Total	Eqn.	12	40	52	Eqn.	35	22	57
822 - Retail Plaza (<40k GFA) - 3163 GFA	Total	2.36	4	3	7	6.59	11	10	21
Total	Total	--	16	43	59	--	46	32	78

Equations

LUC 221 Rate per Unit AM: $T = 0.44(X) - 11.61$ | PM: $T = 0.39(X) + 0.34$

LUC 822 Eqn per 1,000 sq.ft. GFA AM: 2.36 | PM: 6.59

With the updated unit count, approximately 59-78 new trips are forecast to be added to the area roadways during the weekday peak hours. In comparison to the January 2024 study, this is an additional increase of 6 trips during the weekday peak hours.

Proposed Parking Supply

Although the number of residential units has increased from 131 units to 144 units, the overall parking supply remains unchanged from the January 2024 study. The development proposes 159 parking spaces on-site comprised of 147 residential spaces (a rate of 1.02 spaces per unit) and 12 retail spaces (a rate of 1 space per 25 m²).

The January 2024 study contains a parking demand estimate based on a review of vehicle ownership rates, proxy data, and previously accepted parking rates by the city. The review concluded residential parking rates between 0.81 - 1.00 space per unit can be supported for the area, all well below the City's prescribed zoning requirements of 1.40 spaces per unit.

As outlined in the January 2024 Study, the proposed parking supply is supported with a Transportation Demand Management (TDM) program that includes unbundled parking spaces from dwelling units, and the provision of transit information for residents.



Conclusions

Revisions to the site plan have increased the vehicle trips by six during the AM and PM peak hours. The total trip generation estimates have not changed significantly and would not alter the conclusions reached within the January 2024 study.

Although the number of residential units has increased, the overall parking supply remains unchanged from the January 2024 study. The revised unit count results in a residential parking rate of 1.02 parking spaces per unit which is supported for the area based on a review of average vehicle ownership rates, proxy survey data from similar high-rise developments, and proposed TDM measures.

Feel free to contact the undersigned with any questions or to discuss further.

Yours truly,

PARADIGM TRANSPORTATION SOLUTIONS LIMITED



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