

PARKING STUDY

4422 HURON STREET

Residential Development

City of Niagara Falls, Niagara Region, Ontario

For:

DM Fine Architecture Inc

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Toronto, ON

By:

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1.0 INTRODUCTION AND DEVELOPMENT PROPOSAL

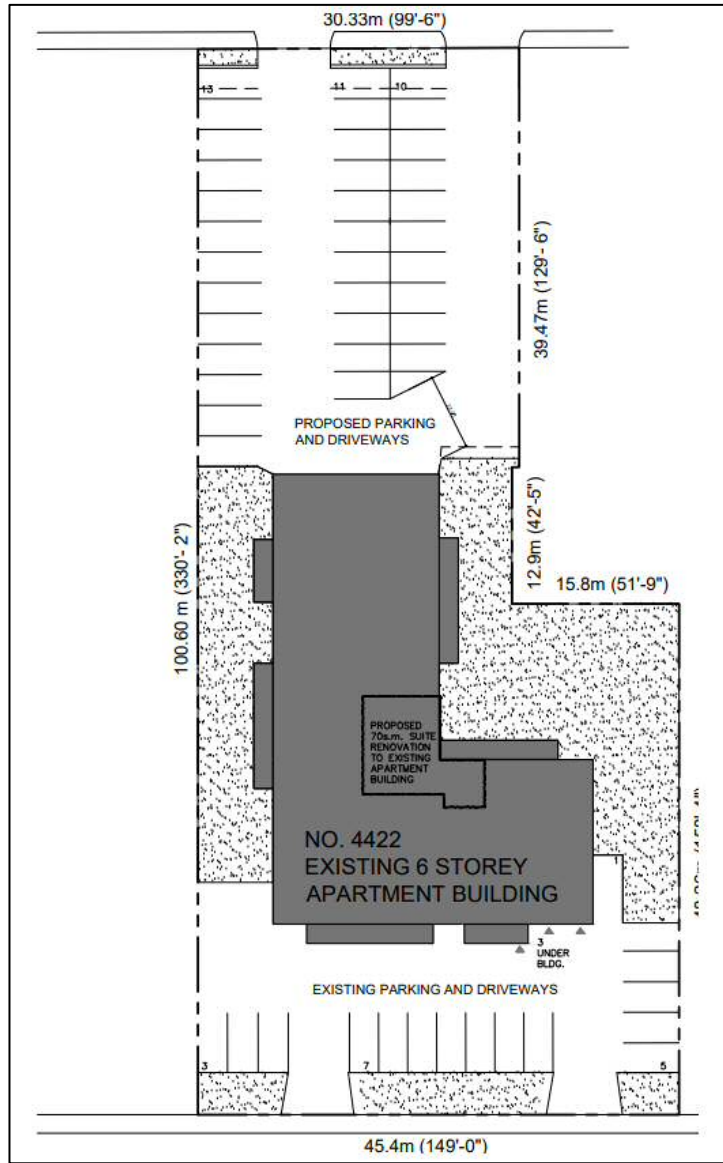
LMM Engineering Inc. was retained by DM Fine Architecture Inc to undertake a parking study for the proposed residential development located on 4422 Huron Street in the City of Niagara Falls, Niagara Region, Ontario. The site location map is shown in **Figure 1-1**.

Figure 1-1 Site Location Map



The site is occupied by an existing 6-storey, residential apartment building consisting of 56 dwelling units and a total of 51 parking spaces. The developer is proposing the addition of one residential unit within the existing footprint of the building, for a total of 57 dwelling units. The proposed site plan is shown in **Figure 1-2**.

Figure 1-2 Site Plan



2.0 PARKING DEMAND

2.1 ZONING BY-LAW REVIEW

As per communication with City of Niagara Falls, the minimum parking requirement for the subject building is 57 parking spaces for the 57 units, where as 51 spaces are proposed, therefore a justification for parking variance is detailed as follows.

2.2 EXISTING PARKING UTILIZATION

LMM conducted a review of existing parking provisions and utilization on the site, that currently consists of 56 dwelling units and a total of 51 parking spaces.

A parking utilization survey was carried out on a typical weeknight, on March 6, 2024 between the hours of 11:00pm and 01:00am, with half-hour intervals between each count. The survey was conducted during this time as it represents the peak demand time for residential parking. As per information provided, all units were tenanted. Utilization summaries are provided in **Table 1**.

Table 1: Parking Utilization Summary

Time Period	Occupied Stalls	Available Stalls	Percentage Utilization
11:00pm – 11:30pm	34	51	66.6%
11:30pm – 12:00am	35	51	68.6%
12:00am – 12:30am	35	51	68.6%
12:30am – 01:00am	36	51	70.6%

Based on **Table 1**, the peak parking utilization for the existing residential development is 36 stalls or 70.6% of total supply on a typical weeknight. Given a total of 56 residential units, the parking rate is estimated to be 0.64 parking stalls per dwelling unit.

2.3 FUTURE PARKING UTILIZATION

Using the surveyed parking rate of 0.64 parking stalls per dwelling unit, the proposed addition of 1 dwelling unit within the existing building footprint is likely to generate a parking demand for 37 spaces. The proposed provision of 51 parking spaces is expected to be sufficient to meet this demand.

To supplement the parking utilization survey, LMM also reviewed parking generation rates in the Institute of Transportation Engineers (ITE) parking generation manual (5th Edition). The following land use code was used:

- Mid-rise Multifamily Residential (221)

The setting used was General Urban / Suburban, within ½ mile of rail transit. An excerpt of this survey data is provided in **Appendix A**. It is noted that the subject site is located within a 650m walk from the Niagara Falls Go Station and is situated adjacent to a Niagara Region Transit bus stop, serviced by routes 104 and 204 to Main Street Hub / Downtown. Based on this setting, the estimated parking demand as derived by a fitted curve equation is 38 parking spaces. It is suggested that the context of Niagara Falls

and frequency of transit being in between that of the Greater Toronto and Hamilton Area (GTHA) and other areas surveyed by ITE in the United States would result in parking demand at this site being in between the calculated 37 spaces and proposed supply of 51 spaces.

Thus, the peak parking demand of 37 spaces is expected to be accommodated by the proposed parking supply of 51 parking spaces.

3.0 CONCLUSIONS

LMM Engineering Inc. was retained by DM Fine Architecture Inc to undertake a parking study for the proposed residential development located on 4422 Huron Street in the City of Niagara Falls, Niagara Region, Ontario.

The site is located within 650 m of the Niagara Falls GO train station and abuts an existing Niagara Region Transit bus stop served by routes 104 and 204.

The proposed development comprises of an addition of 1 dwelling unit to an existing, 6-storey apartment building consisting of 56 dwelling units and 51 parking spaces. The proposed development has a total of 57 dwelling units and 51 parking spaces. As per communication with City of Niagara Falls, the minimum parking requirement for the subject building is 57 parking spaces for the 57 units, where as 51 spaces are proposed, therefore a justification for parking variance is detailed in this report.

Survey data at the existing site as well as empirical data provided by the ITE Parking Generation Manual demonstrates that parking demand at the existing apartment building is significantly lower than by-law requirements and would also be able to accommodate the proposed addition of 1 dwelling unit.

A weeknight parking utilization survey was conducted on a typical weeknight, on March 6, 2024, between the hours of 11:00 pm and 1:00 am and determined the peak parking utilization rate to be 70.6% or 0.64 parking stalls per dwelling unit.

Using the surveyed rate of 0.64 parking stalls per dwelling unit, it is estimated that parking demands for the proposed development would be 37 parking spaces. The proposed provision of 51 parking spaces is expected to be sufficient for this parking demand.

A review of ITE Parking Generation Rates for Mid-rise, multifamily residential developments (land use code 221) was conducted to derive an estimated parking demand of 38 parking spaces. The proposed parking provision is expected to be sufficient to accommodate an additional 1-5 residential dwelling units.

Appendix A

Parking Generation Excerpt

Multifamily Housing (Mid-Rise) (221)

Peak Period Parking Demand vs: Dwelling Units

On a: Weekday (Monday - Friday)

Setting/Location: General Urban/Suburban (< 1/2 mile to rail transit)

Peak Period of Parking Demand: 10:00 p.m. - 5:00 a.m.

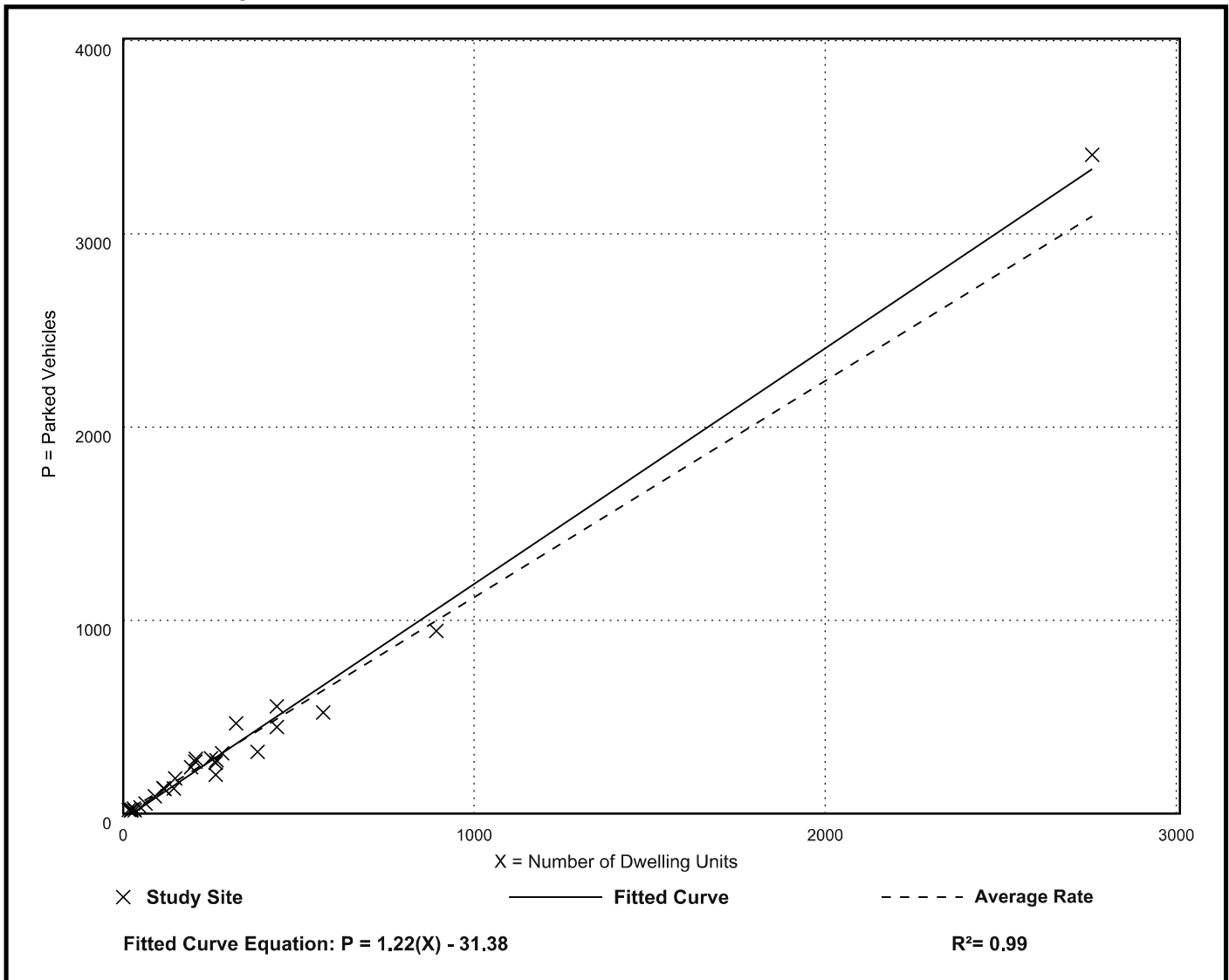
Number of Studies: 27

Avg. Num. of Dwelling Units: 318

Peak Period Parking Demand per Dwelling Unit

Average Rate	Range of Rates	33rd / 85th Percentile	95% Confidence Interval	Standard Deviation (Coeff. of Variation)
1.12	0.55 - 1.45	0.91 / 1.27	1.06 - 1.18	0.17 (15%)

Data Plot and Equation



Appendix B

Communication with City of Niagara Falls

Naji Alimam

From: Claudio Oppedisano <claudiooppedisano@yahoo.com>
Sent: September 9, 2024 3:26 PM
To: Naji Alimam
Subject: Re: Parking Study for 4422 HURON St
Attachments: R5F Zoning 2022.pdf; Special provisions 19.1-19.1.3 -2022.pdf

Hi Naji,

Please read below the message from Ellen Roupas (zoning administrator), 57 parking spaces would be required for the 57 units, so the deficiency would be 6 spaces. She has also attached [the provision 19.1.3. \(q\) of By-law No. 79-200](#).
Thanks

Claudio Oppedisano
DM Fine Architecture
(416) 706 2801
DM-FineArchitecture.com

----- Forwarded Message -----

From: Zoning <zoning@niagarafalls.ca>
To: claudiooppedisano@yahoo.com <claudiooppedisano@yahoo.com>
Sent: Monday, October 2, 2023 at 11:20:02 AM EDT
Subject: RE: ZCC-2023-026 4422 HURON ST- PAYMENT COMPLETE

Good Morning Claudio,

Subsequent to your zoning compliance certificate application, I am unable to approve your application as 57 parking spaces are required for the proposed 57 units. Only 51 parking spaces are provided on site and as such this does not comply with the provision 19.1.3. (q) of By-law No. 79-200. See the attached zoning for your review.

Additionally, as per section 19.1.3. (p) , it appears based on the provided landscape area of 944.45 square metres on the site plan that only 19% landscaping is provided. This does not comply with the requirement.

Therefore, zoning cannot be approved as the minimum parking spaces provided and required landscaping open space do not comply.

Kind Regards,

Ellen Roupas | Junior Zoning Administrator
Planning, Building and Development | City of Niagara Falls
4310 Queen Street | Niagara Falls, ON L2E 6X5 | (905) 356-7521 ext 4239 | eroupas@niagarafalls.ca

We value and respect flexible work arrangements. Although I have sent this at a time that is convenient for me, it is not my expectation that you read, respond or follow up on this email outside of your work hours. .