

December 12, 2005

SO1199SOO00
BY FAX: 226-7161

Ashcroft Homes
18 Antares Drive
Nepean, ON K2E 1A9

Attention: Mr. Paul Rothwell

Dear Sir:

**RE: 93 Richmond Road
Traffic Impact Overview**

1.0 INTRODUCTION

From the information provided, it is our understanding that Ashcroft Homes is proposing a seven (7) storey apartment building at 93 Richmond Road, which is located on the north side of the road approximately ½ block (85m) west of the Island Park Drive intersection. The proposal, which would replace an existing used car sales operation, is for 57 residential units and 443m² of ground floor commercial, with a total of 63 below grade parking spaces. Access to the garage will be directly off Richmond Road.

As the proposed use is not permitted under current zoning, a rezoning is required. As part of the rezoning application, the City has requested a Traffic Impact Overview (TIO). A full-blown Traffic Impact Study is not required due to the relatively low traffic generation of the proposal. However, as there may be some transportation issues, a TIO has been requested.

From our experience in TIO's and in recent projects along Richmond Road, we anticipate that the TIO will have to address the following:

- net increase in site traffic generation;
- design and location of ramp connection to the parking garage and its effect on sidewalk activity and Richmond Road traffic flow;
- impact on on-street parking, if any;
- impact, if any, on the operation of adjacent signalized intersections at Island Park Drive; and
- potential for neighbourhood cut-through traffic.

Accordingly, these issues are addressed in the TIO provided herein.

2.0 EXISTING CONDITIONS

The current land use at 93 Richmond Road consists of a used car sales operation. It has one driveway connection to Richmond Road, located at the westerly end of the site. The adjacent land use to the east is commercial in former residential homes, and the adjacent land use to the west is a CTC gas bar. Immediately adjacent to the west of the gas bar is Patricia Avenue, which has a traffic signal controlled 'T' intersection with Richmond Road.

The adjacent section of Richmond Road is a four-lane undivided facility and is identified in the City's Official Plan as an arterial. This section of Richmond Road was recently reconstructed, and on both sides there is a 2m wide concrete sidewalk separated from the curb by an approximate 0.5m of interlocking brick boulevard. On-street parking is permitted on Richmond Road between Island Park Drive and Patricia Avenue, but with some restrictions during peak periods. This section of Richmond Road has a right-of-way protection for 26m, but subject to an unequal road widening of 7.5m on the north side of centreline and 18.5m on the south side of centreline.

With regard to cycling, there are no defined facilities along Richmond Road, however, the Ottawa Cycling Plan identifies this corridor as part of the City's "Spine System". As such, Richmond Road is designated to accommodate higher volumes of primarily commuter cyclists.

With regard to transit, Regular Route 2 runs on Richmond Road and Regular Route 16 runs on Byron Avenue located two blocks to the south. Bus stops for Route 2 are located immediately across the street for eastbound travellers and approximately 30m to the east for westbound travellers. As well, the City's Western Transitway (Western Station) is located approximately 1km to the northwest, and it carries many of the main cross-city regular and peak period transit routes.

With regard to site access, the adjacent gas bar has one driveway access to Richmond Road, as do the three adjacent properties to the east of the subject site. On the south side of Richmond Road across from the site is an institutional property which has a masonry fence along the full length of its frontage. As such, there are no site driveways on the south side of Richmond Road opposite the subject site and its proposed driveway connection.

3.0 PROPOSED LAND USE

As noted, the proposal is for 57 residential units and 443m² of ground floor commercial, with 63 below-grade parking spaces located within a 7 storey building. Access to the parking garage, as shown on the attached Site Plan, is located at the easterly end of the property approximately 1.5m from the property line. The driveway is approximately 6.7m wide and comprises an inbound and outbound lane. The face of the building is set back approximately 3m from the back of curb, thus drivers exiting the garage will have good sight lines as they approach the sidewalk and the road. The garage access being located at the east end of the site, and well removed from the Patricia Avenue intersection is also helpful as this mid-block location minimizes the potential impact of any queuing on Richmond Road back from the Patricia Avenue or Island Park Drive signalized intersections.

With regard to meeting the requirements of the City's Private Approach Bylaw (PAB), and the Zoning Bylaw parking provisions, the following comments are made:

- the number (1) and width of the site driveway meets the PAB requirements;
- the 1.5m offset of the driveway from the east property line does not meet the PAB's 3m offset requirement, however, because of good sight lines, the location of the driveway to the adjacent property, and there being no traffic hazard, the reduced offset is considered acceptable;
- ramp grade details are not available at this time, and will need to be developed/reviewed later in the Site Plan process; and
- the reduced ramp width of 3.7m for those ramps serving the lower garage levels meets bylaw requirements if they serve 50 or less parking spaces. The upper half of P1 (11 spaces) is served by the 6.7m wide ramp that accesses the street. The lower half of P1 and P2 (52 spaces combined) is

served by a 3.7m wide two-way ramp. We are advised by the architect that this number will be reduced to 50 spaces in the future Site Plan drawings to meet bylaw requirements.

4.0 NEW SITE TRAFFIC GENERATION

For the site's residential component, the TRANS Trip Generation Manual identifies peak hour vehicle trip generation rates of 0.5 vph per unit and 0.7 vph per unit for the weekday morning and afternoon peak hours respectively. These rates incorporate a 25% to 30% transit modal split. Application of these rates results in the following peak hour traffic generation.

Morning peak hour (residential)
57 units x 0.5 = 28 vph

Afternoon peak hour (residential)
57 units x 0.7 = 40 vph

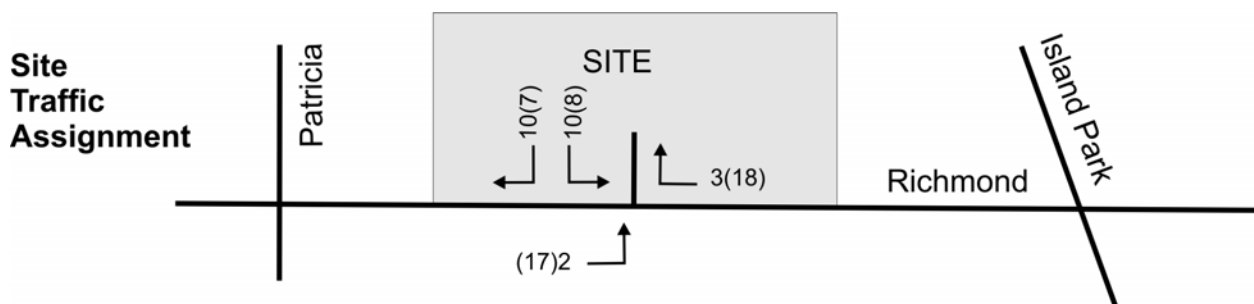
With regard to the ground floor retail commercial, using the Specialty Retail (814) rates in the ITE (7th Edition) Trip Generation Manual result in no vehicle trips in the morning peak commuter hour, and 13 vehicle trips (4769 ft² x 2.71 trips/1000ft²) in the afternoon peak hour.

The resultant total site-generated vehicle trips would then be 28 vph and 53 vph. These values, however, do not account for the traffic generated by the existing on-site land use or by the City's desire to increase transit ridership city wide. Accordingly, these values are reduced to 25 vph and 45 vph for the morning and afternoon peak hours respectively with respect to their off-site impacts. With regard to actual driveway volumes, the values are approximately 25 and 50 vph for the morning and afternoon peak hours respectively. The following reflects the distribution of these net site-generated volumes.

Morning peak hour (total)
25 vph = 20 vph outbound and 5 vph inbound

Afternoon peak hour (total)
50 vph = 15 vph outbound and 35 vph inbound

Based on the directional distribution of peak our traffic at the adjacent Richmond/Island Park intersection, it is considered appropriate to assume a 50% east, 50% west distribution of site-generated traffic. The resultant peak hour traffic assignment is reflected in the following sketch.



As can be seen, the proposed development will add only between 12 vph and 26 vph two-way total to Richmond Road east and west of the site during the morning and afternoon peak hours respectively. The net increase in volumes equate to one new vehicle approximately every 5 to 2 minutes respectively, which is considered insignificant.

Based on the City's most recent traffic counts, the adjacent Richmond/Island Park intersection has approximately 2500 and 2900 vph entering it during the weekday morning and afternoon peak hours respectively. As such, the traffic increases at this intersection of 13 and 26 vph will amount to an approximate increase of 0.5% and 0.9% respectively. These increases are insignificant and will have no effect on the operation or level of service of area intersections.

5.0 CONCLUSIONS AND RECOMMENDATIONS

Based on the preceding analysis and findings, the following are the conclusions and recommendations of this TIO:

- The site's generated traffic will have no impact on the operation and level of service of adjacent streets and intersections;
- The site's driveway connection is well located between the adjacent traffic signal controlled intersections at Patricia Avenue (to the west) and Island Park Drive (to the east), such that gaps in the Richmond Road traffic flow will facilitate the low volume of left-turns into and out of the site. Peak hour left-turns into and out of the site are projected to total 12 and 25 vph in the morning and afternoon peak hours respectively, which equates to a very low frequency of 1 new left-turn vehicle approximately every 5 to 2.5 minutes respectively. This volume and frequency are considered inconsequential with regard to Richmond Road traffic operations;
- Cut-through traffic on neighbourhood residential streets is projected to be non-existent. This is because of the combination of the site's close proximity to major north-south arterial connectors (Island Park Drive and Kirkwood Avenue), which will efficiently distribute site traffic, the absence of attractive cut-through routes in the immediate vicinity; and the low volume of site-generated traffic;
- The 3m setback from the building to the back of sidewalk will provide drivers with good sight lines when exiting the building;
- The approximate 1.5m offset of the site driveway from the east property line does not meet the Private Approach Bylaw's 3m offset requirement. However, because of the good sight lines and projected safe operating conditions, the proposed offset is considered acceptable;
- The number of below-grade spaces in P2 and the lower half of P1, which are served by the proposed 3.7m wide ramp need to be reduced from 52 to 50 spaces to meet the Private Approach Bylaw requirements; and
- Ramp grade details are not available at this time, and will therefore, have to be reviewed later in the Site Plan process.

December 12, 2005
Page 5

We hope the foregoing meets with the approval of Ashcroft Homes and the City. Please call if you have any questions.

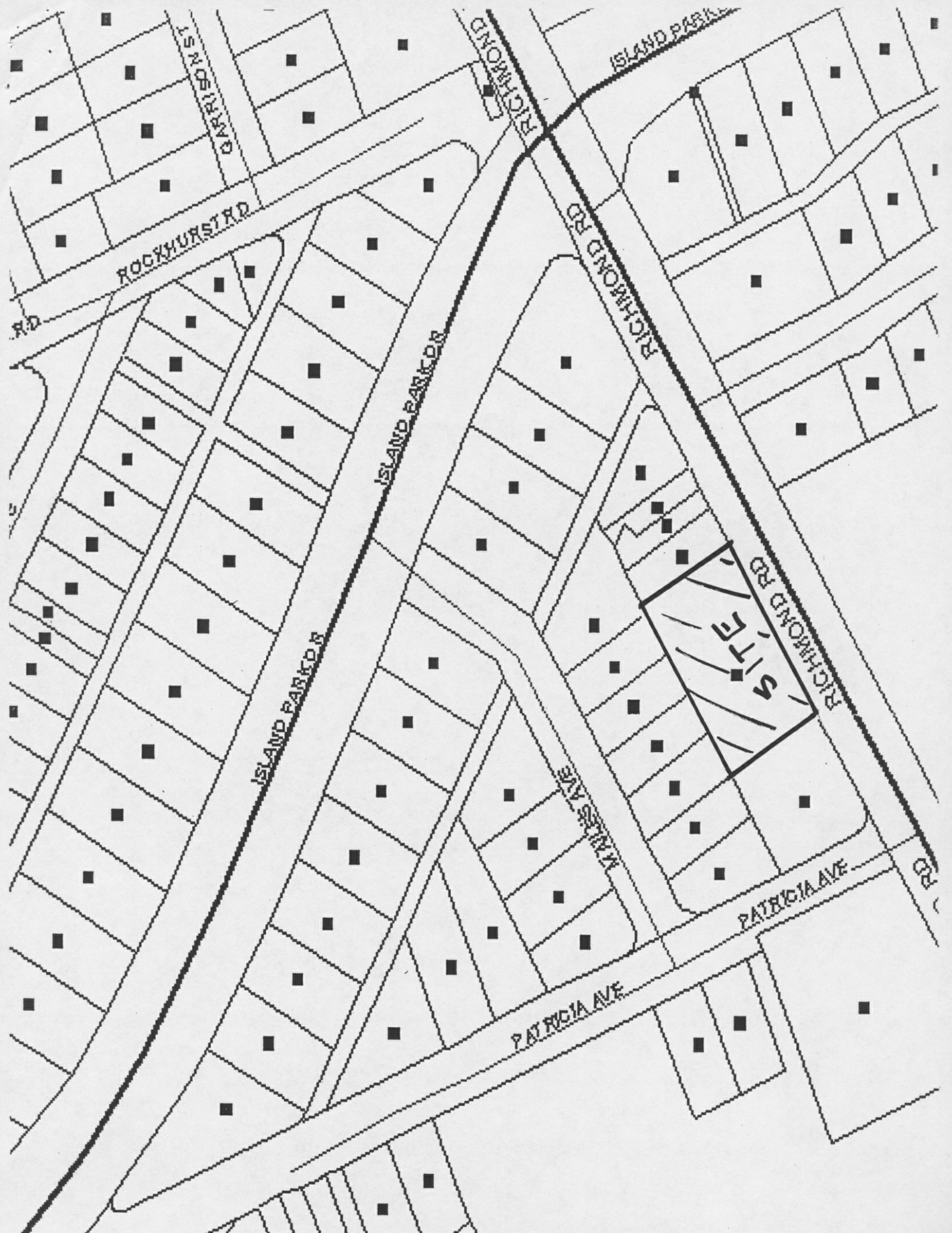
Sincerely,

A handwritten signature in black ink, appearing to read "Ronald M. Jack". The signature is written in a cursive style with a large initial "R" and "M".

Ronald M. Jack, P.Eng.
Vice President
Manager, Transportation Systems Division

Attachment

c.c. Brian Casagrande - fax: 730-1136
Eric Topping - fax: 226-7161



EXISTING CANADIAN
TIRE GAS BAR

LOT 38 PIN 04021-0112

LOT 75
PIN 04021-0102

LOT 76
PIN 04021-0102

LOT 77
PIN 04021-0103

LOT 78
PIN 04021-0104

LOT 79
PIN 04021-0105

LOT 80
PIN 04021-0106

LOT 85
PIN 04021-0110

No. 89

PROPOSED 7 STOREY
APARTMENT BUILDING

LOT 87
PIN

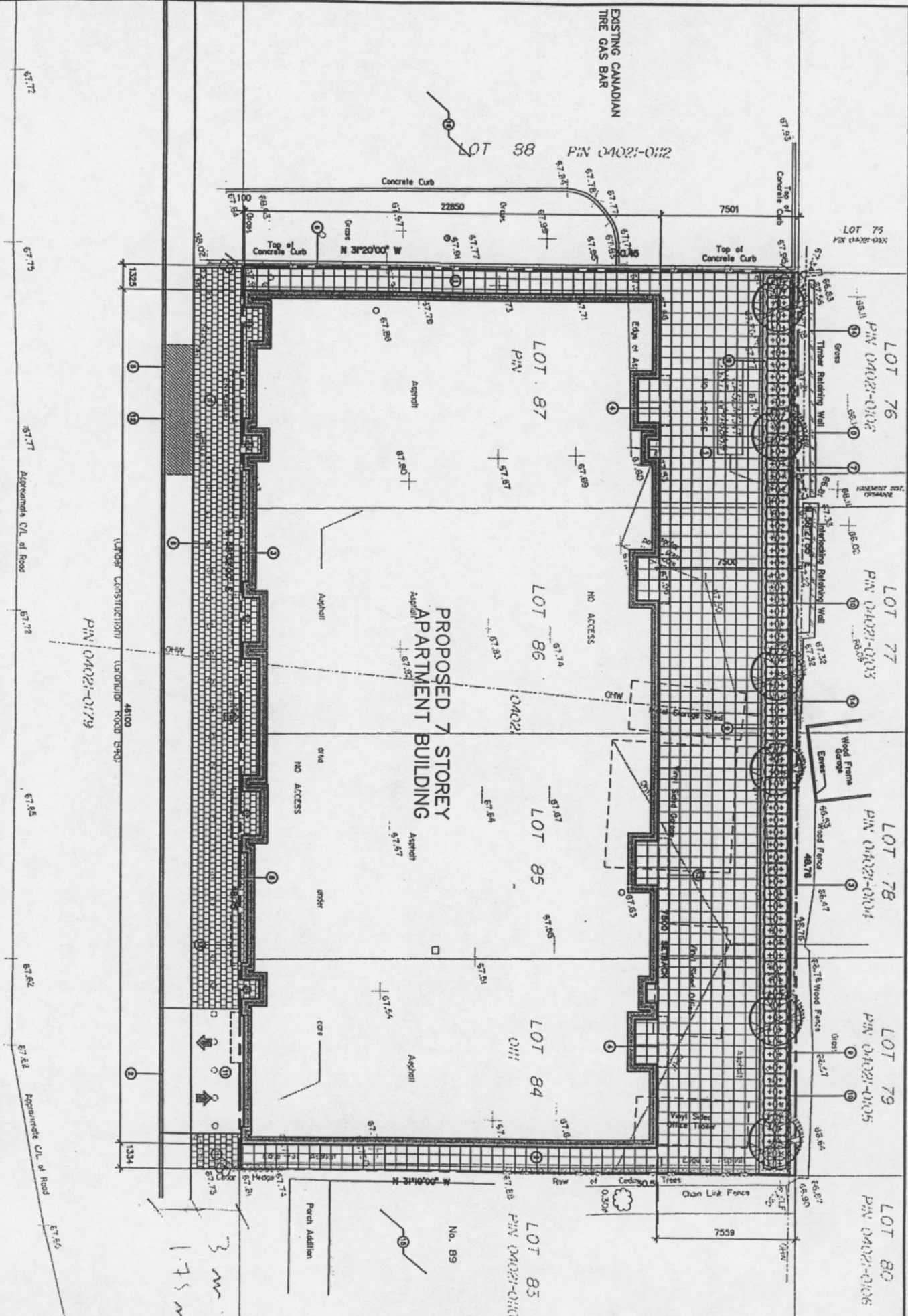
LOT 86
PIN

LOT 85
PIN

LOT 84
PIN

RICHMOND

ROAD



PIN 04021-0179

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1.75 m

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