



Corporate Report

NO: R204

COUNCIL DATE: October 16, 2006

REGULAR COUNCIL

TO: Mayor & Council DATE: October 5, 2006
FROM: General Manager, Engineering FILE: 5400-01
0550-21-10
SUBJECT: Parking Restriction on 154 Street between Guildford Drive and 100 Avenue

RECOMMENDATION

The Engineering Department recommends that Council:

1. Receive this report for information; and
2. Authorize staff to provide a copy of this report to the delegation.

INTENT

For Council's information and in response to a petition and delegation to Council (July 24, 2006) by area residents asking for a relaxation of the no parking requirement.

BACKGROUND

Between Guildford Drive and 100 Avenue, 154 Street is a designated arterial in the City of Surrey. The subject area is an area under residential/commercial redevelopment as shown in Appendix 1. Much of the property for 154 Street was obtained when the standard for arterials was a 14m pavement on a 24m right-of-way in comparison to the present standard of a 19m pavement on a 27m right-of-way. The current arterial standard in Surrey has been designed to handle two lanes of traffic in each direction with a centre median which accommodates a left-turn bay at intersections. The reduced 14m pavement width typically accommodates two types of cross-sections:

1. Two lanes per direction, with no median or left-turn lanes at intersections with the potential to convert one travel lane in each direction to parking;
2. One lane per direction with a narrow painted median, left-turn bays and bicycle lanes with no parking at anytime.

Prior to the recent parking restrictions, the 154 Street cross-section between 100 Avenue and 104 Avenue matched the cross-section type 1, as described above. Recent applications for multi-family and commercial applications in the area necessitated the Engineering Department to review the requirements for this section of 154 Street in order to increase capacity and improve safety by providing protected left-turn bays at intersections.

DISCUSSION

Often, in areas where arterials have not yet been widened or marked out with turn bays and bike lanes, residents and businesses grow accustomed to the availability of on-street parking. In theory, if developers provide sufficient resident, guest and customer parking on-site, the on-street parking demand will be limited. However, in reality, there are a number of situations that can contribute to the demand for on-street parking, such as:

- The convenience of on-street parking, as people often consider the curb space nearest their residence as theirs;
- Owners acquiring more vehicles than can be stored on their own site;
- Townhouse and apartment stratas changing the on-site parking arrangements post development; and
- Residents converting part or all of their garage space to living space for other uses than parking.

As shown in Appendix 1, sometime over the next three years, over 950 additional residential units and 2500 additional residents will be using 154 Street for some or all of their access. In addition, almost 200,000 sq. ft. of commercial space will be made available with some access provided from 154 Street. The expected additional traffic volume on 154 Street is anticipated to approach the capacity of a single lane of traffic in each direction but will not be large enough to warrant two lanes in each direction. However, as a result of the new development, the left-turn demand at 102A Avenue, 101A (north), 101 Avenue and 100 Avenue is expected to be high enough to necessitate left-turn bays. Without left-turn bays at these intersections, the single lane in each direction could easily be blocked by a left turning vehicle waiting for a gap in oncoming traffic.

The addition of left-turn bays eliminates two significant safety issues:

1. Left turning vehicles create large delays to through vehicles, often prompting vehicles to quickly shift lanes to avoid the delay resulting in sideswipe and side impact collisions; and
2. The speed differential between left turning and through vehicles, particularly where drivers make a late decision to turn, can result in rear end collisions.

Studies have shown that constructing left-turn bays to separate out the left turning and through traffic, can more than halve the accident rate. In addition to accommodating the expected increase in left turning traffic, Engineering considered the long term objective of the bicycle blueprint to achieve bicycle lanes in each direction on 154 Street which would provide a safe bicycling alternative to 152 Street.

The spacing of the intersections on 154 Street meant that the transition area at the end of one left-turn bay became the transition area at the beginning of another left-turn bay. Even by making adjustments to the City of Surrey standard for left-turn bays and transitions to these bays, once the left-turn bays were added to the above intersections and bicycle lanes painted along the length of 154 Street, there was no room left for on-street parking.

Adjacent developments currently under construction will be adding on-street parking along roads immediately west of 154 Street; namely, 101A Avenue, 101 Avenue and 153 Street. Additionally, on-street parking is available on 101A Avenue east of 154 Street and 155 Street. The adjacent development will pay for a new signal at 102A Avenue and 154 Street in the near future and share in the cost of a raised median which improves safety at the offset intersection of 154 Street and 101A Avenue. City staff have discussed the situation with various residents along 154 Street who had come to rely on on-street parking. In some cases, there is other on-street parking available but in some cases, the strata council of existing multi-family developments may have to assess the current use of residents' parking areas/garages or modify their on-site layout to ensure that there is sufficient on-site parking.

A factor that likely contributed to the petition and recent delegation to Council was that the "No Parking" signs were installed on 154 Street prior to the road improvements being completed (the modification of the pavement markings from a 4-lane cross-section without left-turn bays to a two-lane cross-section with left-turn bays and bicycle lanes). The revised pavement markings were in process but would have been installed after the petition was submitted. By this time, the installation of the new pavement markings will have clarified to the petitioners why parking at any time of the day is no longer possible along this roadway.

CONCLUSION

The recent decision to remove on-street parking has created a varying degree of inconvenience to residents along 154 Street. While the Engineering Department understands the inconvenience caused by the removal of on-street parking, the removal of on-street parking has allowed the development of left-turn bays at intersections, which has increased capacity and will provide for a safer alternative to 152 Street for bicyclists. The demand for left-turn bays at intersections along 154 Street will increase as current and future developments are occupied and the traffic demand increases.

Paul Ham, P.Eng.
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VL/rdd
Attachment

APPENDIX 1: Current Land Development Applications on 154 Street

