SUMMARY

Transportation Services is requesting to obtain approval to modify the existing intersection layout and traffic control signal operations at Keele Street and Highway 401 westbound off-ramp as follows:

- to include and designate the eastbound dual right turn movements as part of the traffic control signal operation;
- install a right-turn-on-red anytime prohibition, for eastbound traffic at the intersection.

The proposed right-turn-on-red prohibition and lane designations will provide for the appropriate level of traffic control for eastbound to southbound traffic and also provide a safe protected crossing for pedestrians on the west side of Keele Street.

RECOMMENDATIONS

Transportation Services recommends that:

1. City Council approve the installation of a eastbound right-turn-on-red signal prohibition from the west leg of the intersection of Keele Street and Highway 401 westbound off-ramp.

2. City Council approve the designation of the eastbound lanes on the west leg of the intersection of Keele Street and Highway 401 off-ramp for right turning vehicles only, from Keele Street to a point 50 metres west.
Financial Impact

All costs associated with the intersection modification, implementation of the eastbound right-turn-on-red prohibition and lane designations are to be borne by the developer, Ontario Realty Corporation.

ISSUE BACKGROUND

The Ontario Realty Corporation has submitted an application for a Zoning By-law Amendment and Draft Plan of Subdivision to permit the redevelopment of the Highway 401 and Keele Street Provincial Campus. The site is proposed to be divided into eight blocks. The proposal includes the Humber River Regional Hospital (HRRH) which is currently under construction and the existing Forensics Service and Coroner’s Complex (FSCC) and Government of Ontario office buildings.

As part of their approval the intersection of Keele Street and Highway 401 westbound off-ramp would require to be modified to include the existing west leg of the intersection (currently private driveway) as part of the overall intersection.

It should be noted that the private driveway to the west of Keele Street, has been identified within the Draft Plan of Subdivision to be transferred to the City of Toronto and ultimately be designated as a Public Road. The conversion of the private driveway to a Public Road has been identified as necessary in order to accommodate the additional traffic resulting from the proposed redevelopment at 1201 Wilson Avenue.

COMMENTS

Keele Street is classified as a major arterial road with a regulatory speed limit of 60 km/h. The roadway has an eight lane cross-section at the south leg comprised of a centre median, a northbound left turn lane and a southbound lane onto the Keele Street southbound Highway 401 collector westbound ramp. The north leg includes a seven lane cross-section comprised of a centre median and the start of the Keele Street southbound Highway 401 collector westbound ramp. The west leg of the intersection is currently the private driveway access and egress from 1201 Wilson Avenue. The egress movement is currently controlled by a yield control at Keele Street.

As part of the application, three new roadways are being constructed. Two new north/south roadways opposite Julian Road and Agate Road off of Wilson Avenue and a reconstructed east/west roadway. The two north/south roadways will connect the east/west roadway to Wilson Avenue. These roadways will also be conveyed to the City once all road designs are approved and the roads are constructed to meet City Standards.
Additionally, the existing intersection of Keele Street and Highway 401 westbound off-ramp intersection is being reconstructed to incorporate the eastbound right turning traffic as part of the intersection operations. Given that the eastbound dual right turning movements will conflict with the north/south pedestrian movement on the west leg of the intersection, it is being recommended that a right-turn-on-red anytime prohibition introduced to ensure the safe flow of pedestrian traffic during the north/south green time allocated to pedestrian crossings. Furthermore, to provide eastbound motorists with the proper level of guidance and to minimize any driver confusion the two eastbound lanes are to be designated as dual right turn lanes.

As this intersection falls under the control of The Ministry of Transportation, staff has obtained their approval with regards to the above recommendations.

In view of the above, Staff recommends the installation of an eastbound right-turn-on-red prohibition at anytime and the designation of the two eastbound lanes for right turns only at the intersection of Keele Street and Highway 401 westbound off-ramp.

The Ward Councillor has been advised of the recommendations of this staff report.

CONTACT

Jack Sinopoli
Supervisor, Traffic Operations
Transportation Services Division, North York District
Tel: 416-395-7467 Fax: 416-395-7544
Email: jsinopol@toronto.ca

SIGNATURE

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Jacqueline White, P. Eng.
Director

ATTACHMENTS

Attachment 1: Map – Right-Turn-on-Red Prohibition/Lane Designation: Keele St and Highway 401 WB Off-Ramp