

15
TEMPORARY ROAD CLOSURE
TESTON ROAD FROM WESTON ROAD TO JANE STREET,
INCLUDING NEW HIGHWAY 400 INTERCHANGE
CITY OF VAUGHAN, PROJECT 9861

The Transportation and Works Committee recommends the adoption of the recommendations contained in the following report, May 25, 2004, from the Commissioner of Transportation and Works:

1. RECOMMENDATIONS

It is recommended that:

1. The Commissioner of Transportation and Works be authorized to exercise any of the powers of Regional Council to effect the temporary closure of Teston Road (Y.R. 49) from Weston Road (Y.R. 56) to Jane Street (Y.R. 55) in the City of Vaughan (*see Attachment 1*).
2. The Regional Solicitor be authorized to prepare the necessary by-laws to give effect to the foregoing.

2. PURPOSE

The purpose of this report is to seek Council's approval and provide authorization for the Commissioner of Transportation and Works to temporarily close Teston Road between Weston Road and Jane Street for a period of up to eighteen months. The closure is required to facilitate the planned roadway improvements within these limits including the widening and reconstruction of Teston Road and the construction of a new interchange at Highway 400.

3. BACKGROUND

In order to complete the road improvements it is necessary to temporarily close this section of the road to through traffic. The Municipal Act allows a municipal council to delegate authority to temporarily close roads for the purposes of construction or maintenance.

In April 2003, York Region completed a Schedule 'C' Class Environmental Assessment (Class EA) for the widening and reconstruction of Teston Road between Pine Valley Drive and Bathurst Street.

The 2004 Ten year Roads Construction Program has scheduled the widening and reconstruction of Teston Road from Weston Road to Jane Street, including the new

interchange at Highway 400 for 2005. The detail design was started in fall 2003 and completion is anticipated by fall 2004.

The work on Teston Road between Weston Road and Jane Street involves major reconstruction and widening, including profile changes, the replacement of the existing Cold Creek concrete box culvert with a new longer span bridge and construction of a full interchange at Highway 400 and Teston Road, including the removal and replacement of the existing highway underpass structure.

The Ontario Ministry of Transportation (MTO) recently completed an Environmental Study Report (ESR) and Preliminary Design Report (PDR) for the interim (Eight-lane) and ultimate (Ten-lane) widening of Highway 400 from Major Mackenzie Drive to Canal Road. The PDR recommended a full temporary closure of Teston Road between Weston Road and Jane Street during demolition of the existing bridge and construction of the new bridge. This approach was reviewed and accepted by York Region staff participating in the MTO Highway 400 Class EA and PDR.

To ensure the proposed design is constructible, different construction and traffic staging scenarios were analyzed. Analyses of traffic requirements and opportunities to construct temporary detours/widening within the existing/proposed right-of-way were carried out to determine the most practical scheme.

4. ANALYSIS AND OPTIONS

4.1 Rationale for Temporary Road Closure

Where possible, Regional staff co-ordinate the construction activities to keep the roads open to through traffic. However, it is not always feasible to maintain through traffic because of the very nature of the work and it is often safer and more cost effective to complete the work under a temporary full road closure.

Temporary road closures, where implemented, reduce safety risks to both the travelling public and work crews and provide a work environment that enhances construction quality. Furthermore, temporary closures can reduce the time schedule for work.

During the ongoing coordination with MTO, they have expressed interest in the construction/traffic staging of the new interchange, including all necessary Highway 400 lane closures, lane and shoulder width reductions, temporary signing and carryover operations. MTO has raised significant concern regarding construction of the new Highway 400 underpass bridge while the existing bridge remains in place and open to traffic.

Based on the analysis and discussions with MTO, the preferred construction/traffic staging method is as follows:

Remove Existing Bridge Before Constructing New Bridge

Stage 1:

Remove existing Highway 400 underpass bridge

Construct new bridge and Teston Road from Highway 400 easterly

Access to property in north west quadrant of Highway 400 and Teston Road via Weston Road

Stage 2:

Remove existing Cold Creek culvert

Construct new Cold Creek bridge

Construct Teston Road from Highway 400 westerly

Access to property in north west quadrant of Highway 400 and Teston Road via Jane Street

Advantages:

- Lower cost for new Highway 400 underpass bridge and interchange resulting from:
 - Median pier founded on spread footing vs. caisson
 - Reduced traffic staging requirements
 - Increased productivity resulting from larger work zone within median area and better access for all Highway 400 work
- MTO endorsement of this alternative.
- No reduction in Highway 400 lane and shoulder configuration/geometry which will maintain traffic capacity and lessen congestion resulting from construction activities.
- Consistent traffic configuration on Teston Road and within the network during all phases of construction.
- No Restricted vertical clearance at the existing structure during construction.

Disadvantages:

- Approximately eighteen month full closure of Teston Road from Weston Road to Jane Street

4.2 Consultation

The temporary closure of Teston Road between Weston Road and Jane Street has been reviewed with City of Vaughan staff and the emergency service providers. The temporary closure has been endorsed by all parties.

A commitment was made to City of Vaughan and the emergency service providers to keep them fully informed of the project schedule and ensure that all parties have sufficient time to modify their operations as necessary prior to the temporary road closure.

4.3 Recommendation

Based on the assessment of the construction/traffic staging, a temporary full closure of Teston Road from Weston Road to Jane Street for approximately eighteen months is required.

Local property access will be maintained at all times.

Table 1 summarizes the duration and timing pertaining to the road closure recommended in this report.

Table 1
Temporary Road Closure

Location	Municipality	Duration	Timing
Teston Road from Weston Road to Jane Street	Vaughan	18 months	Spring 2005 to Fall 2006

The exact closure dates and durations will be determined once the contract has been awarded and a contractor work schedule developed that minimizes the actual closure periods.

4.4 Public Notification and Mitigation

Notification of the temporary road closure will be placed on Highway 400 and arterial and local roads two weeks prior to the closure period along with advertisements in the local newspapers. All emergency public service providers and public and school transit authorities will be informed of the closure. The temporary road closure schedules will also be posted on the York Region website.

Traffic management plans are incorporated in all Regional construction contracts. A detailed signage plan will be put in place for the duration of the closure to clearly identify detour routes. Measures will also be provided to maintain local access to residents, businesses, schools and other institutions. Only property owners that will be affected by local access will be advised directly by mail.

The duration period for this temporary road closure will be minimized by imposing timing constraints within the construction contract for this project. Once the road closure is in effect, efficient utilization of the time period will be an obligation of the contractor to ensure that public impact and inconvenience is limited through effective work planning and operations.

5. FINANCIAL IMPLICATIONS

The proposed temporary road closure is the most cost-effective and safest method for completing the work under this project. There are no financial implications as a result of this report.

Funds for the works are included in approved 2005 Ten year Capital Plan.

6. LOCAL MUNICIPAL IMPACT

The construction of this project will have a positive impact on the local community through the improvement of the road infrastructure.

Council and staff at the City of Vaughan have been consulted regarding the proposed temporary road closure and concur with the proposed closure. As part of the consultation, staff at the City of Vaughan prepared a Teston Road temporary closure report (Item 20) which went to the City of Vaughan's Committee of the Whole (Report 37) on April 19, 2004. The report made three recommendations as follows:

- The planned eighteen month closure of Teston from Weston to Jane be endorsed by Vaughan Council
- York Region and MTO undertake a comprehensive public notification process and work closely with Vaughan engineering staff of the project schedule, etc.
- Project proponent be advised of Vaughan's concurrence with the road closure scheme.

The closure report (Item 20 of Report 37) was recommended to the April 26, 2004 Vaughan Council meeting. Vaughan Council approved the closure report.

7. CONCLUSION

Under the Municipal Act, Regional Council may delegate authority to temporarily close roads.

It is therefore recommended, that authorization be delegated to the Commissioner of Transportation and Works for the temporary closure of Teston Road from Weston Road to Jane Street in the City of Vaughan

The closure of this road will provide for implementing the most cost effective and safest construction works to occur. Regional staff will take all necessary precautions to ensure that road closures are kept to a minimum and that appropriate notification is made to all that may be affected by these closures.

The Senior Management Group has reviewed this report.

(A copy of the attachment referred to in the foregoing was forwarded to each Member of Council with the June 16, 2004, Transportation and Works Committee agenda and a copy thereof is on file in the Regional Clerk's Office.)