

Stadium Shopping Centre Area Redevelopment Plan

Transportation Impact Assessment | FINAL Scope of Work | 2013-03-06

1) PREAMBLE

- A. Western Securities is proposing to redevelop the Stadium Shopping Centre into a mixed use site with office, retail and residential land uses. It is our understanding that the City is leading an Area Redevelopment Plan (ARP) for the site and will require transportation analysis to support the plan.
- B. DA Watt has been retained by Western Securities to provide this information in support of the ARP and proposes the following scope of work for the Transportation Impact Assessment (TIA).

2) HORIZON YEARS

- A. Existing Conditions (Baseline)
- B. Future Conditions (2039)
- C. Counts shall include vehicular, bicycle, and pedestrian traffic. DA Watt shall provide balanced traffic volumes between intersections that are going to be analysed for both existing and future time horizons.

3) TIME PERIODS

- A. Weekday AM/PM Peak Hours reflective of the timing of Foothills Medical Centre shift changes and Westmount Charter School start/end times.
- B. DA Watt shall show 24-hour data for the roadways in the area to confirm that peak periods are being picked up.
- C. DA Watt shall count Uxbridge and the City will update 16 Avenue volumes if necessary.

4) INTERSECTION CAPACITY ANALYSIS

- A. 16 Avenue & Uxbridge Drive
- B. Site Access (South)
- C. Site Access (North) – existing horizon only
- D. Site Access (North – Unwin Road (Lane) / Uxbridge Drive)
- E. Uxbridge Drive and Lane (on the west side of the Queen of Peace Church)
- F. Unwin Road & University Drive
- G. Volume shifts from Tim Horton's/Shell resulting from project and potential modifications to Uxbridge Drive shall be included in analysis of study area intersections.
- H. In addition to Synchro analysis, SIDRA roundabout analysis shall be done for intersections of Uxbridge Dr & Unwin Rd NW / lane north of site and Uxbridge Dr & Ulster Rd NW in comparing and recommending ultimate intersection control and configuration at these locations.

5) WEAVING ANALYSIS

- A. DA Watt shall review existing and future conditions of weaving area westbound on 16 Avenue between University Drive and Uxbridge Drive during AM and PM peak hours.

6) SENSITIVITY ANALYSIS

- A. DA Watt shall conduct sensitivity analysis for all of the study intersections based on a more conservative mode split data (assuming more people driving). The recommended numbers to be used will be verified with the City prior to the analysis.

7) REVIEW OF MODEL DATA

- A. DA Watt shall review City's Regional Transportation Model (RTM) data to check population and growth forecasts for Foothills Medical Centre, West Campus, the University of Calgary, McMahon Stadium and the Foothills Athletic Park.
- B. As per the City's TIA guidelines, DA Watt shall include information about new developments in the area surrounding the proposed site (West campus, Foothills Medical Centre future expansion, Foothills Athletic centre expansion, McMahon redevelopment etc.) and projected traffic volumes in the background traffic. DA Watt shall provide comments on the relocation of Westmount Charter School (citywide catchment) to University Heights and the impacts of University Elementary School having a 30% non community enrolment.

8) DAILY VOLUME ANALYSIS

- A. Uxbridge Drive
- B. Unwin Road and the lane to the north of the site
- C. 16 Avenue
- D. Significant internal roads

9) MODE SPLIT DATA

- A. Current mode split data for site (based on survey to be conducted by DA Watt)
- B. Discussion on mode split for future (full-build scenario)
- C. DA Watt to obtain RTM mode split and discuss implications

10) PROPOSED TRIP GENERATION RATES

- A. 16 Avenue west of Uxbridge Drive is part of the future primary transit network, therefore DA Watt shall use the following mix of TOD and standard rates for the proposed land uses as follows:
- B. TOD Office: 1.39 (AM) / 1.57 (PM) – City of Calgary Standard Rate
- C. Medical Office: 3.00 (AM) / 4.0 (PM) – Local Example (Ashton Professional Centre)
- D. Retail: 2.00 (AM) / 6.00 (PM) – City of Calgary
- E. Hotel: 0.56 (AM) / 0.59 (PM) - ITE
- F. TOD Residential: 0.35 (AM) / 0.45 (PM) – City of Calgary Standard Rate

11) TRIP ASSIGNMENT AND DISTRIBUTION

- A. DA Watt shall estimate the vehicular, bicycle, and pedestrian trip generation for the proposed site for the AM and PM peak periods, and assign all trips to the adjacent roadways.
- B. The City's RTM select zone analysis shall be used for the trip distribution patterns. If some minor adjustments need to be done this has to be approved by the City.

12) SITE ACCESS REVIEW

- A. DA Watt shall assess the operation of the site access locations, and provide commentary related to on-site circulation.
- B. South site access proximity to the signalized intersection of 16 Avenue & Uxbridge Drive NW shall be included in this review.

13) INTERNAL TRIP CAPTURE, PASS-BY, AND DIVERTED LINKED TRIPS

- A. DA Watt shall use Transportation Research Board methodology for calculating internal trip rates.

- B. The City estimates that 20% of the external trips to/from the site will be either diverted linked trips (drivers already travelling along 16 Avenue that divert to the site and then continue on 16 Avenue) or pass-by trips (drivers already travelling along Uxbridge Drive that turn into the site and then continue along Uxbridge Drive). DA Watt shall document the split between pass-by and diverted linked trips in the TIA report.

14) PARKING REVIEW

- A. DA Watt shall review on- and off-site parking requirements and management issues, including: bylaw requirements and justification for any reduction, hospital traffic currently using the parking lot and where they will be relocated to, and recommendations for neighbourhood spillover parking mitigation.

15) TRANSIT

- A. Existing Transit Service & Conditions
- B. Current Pedestrian Facilities
- C. Current Pedestrian Volumes
- D. Future Transit Service Planned for the Immediate Area (assessment of what's needed to meet the anticipated demand)
- E. Forecast of transit trips generated to/from the site using the forecast mode split
- F. Proposed transit facilities for site and surrounding area (bus shelters, benches, bus bays connections etc.

16) ACTIVE MODES

- A. DA Watt shall review the HCM 2010 methodology for assessing bikes/peds and will provide the City with an assessment of whether this analysis will add value to the process and at what cost.
- B. DA Watt shall provide an assessment of available infrastructure in the area surrounding the site for pedestrians and cyclists (with photos)
- C. DA Watt shall map out destinations, routes, and barriers within 1km and 3km of the site, including the identification of potential improvements
- D. DA Watt shall estimate future peak hour pedestrian volumes generated by the site

17) SHORT-CUTTING TRAFFIC REVIEW

- A. DA Watt shall review the potential impacts of the site on short-cutting traffic by:
 - a. Identifying potential routes
 - b. Estimating the potential increase in volumes
 - c. Develop potential mitigation measures including closures, turn restrictions, and both horizontal and vertical calming installations

18) TDM

- A. DA Watt shall comment on the high level characteristics of a TDM plan that is appropriate for the site and things that can be included in conditions of development (i.e. carpool parking, bike lockers, shower facilities, car share program etc.).
- B. Include recommendations for design/improvements as required for all report sections (e.g. access, parking, proposed road cross-sections, and TDM measures)

19) PROJECT MANAGEMENT

- A. The City and DA Watt shall meet at least every two weeks to discuss the progress and results. Some additional work might be required after these consultations.