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Project: SP3977C

June 30, 2006

**City of Toronto
c/o URS Canada Inc.
75 Commerce Valley Drive East
Thornhill, Ontario
L3T 7N9**

Attention: Mr. Keith Hutchinson, P.Eng., Senior Project Manager

Dear Mr. Hutchinson

**Cover Integrity Inspection – June 2006
Lakeshore Boulevard East Reconstruction at Leslie Street
Toronto, Ontario**

Shaheen & Peaker Limited (S&P) was retained by URS Canada Inc. (URS) on behalf of the City of Toronto to conduct a cover integrity inspection at the above captioned site. This work was requested by URS to confirm that the minimum 300 mm thick layer of clean soil cover or pavement placed over the environmentally impacted soil at the subject site remains in place and continues to provide an effective barrier to protect users of the site from the environmentally impacted soils that are present on the subject site. Cover integrity inspections are a requirement of the Level 2 Risk Management Plan (RMP) developed for the Site Specific Risk Assessment (SSRA) based remediation of the subject site.

Mr. Douglas Fisher, P.Geo. of S&P visited the site on June 9 and 12, 2006 to conduct a detailed visual inspection of the integrity of the clean soil cover over the entire area of the subject site including both Area A and Area B. The following is a list of observations made during the inspection:

1. Some litter and debris such as paper, plastic beverage bottles, cans, etc. had accumulated on the site but a landscaping contractor was collecting the debris prior to cutting the grass on June 9, 2006.
2. No evidence of breaches in the clean soil cover was observed in Area A, although depressions and sparsely vegetated areas, likely the result of tire ruts were observed between the north curb of Lakeshore Boulevard and the bike path.
3. No evidence was observed of the presence of burrowing animals in Area A or Area B.
4. Construction activities were in progress within the western portion of Area B. This included the construction of a new sidewalk and a plaza with a diameter of about 18 m on the southeast corner of Leslie Street and Lakeshore Boulevard, the installation of new light standards on the east side of the new sidewalk parallel to Leslie Street, the construction of concrete forms (possibly for use as benches), the construction of a gravel

surfaced bicycle path parallel to Leslie Street and the planting of more than 50 trees within the western portion of Area B. S&P observed that the grass cover from the western portion of Area B had been stripped and apart from areas adjacent to the new sidewalk parallel to Leslie Street, no current breaches in integrity of the clean cover were observed by S&P.

5. S&P observed that in some cases new plastic pipe appeared to have been installed beneath the geotextile indicating that the clean soil cover within selected areas in the vicinity of the new sidewalk had been breached.
6. Some of the excavations for the installations adjacent to the east side of the sidewalk parallel to Leslie Street were approximately 0.7 m deep and thus extended below the 300 mm clean cover. In one of these excavations, S&P observed soil with decayed wood, wire, glass, brick and peat indicating that this material likely originated from below the clean cover.
7. Excavations had also occurred to the west of the recently installed sidewalk parallel to Leslie Street and a geotextile placed in the shallow excavation.

In summary, there were no disturbances of the clean soil cover in Area A but the clean soil cover appears to have been breached within the area under construction in Area B. The clean soil cover could also have been breached as a result of the tree planting within Area B but details of the tree planting are not known to S&P.

Subsequent to the site inspection, S&P understands based on discussions with Mr. David Crichton, Manager of Design & Construction, District 1, that the construction work undertaken within Area B was conducted on behalf of the City of Toronto Parks, Forestry & Recreation Division and that the work was undertaken with the knowledge of Works & Emergency Services staff. Mr. Crichton reported that plans prepared for the recent landscaping work undertaken in Area B were reviewed by Works & Emergency Services to verify that the work as proposed maintained the minimum cover protection requirements contained in the Risk Management Plan of the SSRA and that environmental as well as worker health and safety protocols were followed during the construction. Mr. Crichton also reported that a consultant contracted to the Parks, Forestry & Recreation Division monitored the construction activities but no documentation of the events is available.

Based on the June 2006 cover integrity inspection, S&P makes the following recommendations:

1. The well cover at monitoring well BH702 on the bike path in Area A is cracked. Ontario Regulation 903 requires that flush mounted well covers be watertight. The well cover currently at the monitoring well was manufactured by Forexeau Inc. S&P understands that a replacement cover is not available as the manufacturer of this well cover is no longer in operation. Therefore the entire metal flush mounted protective manhole requires replacement. In accordance with Ontario Regulation 903, S&P recommends that a licensed well driller replace the damaged flush mounted protective casing. The well cover at monitoring well BH700 is not watertight as required by Regulation 903 and this well cover should also be replaced or repaired.

2. The tire ruts should be monitored for possible breaches in the cover integrity.
3. S&P or an engineer with the City of Toronto should review the plans of the construction currently in progress in Area B to ensure that the work is conducted in accordance with applicable environmental guidelines and that the minimum 300 mm thick cover of clean soil is maintained or that the cover material in the proposed work area provides a similar level of protection to the workers and users of the site.
4. It appears that procedures are in place within the City of Toronto to ensure that Mr. George Rozanski, Senior Project Engineer with the City of Toronto or his designate, be notified of the proposed work to be undertaken within Areas A and B. However, S&P recommends that a consulting company familiar with the SSRA, such as S&P be contracted in future to review proposed designs for excavations within areas covered by the SSRA and to monitor and document future construction activities in these areas in accordance with the Risk Management Plan.
5. A record of all work recently conducted within Area B should be prepared in accordance with the Risk Management Plan. This documentation should be made available to S&P prior to the next cover integrity inspection to ensure that the work area was adequately inspected in accordance with the Risk Management Plan of the SSRA.
6. In one location to the east of the sidewalk recently constructed within Area B, S&P observed soil with brick, metal and glass had been placed on top of the geotextile. The presence of such material on top of the geotextile is not permitted within the terms of the SSRA. While such material may have been removed prior to backfilling the area, no documentation is available. In future, S&P recommends that all third party construction monitoring activities within the area covered by the SSRA should be undertaken by S&P (either under contract to Work & Emergency Services or to other City divisions) to ensure that the work is conducted in accordance with the terms of the Risk Management Plan of the SSRA and that the proper documentation is prepared and on file should certification of the Risk Management Plan be required.
7. S&P were not asked to review and comment on proposals for the work recently conducted in Area B nor was S&P asked to monitor the recent construction activities in Area B. Therefore S&P can not comment if the alterations conducted as a result of the recent construction in Area B are in accordance with the Risk Management Plan of the SSRA.
8. The next regularly scheduled cover integrity inspection is the fall of 2006.

Attached are selected photographs taken during the cover integrity inspection. Please contact this office should you have any questions or concerns.

Yours very truly,
SHAHEEN & PEAKER LIMITED

Prepared by:



Douglas M. Fisher, M.Sc., P.Geo.
Senior Geoscientist

Reviewed by:



David J. Baigent, P.Eng.
Environmental Manager, Southwest Ontario

Attached: Selected Photographs

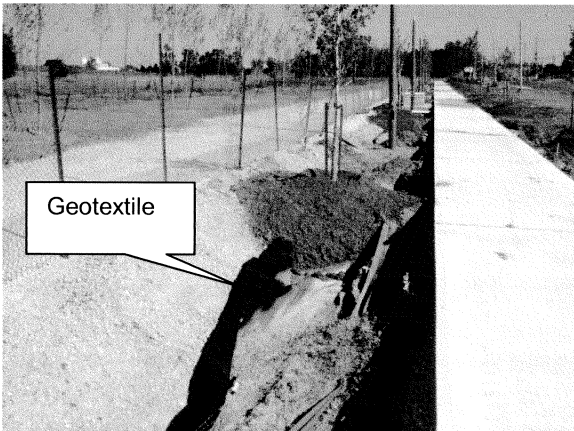
cc. Mr. George Rozanski, P.Eng., Senior Project Engineer – City of Toronto



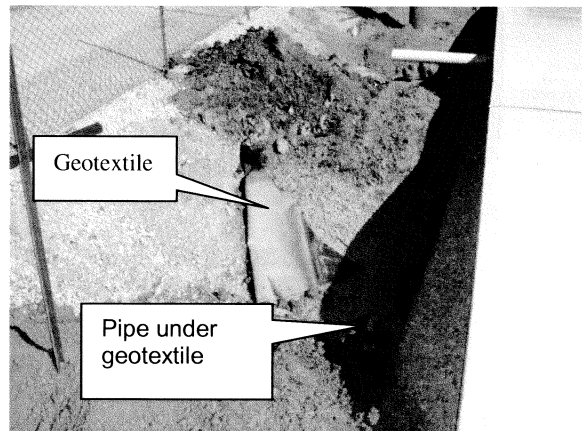
1 – View of new plaza area located on the southeast corner of Lakeshore and Leslie.



2 – Looking south parallel Leslie Street with new sidewalk and gravel covered bike path.



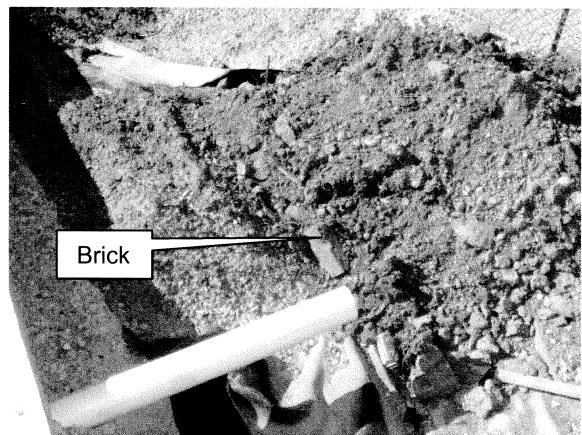
3-Excavation on east side of new sidewalk for trees, light standards and cables.



4- Geotextile folded over and pipe under geotextile on east side of new sidewalk.



5- Geotextile in shallow excavations on the west side of the new sidewalk parallel to Leslie Street.



6- Brick, metal, glass in soil adjacent to east side of new sidewalk.