



Windermere By-The-Lake: Environmental Remediation of the Former Stelco Property

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PROJECT UPDATE January 21, 2002

REON Windermere By-The-Lake Communication Line: 1-866-442-REON (7366)

REON is committed to transparent and responsive communication with those who are neighbours to our development projects. REON and their contractors will do their utmost to plan and execute the work in a safe and conscientious manner, always mindful of community interests and concerns. The Windermere By-The-Lake project (Stelco Swansea Works Windermere and the Queensway) requires environmental remediation to clean-up the industrial substances that were once used in producing the nuts, bolts and other fasteners produced at the factory. The PROJECT UPDATE information on the reverse side describes the environmental remediation program that will be undertaken by Gartner Lee Limited (www.gartnerlee.com), a leading Canadian environmental services firm, under REON's supervision.

Project Overview

Toronto City Council has approved the re-zoning and the amendment to the Official Plan required to build a residential development on the site. Demolition of the Stelco Swansea Works buildings began on November 26, 2001 and will continue through February, 2002. Neighbours to the site living in Swansea Village participated in making decisions on the details of the site development plan and augmentation of various surrounding amenities. The development will feature 130 townhouses creating a boulevard effect on the Queensway frontage with extensive landscape features, and three slender towers with about 720 condominium units. When completed, the project will provide a full range of amenities for the residents and will be an open development integrated with the existing Swansea Village. Public access, green space, day-care and off-site amenities such as upgrades in the Gardner underpasses to the Lake, a Youth Leadership Centre on the Humber, and playground equipment contributions will benefit the entire community. A contribution to renovate the "Joy" Station and the lower level of the Swansea Townhall are also part of REON's community commitment as is a program of public art in and around the site. Preconstruction marketing of residences on the property east of Windermere Ave. will begin soon, with construction to begin in 2002.

Communication Program

· Community members can call the REON - Windermere By-The-Lake Communication Line at 866-442-REON, for updates and details of work progressing on the site.

· REON PROJECT UPDATES and periodic NEWSLETTERS, and other project related information will be sent to a mailing list of site-neighbours in Swansea Village, archived at the Swansea

Town Hall, Councillor David Miller's office and the World19 website www.world19.com.

Additional people can be added to the mailing list by contacting:
Don Richardson, REON
Communication Program Facilitator
519-822-8385 x 262 or email:
drichardson@esg.net

· A joint City of Toronto & REON Community Liaison Committee has been established as a forum to enable detailed and ongoing public input and comment. This committee is intended to supplement other public processes and to help coordinate communication on Site Plan, Construction, Demolition and related matters. Committee minutes are available on the World19 website www.world19.com

Environmental Remediation Program

Camping enthusiasts are familiar with the advice, “leave the site cleaner than you found it.”

Environmental remediation specialists follow the same advice when working to clean-up industrial “brownfield” sites. The end result of an environmental remediation process for a residential development is a clean site that people can live on and around without worry about the industrial substances that were once used when the site was occupied by industry. REON's seasoned team of environmental consultants, led by Gartner Lee Limited, will be using sound science and rigorous procedures to clean the former Stelco Swansea Works site to meet or exceed the Ministry of Environment's standards, and those of the City of Toronto, Health Department.

REON has undertaken extensive drilling into the soils and ground water on both the east and west portions of the property to obtain hundreds of soil samples for laboratory analyses. The laboratory analyses enable the determination of the exact nature of any industrial substances found to help REON prepare the most effective program for environmental clean-up of the property. Results from this drilling and testing program have shown that:

1. The primary industrial substances in soils that require clean-up are petroleum products (fuel or heating oils and quenching oils) that were used in the production of the bolts, nuts and other fasteners produced at the Stelco Swansea Works, and some areas with low levels of metals, believed to have been associated with the coal ash and other materials that was historically used for fill on and around the site.

2. None of the ground water samples from anywhere on the property contained concentrations of industrial substances that exceeded criteria for residential development of the property.



Drilling for soil and ground water analysis on the site

3. The extent of the property containing industrial substances above levels specified for residential property development is much smaller than originally anticipated based on preliminary assessment conducted in early summer, 2000.

REON is producing a detailed description of the environmental remediation process that it is undertaking under the guidance of the City of Toronto (Public Health) and the Ministry of the Environment. This detailed description will be made available to interested community members, and is summarized here. The environmental remediation process will include:

a. Soil Management Program:

Soil testing and sorting procedures involve excavating soils from areas of the site that were likely to exceed residential criteria (shown through the drilling/testing program). During the excavation, back-hoe buckets of soil are tested for petroleum products and metals using sophisticated field instruments.

Acceptable soils are stock-piled and stored for uses in the future development of the property. Soils with unacceptable concentrations of petroleum products but acceptable metal concentrations are either moved to a bioremediation pile (biopile) for bioremediation, or transported to an off-site, non-hazardous waste disposal landfill. Soils with unacceptable concentrations of metals will be transported to an off-site, non-hazardous waste disposal landfill.

b. Ground Water Management Program:

Since the excavation of the property will exceed the depth to ground water, ground water will be present in the excavations. To enable work to proceed, this ground water will have to be continually pumped from the excavations into shallow settling basins. The water will be sampled and analyzed for industrial substances and if the concentrations exceed criteria, the water will be treated. Based on the results of the initial site investigation, it is not expected that any exceedances will be observed.

Ground water levels are also being monitored to ensure that the adjacent community is not affected during construction. Boreholes were drilled at sites on the north side of Queensway Boulevard, north of the property in September, 2001. Ground water levels in the boreholes have been monitored monthly since that time. Monitoring will continue until the below-grade construction phase of the property development is complete.

c. Bioremediation Program:

Bioremediation of petroleum products describes a process that uses microbes to degrade various types of wastes. Like all living creatures, microbes need nutrients, carbon, and energy to live and reproduce. Such microbes are capable of breaking down certain waste substances to obtain energy, degrading them into harmless substances such as carbon dioxide, water, and

salts. Restricting the amount and types of carbon sources (i.e., starches, sugars) available encourages the microbes to use and breakdown carbon in petroleum products.

The microbes are obtained from soils taken from areas on or near the property where active vegetation is growing. These soils, with the contained microbes, are taken to a laboratory and "cultured" under optimum growth conditions to provide a source of microbes for the bioremediation. On the site, soils are placed in "biopiles", and mixed with the microbe rich materials, plus a supply of nutrients, if needed. Tough plastic membranes enclose and isolate the biopiles, and prevent leakage so that the microbes and their nutrients can be re-circulated through the biopiles. Once the soils "test" clean (i.e., meet the Ministry's residential soil criteria), the soils are removed from the biopiles and are then available for various uses in the future development of the property.

REON is currently investigating the applicability of similar bioremediation techniques on the Windermere By-The-Lake property. Application will be made to the Ministry of the Environment for a Certificate of Approval for the use of this technology on the property if it is a viable remedial option for the contaminated soils.

d. Property Clean-up Validation Process once all unacceptable soils have either been removed from the property or bioremediated, a final testing protocol is followed to validate that the property complies with the Ministry's residential soils criteria and City of Toronto, Health Department standards. Samples of soils will be collected from across the property and sent to MAXXAM Analytics laboratory for complete analyses for all soils criteria components.

Any of the soil samples that exceed the Ministry's residential soil concentration criteria will require



Careful soil excavation for testing and sorting

further investigation and remediation. Once the analyses demonstrate that all soils sampled on the property are acceptable according to the Ministry's residential soil criteria, a Record of Site Conditions will be prepared.

The Record of Site Conditions will be submitted to the Ministry of the Environment and the City of Toronto, Department of Public Health. In addition, the results of the Record of Site Conditions will be incorporated into a Site Verification Report for the City of Toronto. The Ministry and City of Toronto, Department of Health staff review this information. If required, based on the opinions of the Ministry and Public Health staff, a peer review of the Record of Site Conditions and the Site Verification Report may be undertaken.

When the Record of Site Conditions and the Site Verification Report are judged acceptable by to the Ministry and the City of Toronto, Department of Health, the property is considered cleaned-up to residential soils criteria. A Building Permit could then be issued for the development of the property, provid-

ing all other requirements are met for the issuance of a Building Permit by the City of Toronto.

Progress on Site Clean-up to Date (January 21, 2002)

Demolition: demolition is completed on the east part of the property (east of Windermere Ave.). Demolition of the west part of the property (west of Windermere Ave.) is about 50% complete, and will proceed through February, 2002.

Remediation: remediation of the east part of the property is about 90% complete. All soils with unacceptable metal concentrations have been segregated and are ready to be hauled off-site to a non-hazardous waste landfill. The remaining soils will be dealt with in January, 2002.

The verification data collection for the Record of Site Conditions of the east part of the property will start in January, 2002. It is expected that the Record of Site Conditions will be filed in March, 2002 for the east part of the property.