To: Chair and Members
Planning & Economic Development Committee
Outstanding Business Item No. II and Issue: PWI&EC Outstanding Business List
Item - Flooding Caused by a Resident's Pool - October 3, 2005
PED06013

From: Lee Ann Coveyduck
General Manager
Planning and Economic Development Department
Telephone: (905) 546-4339
Facsimile: (905) 546-4364
E-mail: lcoveydu@hamilton.ca

Date: December 16, 2005

Re: Drainage Concerns at 45 Rockhaven Lane (City Wide) (PED06013)

Council Direction:

At its meeting of October 3, 2005, the Public Works, Infrastructure and Environment Committee requested that staff report back on this matter, as there is no existing By-law with respect to this issue.

Information:

The City of Hamilton has reviewed a complaint of standing water that exists at the rear yard of 45 Rockhaven Lane. The owner insists that the wet ground condition appeared following a private pool installation on the adjoining property to the rear at 24 Keewaydin Street. (See Appendix “B”)

At the October 3, 2005 Public Works Infrastructure and Environment Committee meeting, the Committee directed, by motion, that in the absence of a City By-law, staff be directed to review information provided to the Clerk involving flooding allegedly caused by a resident’s pool and report back to Committee on how this can be addressed.

In July 2005, the owners (Tara and Terry Skanes) of 45 Rockhaven Lane, Waterdown, reported to the City a problem with water ponding in the northeast corner of their backyard. The Skanes have resided at this address since August 2004 and did not experience the water problem until June 2005 when a pool was installed on the adjoining property (24 Keewaydin Street, Waterdown) behind their home.

The City has approached this problem from several perspectives but does not believe that it has the authority to intervene on the owner’s behalf to resolve the problem on
their property. While several City departments have been involved in this matter, the problem is primarily one involving the Building and Licensing and the Development and Real Estate Divisions of the Planning and Economic Development Department. This Information Report provides a summary of the attempts made by all participating City Departments/Divisions to address the problem, and details why this issue falls outside the City’s authority to resolve.

**Building and Licensing Division, Planning & Economic Development Department**

The owners allege that the contractor that constructed the pool at 24 Keewaydin Street inadvertently pierced an underground aquifer and that the aquifer now flows through a subsurface route leading to the ground surface at the northeast corner of 45 Rockhaven Lane. The owners believe that the City issued a building permit for the construction of the pool and, therefore, have an obligation to ensure the pool is constructed to current building standards. Furthermore, the owners have an expectation that current building standards for pool construction include safeguards to protect underground aquifers from disruption.

At present, the Building and Licensing permitting process for private pool construction includes that:

1. The applicant must submit a plan drawing of the proposed pool relative to property line and must demonstrate that the pool meets the City’s zoning setback requirements.

2. Staff informs the applicant of the Site Alteration Bylaw and advises that changes to surface topography falling outside of the Bylaw limits will require that the applicant obtain a Site Alteration Permit.

3. The Applicant applies for, and obtains, a building permit for a pool enclosure.

It is worth emphasizing that Building and Licensing does not require that an applicant obtain a building permit for the excavation and/or construction of a private pool. This is contrary to what many residents expect, however, the reason is that Building and Licensing has no legal authority, under either the Ontario Building Code or any other Acts or Regulations, to mandate the issuance of a pool building permit. However, the Municipal Act gives the City the authority to control the installation of fences and allows the City to issue pool enclosure permits.

**Development & Real Estate, Planning and Economic Development Department**

As per the Council approved Grading policy, the City requires that residential developers submit lot grading plans and provide security deposits as an assurance that these grading plans are adhered to. The purpose of the lot grading plans are to ensure wet weather surface drainage adequately and safely runs off private lands and is conveyed to the street. The developers consulting engineer is obligated to certify that each lot meets the intent of the approved grading plan for the subdivision. The grading for 45 Rockhaven Lane was certified by the design engineer in October of 2002. As previously mentioned, the Skanes have resided at this address since August 2004 and
did not experience the water problem until June 2005 when a pool was installed on the adjoining property (24 Keewaydin Street, Waterdown) behind their home.

In September of 2005, Development and Real Estate staff met with the owners of 45 Rockhaven Lane and the developer’s Engineer, on site, to review the lot grading for 45 Rockhaven Lane and 24 Keewaydin Street. Specifically, the Engineer was asked to provide comments on whether the existing surface drainage system was constructed as described in the lot grading plan and if the design satisfies its intended purpose.

It should be noted that a portion of the yard along the fence line of the adjacent property was visibly wet at the time of the site meeting. Staff did not witness any surface flow to the wet area, or away from the area. The soils in this area appeared to be saturated. The owner of 45 Rockhaven Lane insists that this condition persists through dry weather conditions.

Subsequent to that meeting, the Engineer provided a report, dated September 19, 2005, (attached as Appendix “A”) that confirms that the lot grading is adequate and is not the cause of the saturated area. Moreover, Development and Real Estate staff and the owners of 45 Rockhaven Lane both agreed, in conversation, that the property drains water adequately during wet weather events, thereby supporting the Engineer’s opinion that the existing lot grading is performing, as intended, and that the source of the problem appears to be subsurface.

The Engineer’s report indicates that a deficiency exists with the side lot grading on 24 Keewaydin Street. In subsequent communication with staff, the Engineer indicated that the deficiency was a low spot in the side yard swale and in no way contributes to the issue at hand.

On November 10, 2005, the owners of 45 Rockhaven Lane submitted a letter to the City stating that they had an expert conduct an on-site inspection of their property and conclude that a surface water problem exists. In their letter, the owners continue by stating that since a surface water problem exists and all lot grading plans are not certified; and that the City has the authority and the responsibility to resolve the standing water in their yard. In response to several requests from staff for a copy of the on-site inspection report conducted by the owners’ expert, staff has not received this to date.

The developer has fulfilled his obligations under the Subdivision Agreement and provided evidence that the grading of subject lands meets the intent of the approved grading plan approved by Development Engineering staff. As such, the grading security for 45 Rockhaven Lane was returned to the developer in October of 2002, when the lot was certified. As previously mentioned, the deficiency in the side-yard swale at 24 Keewaydin Street would, in no way, contribute to this problem.

Public Health and Community Services, Health Protection Branch

In September of 2005, the Public Health and Community Services, Health Protection Branch, were called to 45 Rockhaven Lane by the owners. Staff of the Health Protection Branch reported the soggy area of the rear yard does not satisfy the definition of
standing water under the By-law. It was determined that there was no health hazard or West Nile concerns at this property.

**Water Distribution and Wastewater Collection, Public Works**

Normally when the City is alerted to the presence of surface water from unknown sources, Water Distribution and Wastewater Collection staff will conduct tests on the water to determine if it is from a municipal source (that is, a broken watermain or broken water service). Water samples were taken from the backyard of 45 Rockhaven Lane and the analysis indicated a strong likelihood that the water source is not from a municipal water supply.

As an added measure, the Water Distribution Section also conducted a leak test on the water service to 24 Keewaydin Street. This test was conducted on the remote chance that the water service to 24 Keewaydin Street was damaged during the pool construction and water from a leaking service was migrating to the backyard of 45 Rockhaven Lane. The leak test confirmed that that water service is sound and without leaks.

**Operation & Maintenance, Public Works**

Operations & Maintenance (Roads Operations) has not been directly involved with this investigation; however, they have been alerted to the problem given speculation by the owners of 45 Rockhaven Lane that the water from their backyard may eventually flow toward the front of their property, over the sidewalk and onto the street. That water could represent a nuisance or an ice hazard in the winter.

The lot grading for 45 Rockhaven Lane was designed to accept flows from the adjoining rear property and conveyed via side-yard swale, over the sidewalk to the Rockhaven Lane road allowance.

It should be noted that every lot in this subdivision has either all or a portion of its drainage directed over the sidewalk and to the street, via side-yard swales. It is common practice throughout southern Ontario to design side-yard swales to outlet over the sidewalk and onto the roadway, and ultimately the responsibility of the homeowner to ensure that their lot drainage functions as per design.

As previously mentioned, no water was witnessed flowing to or away from this saturated area in the rear yard, therefore, no increase in surface water flow to the roadway is anticipated.

---

Lee Ann Coveyduck  
General Manager  
Planning and Economic Development Department  

:CA  
Attachs. (2)
October 7, 2002

City of Hamilton
Building and Licensing Department
71 Main Street West, 5th Floor
HAMILTON, Ontario
L8P 4Y5

Attention: Mr. Peter Goddo
Senior Building Inspector/Plan Examiner

Dear Sir:

Re: Waterdown Woods, Phase 2
62M-622
City of Hamilton (Former Town of Flamborough)
FINIAL LOT GRADING CERTIFICATION

A lot grading inspection was conducted by our office on September 13, 2002 (see attached Inspection Report).

Based on the above noted inspection, we hereby certify that the following noted lots have been graded in general conformance with the approved lot grading plan and sound engineering principles.

Lots Certified

- Lots 38, 39, 40, 41, 43, 44, 61, 62, 67, 68, 69, 72, & 73

We trust the above is satisfactory.

Yours very truly,

F.J. Ternoway & Associates Limited

Per: L. Tersigni
P.Eng.

cc. Victor Culotta, c/o Culotta Homes
Culo Investments Limited

ENGINEERS PROJECT MANAGERS PLANNERS
September 19, 2005
Our File: 207

Dear Sir:

Re: Waterdown Woods, Phase 2
City of Hamilton
Lot 41, Block 822

Further to our site meeting on September 13, 2005 at the captioned lot we are taking this opportunity to confirm the following:

1. The lot grading for Lot 41, 62M-822 was certified on October 7, 2005 (see attached).
2. Additional work by the Homeowner has been completed within the property following the certification (ie. fences, deck etc.). This may have resulted in some minor rutting, however not significant to affect the overall lot grading.
3. During the meeting, it was observed that an area along the north westerly portion of the rear yard was saturated with water, even though it has been generally dry for the last couple of weeks.
4. The Homeowner on Lot 41 advised that the saturation problem originated following the installation of the pool in Lot 37, 62M-808.
5. Lot grading for Lot 37, 62M-808 has not been certified to date due to a yard swale deficiency. (See attached Inspection Report dated Nov. 12, 04).
6. The source of the water appears to be subsurface. We can only speculate that the subsurface water is from the adjacent pool, although further investigation is required to confirm this.
7. The area remains wet at all times and does not dry even with the recent extended hot and dry weather condition. This could mean that there is a constant supply of water feeding this area, possibly from the pool subdrain.

Based on the above, we conclude that the wet area at the north west portion of the Lot 41 is not a result of improper lot grading and surface drainage. Please do not hesitate to call me if you have any questions.

Yours very truly,

F.J. Tenaway & Associates Limited

[Signature]

Per: (Handwritten signature)

Lorenz Tersigni, P.Eng.
## INSPECTION REPORT: Lot Grading Inspection

<table>
<thead>
<tr>
<th>Street</th>
<th>Lot #</th>
<th>Deficiency and Remarks</th>
<th>Quantity</th>
<th>Access</th>
</tr>
</thead>
<tbody>
<tr>
<td>LOTS INSPECTED:</td>
<td>LOTS 22, 23, 33</td>
<td>LOTS 35 to 41 inclusive</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Keewaydin</td>
<td>Lot 22/23</td>
<td>Regrade/Resod side yard swale to improve drainage</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Street</td>
<td>Lot 22/21</td>
<td>Regrade/Resod side yard swale to improve drainage</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lot 22</td>
<td></td>
<td>Repair settlement in rear apron swale</td>
<td>Culotta Homes</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Regrade apron swale to drain to both side yard swale</td>
<td>Culotta Homes</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Raise grade at apron swale high pt</td>
<td>Culotta Homes</td>
<td></td>
</tr>
<tr>
<td>Lot 33</td>
<td>OK</td>
<td>Previously inspected Sept 2/02 and July 2/03 noted deficiencies repaired Culotta Homes</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Homeowner currently completing works on property</td>
<td>Culotta Homes</td>
<td></td>
</tr>
<tr>
<td>Lot 36</td>
<td>OK</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lot 37</td>
<td>OK</td>
<td>Repair/re-instate sideyard swale - Lot 37/38 to drain to front</td>
<td>Culotta Homes</td>
<td></td>
</tr>
<tr>
<td>Lot 38</td>
<td>OK</td>
<td>Repair/re-instate sideyard swale - Lot 37/38 to drain to front</td>
<td>Culotta Homes</td>
<td></td>
</tr>
<tr>
<td>Lot 39</td>
<td>OK</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lot 40</td>
<td>OK</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lot 41</td>
<td>OK</td>
<td>Homeowner currently completing works on property</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

LOTS CERTIFIED: Lots 33, 35, 36, 39, 40, 41
Appendix “B” to Report PED06013

Planning and Economic Development Department

Location Map

File Name/Number:
45 Rockhaven Ln & 24 Keewaydin St

Date:
December 6, 2005

Appendix “A”
Scale: N.T.S

Subject Property
45 Rockhaven Lane and
24 Keewaydin Street (Flamborough)

Ward 15
Keymap N.T.S