## **Plan your Designated Substance Survey Now** to Minimize Delays in the Future



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ondominium complexes range from high-rise apartment style buildings to residential row house complexes and span a variety of construction dates. Several condominiums are also complemented by parking garages, recreational facilities and even commercial spaces on main floors that are constructed with a variety of different building materials. No matter the complexity of the building construction or age of the complex, each condominium requires continued maintenance and periodic renovation programs. Above and beyond your general maintenance and renovations programs, condominiums are even subject to emergency events such as fires, burst pipes or leaky windows that often require immediate attention. These events typically need a quick response by a restoration and/or general contractor, whom then are required to respond to a building of unknown conditions and potential hazards.

#### **Surprises During Renovations/Repairs Lead to Unanticipated Delays and Costs**

Small renovation programs and emergency repairs may be required on short notice and need to be completed within a short time frame to minimize disturbance to the occupant and/or prevent future impacts through exposure to the outside environment. In the case of a repair, unanticipated delays can lead to additional damages and repairs to the building (if working on building envelopes, roofs, windows), which eventually can lead to additional costs. Often, delays to a renovation program and/or repair are caused by the discovery of hazardous materials such as asbestos, lead paint and even mould within the work area.

It is common that the unanticipated discovery of hazardous materials will cause a diligent contractor to halt a construction job until more information is collected. The contractor will then need to: alter their work program; potentially sub-contract a hazardous material abatement contractor and consultant; and, request an additional cost for their work. All the while, the partially completed renovation / emergency repair to the building remains half-finished, exposed to the environment and continues to disturb the occupants while adjustments to the renovation program are considered. More importantly, one needs to consider the following: "Were contractors and building occupants potentially exposed to hazardous materials during the unknown disturbance of the hazardous materials?". However, there are legal requirements on behalf of the building owner / condominium to conduct designated substance surveys (DSS) prior to the renovation program. Completing the DSS prior to the renovation will in turn minimize delays during the actual renovation.

#### **Planning Ahead to Identify Hazardous Materials**

When planning for building renovations and maintenance programs and even when responding to emergency situations, it is essential to understand that building materials can contain various types of designated substances and/or hazardous materials. Although older buildings can contain the most commonly known and "feared" hazardous materials such as asbestos and lead (within paint), newly constructed buildings can still contain hazardous materials such as silica, mercury-containing equipment, ozone-depleting substances and special attention substances such as mould.

Understanding that several older condominiums have been subject to an asbestos survey to meet compliance under Ontario Regulation 278/05 "Designated Substance - Asbestos on Construction Projects and in Buildings and Repair Operations", it is apparent that there is a misconception that buildings constructed after the mid 1980's are not subject to the regulations associated with completing a DSS. However, Section 30 of the Occupational Health and Safety Act stipulates that a building owner shall identify the presence of designated substances within the building and prepare a list that will be provided to the contractor prior to the start of a renovation (and preferably as part of the tender program). And, within recent years, building envelope projects have been delayed by regulatory authorities for not following the proper controls / techniques to minimize exposure to hazardous materials (i.e. drilling through concrete and creating a silica hazard). The most common question posed by the Ministry of Labour during these visits is: "Where is your DSS?"

Currently, the Ministry of Labour is putting the onus on the building owner (in this case, the condominium board) to complete their due diligence prior to commencing and engaging a contractor for a renovation / repair program. With that being said, one generally plans more accordingly when preparing a tender for a large-scale building renovation (i.e. building envelope repairs, roof replacement, fire safety upgrades), etc.

Progressively, engineers / consultants with increasing knowledge of the applicable regulations and legal requirements are being hired and will request a DSS as part of the renovation planning program. The education of building engineers with regards to the presence / absence of hazardous building materials is progressing and continues to this day. The completion of a DSS can seem like an unneeded cost at the start of the work program, but it can save costs and time during the renovation and, more importantly, it is a legal requirement. Conversely, it is often the case that a team of knowledgeable experts is not assembled and/or there is no proper planning during the smaller renovations/emergency repairs due to the lack of time and/or budget for the project. Coincidently, hazardous materials are often discovered during these rush programs, which can then lead to delays and added costs.

#### **Completing the Designated Substance Survey**

Understanding that condominium buildings contain designated substances and that all condominiums will require renovations and be subject to unplanned repairs at some point, having a readily available DSS and inventory of the hazardous materials of your building ensures that your first step in your future renovation program is already complete. In addition, during an emergency event (i.e. burst pipe / flood), the general contractor does not need to halt / delay their repairs to collect asbestos samples if the DSS is readily available.

Although the DSS does not generally include destructive openings when collecting a designated substances inventory of your building, these surveys will typically include the following:

- A room by room inspection of all common rooms of the building (includes all common elements and approximately 10% of the residential units);
- Collection of bulk materials from building surfaces for asbestos analysis and paint samples for lead analysis;
- Inspection within ceiling and/or wall hatches to assess the presence
  / absence of designated substances behind the visible surfaces;
- A review of the exterior of mechanical equipment for the presence/ absence of designated substances.
- A detailed report identifying the location, concentration (if applicable), type of asbestos, conditions and quantity of designated substances as well as the recommendations on how to appropriately handle these materials; and,
- Upon request,
  - o A roof can be assessed by completing roof cuts,
  - o Destructive test openings can be completed if renovation details are provided and a more thorough assessment is requested.

When requesting a survey from a consultant, it is prudent to stipulate your requirements (i.e. detailed building summary tables, site plans vs. no site plans, stop positive analysis vs. analysis of all asbestos samples, etc.). This report needs to be provided to a contractor prior to commencing the renovation program and needs to be easy for a contractor to understand. If a DSS is not provided to the contractor or deemed incomplete, the building owner can be held liable for any damages incurred by the contractor as a result of the discovery or exposure to designated substances. Similarly, the DSS serves as a great tool for a restoration contractor who is responding immediately to an emergency. In addition, the site supervisor should be familiar with the details of this report to ensure the proper material handling methodology is adhered to during the regular building maintenance tasks on-site and that hazardous materials are not disturbed during their regular maintenance.

Although the focus of a DSS is often on asbestos and the general public often associates asbestos with pipe / mechanical insulation materials, the DSS will identify and provide recommendations for handling less commonly associated hazardous materials such as, but not limited to: asbestos sealants / caulking within building envelopes; asbestos within drywall compounds and/or plasters, potential silica in concrete or other masonry materials; lead in paint; ozone depleting substances in refrigeration systems; surficial mould and/or potential water damage, etc.

### Protecting the Condo Occupants (Financially and Health & Safety)

Understanding that managing the aforementioned materials requires additional precautions (by law) that also results in additional costs, it can be considered prudent to complete the inventory, when feasible, in preparation of future renovations. The additional costs that may be

associated with a renovation due to the presence of designated substances can then be properly allocated within the reserve funds. For example, knowing that

- Proposed renovations to the roof will require disturbance of asbestos tars; or,
- Repairs to the building envelope will require disturbance of asbestos sealants / adhesives and silica dust prevention; or,
- Upgrades to the fire safety will require disturbance of asbestos plaster;

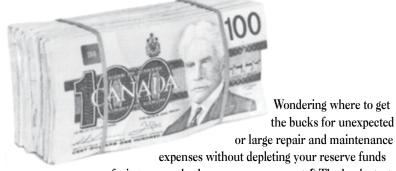
years in advance allows one to plan more gradual increases to condo fees rather than a sharp special assessment.

Irrespective of proposed renovations and/or maintenance programs, the DSS may also identify concerns that could lead to Health and Safety / Air Quality issues. Such issues may arise due to damaged asbestos material and/or mould and/or the simple mismanagement of these materials, if not properly identified. The impacts of the presence of poorly managed designated substances and poor building maintenance will be addressed in a subsequent article "The Impacts of Poor Building Maintenance on Your Air Quality". ■

Mr. Shawn Doherty, P.Eng. is the Lead of the Hazardous Materials Group at EXP. An Environmental Engineering Graduate of Carleton University, Mr. Doherty has been practicing in the Environmental and Hazardous Field for over 17 years. In recent years, Mr. Doherty has completed several asbestos and designated substance surveys and has prepared several asbestos management programs for condominium corporations within the Ottawa area. His experience in the condominium field has allowed him to develop an understanding of the regulations and how they apply to condominiums.

Mr. Scott Lessard, B.Sc. is an Environmental Science graduate of Concordia University and has been working in the Air Quality and Hazardous Materials field for 6 years. Mr. Lessard joined the EXP team in 2016 and, in addition to the asbestos surveys and DSS, brings expertise in detailed air quality investigations, radon testing and mould investigation.

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