Appendix IV

# Demolition Waste Management Plan

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|---|---|
| **Project Name:** | **Abatement and Demolition of School Structure** |
| **Client Name:** | **Two Sisters Resorts Corp** |
| **Work Location:** | **325 King St, Niagara on the Lake** |
| **Project No.:** | **BD 2698** |
| **Project Award Date:** | **August 1, 2023** |

Prepared By: Dustin Stevenson
Date Prepared: August 2, 2023

## Contents

**Waste Management Plan Summary**

YORK1 has been obtained to complete the demolition and abatement of the structure located at 325 King St., Niagara-On-The-Lake. This Demolition Waste Management Plan is intended to reduce waste where possible, and for unavoidable waste, to meet or exceed provincial regulations, sustainable building practice targets relevant to the project, and to maximize material reuse and recycling.

According to Ontario Reg. 103/94, all demolition projects with a total floor area of at least 2,000 m2 to source separate, at minimum, the following mandatory waste streams for diversion away from landfill and incinerators:

- Brick and Portland Cement Concrete
- Steel
- Wood (Not including painted, treated, or laminated wood)

Ontario Reg. 103/94 also encourages separation and diversion of blue box and supplementary blue box waste, and recyclable materials other than blue box waste such as glass, leather, organics, metal, paper and paper products, plastics, textiles, and appliances.

Source separation will be accomplished on site with multiple bins when possible and/or stockpiled separately. Alternatively, the waste can be commingled and sent for immediate separation to a waste disposal facility operating under the authority of an environmental compliance approval as a means of source separation.

All waste generated from the demolition program will be categorized into the following to facilitate the source separation process and maximize recyclable waste: Paper and Cardboard (corrugated), wood (excluding painted, treated, or laminated), steel, plastic, glass, drywall (unpainted), hollow metals, aluminum, concrete/Rubble, brick, granular material, asphalt and miscellaneous waste.

Roll-off trucks and bins, and/or tractor-trailers, will be used to transport all waste off site. Multiple stockpiles and/or bins will be placed onsite to allow

for source separation. Management policy and practices ensure waste is properly diverted into the individual containers which are then hauled to various recycling plants and/or transfer stations. The materials that can be directly recycled are sent to Material Recovery Facilities and are 100% recycled. Non-source separated containers are sent to transfer stations who then sort and separate the material to ensure the highest possible land fill diversion rate.

All waste material generated from the program will be taken to the sites listed below where it will then be hauled to MOECC approved disposal or recycling facilities as required.

**Heritage Salvage Summary**

There is a significant heritage salvage component to this demolition project. Materials designated in the Documentation and Salvaging Report (Stantec, July 20, 2023) will be salvaged. A highlight of these items are:

- The 2 bas-relief panels designed by John B. Shawe located on the south elevations
- The third 120 inch by 96 inch large format stone incised oak tree panel, located on the east elevation of the 1976 gymnasium addition.
- The 1915 Parliament Oak stone tree-marker that details the site's association with the first Parliament of Upper Canada
- The art installation to commemorate the Underground Railroad
- The boundary stone on the southwest corner of the property (to be retained in-situ)
- Materials associated with the Parliament Oak School including, but not limited to:
- Bricks and stones from the 1948 school building
- The Parliament Oak School sign located above the central entrance
- The Parliament Oak School cornerstone
- The Parliament Oak School Time Capsule located in the building’s cornerstone

**Waste Summary**

| Waste Material Type | Estimate Amount of Waste in Tonnes | % of Waste to be Recycled | % of Waste to be sent to Landfill | Disposal / Recycling Locations |
|---|---|---|---|---|
| Friable Asbestos Waste | 3 | 0 | 100 | Carleton Farms |
| Non-Friable Asbestos Waste | 4 | 0 | 100 | Allied |
| Leachable Lead Waste | 3 | 0 | 100 | GFL Hamilton |
| Concrete & Brick | 4650 | 100 | 0 | Gibbons and/or Lafarge |
| C&D Waste | 360 | 80 | 20 | WM, York1 Gage |
| Metals | 90 | 100 | 0 | York1 Scrap Metal |

**Disposal / Recycling Locations**

**Friable Asbestos wastes will be transported for disposal at:**
Carleton Farms Landfill
28800 Clark Rd
New Boston, Michigan

**Non-Friable Asbestos wastes will be transported for disposal at:**
Allied Landfill
5600 Niagara Falls Blvd
Niagara Falls, NY

**Leachable Lead wastes will be transported for disposal at:**
GFL Hamilton
52 Imperial St
Hamilton, ON L8L 4E3

**C&D wastes will be transported to transfer station for further diversion:**
WM St Catharines
124 Cushman Rd
St Catharines, ON L2M 6T6

Or

York1 Gage Transfer Station
375 Gage Ave N
Hamilton, ON L8L 7B1

**Concrete will be transported for recycling at:**
Lafarge Fonthill
1540 Park St
Fonthill, ON L0S 1E0

Or

Gibbons
1668 Allanport Rd
Thorold, ON L0S 1K0

**Metals will be transported for recycling at:**
York1 Scrap Metal
284 Sherman Ave N
L8L 6N6

Copies of the weigh bills for disposed/recycled materials will be provided upon completion of the project.

## Closeout Submittals

At the completion of the project, all weigh scale tickets (or load tickets for concrete) will be provided and will include the following information.

- General description of the material
- Location, date and time of weighing
- Measured weights (or number of loads for concrete)
- Vehicle identification
- Shipment identification number

## Hazardous Materials

Hazardous waste generated at this project includes, asbestos containing materials and leachable lead waste. The following will be performed:

1. Hazardous materials removed during the work will be treated, packaged, transported and disposed as hazardous waste in compliance with Municipal and Provincial regulations.
2. Hazardous waste will be placed in containers in a secured designated storage area for holding hazardous waste. Containers will be labelled and assigned exclusively for hazardous waste.
3. Manifests will be completed for waste shipping as appropriate for the waste classification, and in compliance with Municipal and Provincial regulations. Budget will ensure completion of a manifest for each load leaving the site. A copy will be provided to the DCC representative with originating copies of all manifests for the hazardous waste.

## Waste Audit & Waste Reduction Plan

- MOE – Notice of Waste Audit attached to this document
- MOE – Waste Reduction Plan  attached to this document

Ontario

Ministry of the Environment and Climate Change

# Report of a Waste Audit - Large Construction and Demolition Projects

**As required by O. Reg. 102/94**

This report must be prepared before construction or demolition begins at the site. The waste audit must be retained on file for at least five years after it is prepared, and be made available to the ministry upon request (revised July 2008).

## Section 1 - General Information

**Name of Person Undertaking Project**

| Last Name | First Name |
|---|---|
| Stevenson | Dustin |

Company Name
York1 Demolition

**Name of Contact Person**

| Last Name | First Name |
|---|---|
| Stevenson | Dustin |

Company Name
York1 Demolition

| Telephone Number | Email Address |
|---|---|
| 905-520-7491 | dstevenson@york1.com |

Project Type (Select One)*

☐ Construction Project ☑ Demolition Project

Street Address of Project Site (if known)
325 King St

| Floor Area (square metres) | Number of Buildings |
|---|---|
| 2645 | 1 |
| Lot and Plan Number | Municipality: Niagara on the Lake |
| Estimated Start Date of Project (yyyy/mm/dd): tbd | Estimated Completion Date of Project (yyyy/mm/dd): tbd |

*Separate reports must be made for construction and demolition projects regardless if they occur on the same site.

## Section 2 - Description of Project

Provide a brief overview of the construction or demolition project
Abatement and Demolition of existing school structure

## Section 3 - Categories of Waste and Waste Items

List the categories of waste the project will produce and the associated waste items for each category (see Section 6 for examples of categories of waste)

| Categories of Waste | Waste Items |
|---|---|
| **Categories of Waste** | **Waste Items** |
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| **Categories of Waste** | **Waste Items** |
| Example: Wood | Lumber cut-offs, Old Window frames |
| Metals | Wire, pipe, structural steel, rebar |

  

| Categories of Waste | Waste Items |
|---|---|
| Concrete | Foundations, footings, slabs, block |
| Brick | Veneer on the structure |
| C&D Waste | Carpet, ceiling tiles, millwork, drywall, fixtures, wood |

## Section 4 - Production of Waste

For each category of waste listed in Section 3 of this form, explain how the waste at the construction or demolition project will be produced. Include references to how management decisions and policies will affect the production of waste:

| How Waste Is Produced | Decisions/Policies Affecting Waste Produced |
|---|---|
| Example: Cut-offs and over-runs of waste shingles are produced during roofing. | Look at more accurate measurements for estimating amount of roofing shingles required. |
| Metals | Separate and recycle |
| Concrete | Separate and recycle |
| Brick | Separate and recycle |
| C&D Waste | Separate and send to transfer station for further separation |

## Section 5 - Management of Waste

For each category of waste listed in Section 3 of this form, indicate which waste items will be disposed or reused/recycled and how each item will be managed at the project

| Category | Waste to be Disposed | Reused or Recycled Waste |
|---|---|---|
| Example: Lumber cut-offs | Small pieces into roll off waste bin. | Larger pieces saved in piles and later reused as bridging or blocking during construction. |
| Metals | none | all to be recycled |
| Concrete | none | all to be recycled |
| Brick | none | all to be recycled |
| C&D Waste | All other wastes | send to transfer station for further separation |

## Section 6 - Estimated Quantity of Waste Produced

| Categories of Waste | Estimated Amount of Waste Produced (tonnes) |
|---|---|
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| Brick and Concrete | 4,650.00 |
| Cardboard | 0.00 |
| Drywall (unpainted) | 0.00 |
| Drywall (painted) | 0.00 |
| Steel | 0.00 |
| Wood (unpainted or untreated) | 0.00 |
| Wood (painted/treated) | 0.00 |
| Plastic (pipes, film, etc.) | 0.00 |
| Polystyrene Foam | 0.00 |
| Porcelain Fixtures | 0.00 |
| Insulation | 0.00 |
| Asphalt | 0.00 |
| Aluminum | 0.00 |
| Roof Shingles | 0.00 |
| Tile Flooring | 0.00 |
| Carpet | 0.00 |
| Glass | 0.00 |
| Plaster | 0.00 |
| Blue Box - Newspaper, cans, etc. | 0.00 |
| Other | 360.00 |
| **Total** | 4,650.00 |

Note: When completing this form, write "n/a" in the Estimated Amount of Waste Produced column where the project will not produce any waste for a category of waste.

## Section 7 - Extent to Which Materials or Products Used by The Entity Consist of Recycled or Reused Materials or Products

Please answer the following questions

1. Do you have a management policy in place that promotes the purchasing and/or use of materials or products that consist of recycled and/or reused materials or products?

☑ Yes ☐ No If yes, please describe.

Recycling reduces the amount of material sent to landfill. Reducing the amount of material that goes to landfill reduces our overall costs.

2. Do you have plans to increase the extent to which materials or products used consist of recycled or reused materials or products?

☑ Yes ☐ No If yes, please describe.

When importing backfill materials, we actively seek to use recycled aggregates whenever possible

Please attach any additional page(s) as required to answer the above questions.

I hereby certify that the information provided in this Report of a Waste Audit is complete and correct.

| Name | Title | |
|---|---|---|
| Dustin Stevenson | Project Manager | |
| Signature of authorized official  | | Date (yyyy/mm/dd) 2023/08/02 |

Ontario

Ministry of the Environment and Climate Change

# Report of a Waste Reduction Work Plan - Large Construction and Demolition Projects

**As required by O. Reg. 102/94**

This report must be prepared before construction or demolition begins at the site. The waste reduction work plan must be retained on file for at least five years after it is prepared, and be made available to the ministry upon request (revised July 2008).

## Section 1 - General Information

**Name of Person Undertaking Project**

| Last Name | First Name |
|---|---|
| Stevenson | Dustin |

Company Name
York1 Demolition

**Name of Contact Person**

| Last Name | First Name |
|---|---|
| Stevenson | Dustin |

Company Name
York 1 Demolition

| Telephone Number | Email Address |
|---|---|
| 905-520-7491 | dstevenson@york1.com |

Project Type (Select One)*

☐ Construction Project ☑ Demolition Project

Street Address of Project Site (if known)
325 King St

| Floor Area (square metres) | Number of Buildings |
|---|---|
| 2645 | 1 |
| Lot and Plan Number | Municipality |
| | Niagara on the Lake |
| Estimated Start Date of Project (yyyy/mm/dd) | Estimated Completion Date of Project (yyyy/mm/dd) |
| tbd | tbd |

*Separate reports must be made for construction and demolition projects regardless if they occur on the same site.

## Section 2 - Description of Project

Provide a brief overview of the construction and/or demolition project
Abatement and demolition of existing school structure

  

## Section 3 - Plans to Reduce, Reuse and Recycle Waste

For each category of waste described in Section 3 of "Report of a Waste Audit" (on which this plan is based), explain what your plans are to reduce, reuse and recycle the waste, including:

1) How the waste will be source separated at the project, and 2) the programs to reduce, reuse and recycle all source separated waste.

| Waste Category | Source Separation and 3Rs Program |
|---|---|
| Example: Wood waste | Separate reusable pieces into special marked bins; non-reusable pieces into disposal bin. Larger pieces of wood will be reused for bridging or blocking. |
| Metals | Separate and recycle |
| Concrete | Separate and recycle |
| Brick | Separate and recycle |
| C&D Waste | Separate and send to transfer station for further separation and diversion |
| Asbestos Wastes | Remove and send to licensed disposal facility |

## Section 4 - Responsibility for Implementing the Waste Reduction Work Plan

Identify who is responsible for implementing the Waste Reduction Work Plan at the construction or demolition project. If more than one person is responsible for implementation, identify each person who is responsible and indicate the part of the Waste Reduction Work Plan that each person is responsible for implementing.

| Name of Person | Responsibility | Telephone Number |
|---|---|---|
| TBD | Site Supervisor - Field Level | |
| Dustin Stevenson | Project Manager | 905-520-7491 |
| | | |

## Section 5 - Timetable for Implementing Waste Reduction Work Plan

Provide a timetable indicating when each Source Separation and 3Rs program of the Waste Reduction Work Plan will be implemented.

| Source Separation and 3Rs Program | Schedule for Completion |
|---|---|
| Example: Wood Reuse Program | Set up before construction. Ongoing during project. |
| All items listed above in section 3 | Project start to finish |
| | |
| | |

## Section 6 - Communication to Workers

Explain how the Waste Reduction Work Plan will be communicated to workers at the site of the construction or demolition project

York1's site supervisor will have a toolbox talk at the start of the project with team members on site, explaining where material is to be stockpiled. The project team (site supervisor, project coordinator and project manager) is also responsible for arranging trucks, and ensuring they are sent to the correct facilities.

## Section 7 - Estimated Annual Waste Produced by Material Type and the Projected Annual Amount to be Diverted by the 3Rs

| Material Categories (as shown in Section 3) | Estimated Waste Produced/Yr. * (kgs or tonnes) | Name of Proposed 3Rs Program (as stated in Section 3) | Projections to Reduce, Reuse or Recycle Waste/Yr. (kgs or tonnes) | | | Estimated Waste Diversion Rate** (%) |
|---|---|---|---|---|---|---|
| | | | Reduce | Reuse | Recycle | |
| Example: Wood (unpainted) | 600 kgs | Wood Reuse Program | | Approx. 360 kgs | | 60% |
| Metals | | Recycle | | | 90 mt | 100 |
| Concrete | 3650 mt | Recycle | | 3650 mt | | 100 |
| C&D Waste | 360 mt | Recycle | | | 288 mt | 80 |

* Estimated Waste Produced = Waste Diverted (3Rs) + Waste Disposed

** Estimated Waste Diversion Rate = Amount of Waste Diverted (3Rs) ÷ Estimated Waste Produced x 100%

Note: When completing this form, write "n/a" in the Estimated Waste Produced column where the project will not produce any waste from a material category.

I hereby certify that the information provided in this Waste Reduction Work Plan is complete and correct.

| Name | Title |
|---|---|
| Dustin Stevenson | Project Manager |

| Signature of authorized official | Date (yyyy/mm/dd) |
|---|---|
|  | 2023/08/02 |