WASTE DIVERSION ONTARIO CONTINUOUS IMPROVEMENT FUND

COCHRANE TRANSFER STATION CONSTRUCTION AND ANNUAL OPERATION COST ANALYSIS

CIF PROJECT #726

REPORT

SEPTEMBER 2013
ISSUED FOR USE
EBA FILE: 704-C22503150-01

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Acknowledgement

This Project has been delivered with the assistance of Waste Diversion Ontario's Continuous Improvement Fund, a fund financed by Ontario municipalities and stewards of blue box waste in Ontario. Notwithstanding this support, the views expressed are the author(s) and Waste Diversion Ontario and Stewardship Ontario accept no responsibility for these views.

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1.0 INTRODUCTION

The Continuous Improvement Fund (CIF) retained EBA Engineering Consultants Ltd. operating as EBA, A Tetra Tech Company (EBA), to perform a review of the construction and operating costs of the Town of Cochrane's (Town) recently constructed transfer station for blue box recyclables.

The scope of work took into account the capital and operating costs for the transfer station and excluded other costs associated with the operation of the Town's recycling program. Furthermore, this review was not intended, nor executed, to critique the Town's procurement process for construction services for the new facility. In this regard, EBA undertook to perform the following:

Construction Cost Review

- Pre-construction;
- Construction; and
- Post-construction.

Annual Operating Costs Review

- Operation; and
- Maintenance.

EBA's review has taken into account the information provided by the Town and industry standards for construction and has prepared this report on our findings.

2.0 BACKGROUND

The Town is located in north-eastern Ontario east of Kapuskasing, north-east of Timmins, south of Moosonee and north of Iroquois Falls. In 2011, the Town had a population of 5,340 and 2,245 households[1]. The Town was previously a member of the Cochrane-Temiskaming Waste Management Board which provided waste management services to 16 member municipalities. In 2012, the Town elected to remove themselves from the Board and provide waste management services to its residents independently of the Board.

The location for the transfer station is an existing Town public works yard and the site was not previously used as a transfer station; this was new construction. The public works yard is approximately 15 acres in size and the transfer station covers an area of approximately 1 acre within the 15-acre area. The Town consulted with the local Ministry of the Environment District Office with respect to approvals required for the facility and, specifically, to determine if the site required an Environmental Compliance Approval (ECA) under the Ontario Environmental Protection Act. In accordance with Ontario Regulation 101/94 (O. Reg. 101/94), *Recycling and Composting of Municipal Waste*[2], this site could be exempt from requiring an ECA if a number of conditions were satisfied. These included:

[1] 2011 Census http://www12.statcan.gc.ca/census-recensement/2011/as-sa/fogs-spg/Facts-csd-eng.cfm?Lang=Eng&GK=PR&GC=3556042
[2] http://www.e-laws.gov.on.ca/html/regs/english/elaws_regs_940101_e.htm

- Part 1, Section 5(1)2: if the site is owned or operated by the municipality and has a storage capacity of less than 200 cubic meters (expressed in volume of material, not volume of floor space)
- Part 1, Section 5(2): if all waste at the site is removed at least every 30 days
- Part 1, Section 6(1): if the site's only function is to collect and transfer the waste to another site
- Part 1, Section 6(2): if the waste consists solely of waste from Schedules 1, 2 or 3 of the Regulation
- Part 1, Section 6(2)(a): if the waste has been separated from all other kinds of waste.

Appendix A includes a copy of O. Reg. 101/94 for reference and an extract from *A Guide to Approvals for Recycling Sites, Leaf and Yard Waste Composition Sites and Compost Use*[3] where Section 2.1 of the *Guide* provides a flow chart for determining if any exemptions are available.

In March 2012, the Town and the CIF entered into a CIF Project Grant agreement for "Curbside Recycling Implementation and Material Transfer". The CIF approved funding in the amount of up to $232,412 for the purposes of automation for curbside cart collection, the purchase of curbside recycling carts, promotion & education, transfer station upgrades and contingencies. Of this, CIF's maximum funding for the transfer station aspect was $71,768 and was allocated to the construction of the transfer station.

The construction of the transfer station was completed in July 2012 and has been in operation since that time. The transfer station only accepts source separated recyclables from the Town's curbside collection fleet and the occasional load of source separated recyclables from the commercial sector (i.e. cardboard). The site does not have a weigh scale and tonnages are reported to the Town by their contracted Material Recovery Facility (MRF) following shipment from the transfer station.

In the first year of operation, August 2012 through July 2013, the transfer station managed 477 tonnes of blue box recyclables.

3.0 CONSTRUCTION

The Town prepared and issued an RFP for the Design Build of the Recycling Transfer Station. Bids were received in March 2012. The RFP requested all inclusive bid prices for the supply of labour, materials, plant, equipment and services were requested and construction was to be completed by July 2012. A copy of the RFP and facility drawing is included in Appendix B. The RFP included an option with, and without, a "garage" (a.k.a. manual roll-up) door. The values presented below are the bids received including the "garage" door as it was installed.

Key features of the selected design was the utilization of intermodal shipping containers for the side and back walls and a translucent fabric roof supported on semicircular steel trusses that allows natural light to enter the building. As well, the transfer station did not require utility services (i.e. electrical power or water/waste water). The interior of the transfer station (maximum tipping floor space) is approximately 80 feet long by x 40 feet wide. The 8-foot tall used shipping containers that support the roof structure provides the available height for a total approximate volume of 720m^3. This space is used for both the surge pile of recyclable materials and for vehicles to enter/exit. As reported by the Town, the approximate volume of space used for the storage of the recyclable materials is 40 feet long by 30 feet wide by 6 feet high, or 200m^3.

[3] http://www.ene.gov.on.ca/stdprodconsume/groups/lr/@ene/@resources/documents/resource/std01_079320.pdf

The bids received by the Town in response to their RFP, exclusive of HST, were as follows where Bid #1 was selected by the Town.

- Bid #1: $133,000 1788655 Ontario Ltd (ADUVO Studios Inc.)
- Bid #2: $214,500 CGV Builders
- Bid #3: $289,133 Jobson Consulting Inc.
- Bid #4: $399,000 Build North Construction

Bid #1 was selected on the basis of price. Included in Bid #1 were the following all-in prices:

- Supply and install five used 40 foot shipping containers (incorporated into wall structure);
- Supply and install attachment hardware for the shipping containers;
- Supply and install hot dip galvanized steel truss assemblies;
- Supply and install steel frame;
- Back wall (of transfer station) mounted on a shipping container;
- Supply and install 20 foot wide by 16 foot high opening for steel roll up door;
- Supply and install one man-door;
- Supply and install a translucent fabric for the roof and sides of the building;
- Supply and install safety barriers on the transfer station loading ramp;
- Supply and install bollards at key point at the transfer station and loading ramp; and
- Supply and install transfer station signage.

In addition to Bid #1, the construction costs included approximately $12,000 for site preparation and grading. Table 1 below outlines the costs incurred by the Town for the construction of the transfer station, excluding internal costs.

Table 1 – Town Contracted Construction Cost for the Transfer Station

Item	Cost (as invoiced to CIF)
Five used shipping containers, hardware, steel trusses, frame work, back wall, steel roll up door, man door, poly weave membrane roof, concrete walls for loading ramp, safety curb at end of ramp, safety barriers, etc	$135,294
Final Grade Preparations	$2,036
Site preparations	$9,773
Total	$147,203

In addition to the construction costs, during construction, the Town incurred additional costs with respect to project management, inspection and administration as well as the time required to prepare the RFP. These totaled approximately $2,450 bringing the total construction costs to approximately $149,650.

3.1 Pre-Construction Costs

Because construction services for the facility were procured as a Design/Build, pre-construction costs were included in the scope of work for the design/build contractor. For a conventional design/ build project, all or at least a majority of design, approvals and permitting tasks would typically be complete prior to obtain bids for construction. In this case, design tasks were included with the construction scope of work as a

design/build procurement process. The costs for these tasks were therefore to be included in the scope of work of the selected design/build contractor.

In reviewing the Special Provisions in the RFP and the information and documentation provided by the Town, it cannot be determined if all of the design requirements were fulfilled. The Supplementary Provisions in the RFP require that the design/build contractor be responsible for preparing and providing drawings stamped by a professional engineer. A drawing was provided by the Town, but was not stamped by a Professional Engineer and did not appear to be consistent with the completed structure based on the photographs of the facility provided by the Town.

The Town indicated that a professional engineer had been retained for the design of the pre-cast modular retaining walls for the loading ramp adjacent to the building and that a building permit had not been issued. The reason given was that the building was not subject to the requirements of the building code as it was considered to be a temporary structure.

The Supplemental Provisions of the RFP also required that the site be landscaped and graded to prevent ponding of water. Other than construction of the loading ramp, it could not be determined if this requirements had been met as drawings or photos of site conditions prior to construction were not available. The Special Provisions also specified that "foundation walls must extend above grade by 4 feet to act as impact barrier for heavy equipment operations". This requirement was not met but the Town has indicated that the intermodal shipping containers have proven adequate and serve the equivalent purpose as concrete push walls.

Permitting and approvals were not addressed in the RFP and, as such, would not be expected to be provided by the design/build contractor. Based on the type and volume of materials managed at this facility, the transfer station appears to satisfy the requirements for exemption from the requirements to obtain an Environmental Compliance Approval (ECA) as a waste management site under Part V of the Environmental Protection Act.

There is no apparent means for managing surface water or moisture that may flow from the material received at the facility as a result of precipitation or residual liquids from containers in the collected recyclable material stream. A conventional solid waste transfer station would typically be required to have concrete floors and sumps or sanitary sewer connections to manage any liquids on the floor of the building and to facilitate clean-up of any residual liquids from the received materials.

The asphalt pavement that serves as the floor of the structure is not expected to provide the same degree of abrasion resistance and long term effectiveness as a concrete pad.

3.2 Post-Construction Requirements

The Town's representative indicated that no deficiencies were noted or warranty repairs required for the transfer station since construction was completed.

3.3 Construction Cost Analysis

Based on standard costing estimates, experience on similar projects and standard industry practices, if the Town were to have constructed a transfer station following the high level specifications provided in their Design Build RFP, the following budget estimates were developed to compare against the Town's, as constructed, transfer station (+/- 20%) and the other bids that were received in response to the RFP.

Table 2 – Option 1 Estimate – Pre Engineered Steel Structure with Push Walls and Concrete Floor

Item	Quantity	Units	Unit Price	Total
Pre-Engineered clear span structure, unheated building with steel cladding	Lump Sum	1	$175,000	$175,000
Concrete floor on grade with abrasion resistant heavy duty topping	m^2	450	$250	$112,500
6-foot reinforced concrete walls	m	57	$1,200	$64,800
6-foot modular concrete block retaining wall	m	20	$300	$6,000
Engineered fill ramp (3m x 20m x25m x 0.5)				
• Granular A	m^3	250	$80	$20,000
• Granular B	m^3	500	$60	$30,000
			Subtotal	$411,900
			Engineering (10%)	$41,190
			Contingency (15%)	$61,785
			Total	$514,875

Table 3 – Option 2 Estimate – Temporary Fabric Structure with Push Walls and Concrete Floor

Item	Quantity	Units	Unit Price	Total
Pre-Engineered clear span structure, unheated building with fabric clad	Lump Sum	1	$80,000	$80,000
Concrete floor on grade with abrasion resistant heavy duty topping	m^2	450	$250	$112,500
6-foot reinforced concrete walls	m	57	$1,200	$68,400
6-foot modular concrete block retaining wall	m	20	$300	$6,000
Engineered fill ramp (3m x 20m x25m x 0.5)				
• Granular A	m^3	250	$80	$20,000
• Granular B	m^3	500	$60	$30,000
			Subtotal	$316,900
			Engineering (10%)	$31,690
			Contingency (15%)	$47,535
			Total	$396,125

Table 4 – Option 3 Estimate – Temporary Fabric Structure with Push Walls and Paved Floor

Item	Quantity	Units	Unit Price	Total
Pre-Engineered clear span structure, unheated building with fabric clad	Lump Sum	1	$80,000	$80,000
Asphaltic floor (2" surface course over 4" base course and 12" gravel base)	m^2	450	$85	$38,250
6-foot reinforced concrete walls	m	57	$1,200	$68,400
6-foot modular concrete block retaining wall	m	20	$300	$6,000
Engineered fill ramp (3m x 20m x25m x 0.5)				
• Granular A	m^3	250	$80	$20,000
• Granular B	m^3	500	$60	$30,000
			Subtotal	$242,650
			Engineering (10%)	$24,265
			Contingency (15%)	$36,398
			Total	$303,313

As can be seen in Table 5 below, the Town's incurred costs for constructing the transfer station are approximately half of the lowest cost estimate (Option 3) for a typical transfer station. As well, the cost incurred by the Town, including the internal costs, were approximately 30% lower than the next lowest bid that was received as part of the RFP process.

Table 5 –Cost Comparisons

Construction Option	Cost
Actual, from Table 1 plus Internal Costs	$149,650
Option 1 Estimate, from Table 2	$514,875
Option 2 Estimate, from Table 3	$396,125
Option 3 Estimate, from Table 4	$303,313

This would suggest that capital costs have been minimized by constructing a non-permanent structure. An advantage of this modular construction is the ability to reconfigure the facility or re-use certain elements to reduce the cost of retrofitting or repurposing the structure.

This may facilitate modification and expansion of the Town's diversion program and over time. It is expected, however, that this type of structure may have impacts on operational costs, particularly facility maintenance costs. Over the long term, the shipping container walls may suffer damage that would otherwise not occur with concrete walls.

The lack of a concrete floor may require periodic re-grading, re-compaction and replacement or addition of gravel. Mixing of the "Granular A" with the blue box recyclable materials that would otherwise not occur with a concrete floor and could lead to contamination of the materials, may also have an indirect impact on operational costs.

4.0 OPERATION AND MAINTENANCE

4.1 Overview

The transfer station is unmanned and there is no weigh scale on site. When curbside collection vehicles, and the occasional small vehicle with cardboard, arrive, the driver manually opens the tipping bay door and proceeds to tip the material onto the floor. While small commercial loads are infrequent, curbside vehicles deliver approximately two loads of recyclables daily. Once the material has been tipped, the vehicle exits the transfer station and the driver manually closes the tipping bay door. When required, a Town public works employee, using a front end loader, pushes the recyclables into a pile on the tip floor.

The recyclable material is stored inside the transfer station until a sufficient quantity has accumulated and is subsequently shipped to the contracted MRF for processing. One shipment of recyclable material (via 52 foot long open top trailer) is sent to the MRF approximately every second week. The scheduling of the transfer trailers is done by the Town staff as part of the site's general administration. Once a transfer trailer arrives at the site, it backs up behind a loading ramp and is loaded by Town staff operating the front end loader. The loading process involves the loader entering the transfer station, scooping up recyclable material, backing out of the transfer station, driving up the ramp (which is adjacent to the transfer station) and dumping the recyclables into the trailer. With the loader bucket, the loader operator packs the recyclables as densely as possible into the trailer for maximum payload. The average net weight of loads shipped to the MRF was approximately 18 tonnes between August 2012 and July 2013.

The Town has reported that the average transfer trailer loading time of approximately 75 minutes (1.25 hours). As the loading of the transfer trailers involves entering and exiting the transfer station, the Town has built and installed a cage that fits over top of the loader bucket to prevent spillage of the recyclables from the loader bucket during transport from the transfer station to the transfer trailer loading area.

As the transfer station itself does not have any utility service, maintenance is limited to the building and surrounding roadways. In the first year of operation, the Town reported that no maintenance activities were performed to the building structure itself and minimal effort was required for site re-grading.

4.2 Costs

The transfer station is operated by Town staff with shared responsibilities between the transfer station and other Town public works activities. As such, some of the costs shown below for operating the facility are estimates based on average, or typical, time used by Town staff at the transfer station. The front end loader performs the following functions: manages the recyclable material pile within the transfer station, loads the recyclables onto transfer trailers as well as plows snow and grades the roadway, when needed.

During the first year of operation, the Town reported the following operational costs:

Table 6 – Operation and Maintenance Costs

Item	Cost	Comment
Front End loader	$1,750	Approximate, shared resource with public works yard
Front End loader	$15,236	Fuel and tires
Site Administration	$1,278	Approx. 1 hour per week
Snow Ploughing	$416	Approx. 13 hours in first year
Loader Operator	$6,143	Approx. 6.25 hours per week
Site Supervisor	$10,564	Approx. 8 hours per week
Litter pick up	$832	Approx. 30 minutes per week
Modifications to loader bucket	$8,000	Materials, Fabrication, Installation
General site maintenance	$228	Re-grading of gravel roadway; no new material used
Total	$44,448	

As the site managed 477 tonnes of recyclables in the first year, this equates to approximately $93 per tonne for operation and maintenance of the facility.

Regarding other potential operational and/or maintenance costs that are typically incurred at a transfer station:

- As the facility is un-serviced, there are no reported costs associated for utilities. The public works yard, however, is serviced and a portion of the site's utility cost could be allocated to the transfer station but this amount would likely be negligible.
- With respect to liquids management, the site's grading is the method used as opposed to a storm water pond or even a leachate collection system.
- The Town reported no costs for vector management, at either the public works yard or the transfer station itself, nor any costs associated for staff uniforms (i.e. coveralls).
- There is no weigh scale at the site and as such, there are no costs associated with staffing, supplies inspection or calibration.
- The facility had a one-year warranty and as such, if any issues were identified with the site (which none were reported), the costs would have been covered.

If this facility had any or all of these additional elements, the operational costs, expressed in total dollars or cost per tonne, would be greater than those presented above.

5.0 KEY FINDINGS

5.1 Construction

As an un-serviced, temporary structure without permits or usual supplementary systems (i.e. weigh scale, storm water management, fire suppression, etc.) and managing a relatively small quantity of recyclable materials, the cost appears reasonable based on its components.

Over the past number of years, used intermodal shipping containers have been repurposed and reused for temporary and, in some cases, permanent structures. However, they have been principally used for housing and offices as the cost is less than traditional building materials. Shipping containers are durable, inexpensive and modular which can make them a suitable alternative to traditional building materials.

5.2 Operation and Maintenance

The transfer station has been operated for the past year with no reported operational or maintenance issues. That said, the facility was under warranty and if any issues were to have been identified, they would have been addressed under the construction contract.

The amount of vehicle traffic and recyclable tonnage in the first year of operation was relatively small which translated into minimal activity at the transfer station. Minimal activity results in low wear-and-tear on the road ways and structure as well as less time and cost required to manage the recyclables. With this in mind, if the traffic or the tonnage were to increase, the transfer station would incur higher operational and maintenance costs in terms of staff time and equipment costs. For example, if the tonnage were to double to approximately 1,000 tonnes annually, in order to maintain compliance with O. Reg. 101/94 in regards to storage capacity, the frequency of shipments to the MRF would double (i.e. one load every week as opposed to currently every two weeks). If this were to happen, it is probable that the costs for the first year of operation could be twice as much.

As the facility is now out of warranty, should there be any damage requiring repair to either the intermodal containers, the translucent fabric roof or any other aspect of the transfer station (i.e. bollards, curbs, retaining wall, etc.) there would be costs involved for the repairs. As such, an annual maintenance budget should be established to cover any circumstances and a possible budget could be 10% of the capital costs.

6.0 CONCLUSION

Constructing a transfer station using non-traditional materials, without utilities or requiring permits can be a cost effective means to an end. However, not all municipalities would be able to construct a facility such as this and incur only these costs as each prospective site has its own unique characteristics and challenges. Every project should ensure that it has obtained sufficient legal advice during the planning stages to avoid any missteps with respect to permitting or construction. As well, facilities requiring more space, additional systems (such as a weigh scale or utilities) would incur costs in excess of those of reported by the Town.

The reduced capital costs as compared to a conventional, permanent, building that incorporates a concrete floor, concrete push walls, and a steel roof, may be offset somewhat by higher long-term maintenance costs than would otherwise be expected. Given the unique aspects of this facility and it relatively short operating life to date, a life cycle analysis of costs cannot be completed with a useful degree of accuracy.

As a matter of due diligence, the Town should consider obtaining further assurance of the structural integrity of the facility if the design/build contractor did not provide drawings stamped by a Professional Engineer as required by the provisions of the design/build RFP.

7.0 CLOSURE

We trust this report meets your present requirements. Should you have any questions or comments, please contact the undersigned at your convenience.

Respectfully submitted,
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PHOTOGRAPHS

Exhibit 1 – Ariel view of Public Works Yard and Transfer Station

Exhibit 2 – Front View of Transfer Station

Exhibit 3 – Side View of Transfer Station and Loading Ramp

Exhibit 4 – Attachment to Roof Structure

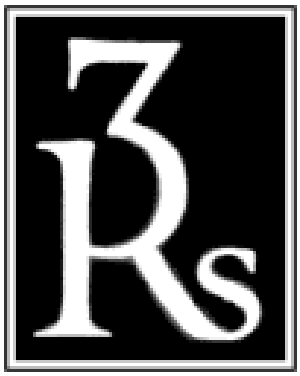
Exhibit 5 – Bracing for Wind and Snow loads

Exhibit 6 – Pinning of Containers

Exhibit 7 – Screen Installed on Loader Bucket

APPENDIX A

ONTARIO REGULATION 101/94 AND EXCERPT FROM GUIDE TO APPROVALS FOR RECYCLING SITES



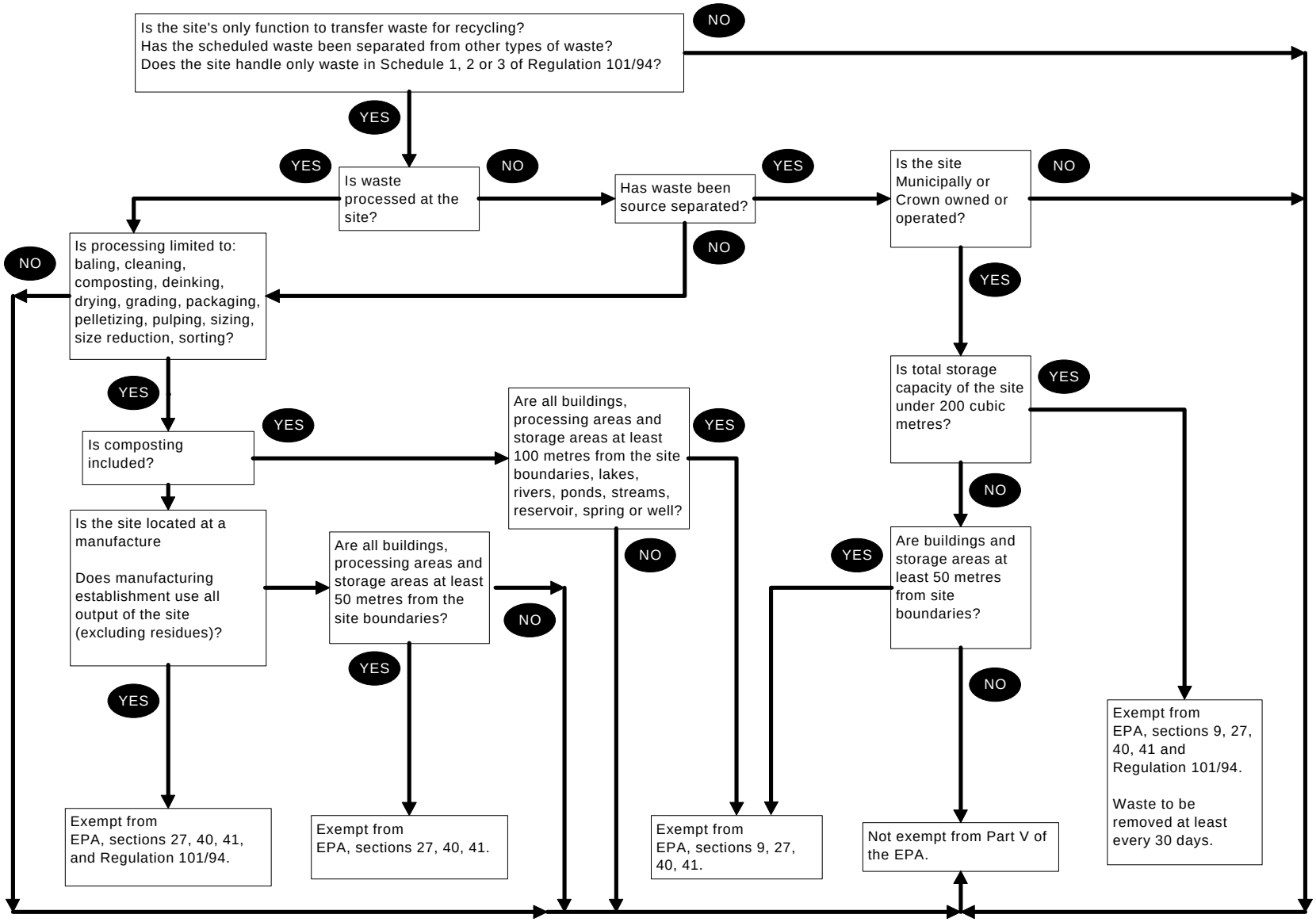
A Guide to Approvals for Recycling Sites, Leaf and Yard Waste Composting Sites and Compost Use

As Required Under Ontario Regulation 101/94.

Ontario

Ministry of Environment and Energy

Figure 2.1: Determining if Regulation 101/94 Applies to a Waste Disposal Site and if any Exemptions are Available



Environmental Protection Act
Loi sur la protection de l'environnement

ONTARIO REGULATION 101/94

RECYCLING AND COMPOSTING OF MUNICIPAL WASTE

Consolidation Period: From October 31, 2011 to the e-Laws currency date.

Last amendment: O. Reg. 251/11.

This Regulation is made in English only.

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PART I
GENERAL

1. (1) In this Regulation,

"blue box waste" means municipal waste that consists solely of waste in one or more of the categories set out in Schedule 1;

"final disposal" means disposal by landfilling, by incineration, gasification, pyrolysis, plasma arc treatment or another method of thermal treatment, or by deposit at a dump that does not include the handling, storing, transferring, treating or processing of waste at the dump;

"leaf and yard waste" includes waste consisting of natural Christmas trees and other plant materials but not tree limbs or other woody materials in excess of 7 centimetres in diameter;

"Northern Ontario" means the territorial districts of Algoma, Cochrane, Kenora, Manitoulin, Nipissing, Parry Sound, Rainy River, Sudbury, Thunder Bay and Timiskaming and The Regional Municipality of Sudbury;

"site" means one property and includes nearby properties owned or leased by the same person where passage from one property to another involves crossing, but not travelling along, a public highway;

"Southern Ontario" means the parts of Ontario other than Northern Ontario. O. Reg. 101/94, s. 1 (1); O. Reg. 107/07, s. 1.

(2) The definition of "municipal waste" in Regulation 347 of the Revised Regulations of Ontario, 1990 applies to this Regulation. O. Reg. 101/94, s. 1 (2).

2. (1) If a local municipality is within another municipality, that other municipality shall co-operate with the local municipality as necessary to enable the local municipality to fulfil any obligations it may have under this Regulation. O. Reg. 101/94, s. 2 (1).

(2) If a local municipality is within another municipality and the local municipality lacks the capacity to fulfil its obligations, or any part of its obligations, under this Regulation, that other municipality shall do whatever it has the capacity to do to enable the local municipality to fulfil its obligations. O. Reg. 101/94, s. 2 (2).

3. A person who is required under this Regulation to submit a report to the Director shall prepare the report on a form provided by the Ministry or in the same format as such a form. O. Reg. 101/94, s. 3.

4. (1) The standards, procedures and requirements set out in this Regulation do not apply to the extent that terms and conditions set out in an environmental compliance approval impose different standards, procedures or requirements. O. Reg. 101/94, s. 4 (1); O. Reg. 251/11, s. 1 (1).

(2) Subsection (1) applies only with respect to,

(a) an environmental compliance approval issued on or after March 3, 1994; and

(b) terms and conditions of an environmental compliance approval added to the approval on or after March 3, 1994. O. Reg. 251/11, s. 1 (2).

5. (1) The following waste disposal sites are exempt from sections 27, 40 and 41 of the Act and this Regulation other than subsection (2):

1. A waste disposal site that, but for the exemption in this section, would be a municipal waste recycling site to which Part IV applies and that is located at a manufacturing establishment that uses all the output, other than residues, of the site.

2. A waste disposal site owned or operated by or operated exclusively for a municipality or the Crown that, but for the exemption in this section, would be a municipal waste recycling depot to which Part III applies and that has a total waste storage capacity of less than 200 cubic metres. O. Reg. 101/94, s. 5 (1).

(2) Each operator and owner of a site referred to in paragraph 2 of subsection (1) shall ensure that all the waste at the site is removed at least every thirty days. O. Reg. 101/94, s. 5 (2).

6. (1) A waste management system is exempt from sections 27 and 41 of the Act if the

system's only function is to collect or accept waste described in subsection (2) and transport it to a municipal waste recycling site as defined in Part IV. O. Reg. 101/94, s. 6 (1).

(2) The waste referred to in subsection (1) is waste that consists solely of waste from one or more of the categories set out in Schedule 1, 2 or 3 and that,

(a) in the case of waste from one or more of the categories set out in Schedule 1 or 2, has been separated from other kinds of waste; or

(b) in the case of waste from one of the categories set out in Schedule 3, has been separated from other kinds of waste and from each other category of waste in Schedule 3. O. Reg. 101/94, s. 6 (2).

PART II
SYSTEMS REQUIRED IN MUNICIPALITIES

Blue Box Waste Management Systems

7. (1) A local municipality that has a population of at least 5,000 shall establish, operate and maintain a blue box waste management system if the municipality is served by a waste management system owned by or operated by or for the municipality that collects municipal waste or accepts such waste from the public at a waste disposal site. O. Reg. 101/94, s. 7 (1).

(2) The blue box waste management system must include,

(a) if the waste management system that serves the municipality collects municipal waste directly from residential sources of waste, including buildings that house a number of residences, the collection, directly from those sources, of the source separated blue box waste described in subsection (3);

(b) the acceptance, wherever municipal waste is accepted from the public, of the source separated blue box waste described in subsection (3);

(c) measures to ensure that only blue box waste or waste set out in Schedule 2 is collected or accepted;

(d) the transportation of the waste that is collected or accepted to a municipal waste recycling site as defined in Part IV, to a user of the waste, to a distributor who distributes such waste to users, or to a waste disposal site;

(e) the provision of a municipal waste recycling site as defined in Part IV or the services of such a site to process all the categories of waste collected or accepted;

(f) reasonable efforts to ensure that the waste collected or accepted is processed and used;

(g) the provision of information to users and potential users of the blue box waste management system,

(i) describing the performance of the system,

(ii) encouraging effective source separation of blue box waste and full use of the blue box waste management system. O. Reg. 101/94, s. 7 (2).

(3) The source separated blue box waste referred to in clauses (2) (a) and (b) is blue box waste that has been source separated from other kinds of waste and that consists solely of waste

from one or more of the following categories:

1. The categories of basic blue box waste set out in Schedule 1.

2. The categories of supplementary blue box waste set out in Schedule 1 that the blue box waste management system collects or accepts. O. Reg. 101/94, s. 7 (3).

(4) The blue box waste management system must collect or accept at least two categories of supplementary blue box waste set out in Schedule 1. O. Reg. 101/94, s. 7 (4).

(5) The frequency of the collection of source separated blue box waste required under clause (2) (a) must be at least half the frequency at which municipal waste is collected directly from the sources of the waste. O. Reg. 101/94, s. 7 (5).

(6) The blue box waste management system must be adequate to deal with the anticipated blue box waste and waste set out in Schedule 2. O. Reg. 101/94, s. 7 (6).

(7) The blue box waste management system must include the provision of adequate containers for the acceptance of source separated blue box waste required under clause (2) (b). O. Reg. 101/94, s. 7 (7).

8. (1) Clause 7 (2) (a) does not apply to a local municipality in Northern Ontario that has a population of less than 15,000 if the municipality's blue box waste management system includes the collection or acceptance of the source separated blue box waste described in subsection 7 (3) in a manner that is reasonably convenient to the generators of such waste in the municipality. O. Reg. 101/94, s. 8 (1).

(2) This section does not apply to a municipality that had a population of at least 5,000 on July 1, 1995 unless the municipality has, continuously since that day, had a blue box waste management system,

(a) that included the collection or acceptance of the source separated blue box waste described in subsection 7 (3) in a manner that is reasonably convenient to the generators of such waste in the municipality; and

(b) that complied with the requirements in section 7 other than clause 7 (2) (a). O. Reg. 101/94, s. 8 (2).

9. (1) A municipality that is required to establish a blue box waste management system shall do so forthwith subject to subsections (2) and (3). O. Reg. 101/94, s. 9 (1).

(2) A municipality in Southern Ontario is not required to establish a system before January 1, 1995. O. Reg. 101/94, s. 9 (2).

(3) A municipality in Northern Ontario is not required to establish a system before July 1, 1996. O. Reg. 101/94, s. 9 (3).

10. (1) A municipality that is required to establish a blue box waste management system shall submit an annual report on the operation of the system to the Director on or before June 1 in every year. O. Reg. 101/94, s. 10 (1).

(2) The annual report must set out the name of the municipality and the type and amount of wastes that were collected or accepted in the previous calendar year and a description of the information provided that year in accordance with clause 7 (2) (g). O. Reg. 101/94, s. 10 (2).

11. (1) A local municipality that has a population of at least 5,000 shall establish, operate and maintain a leaf and yard waste system. O. Reg. 101/94, s. 11 (1).

(2) The leaf and yard waste system must include,

(a) the provision of home composters to residents by the municipality at cost or less;

(b) the provision of information to residents,

(i) publicizing the availability of home composters,

(ii) explaining the proper installation and use of home composters and the use of compost,

(iii) encouraging home composting. O. Reg. 101/94, s. 11 (2).

12. The leaf and yard waste system of a local municipality that has a population of at least 50,000 must include the collection or acceptance of leaf and yard waste in a manner that is reasonably convenient to the generators of leaf and yard waste in the municipality. O. Reg. 101/94, s. 12.

13. (1) This section applies to the leaf and yard waste system of a local municipality required under this Part if,

(a) the municipality has a population of at least 50,000; or

(b) the municipality is served by a waste management system owned by or operated by or for the municipality that collects source separated leaf and yard waste or accepts such waste from the public at a waste disposal site, where the activity goes beyond collection or acceptance of natural Christmas trees. O. Reg. 101/94, s. 13 (1).

(2) A leaf and yard waste system to which this section applies must also include,

(a) the transportation of collected or accepted leaf and yard waste not used in accordance with clause (4) (b) or (c) to a leaf and yard waste composting site as defined in Part V;

(b) the provision of a leaf and yard waste composting site as defined in Part V or the provision of the services of such a site;

(c) the provision of information to promote effective source separation of leaf and yard waste and to promote the full use of the composting system;

(d) reasonable efforts to ensure that the compost produced is used as a soil conditioner. O. Reg. 101/94, s. 13 (2).

(3) A leaf and yard waste system to which this section applies must be adequate to deal with the anticipated leaf and yard waste. O. Reg. 101/94, s. 13 (3).

(4) A leaf and yard waste system to which this section applies must include measures to ensure that the leaf and yard waste accepted by the system is either,

(a) composted at a leaf and yard waste composting site as defined in Part V or at another site where the waste can be legally composted;

(b) applied directly to land by the operator of the system; or

(c) transported to a person who will directly apply the waste to land. O. Reg. 101/94, s. 13 (4).

14. (1) A municipality that is required to establish a leaf and yard waste system shall do so forthwith subject to subsections (2) and (3). O. Reg. 101/94, s. 14 (1).

(2) A municipality in Southern Ontario is not required to establish a system before January 1, 1995. O. Reg. 101/94, s. 14 (2).

(3) A municipality in Northern Ontario is not required to establish a system before July 1, 1995. O. Reg. 101/94, s. 14 (3).

15. (1) A municipality that is required to establish a leaf and yard waste system shall submit an annual report on the operation of the system to the Director on or before June 1 in every year. O. Reg. 101/94, s. 15 (1).

(2) The annual report must set out the name of the municipality, its population and the name and telephone number of a person who can answer questions about the report. O. Reg. 101/94, s. 15 (2).

(3) The annual report must also set out the following information relating to the operation of the system in the previous calender year:

1. Any rules the municipality followed in providing home composters to residents.
2. The number of home composters provided to residents in accordance with clause 11 (2) (a).
3. A description of the information provided to residents in accordance with clause 11 (2) (b). O. Reg. 101/94, s. 15 (3).

(4) If section 13 applies with respect to the leaf and yard waste system, the annual report must also set out the following information:

1. The amount of leaf and yard waste that was accepted or collected.
2. The amount of leaf and yard waste that was transported for composting.
3. The amount of leaf and yard waste that was directly applied to land or that was transported for direct application to land.
4. A description of the information provided in accordance with clause 13 (2) (c). O. Reg. 101/94, s. 15 (4).

EXEMPTIONS

16. (1) A system required under this Part is exempt from sections 27 and 41 of the Act. O. Reg. 101/94, s. 16 (1).

(2) The exemption in subsection (1) applies only to the parts of the system that are necessary to comply with this Regulation and any parts of the system that are ancillary to such parts. O. Reg. 101/94, s. 16 (2).

(3) A blue box waste management system that is established and operated by or for a municipality and that is not required by this Regulation is exempt from sections 27 and 41 of the Act if,

(a) the system meets the requirements of clauses 7 (2) (c) to (g);

(b) the system is set up to accept waste in all of the categories of basic blue box waste set out in Schedule 1; and

(c) the system meets the adequacy requirement set out in subsection 7 (6). O. Reg. 101/94, s. 16 (3).

(4) A leaf and yard waste system that is established and operated by or for a municipality and that is not required by this Regulation is exempt from sections 27 and 41 of the Act if the system meets the requirements of subsections 13 (2) to (4). O. Reg. 101/94, s. 16 (4).

(5) The exemptions specified in subsections (3) and (4) apply only to parts of a system that would be exempt under subsections 16 (1) and (2) if the system were a required system. O. Reg. 101/94, s. 16 (5).

PART III
MUNICIPAL WASTE RECYCLING DEPOTS

17. This Part applies to a waste disposal site whose only function is to be used to accept waste that consists solely of waste from one or more of the categories set out in Schedule 1, 2 or 3 and that has been source separated from other kinds of waste and to transfer the waste, without processing, for recycling. O. Reg. 101/94, s. 17.

18. In this Part,

"municipal waste recycling depot" means a waste disposal site to which this Part applies. O. Reg. 101/94, s. 18.

19. Each operator and owner of a municipal waste recycling depot shall ensure that the depot is operated in accordance with the following requirements:

1. No waste may be accepted at the depot unless it is waste that consists solely of waste from one or more of the categories set out in Schedule 1, 2 or 3 and that,

   i. in the case of waste from one or more of the categories set out in Schedule 1 or 2, has been separated from other kinds of waste at the source of the waste, or

   ii. in the case of waste from one of the categories set out in Schedule 3, has been separated from other kinds of waste and from each other category of waste in Schedule 3 at the source of the waste.

2. The depot shall have sufficient containers for the waste that can be reasonably anticipated.

3. The waste accepted at the depot shall be placed in containers.

4. Waste accepted at the depot may not be removed except for direct shipment to,

   i. a user of the waste,

   ii. a distributor who distributes the waste to users,

   iii. a municipal waste recycling site as defined in Part IV, or

   iv. a waste disposal site.

5. Reasonable precautions shall be taken to ensure that waste is not removed from the depot

except for transfer in accordance with paragraph 4.

6. Signs shall be posted in prominent locations at the depot setting out the hours of operation of the depot, the name of the owner of the depot and the name and telephone number of a person to contact in an emergency.

7. Signs shall be posted in prominent locations at the depot setting out the categories of waste that will be accepted at the depot and any rules that relate to the acceptance of such waste or the use of the depot.

8. Only the categories of waste set out on the signs required under paragraph 7 may be accepted at the depot.

9. Leaf and yard waste accepted at the depot shall be removed within four days not including any weekday that is observed as a public holiday in the municipality where the site is located.

10. A schedule shall be prepared providing for the regular clean-up of litter at the depot and for the regular removal of waste received at the depot. The schedule shall provide for the clean-up of litter at least once a week. Litter shall be cleaned up and waste removed in accordance with the schedule. The schedule shall be adjusted from time to time as circumstances warrant.

11. Reasonable care shall be taken to control the following and to control anything similar to them: dust, litter, odour, noise, rodents or other animals and insects. O. Reg. 101/94, s. 19.

20. A municipal waste recycling depot owned or operated by or operated exclusively for a municipality or the Crown is exempt from sections 9, 27, 40 and 41 of the Act if all buildings and storage areas that are part of the depot are at least fifty metres from the boundaries of the parcel of land upon which the buildings and storage areas are located. O. Reg. 101/94, s. 20.

PART IV
MUNICIPAL WASTE RECYCLING SITES

21. (1) This Part applies to a waste disposal site whose only function is to be used to accept waste that consists solely of waste from one or more of the categories set out in Schedule 1, 2 or 3 and that has been separated from other kinds of waste and to transfer the waste, either after processing or without processing, for recycling. O. Reg. 101/94, s. 21 (1).

(2) This Part does not apply to a site where a process, other than any of the following, is used: sorting, grading, sizing, cleaning, drying, de-inking, size reduction, pulping, pelletizing, composting, baling or packaging. O. Reg. 101/94, s. 21 (2).

(3) This Part does not apply to a municipal waste recycling depot as defined in Part III. O. Reg. 101/94, s. 21 (3).

22. In this Part,

"municipal waste recycling site" means a waste disposal site to which this Part applies. O. Reg. 101/94, s. 22.

23. Each operator and owner of a municipal waste recycling site shall ensure that the site is

operated in accordance with the following requirements:

1. No waste may be accepted at the site unless it is waste that consists solely of waste from one or more of the categories set out in Schedule 1, 2 or 3 and that,
    i. in the case of waste from one or more of the categories set out in Schedule 1 or 2, has been separated from other kinds of waste, or
    ii. in the case of waste from one of the categories set out in Schedule 3, has been separated from other kinds of waste and from each other category of waste in Schedule 3.
2. If waste from one of the categories of waste set out in Schedule 3 has been separated from other kinds of waste and from each other category of waste in Schedule 3, no operation or activity at the site shall commingle such waste with any other waste.
3. If waste is processed at the site, the total amount, at the site, of the waste that is awaiting processing, is being processed or has been processed and the waste that is awaiting transportation without processing must not exceed 2,000 cubic metres or three times the monthly process design capacity of the site, whichever is greater.
4. If waste is not processed at the site, the total amount of waste at the site must not exceed 2,000 cubic metres.
5. Despite paragraph 3, if waste has not been processed at the site during the preceding three months, the total amount of waste at the site must not exceed 2,000 cubic metres.
6. The total amount of waste at the site awaiting processing must not exceed fifteen times the daily process design capacity.
7. If waste is processed at the site, the waste must be processed so that over any six-month period the residues from the processing do not exceed 10 per cent of the weight of the waste that was processed. For the purposes of this paragraph, if the processing of waste at the site involves the addition of water, weight shall be determined on a dry weight basis.
8. Residues from the processing of waste must be removed from the site promptly.
9. Waste or materials that result from the processing of waste may not be removed from the site except for direct shipment to,
    i. a user of the waste or materials,
    ii. a distributor who distributes such waste or materials to users,
    iii. another municipal waste recycling site, or
    iv. a waste disposal site.
10. Reasonable care shall be taken to control the following and to control anything similar to them: dust, litter, odour, noise, rodents or other animals and insects.
11. Reasonable care shall be taken to ensure that unauthorized persons are kept out of any areas where waste is handled, processed or stored.
12. Signs must be posted in prominent locations at the site setting out the hours of operation

of the site, the name of the owner of the site and the name and telephone number of a person to contact in an emergency.

13. Equipment at the site may not be operated by any employee who has not had training in the operation and maintenance of the equipment.

14. Employees at the site must be trained in emergency procedures.

15. All roads, parking areas, loading or unloading areas must be maintained in good condition.

16. The site shall not begin accepting waste unless at least ninety days before the acceptance of the first waste a notice is given to each of the following,

    i. the clerk of every municipality within which the site or any part of it is located,

    ii. the owner of every parcel of land within 120 metres of the site,

    iii. the Director, and

    iv. the local District Office of the Ministry.

17. The notice referred to in paragraph 16 must be on a form provided by the Ministry or in the same format as such a form and must set out,

    i. the name, address and telephone number of the owner of the site and of the operator of the site if they are different,

    ii. the location of the site,

    iii. the earliest date on which the site will begin to accept waste,

    iv. the type of wastes that the site will be accepting,

    v. the capacity of the site, and

    vi. a description of how waste will be dealt with including a description of the processes that will be used.

18. No waste shall be accepted at the site before the date set out in the notice as the earliest date on which the site will begin to accept waste.

19. No waste shall be accepted at the site unless the first waste accepted at the site is accepted within 180 days after the notice is given to the Director.

20. None of the following may be changed at the site unless at least ninety days before the change a notice is given to each of the persons described in subparagraphs i, ii, iii and iv of paragraph 16,

    i. the type of wastes that the site accepts,

    ii. the capacity of the site,

    iii. how waste is dealt with including the processes used.

21. The notice referred to in paragraph 20 must be on a form provided by the Ministry or in the same format as such a form and must set out the information described in subparagraphs i, ii, iv, v and vi of paragraph 17.

22. Maps of the vicinity and a site plan shall be kept at the site. The maps and site plan shall show, on the appropriate map or plan, services, buildings, processing units, roads, loading and unloading areas and storage areas.

23. An operating plan shall be kept at the site. The plan shall include,

    i. descriptions of the processes and equipment used including descriptions of how waste will be stored and handled,

    ii. information about the maximum amounts of waste that can be processed at the site,

    iii. information about the amounts of the residues that are expected after processing that cannot be recycled or reused, and

    iv. descriptions of the training planned for personnel.

24. Emergency response plans shall be kept at the site. There shall be emergency response plans addressing emergencies caused by fire, explosion, flood, spills, disruption of electrical service or anything else that might create an emergency situation at the site. Each plan shall include,

    i. descriptions of the procedures to be used,

    ii. information about the personnel who will be responsible,

    iii. descriptions of the emergency equipment and emergency communications systems, and

    iv. plans for notifying the appropriate governments and other persons and co-ordinating operations with them.

25. Contingency plans shall be kept at the site. There shall be contingency plans addressing disruptions of the removal of waste or anything else from the site.

26. A record shall be kept that includes information about,

    i. the type, amount and sources of wastes accepted at the site,

    ii. the processing that the wastes received, any significant problems that occurred during the processing and any actions that were taken in response to such problems,

    iii. the types and amounts of residues, wastes and materials transferred from the site, the purposes for which they were transferred and the names of the persons to whom residues, wastes and materials, other than compost, were transferred.

27. Information in the record required under paragraph 26 shall be retained in the record for at least two years after the event to which the information relates.

28. The record required under paragraph 26 shall be kept at the site unless,

    i. the record is kept at another place in a municipality within which the site, or part of the site, is located, and the place is owned or controlled by the owner or operator of the site, and

    ii. the place the record is kept is set out on the signs required to be posted under paragraph 12. O. Reg. 101/94, s. 23.

24. The following provisions do not apply with respect to leaf and yard waste composting sites as defined in Part V:

1. Paragraphs 1, 3, 4, 6, 7 and 8 of section 23.

2. Paragraphs 26 to 28 of section 23.

3. Sections 25, 26, 27 and 28. O. Reg. 101/94, s. 24.

25. If a municipal waste recycling site is owned by or operated by or for a municipality, the municipality shall submit an annual report about the operation of the site to the Director on or before February 1 in every year. O.Reg. 101/94, s. 25.

26. The annual report required by section 25 must set out the name, address and telephone number of the operator of the site, the location of the site, the type and amount of wastes that were accepted in the previous calendar year, and the type and amount of wastes that were transferred in the previous calendar year. O. Reg. 101/94, s. 26.

27. A municipal waste recycling site is exempt from sections 27, 40 and 41 of the Act if all buildings and processing or storage areas that are part of the site are at least fifty metres from the boundaries of the parcel of land upon which the buildings and processing or storage areas are located. O. Reg. 101/94, s. 27.

28. (1) If section 27 applies to a municipal waste recycling site that was a waste disposal site operating under the authority of an environmental compliance approval for the acceptance, processing and transfer, but not the final disposal, of municipal waste and on application therefor, that site receives termination of its approval from the Director and commences operation as a municipal waste recycling site, paragraphs 16, 18 and 19 of section 23 do not apply. O. Reg. 251/11, s. 2.

(2) Despite subsection (1), the notice referred to in paragraph 16 of section 23 must be submitted to the Director and the local District Office of the Ministry before the site's first acceptance of waste as a municipal waste recycling site. O. Reg. 101/94, s. 28 (2).

(3) In the event that no waste is accepted at the site operating as a municipal waste recycling site within 180 days after the notice is given to the Director, a new notice under paragraph 16 of section 23 is required and this section ceases to apply to the site. O. Reg. 101/94, s. 28 (3).

(4) Revoked: O. Reg. 107/07, s. 2.

PART V
LEAF AND YARD WASTE COMPOSTING SITES

29. This Part applies to,

(a) a municipal waste recycling site whose only function is to be used to receive and compost leaf and yard waste; and

(b) that part or those parts of a municipal waste recycling site whose function is to be used to receive and compost leaf and yard waste. O. Reg. 101/94, s. 29.

30. In this Part,

"leaf and yard waste composting site" means a waste disposal site to which this Part applies. O. Reg. 101/94, s. 30.

31. Each operator and owner of a leaf and yard waste composting site shall ensure that the site is operated in accordance with the following requirements:

1. Only leaf and yard waste and wood (not including painted or treated wood or laminated wood) may be accepted at the site.

2. Leaf and yard waste may not be stored for more than four days before it is composted.

3. The total amount of compost on the site that is in or has completed the curing stage shall not exceed eighteen times the monthly process design capacity of the site.

4. The leaf and yard waste accepted at the site shall be composted so that the temperature inside the composting mass is at least 55 degrees Celsius,

   i. on at least three different days if the waste is being composted in a vessel,

   ii. on at least fifteen different days in any other case.

5. If the waste is being composted using turned windrow composting, the windrow shall be turned at least five times at regular intervals after the temperature first reaches 55 degrees Celsius and the temperature must reach at least 55 degrees Celsius after the fifth turning.

6. During composting, the composting mass shall be provided with ventilation adequate to ensure that aerobic conditions are maintained.

7. After the requirements in paragraphs 4 and 5 have been satisfied, the compost shall be cured for a period of six months.

8. During curing, a composting mass shall be turned at least once a month.

9. The temperature of each composting mass shall be measured daily until the requirements in paragraphs 4 and 5 have been satisfied. During curing the temperature shall be measured weekly.

10. Temperatures shall be measured at a point one metre within the composting mass.

11. A record containing information about each composting mass shall be kept. The information shall include the temperatures of the mass and when they were measured, when the mass was turned, information about the curing process and details about any significant problems that occurred during the composting or curing. Information about a composting mass shall be retained in the record for at least three years after the mass was cured.

12. A plan for dealing with odour problems shall be prepared before waste is first accepted at the site and shall be updated as circumstances warrant. The plan shall include procedures, which shall be followed, for dealing with complaints from the public and for investigating and remedying odour problems.

13. A record of all complaints from members of the public about odours shall be kept together with a record of how each complaint was dealt with.

14. Compost that has been cured shall be sampled and analyzed for the things listed in Column 1 of Table 1 in accordance with paragraphs 15 and 16. Compost may not be removed from the site unless it is part of accumulated compost that has been so sampled

and analyzed.

15. The first samples shall be taken before 10,000 cubic metres of compost has been accumulated, or before one year has passed, whichever first occurs after the first receipt of waste at the site. Thereafter samples shall be taken before an additional 10,000 cubic metres is accumulated, or before one year has passed, whichever occurs first after the most recent samples. However, if all the analyses in the two years preceding the most recent analysis are consistent with that analysis, samples need only be taken before 30,000 cubic metres is accumulated, or before one year has passed, whichever occurs first after the most recent samples.

16. Samples shall be taken by taking ten grab samples from diverse points within the accumulated compost. Each grab sample must contain at least twenty litres of compost and must be taken from a point at least one metre inside the accumulated compost. The analysis shall be of a composite of those samples.

17. A record shall be kept of the analyses of compost. Any laboratory reports received shall be kept as part of the record. A record of an analysis shall be kept for at least three years after the analysis is performed.

18. Controlled compost, as defined in section 33, may not be removed from the site except for direct shipment to the intended user of the compost in accordance with paragraphs 19 and 20.

19. A record shall be kept of the name, address and telephone number of each person to whom controlled compost is shipped. The record shall be kept for at least ten years after the shipment.

20. The person to whom controlled compost is shipped shall be given a copy of a chemical analysis of the compost and a notice that states that the compost is controlled compost and that sets out the terms and conditions of the compost's exemption from Part V of the Act.

21. The notice referred to in paragraph 20 must be on a form provided by the Ministry or in the same format as such a form. O. Reg. 101/94, s. 31.

32. Compost produced at a leaf and yard waste composting site that has been analyzed in accordance with paragraphs 14 to 16 of section 31,

(a) is designated as waste if, according to the analysis, the compost contains a substance in Column 1 of Table 1 in a concentration greater than the concentration opposite in Column 2; and

(b) is exempt from Part V of the Act and the regulations relating to Part V of the Act, in any other case. O. Reg. 101/94, s. 32.

33. (1) In this section,

"controlled compost" means compost that is designated as waste under clause 32 (a) and that, according to the analysis performed in accordance with paragraphs 14 to 16 of section 31, does not contain any substance in Column 1 of Table 1 in a concentration greater than the concentration opposite in Column 3. O. Reg. 101/94, s. 33 (1).

(2) Controlled compost is exempt from Part V of the Act and the regulations on the following terms and conditions:

1. The controlled compost is not used except as allowed under paragraphs 2 and 3.

2. The controlled compost may be used as compost in soil if,

   i. the place where the compost is used is within 200 metres of any part of a municipal water system or a municipal sewage system,

   ii. the use of the compost will not increase the concentration in the soil of any material in Column 1 of Table 1 above the concentration, if any, opposite in Column 4, and

   iii. the person who uses the compost keeps a record, for at least ten years after using the compost, of the date the compost was used, the amount of compost used and the chemical analysis of the compost received from the producer of the compost.

3. The controlled compost may be used as a cover material at a landfilling site. O. Reg. 101/94, s. 33 (2).

34. A leaf and yard waste composting site is exempt from sections 9, 27, 40 and 41 of the Act if all buildings and processing or storage areas that are part of the site are at least 100 metres from the boundaries of the parcel of land upon which the buildings and processing or storage areas are located and from any lake, river, pond, stream, reservoir, spring or well. O. Reg. 101/94, s. 34.

35. (1) If section 34 applies to a leaf and yard waste composting site that was a waste disposal site operating under the authority of an environmental compliance approval for the acceptance, processing and transfer, but not the final disposal, of leaf and yard waste and on application therefor, that site receives termination of its approval from the Director and commences operation as a leaf and yard waste composting site, paragraphs 16, 18 and 19 of section 23 do not apply. O. Reg. 251/11, s. 3.

(2) Despite subsection (1), the notice referred to in paragraph 16 of section 23 must be submitted to the Director and the local District Office of the Ministry before the site's first acceptance of waste as a leaf and yard waste composting site. O. Reg. 101/94, s. 35 (2).

(3) In the event that no waste is accepted at the site operating as a leaf and yard waste composting site within 180 days after the notice is given to the Director, a new notice under paragraph 16 of section 23 is required and this section ceases to apply to the site. O. Reg. 101/94, s. 35 (3).

(4) Revoked: O. Reg. 107/07, s. 3.

TABLE 1
TABLE FOR DETERMINING HOW COMPOST CONTAINING CERTAIN MATERIALS CAN BE USED

Item	Column 1	Column 2	Column 3	Column 4
	Material	Maximum concentration for regular compost (dry weight)	Maximum concentration for controlled compost (dry weight)	Maximum concentration in soil resulting from use of controlled compost (dry weight)
1.	Arsenic	10 ppm	20 ppm	14 ppm
2.	Cadmium	3 ppm	4 ppm	1.6 ppm
3.	Chromium	50 ppm	50 ppm	120 ppm

4.	Cobalt	25 ppm	25 ppm	20 ppm
5.	Copper	60 ppm	100 ppm	100 ppm
6.	Lead	150 ppm	500 ppm	60 ppm
7.	Mercury	0.15 ppm	0.5 ppm	0.5 ppm
8.	Molybdenum	2 ppm	3 ppm	4 ppm
9.	Nickel	60 ppm	60 ppm	32 ppm
10.	Selenium	2 ppm	2 ppm	1.6 ppm
11.	Zinc	500 ppm	500 ppm	220 ppm
12.	Plastic which will not fit through a size 8 mesh	1%	1%	not applicable
13.	Non-biodegradable material (other than plastic) that will not fit through a size 8 mesh	2%	2%	not applicable

O. Reg. 101/94, Table 1.

SCHEDULE 1
BLUE BOX WASTE

PART I
BASIC BLUE BOX WASTE

1. Aluminum food or beverage cans (including cans made primarily of aluminum).
2. Glass bottles and jars for food or beverages.
3. Newsprint.
4. Polyethylene terephthalate bottles for food or beverages (including bottles made primarily of polyethylene terephthalate).
5. Steel food or beverage cans (including cans made primarily of steel).

PART II
SUPPLEMENTARY BLUE BOX WASTE

1. Aluminum foil (including items made from aluminum foil).
2. Boxboard and paperboard.
3. Cardboard (corrugated).
4. Expanded polystyrene food or beverage containers and packing materials.
5. Fine paper.
6. Magazines.
7. Paper cups and plates.
8. Plastic film being,
    i. linear low density or low density polyethylene grocery bags or bags used for food or beverages, and
    ii. linear low density or low density polyethylene used for wrapping products.
9. Rigid plastic containers being,
    i. high density polyethylene bottles used for food, beverages, toiletries or household

cleaners (including bottles made primarily of high density polyethylene), and

ii. polystyrene containers used for food or beverages (including containers made primarily of polystyrene).

10. Telephone directories.

11. Textiles (not including fibreglass or carpet).

12. Polycoat paperboard containers, being containers made primarily of paperboard and coated with low density polyethylene or aluminum, and used for food or beverages.

O. Reg. 101/94, Sched. 1.

SCHEDULE 2
RECYCLABLE WASTE OTHER THAN BLUE BOX WASTE

1. Glass.

2. Leather.

3. Leaf and yard waste.

4. Metal.

5. Paper (including products made from paper).

6. Plastic.

7. Textiles.

8. The following household appliances: refrigerators; freezers; stoves; ovens; clothes washers; clothes dryers and dishwashers.

O. Reg. 101/94, Sched. 2.

SCHEDULE 3
RECYCLABLE WASTE OTHER THAN BLUE BOX WASTE THAT CANNOT BE COMMINGLED

1. Brick and Portland cement concrete.

2. Drywall (unpainted).

3. Wood (not including painted or treated wood or laminated wood).

O. Reg. 101/94, Sched. 3.

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APPENDIX B

TRANSFER STATION RFP AND DRAWINGS

THE CORPORATION OF THE TOWN OF COCHRANE
REQUEST FOR PROPOSALS

Inquiry Number 2012-04

You are invited to submit a Request for Proposal for the construction of a Recycling Transfer Station Design Build for the Municipal Operations Department.

GENERAL CONDITIONS OF RFP

Request of Proposal under this RFP will be received no later than **12:00 p.m. local time, MARCH 28, 2012** in a sealed envelope clearly marked:

"RFP No 2012-04 – Recycling Transfer Station – Design Build"

at the Municipal Office to the attention of Mr. J.P. Ouellette CAO/Clerk, 171 – 4th Avenue, P.O. Box 490. Cochrane, Ontario P0L 1C0. It is the responsibility of each proponent to ensure that its' proposal is received prior to the closing time of **12:00 p.m. on MARCH 28, 2012**. Late proposals shall be returned unopened.

No oral or telephone proposals, or electronically transmitted proposal (i.e. Fax or computer E-Mail transfer) nor adjustment to the proposal submitted will be considered.

Question pertaining to this request must be submitted in writing no later than forty eight (48) hour prior to the closing time and March 28, 2012. Questions in regards to this RFP must be directed to:

Shane Skinner
Manager of Engineering

shane.skinner@town.cochrane.on.ca

Dan Maltais
Director of Operations

dan.maltais@town.cochrane.on.ca

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The lowest or any quotations will not necessarily be accepted.

Afin d'obtenir de l'information en français, veuillez communiquer au (705) 272-4361.

J.P. Ouellette –C.A.O./Clerk
Corporation of the Town of Cochrane
171 Fourth Avenue
P.O. Box 490
Cochrane, Ontario
P0L 1C0
Telephone 1-705-272-4361
Facsimile 1-705-272-6068

THE CORPORATION OF THE

TOWN OF COCHRANE

REQUEST FOR PROPOSALS

NUMBER 2012-04

Recycling Transfer Station

Design Build

THE CORPORATION OF THE TOWN OF COCHRANE

REQUEST FOR PROPOSAL

Transfer Station for the New Recycling Program Project – Design Build

RFP No. 2012-04

INTRODUCTION

1. The Town of Cochrane is requesting a proposal for a Recycling Transfer Station – Design Build project for the Municipal Operations Department.

CLOSING MARCH 28, 2012 FOR RFP

2. Request for Proposal must be submitted in writing on the RFP form provided no later than 12:00 p.m. local time, MARCH 28, 2012 in a sealed envelope clearly marked:

"RFP No 2012-04 – Recycling Transfer Station– Design Build"

And addressed to:

Mr. J. P. Ouellette – C.A.O.
The Corporation of the Town of Cochrane
171 – 4th Avenue
P.O. Box 490
Cochrane, Ontario P0L 1C0

OBLIGATIONS

3. All request for proposal submitted to the Town of Cochrane become the property of the Municipal Government and as such, are subject to the Freedom of Information and Protection of Privacy Act.

4. The Town of Cochrane reserves the right to reject any or all submissions and, in any event, is not obligated to accept any submissions.

5. The Town of Cochrane shall not be liable for any costs of preparation or presentation (if required) of quotations, and all submissions and accompanying documents submitted by respondents become the property of the Town of Cochrane and will not be returned.

6. All submissions shall be final and may not be altered by subsequent offerings, discussions or commitments unless the respondent is requested to do so by the Town of Cochrane.

7. Lowest nor any request for proposal not necessarily accepted.

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OBLIGATIONS Cont'd

8. Request for proposal shall be firm for a period of at least 60 days from the submission deadline and shall be used as the basis for the agreement.

CONTRACTOR'S RESPONSIBILITY

9. It is the contractors responsibility to carefully examine the site of the proposed work, evaluated the existing conditions and limitations and include in the proposed price the amounts required to cover the cost of all items required to be done to complete the project in accordance with the highest standards of workmanship to the satisfaction of the owner.

SCOPE OF THE WORK

10. The General requirements of the work under this RFP are stipulated in Schedule "A" as attached.

A Soils Investigation report was also completed for the site and is available for your consideration and is enclosed as Schedule "B".

SUBMITTALS

11. Contractor's responsibility for errors and omissions in submission is not relieved by Municipality's review of submittals.

CONSTRUCTION SCHEDULE

12. The Contractor shall submit a construction schedule for the project within 14 days after award of contract.

DISPOSAL OF MATERIALS

13. All excess excavated materials are to be hauled to a designated area on the Municipal property at the Polar Bear Habitat.

TEMPORARY WORK

14. Contractor shall supply the following facilities and utilities:

- Security of construction area
- Traffic control and barriers
- Notification of Project to the Ministry of Labour

CONSTRUCTION SAFETY

15. The "Contractor" shall otherwise be solely responsible for construction safety at the sites and compliance with the rules, regulations and practices required by the application construction safety legislation, in the Province of Ontario.

DISBURSEMENT

16. Disbursements of the consideration whether whole or in part will be made only after the work has been carried out and approved by the Municipal Engineering Technologist or his or her representative. The Municipal Engineering Technologist or his or her representative may at his complete discretion approve advances with respect to the work having been carried out, as may be required out from time to time.

CONSTRUCTION INSPECTION, FINAL INSPECTION AND DECLARATIONS

17. Contractor and sub trades shall conduct their own inspection and correct deficiencies prior to municipal inspection.

18. Municipality's representative will conduct ongoing quality assurance inspection and testing at the Municipality's expense.

19. Contractor shall make application for declaration of substantial performance when the owner and consultant consider deficiencies have been corrected and it appears the requirements of the contract have been substantially performed.

20. Commencement of lien and warranty period shall start on the date of acceptance of substantial performance. For the purposes of this contract, the warranty period shall be deemed to be 45 days subsequent to substantial completion.

21. Contractor shall make application for declaration of total performance when the owner and consultant consider final deficiencies have been corrected and requirement oaf the contract have been totally performed.

22. Final payment shall be applied for at the completion of the lien period and total performance of the contract.

TERMINATION OF CONTRACT

23. The Contractor shall indemnify and hold harmless the Municipality along with its agents and employees for all claims, demands, losses, costs, damages, actions, suits or proceedings by any third party that may arise out of, or are attributable to the Contractor's performance of the contract.

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MARCH 28, 2012 FOR COMPLETION

24. The work is to be completed on or before **July 27, 2012,** A schedule of the required work is to be prepared in consultation with the owner's agents to allow for as little interruption as possible with the normal activities of the Public Works.

Time shall be of the essence of this contract.

INDEMNIFICATION, INSURANCE AND BOND

25. The Contractor shall indemnify and hold harmless the Municipality along with its agents and employees from all claims, demands, losses, costs, damages, action, suits or proceeding by any third party that may arise out of, or are attributable to the Contractor's performance of the contract.

26. The Contractor shall provide, maintain and pay for a general liability insurance in the joint name of the contractor and the municipality with limits of not less than **FIVE MILLION ($5,000,000.00) DOLLARS** inclusive per occurrence for bodily injury, death and damages to property including loss of use thereof. This form of insurance shall be maintained continuously from the March 28, 2012 of the issuance of a purchase order until completion of the work as determined by the Municipal Engineering Technologist or his or her representative.

27. The Contractor shall arrange for the completion and submission of the Certificate of Liability Insurance in which shall be included a provision requiring the insurer to give prior notice to the Municipality in the event that the policy is changed or cancelled.

27B. The Contractor shall provide the municipality with a Performance Bond or certified cheque in the amount equivalent to the bid.

WORKPLACE SAFETY AND INSURANCE BOARD

28. The Contractor shall, at the time of entering into this Agreement with the Municipality, make a statutory declaration providing the Municipality with a certificate from the Workplace Safety and Insurance Board that all liabilities pursuant to the *Workplace Safety and Insurance Act, 1997, S.O. 1997, c.16, Sch A,* have been met. The Contractor shall, at all time until the expiry of this Agreement, pay any assessments or compensation pursuant to the *Workplace Safety and Insurance Act, 1997.* The Municipality may at any time during the period of the Agreement require a further declaration that such assessment or compensation have been paid.

Should the Contractor fail to do so, the Municipality may pay such assessments or compensation and the amount of such expenses shall be deducted from any moneys due or that may become due to the Contractor on any account. If there are insufficient moneys due or to become due to the Contractor to permit such deduction, the Contractor shall pay to the Municipality upon demand an amount sufficient to make up the deficiency.

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PENALTIES AND DEFAULT

29. If the Contractor delays in the performance of the work or should neglect to complete the work properly or otherwise fail to comply with the requirement of this agreement to a substantial degree, the Municipality may notify the Contractor in writing that the Contractor is in default of the contractor's obligations and shall instruct the Contractor to correct the default and complete the agreement in the five (5) working days immediately following receipt of such notice.

30. If the correction of the default, or the completion of the work cannot be completed in five (5) working days specified, the Contractor shall be in compliance with the Municipality's instructions if the Contractor:

(a) commences the correction of the default within the specified time, and/or completes the necessary work; and

(b) provides the Municipality with an acceptable schedule for such correction and/or completion of the work; and

(c) completes all work required for the correction and/or completes the work in accordance with this agreement.

31. If the Contractor fails to correct the default in the time specified or fails to complete the contract as provided for herein or as subsequently agreed upon, the Municipality, without prejudice to any other right or remedy it may have may:

(a) provide notice to the Contractor of its intentions, and thereafter correct such default, and arrange for the completion of the contract by any other contractor and provide notice to the Contractor herein of the exact cost of arranging for the completion of the contract by another party, and that total sum shall thereafter be immediately due and owing to the Municipality by the Contract; and/or

(b) terminate the Contractor's right to continue with the installation in whole or in part or terminated the agreement.

(c) take other legal steps available to protect its' interest.

32. In the event the Municipality terminates the Contract right to continue with the work under the conditions set out herein the Municipality shall:

(a) be entitled to finish the work by whatever method it may consider expedient but without undue delay or expense.

33. The Contractor shall protect the work site from damage and shall be responsible for damage which may arise as a result of the performance of the work including, but without limiting the foregoing, any damage to the Municipality's property or property adjacent to the lands referred to herein.

CLOSURE

We trust that the above information is sufficient for your present needs; should you have any questions or require further information, please do not hesitate to contact:

Director of Operations – Dan Maltais and/or Manager of Engineering, Water & Sewer - Shane Skinner at the Cochrane Municipal Operations, 92 Second Street, and Cochrane, Ontario telephone (705) 272-5086.

The lowest or any quotations will not necessarily be accepted.

Afin d'obtenir de l'information en français, veuillez communiquer au (705) 272-4361.

J.P. Ouellette –C.A.O./Clerk
Corporation of the Town of Cochrane
171 Fourth Avenue
P.O. Box 490
Cochrane, Ontario
P0L 1C0
Telephone 1-705-272-4361
Facsimile 1-705-272-6068

REQUEST FOR PROPOSAL

(to be completed and signed by a duly authorized representative and returned by submission deadline)

REQUEST FOR PROPOSAL NO. 2012-04
FOR
Recycling Transfer Station Design Build

I/We hereby submit the following price for the supply of all labour, materials, plant, equipment and services, all inclusive, for the Transfer Station for the New Recycling Program Project.

OPTION ONE (1)

ITEM	UNIT	EST. QUANTITY	UNIT PRICE
Recycling Transfer Station Design Build with Garage Door	**Ft^2**	**2400 square feet (40' x 60')**	
Subtotal			
HST			
TOTAL			

OPTION TWO (2)

ITEM	UNIT	EST. QUANTITY	UNIT PRICE
Recycling Transfer Station Design Build WITHOUT Garage Door	**Ft^2**	**2400 square feet (40' x 60')**	
Subtotal			
HST			
TOTAL			

By executing this quotation form the Contractor hereby agrees to comply with all provisions stated in the Request for Proposal No. 2012-04.

Firm Name: _____

Address: _____

Telephone No.: _____

Authorized Representative: _____

Signature: _____

this _____day of _____, 2012.

All quotation received by the Town of Cochrane Become the property of the Municipal Government and as such, is subject to the Freedom of Information and Protection of Privacy Act.

Policies and Procedures			
Department	Town of Cochrane	FILE #	PW-2012-B-01
Section	Municipal Operations Department	Effective:	**August 1, 2012**
Subject:	**RECYCLING TRANSFER STATION**	Page:	1 of 1
Approved by:	**Dan Maltais – Director of Operations**	Revised:	

Purpose

The purpose of this policy is to:

Outline the hours of operations
Explain what is acceptable and not acceptable waste
Set guidelines for the Recycling Transfer Station

Hours of Operations

Hours – 7:00 a.m. to 3:00 p.m. – Monday to Friday excluding Stat. Holidays.

General Guidelines

1. Please ensure that all recyclables are secured while transporting to the Transfer Station
2. Scavenging is not permitted
3. Municipal Employees has the right to inspect any loads.
4. Municipal Employees may refuse any recyclables that in the judgment of the Operator should be rejected by reason of unknown content that may be a hazard or may contaminate the recyclables.

Recyclable Products and guidelines

1. Clear and coloured glass containers
2. Metal containers and empty dry paint cans
3. Empty aerosol containers
4. Aluminum containers
5. Plastic containers
6. Polystyrene foam
7. Aseptic and Polycoat containers
8. Household papers
9. Cardboard and boxboard

Prepared by: Daniel Maltais – Director of Operations

Dated Prepared: June 5, 2012

Revised History:

SPECIFICATIONS
Transfer Station for the New Recycling Program Project – Design Build
RFP No. 2012-04

GENERAL

The following Special Provisions, referenced to particular items listed in the request for proposal form, form part of the Project Specifications and therefore, part of the Contract. These Special Provisions represent the Project Specification for work associated with particular items where referenced in the request for proposal form. In cases where Standard Specification are referenced for particular items these Special Provisions are to complement or modify the Standard Specifications.

ENGINEERING

The Contractor shall provide **6** copies of the following drawings stamped by a Professional Engineer:

- Site drawings
- Foundations
- Structural

SITE WORK

1. New building site shall be landscaped and re graded. Area surface drainage and grading shall be provided away from and around building and shall not result in ponded water.

2. Contractor is responsible to keep the site clean and free of obstructions all times during construction.

3. Contractor is to return site to existing condition.

SITE SERVICES

1. The proposed site is **NOT REQUIRED** to be serviced with water, sewer and hydro.

BUILDING

1. The Transfer building shall be clear span free of interior obstructions
2. The Transfer building shall have the minimum dimensions of 40ft wide x 60ft length.
3. The transfer building is to be designed as a cold storage. No heat or hydro is required.
4. The building shall have a minimum internal height of 18ft.
5. Exterior finish to have 26 gauge storm seal metal cladding
6. Foundation walls must extend above grade by 4ft to act as an impact barrier for heavy equipment operations.

.../2

BUILDING – cont'd.

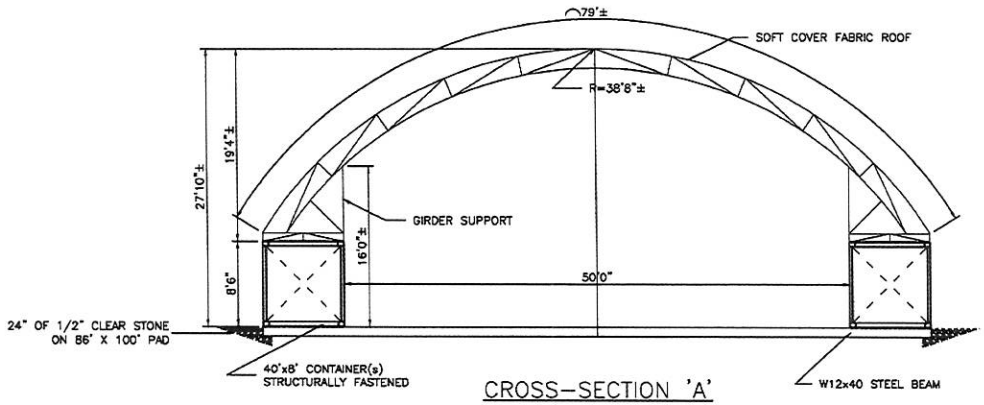
7. The building footprint must be excavated to undisturbed native soil, and then filled to 6" below finish floor elevation with compacted engineered fill. Provide minimum 6" of compacted granular A overlying the engineered filled sub base.

8. The garage door shall be a roll up door 20ft wide x 16ft in height.

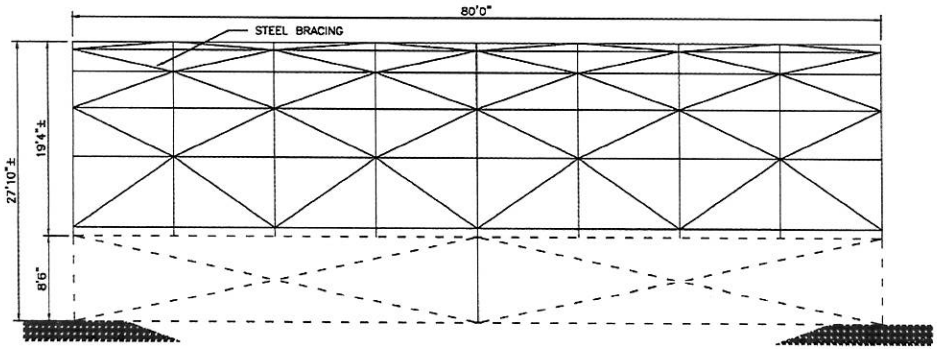
9. The building structure shall be designed assuming the 20ft x 16ft door is not installed.

RAMP

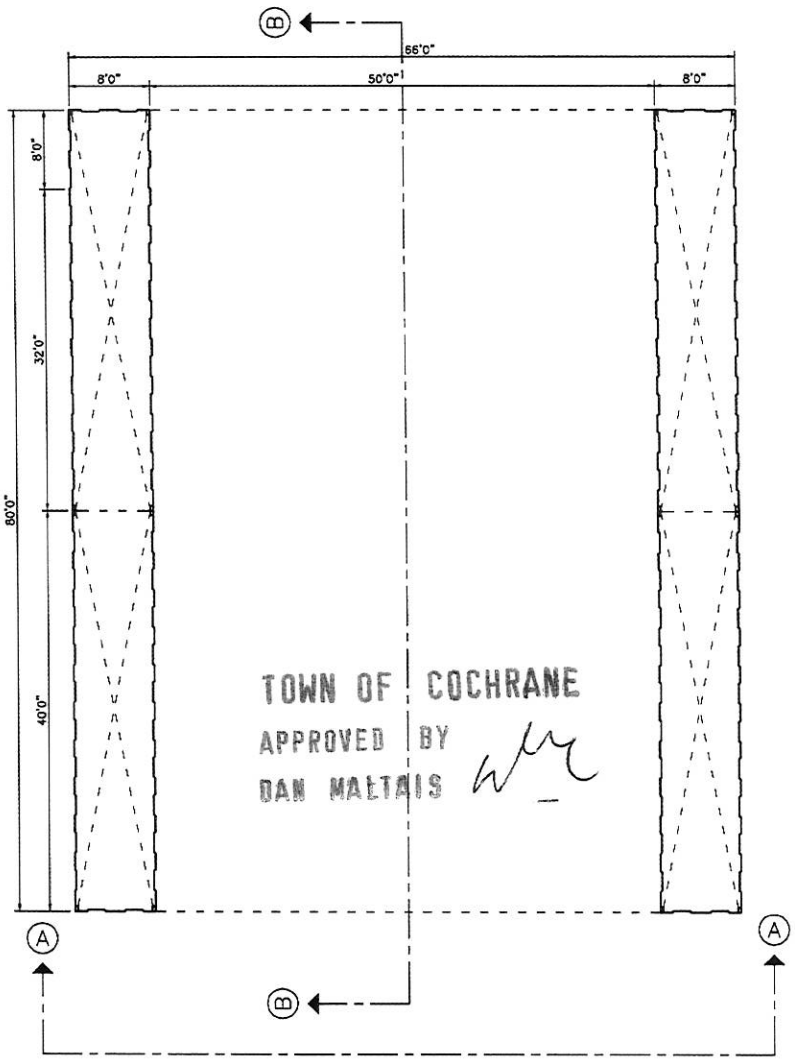
1. A ramp adjacent to the building shall be constructed for the purposes of loading a 53ft trailer.
2. The ramp shall have a concrete retaining wall, to retain the granular ramp. The retaining wall shall be 53ft in length and shall extend 4ft above finished grade of the loading area.
3. Concrete filled steel pipe safety bollards are to be installed at each end of the ramp to prevent equipment from driving off the ramp edge.
4. Bollards are to be installed at the end of the loading area to prevent the trailer from hitting the Transfer building.
5. The retaining wall shall be designed and stamped by a licensed P.Eng.
6. The gravel ramp shall be excavated to undisturbed native soil and filled to grade with compacted engineered fill c/w 6" granular A finish.



CROSS–SECTION 'A'



CROSS–SECTION 'B'



TOWN OF COCHRANE
APPROVED BY
DAN MALTAIS

FLOOR PLAN

DRAWN BY: JASON CHAYTOR			
APPROVED BY:			
DATE: APRIL 23, 2012	SCALE: 1/8"=1'0"	0	Submitted For Review
SHEET: 1 OF 1	DWG No: 12–006	No	REVISION

ADUVO INC.
ONTARIO, CANADA

PROJECT: EQUIPMENT BUILDING

DRAWING: BUILDING DETAIL