

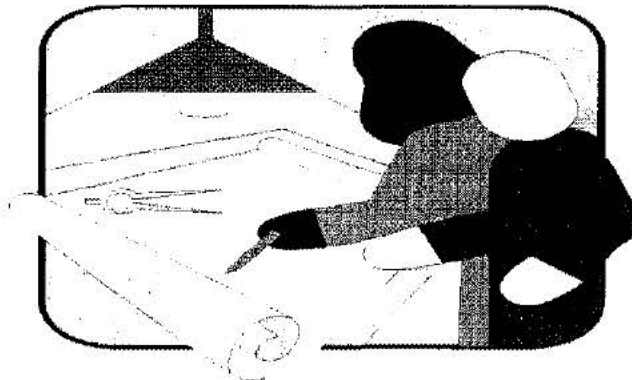


**Oshawa**  
Prepare To Be Amazed

# **Guidelines & Design Standards**

## **For**

# **Waste Management Facilities**



**Community Services Department**  
**November, 2001**

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Acknowledgement: This document has been reviewed and revised with the cooperation of staff from Planning Services and Engineering Services in the Department of Development Services, and Community Services staff.

## **1.0 Introduction**

### **1.1 Purpose**

- To provide basic guidance on design, location, and collection vehicle access to waste management facilities at multi-unit residential and IC&I facilities in Oshawa
- To indicate provincial government regulations with respect to recycling
- To outline the requirements for receiving approval for City administered waste collection

### **1.2 Waste Collection Bylaw 113-2008**

- Waste Collection Bylaw 113-2008 regulates waste collection facilities for developments within the City, establishes conditions which must be met for a development to receive City waste collection, and outlines the levels of service to be provided if City service is approved. A working copy of the By-law can be supplied with this manual, however the applicant is responsible for ensuring that a current copy of the By-law and these Guidelines is used when designing waste management facilities.
- The Waste Collection By-law requires that all site and building plan submissions must show complete waste management facilities, except for residential buildings with less than 9 dwelling units, or for industrial properties.
- When planning waste management facilities, the use of waste compactors is encouraged, as is the provision of adequate and efficient storage facilities within their building structures at ground level for easy access by collection vehicles.
- Applicants for all new developments must illustrate on site plan drawings all waste management facilities related to the development's proposed use(s) in conformance with the City's Waste Collection By-law as amended and Zoning Bylaw No. 60-94 as amended.

## **2.0 Waste Management Facility Design**

- Prior to construction, all developments will be required to design a waste management facility that provides for the collection and storage of waste sufficient to meet the needs of the property. Developments designated by the Provincial 3R Regulations should provide for the storage of recyclable material during the design of the waste management facility. Refer to Appendix 1 for more information.
- The process for obtaining the necessary approvals, and details on the location, access and design of waste management facilities are outlined below. Additional requirements for properties seeking municipal waste collection are outlined in Section 3.0.

### **2.1 Building Permits and Site Plan Agreements**

- With regard to waste management facilities, a building permit is required where:
  - a structure has a building area of more than 10 m<sup>2</sup> (107.6 ft<sup>2</sup>)
  - a garbage storage enclosure is constructed of masonry or has concrete footings
- No change of use or structural changes to existing internal waste rooms, or other rooms for the purpose of storing waste and recyclable material is permitted without obtaining a building permit, and any other appropriate approvals required by the City of Oshawa. All approved changes must meet the **Ontario Building Code and Ontario Fire Code**.
- Occasionally, applications for waste collection are received from property owners who want to make changes to waste management facilities. Where these changes may affect site design, or be in non-compliance with the City Zoning Bylaw or a Registered Site Plan Agreement, the applicant is referred to the applicable Section 2.1.1 or 2.1.2 below.

#### **2.1.1 Properties without Site Plan Agreements**

- Should the proposed site alterations result in modifications to the existing site design, the owner may be required to submit a site plan for examination by Planning Services, Department of Development Services. Contact Planning Services for more information.
- Depending on the design of the waste management facility and resulting site plan, the applicant may be required to obtain a building permit and/or Committee of Adjustment approval from Planning Services. Applicants will be advised following this process whether the proposed plans meet the conditions for City administered collection of waste.

## 2.1.2 Properties with Site Plan Agreements

- Should the proposed site alterations result in modifications to the existing site design and the site plan agreement, the owner shall be required to submit a revised site plan to Planning Services, Department of Development Services. The Department will coordinate circulation of the proposal to other appropriate City departments and external agencies for comment or approval.
- Depending on the design of the waste management facility and resulting site plan, the applicant may be required to obtain an amending Site Plan Agreement, and/or a building permit, and/or Committee of Adjustment approval from Planning Services. Applicants will be advised following this process whether the proposed plans meet the conditions for City administered collection of waste.

## 2.2 Requirements Applicable to all Developments

### 2.2.1 Location.

- The location of waste management facilities must comply with the applicable provisions of **Zoning By-law No. 60-94 as amended**, in addition to the **Ontario Building Code** and the **Ontario Fire Code**. A waste bulk container must be located at least 3.0 m from a building or its parts, such as overhang, veranda, porch or steps. This provision also applies to containers vertically enclosed by a wall (fence) of masonry or other materials.
- **Exemption:** A bulk waste container may be located against an exterior masonry or concrete wall provided that there are no windows or other unprotected openings, overhangs, exits, incoming building services, (including natural gas meters), or Fire Department connections within 3.0 m of the container.
- Where permanent external waste enclosures are permitted, they should not be located in any front yard or flanking side yard. Enclosures should be designed in accordance with the appropriate design standard as shown in the Attachments section, depending on the number of bulk waste bins required and space limitations. Refer to Section 2.2.5 for details on external enclosure design.
- Refer to Zoning Bylaw No. 60-94 as amended, for information on setbacks and the location of waste storage enclosures and accessory buildings.

### 2.2.2 Access

- The access route used by the collection vehicle to the waste management facility should be structurally adequate so as to prevent damage by the vehicle, and have a minimum height clearance of 4.25 m. Where this route involves travel on or over the deck of an underground parking garage, the applicant must demonstrate the

structural adequacy of the deck to support a loaded waste collection vehicle. Oshawa Fire Services has provided the following information on the total force exerted by the vehicles listed below:

- Fire Department vehicle: 250 kilo-newtons (25,347 kg)
- Fully loaded waste collection vehicle: 314 kilo-newtons (32,000 kg)

### **2.2.3 Maintenance**

- The owner, building manager, or superintendent is responsible for:
  - maintaining the waste management facility
  - placing containers out for collection on designated days
  - retrieving empty containers after collection
  - ensuring that enclosure gates are kept in working order
  - ensuring that facilities are kept clean
  - preventing the accumulation of bulky and oversized items (furniture, mattresses, appliances) in or around enclosures

### **2.2.4 Internal Waste Management Facilities**

- The internal waste storage room shall be of sufficient size to accommodate all required waste and recycling containers. It should provide for easy movement of containers to and from the room, and access to containers.
- An overhead door of adequate size shall be used to allow the removal of the containers from the waste room to the designated outside collection site.
- The collection site shall include a level concrete pad of sufficient size to accommodate the number of containers to be placed out for collection. It is recommended that the pad be positioned to allow the waste collection vehicle to empty and return the containers without having to manually or mechanically shuffle the containers. The pad shall be a minimum thickness of 150 mm, and shall incorporate a roll barrier in the design to prevent containers from rolling off the pad. The pad shall be level with the floor of the storage room.
- The driving approach to the pad shall be level and at the same elevation as the concrete pad. In some situations, approval may be granted for a pad elevation that is up to 0.6 m higher than the adjoining approach, but the pad may not be lower than the approach.

### **2.2.5 External Waste Management Facilities**

- The external storage facilities shall be of sufficient size to accommodate all required waste and recycling containers. It should provide for easy access to the containers by the collection vehicles.

- The enclosure base shall be a level concrete pad of 150 mm depth.
- The driving approach to the pad shall be level and flush with the concrete pad. In some situations, approval may be granted for a pad elevation that is up to 0.6 m higher than the adjoining approach, but the pad may not be lower than the approach.
- An enclosure wall height of 2.2 m.
- Enclosure walls may be composed of either masonry or wood, as determined during the site plan review process. Attachments A through D show design standards for external enclosures. Attachments A1 and A2 are provided as alternate design standards for use where space restrictions exist or where a different configuration better suits a site plan.
- Gates should be securely mounted on steel bollards or an approved equal. Gates must include stoppers, a latch and gate wheels, and should be designed to prevent sagging.
- Bollards or a concrete curb should be installed at the rear of the enclosure to protect the enclosure wall from damage when containers are picked up or returned in place by the collection vehicle.
- Resident access should be provided by means of a minimum 0.9 m wide pedestrian entrance along one rear or side wall. A paved pathway should be provided to allow removal of recycling containers for collection.
- The gate and enclosure width must be sufficient for the waste collection vehicle to empty and return containers to the enclosure without requiring containers to be shuffled either manually or mechanically. In order to accomplish this, a minimum distance of 0.9 m should be kept between containers and between the container and side walls. (Refer to Attachments).

#### **2.2.6 Use of Roll-off Containers**

- Developments that are permitted large roll-off bulk containers on a permanent basis will design the enclosure facility using the same guidelines as 2.2.5 above, except that:
- Enclosure wall height can be reduced to a height of 1.8 m. Where the roll-off bulk container is to be used on a short-term basis of less than one day per week, the development may provide a level concrete pad only, without enclosure walls.
- The concrete pad in the enclosure must be level with the pavement in all circumstances.

- An elevated ramp with handrails shall be constructed beside the enclosure to allow users to place their garbage in the bin. The elevated ramp will not be required if it is confirmed that the property maintenance staff will collect the waste and deposit it in the bin.
- Bollards or a concrete curb must be placed at the rear of the enclosure to protect the enclosure wall from damage when containers are picked up or returned by the collection vehicle.

### 2.2.7 Waste Bins

- The following information on waste bin size and requirements is intended for general guidance.
  - Compacted (internal storage, twice per week service)  
Waste bins should be provided on the basis of 1 per 50 units. Bin size is typically 3 yd<sup>3</sup>, and an extra bin should be available for use on the compactor while full ones are out for collection. An extra bin should be added above basic requirements for buildings over 150 units.
  - Uncompacted (external storage, twice per week service)  
The table below indicates quantity and sizes of bins that are suggested for given building sizes, based on existing service levels in Oshawa. 6 yd<sup>3</sup> bins are the most commonly used. These are estimates only, and actual requirements may vary by site and with the frequency of collection.

Number of Dwelling Units	Suggested Number of Bins	Suggested Size (yd <sup>3</sup> )
0 – 50	2	4
50 –100	2	6
> 100	3	6

### 2.3 Ontario 3R Regulations

- Regulations 101/94 to 105/94 establish requirements for recycling in the Province. They require that a municipality "establish, operate and maintain" a recycling collection service to all residential properties for which the municipality provides waste collection. For multi-unit residential buildings in Oshawa, the following applies:
  - Buildings of less than nine dwelling units are eligible for curbside collection of waste by the City, and curbside collection of recyclable materials by the Region of Durham.
  - Buildings of nine units or more are eligible for collection of waste on private property if they meet the requirements of Parts 2 and 3. The Region will provide



recycling collection to buildings in this category that are approved for City administered waste collection.

- Regulation 103-94 states that a multi-unit residential building must implement a source separation program if the building contains six or more dwelling units and is located within a local municipality that has a population of at least 5000. Developments of six or more units with private waste collection services are required to implement a source separation program for residents of that property at their own cost. Participation in municipally collected recycling programs requires that the property is receiving municipal waste collection.
- Recycling collection in Durham Region is administered by the Region. Materials collected generally include corrugated cardboard, box board, newsprint, mixed paper, clear and coloured glass, metal beverage and food tins, selected plastics, telephone books, magazines, catalogues and aluminum pie plates. New materials may be added to collection programs as new end use markets are established. Information on the 3R Regulations is available through the local office of the Ministry of the Environment.

### **3.0 City Administered Collection of Waste**

- The collection of waste on private property by the City of Oshawa is regulated by Waste Collection Bylaw 113-2008, Sections 10.27, 10.29 and 11.0, as amended.
- The conditions for City administered waste collection on private property apply to all properties requesting this service from the City. The bylaw permits limited waste collection service to commercial establishments as outlined in Schedule A to the bylaw. Commercial establishments requiring a level of service higher than established in the bylaw must provide for waste collection service at their own cost.
- For developments requesting collection of waste by the City on private property, the following procedure shall apply:
  - The proponent submits a site plan drawing (preferred scale of 1:200) to Planning Services, showing the proposed waste management facilities. Planning Services will advise on the need for a new or amending Site Plan Agreement (SPA), coordinate the necessary design review, and advise if the proposed facility design meets the conditions for City administered collection of waste.
  - The proponent submits an application for City collection with a copy of the approved drawing to the Director, Public Works Services, Department of Community Services. A copy of this form can be requested by calling Service Oshawa at 905-436-3311. **Note: This application should only be submitted after Planning Services has concluded that no SPA or amending SPA is required, the appropriate SPA or amending SPA has been executed with the City, and only if the proposed design meets the conditions for City collection.**
  - The proponent arranges for an inspection by Community Services staff of the completed facility to confirm that it meets the approved plan.

#### **3.1 Requirements**

- The site plan drawing must clearly show the location and type of waste management facilities, access routes from the adjoining street, and all aboveground features, especially parking, that may affect access by the collection vehicle.
- Requirements as outlined in Section 2 must be met.
- Access to the collection facilities must be designed to allow the waste collection vehicle to enter the site and gain access to the facility, empty the containers, turn around on site, and exit the site without backing onto the street. All such movements must be made safely with minimal movements other than those required to collect the container. It will be assumed that all parking spaces are occupied at the time of servicing. The standard TAC turning template for a SU9 truck with an outside turning radius of 12.8 m is to be used in planning these

requirements. A minimum clear height of 6.8 m must be provided in the area required to lift and unload the waste container.

- If a proposed development meets the above requirements during the design review stage, approval in principle may be granted for City administered collection subject to a satisfactory final site inspection and approval. A test run with a collection vehicle may be arranged by the City prior to this if there are concerns about collection vehicle access and ability to turn around on site.
- A development not meeting the above requirements will not be approved for City administered collection. The applicant will be required to acknowledge in the Site Plan Agreement, if applicable, that the property does not qualify for City waste collection on private property.

### **3.2 Inspection and Final Approval**

- Upon completion of construction, the applicant will arrange for a site inspection with the Department of Community Services. An inspector will determine whether all requirements as outlined above or any other conditions outlined in the preliminary approval have been met during construction. If final approval is received, the City will formally advise the applicant of the schedule and level of service for waste collection.

### **3.3 Conditions Applicable on Approval of City Service**

- Changes to the approved level of service will not be permitted without formal City approval.
- For a residential development, service will not commence until there is at least 50 percent occupancy.
- The applicant is responsible for providing and maintaining their own waste container(s).
- All waste management facilities and access routes to the facilities are to be properly maintained. Waste and recycling containers must be readily accessible on collection day (i.e., access routes and enclosures are to be free of parked cars and snow). **The gates of the waste enclosure must be open for the collection vehicle on the day of collection only, and must otherwise remain closed.**

### **3.4 Recycling Collection by Durham Region**

- Recycling collection for multi-unit residential properties approved for municipal waste collection service is the responsibility of the Region. Weekly recycling collection is provided by the Region's contractor, and may be scheduled differently from garbage collection. Properties with bulk container collection of garbage are

normally provided with recycling collection using 95 gallon recycling bins, supplied at no cost by the contractor.

## **4.0 Industrial, Commercial & Institutional Developments**

- The Industrial, Commercial & Institutional Sector includes establishments such as educational institutions, hospitals, hotels and motels, manufacturers, office buildings, restaurants, retail shopping complexes, and construction and demolition projects.
- The primary objective of this section is to provide a means to control the location of bulk waste and recycling containers, as well as the aesthetics of these facilities. A secondary goal will be to promote the design of waste management facilities to allow these developments to be able to meet any additional requirements for recycling that may be legislated in the future.
- Municipalities are not required under the 3R Regulations to provide recycling collection services to the IC&I sector, even if limited waste collection is provided. Regulation 103/94 designates which parts of the IC&I sector are required to establish source separation programs. Development applicants should consult Appendix 1 to determine whether they meet the designation criteria. The types of materials to be separated by each area of the IC&I sector are summarized in Appendix 2.

### **4.1 General Application**

- Developments designated by the 3R Regulations will be required to design a waste management system in accordance with Section 2. Where external storage is permitted, all waste and recycling containers should be housed within one or more common enclosure areas, which must not be adjacent to any residential dwelling unit. Facilities should be constructed using the design standards shown in the Attachments as a guide.
- Proposed developments which may not be designated are strongly encouraged to incorporate recycling collection as part of responsible waste management practices to assist in the goal of increasing the diversion of waste from landfill.

### **4.2 Commercial Plazas**

- Commercial establishments should also refer to the specifications for internal storage rooms (based on size of development) as outlined in Appendix 3. If restaurant facilities are planned, all grease bins must be stored internally or within an external enclosure.

## APPENDICES

## Appendix 1: Compliance Deadlines for IC & I Waste Generators

1 Waste Generators	2 Compliance Deadlines	
	3 Southern Ontario	<b>Northern Ontario</b>
Educational Institutions with an enrollment of 350+ and located in a municipality with a population of 5,000+	4 <b>March 3, 1995</b>	July 1, 1996
A, B or F hospitals located in a municipality with a population of 5,000+	5 <b>March 3, 1995</b>	July 1, 1996
Hotels and motels with 75+ rooms and located in a municipality with a population of 5,000+	6 <b>March 3, 1995</b>	July 1, 1996
Manufacturing establishments with 16,000+ employee hours in any one month	7 <b>March 3, 1995</b>	March 3, 1995
Office buildings with 10,000+ square metres floor area and located in a municipality with a population of 5,000+	8 <b>March 3, 1995</b>	July 1, 1996
Restaurants with gross sales in excess of \$3,000,000 and located in a municipality with a population of 5,000+	9 <b>March 3, 1995</b>	July 1, 1996
Retail shopping establishments and complexes with 10,000+ square metres floor area and located in a municipality with a population of 5,000+	10 <b>March 3, 1995</b>	July 1, 1996
Construction and demolition projects with a total floor area of at least 2,000 square metres (*if project in progress by March 3, 1994)	11 <b>March 3, 1995*</b>	March 3, 1995*
Multi-unit residential buildings with six or more units and located in a municipality with a population of 5,000+	12 <b>March 3, 1995</b>	July 1, 1996

## Appendix 2: Source Separation Requirements For The IC&I Sector

Type of Material to be Recycled														
IC&I Institution	ST/AL	OCC	ONP	FP	GL	PET	PS	HDPE	AL	STL	WD	PET F	B&C	D
Educational	♦	♦	♦	♦	♦									
Hospitals	♦	♦	♦	♦	♦									
Hotels/Motels	♦	♦	♦	♦	♦	♦								
Manufacturers		♦	♦	♦	♦		♦	♦	♦	♦	♦	♦		
Office Buildings	♦	♦	♦	♦	♦	♦								
Restaurants	♦	♦	♦	♦	♦									
Retail Shopping Establishments	♦	♦	♦	♦	♦									
Retail Shopping Complexes	♦	♦	♦	♦	♦									
Large Construction Projects		♦								♦	♦		♦	♦
Large Demolition Projects										♦	♦		♦	
Multi-unit Residential Buildings < 7 units	♦	♦	♦	♦	♦	♦								

**Legend**

ST/AL: steel & aluminum cans

FP: fine paper

PS: polystyrene

STL: steel

B&C: bricks and concrete

OCC: old corrugated cardboard

GL: glass

HDPE: high density polystyrene

WD: wood

D: drywall

ONP: old newsprint

PET: polyethylene terephthalate

AL: aluminum

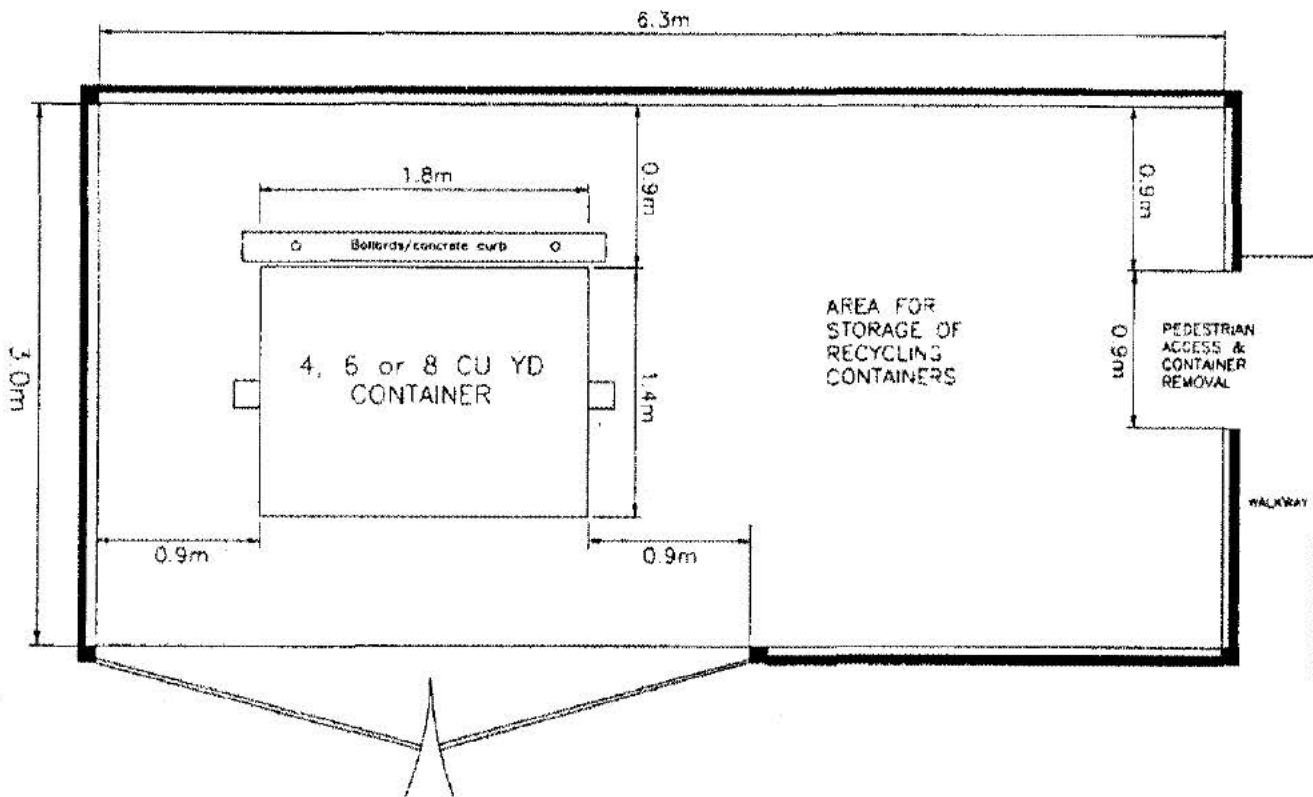
PET F: Pet film

### Appendix 3: Guidelines For Internal Storage Rooms – IC&I

Occupancy/Building	Normal dimensions/uncompacted Normal Room Height of 2.45 m	Based on Minimum Requirements
Local commercial plaza up to 500 m <sup>2</sup>	15 m <sup>2</sup> minimum 4m width	One 6 yd <sup>3</sup> waste container or loose bagged waste  If source separating, four 95 gallon recycling bins.
Local commercial plaza > 500 m <sup>2</sup> and < 1500 m <sup>2</sup>	25 m <sup>2</sup> minimum 4m width	One 6 yd <sup>3</sup> waste container One 6 yd <sup>3</sup> commingled recyclables If source separating, four 95 gallon recycling bins.
Special commercial plaza > 1500 m <sup>2</sup> and < 2500 m <sup>2</sup>	Two separate rooms each 30 m <sup>2</sup>	Two 6 yd <sup>3</sup> waste containers per room  If source separating, four 95 gallon recycling bins  Rooms to be situated at opposite ends of the building.
Large commercial establishments > 2500 m <sup>2</sup>	Storage and waste management program to be designed by professional consultant in accordance with City guidelines.	



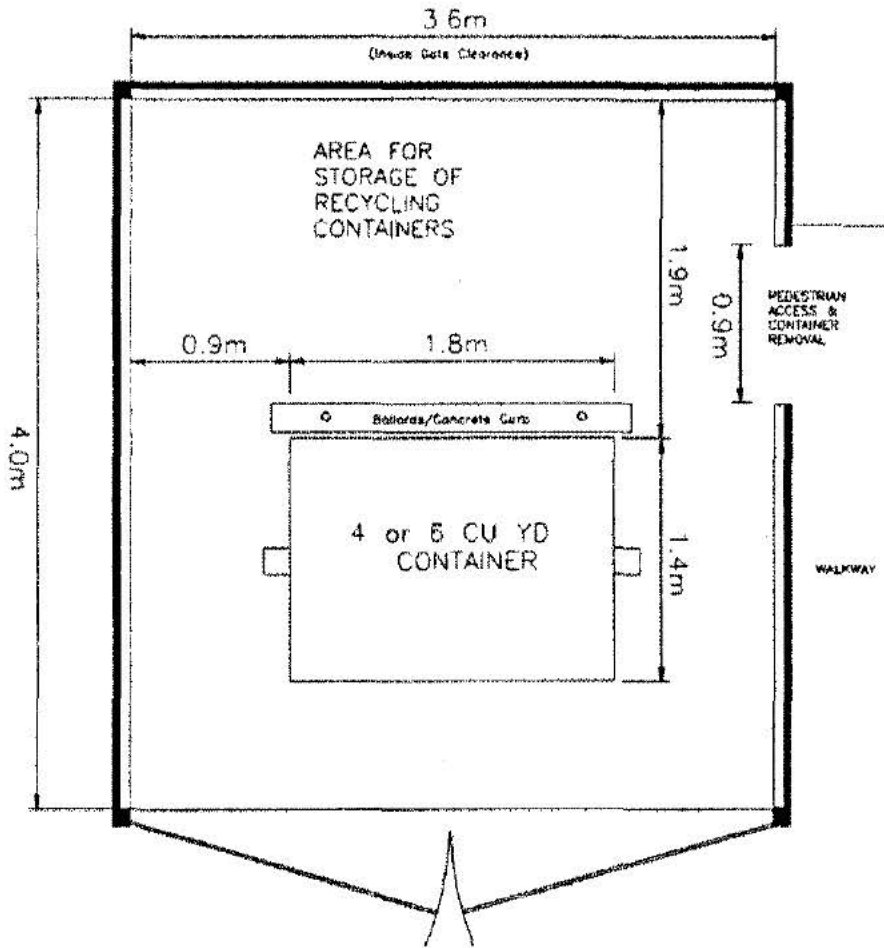
# ATTACHMENTS



#### NOTES

1. Clearance distances shown are minimum.
2. Dimensions to be measured from the edge of concrete pad.
3. Screening to be 2.2 m high.
4. Each gate for waste container to be 1.8 m wide.
5. Gates are to be securely mounted on steel bollards or an approved equal & to be equipped with wheels, stoppers & latch.
6. Gates are to be a solid screened type of material.
7. 150 mm deep concrete slab to be level & flush with the approach pavement. (Refer to document for possible exceptions to this requirement).
8. Construction may be of masonry or wood, however, specific controls may be placed under the site plan agreement. If wood is approved, it must be constructed to provide solid screening.
9. Masonry enclosure must include footing drawings.
10. Bollards or concrete curb is to be secured to the concrete slab.
11. An area to contain flattened corrugated cardboard for collection should be provided.
12. Pedestrian access on front wall requires a gate, whereas rear and side access may be an opening or gate. The access must be a minimum of 0.9 m wide to permit removal of recycling containers for collection. The base of this access point must be level with the concrete pad.
13. If using a wooden enclosure, the pedestrian access can be installed by utilizing a corner post.

STANDARD ENCLOSURE & CONCRETE SLAB (NTS)  
FOR 4, 6 OR 8 YD<sup>3</sup> WASTE CONTAINERS  
AND RECYCLING BINS



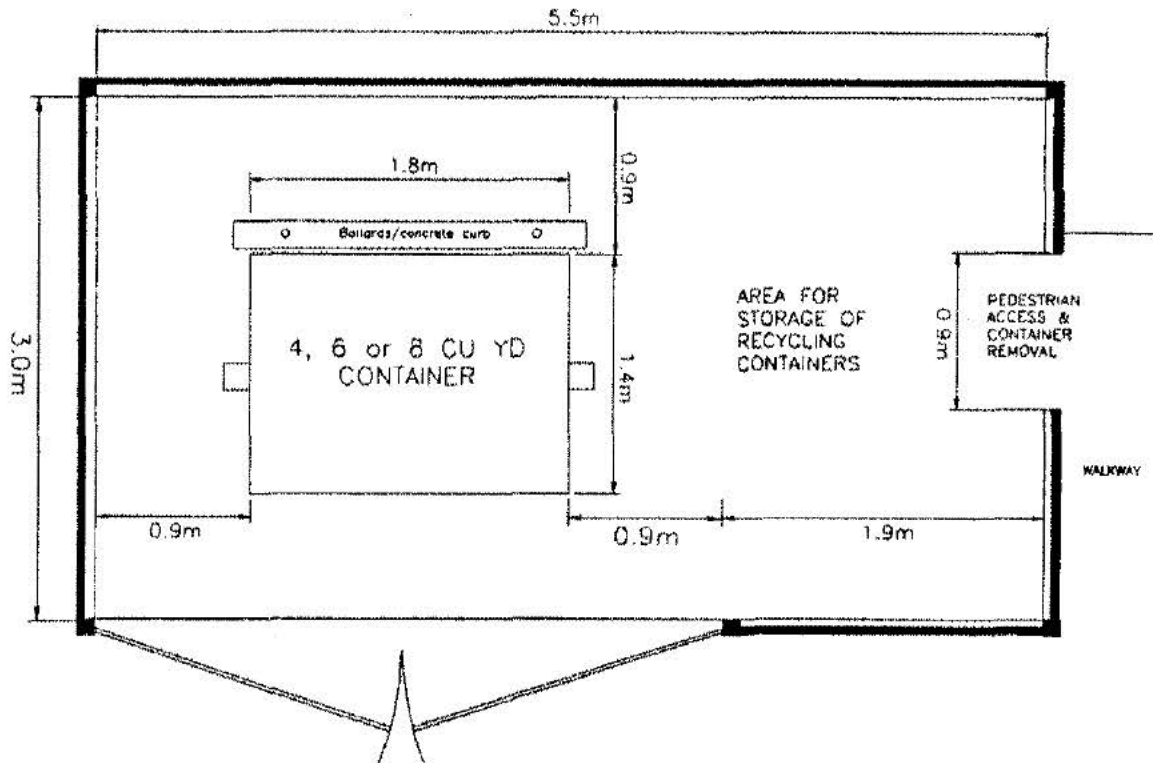
NOTES:

1. Clearance distances shown are minimum.
2. Dimensions to be measured from the edge of concrete pad.
3. Screening to be 2.2 m high.
4. Each gate for waste container to be 1.8 m wide.
5. Gates are to be securely mounted on steel bollards or an approved equal & to be equipped with wheels, stoppers & latch.
6. The gates are to be a solid screened type of material.
7. 150 mm deep concrete slab to be level & flush with the approach pavement. (Refer to document for possible exceptions to this requirement).
8. Construction may be of masonry or wood, however, specific controls may be placed under the site plan agreement. If wood is approved, it must be constructed to provide solid screening.
9. Masonry enclosure must include footing drawings.
10. Bollards or concrete curb to be secured to the concrete slab.
11. Pedestrian access on the rear or side may be an opening or gate.
12. If using a wooden enclosure, the pedestrian opening can be installed by utilizing a corner post.

ALTERNATE #1 TO ATTACHMENT A

STANDARD ENCLOSURE & CONCRETE SLAB  
FOR 4 OR 6 YD<sup>3</sup> WASTE CONTAINER AND RECYCLING BINS

(NTS)



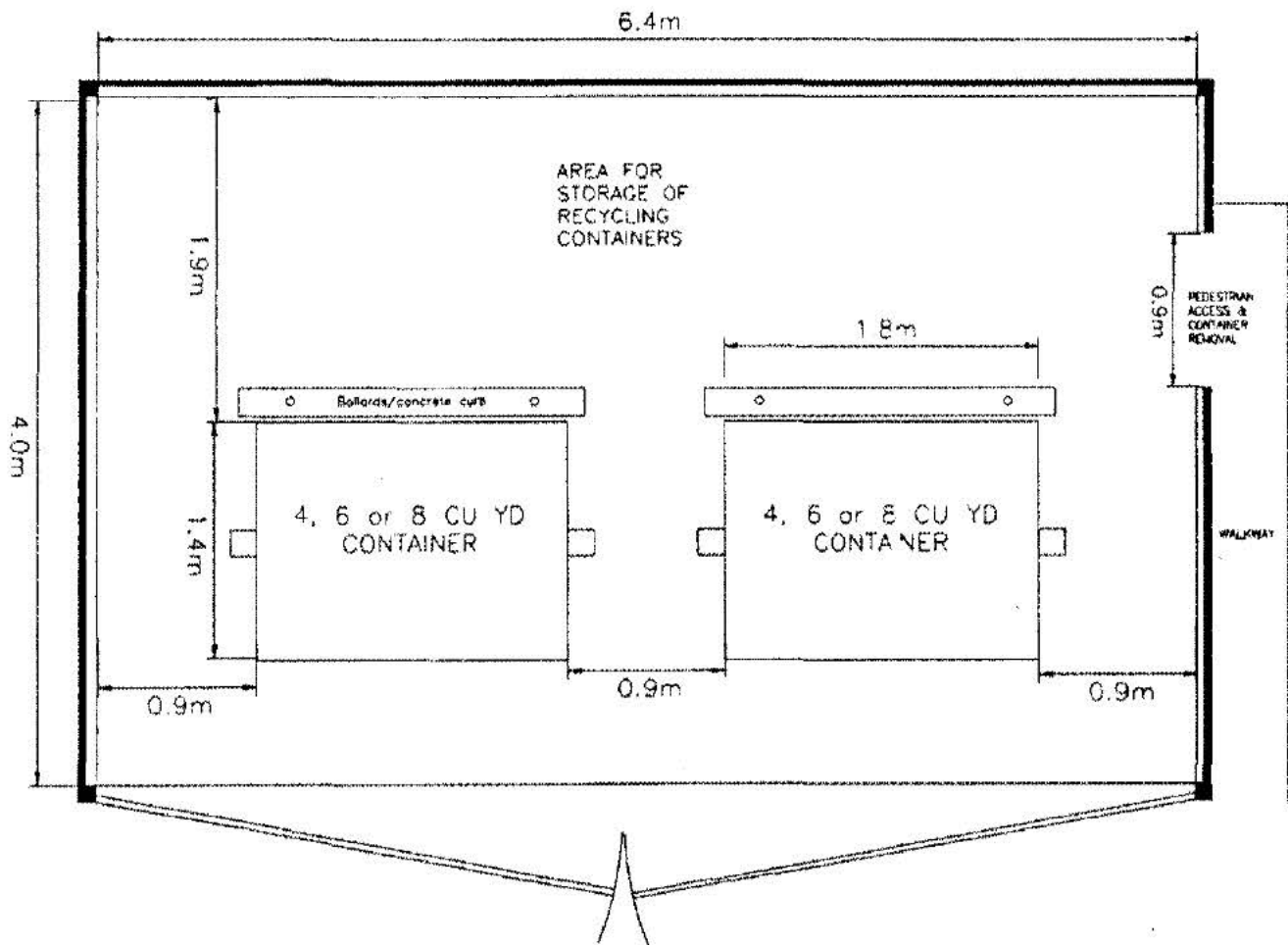
NOTES:

1. Clearance distances shown are minimum.
2. Dimensions to be measured from the edge of concrete pad.
3. Screening to be 2.2 m high.
4. Each gate for waste container to be 1.8 m wide.
5. Gates to be securely mounted on steel bollards or an approved equal & to be equipped with wheels, stoppers & latch.
6. Gates are to be a solid screened type of material.
7. 150 mm deep concrete slab to be level & flush with the approach pavement. (Refer to document for possible exceptions to this requirement).
8. Construction may be of masonry or wood, however, specific controls may be placed under the site plan agreement. If wood is approved, it must be constructed to provide solid screening.
9. Masonry enclosure must include footing drawings.
10. Bollards or concrete curb to be secured to the concrete slab.
11. An area to contain flattened corrugated cardboard for collection should be provided.
12. Pedestrian access on front wall requires a gate, whereas rear and side access may be an opening or gate. Pedestrian access must be a minimum of 0.9 m wide to permit removal of recycling containers for collection. The base of this access point must be level with the concrete pad.
13. If using a wooden enclosure, the pedestrian opening can be installed by utilizing a corner post.

ALTERNATE #2 TO ATTACHMENT A

STANDARD ENCLOSURE & CONCRETE SLAB  
FOR 4, 6 OR 8 YD<sup>3</sup> WASTE CONTAINER  
AND RECYCLING BINS

(NTS)

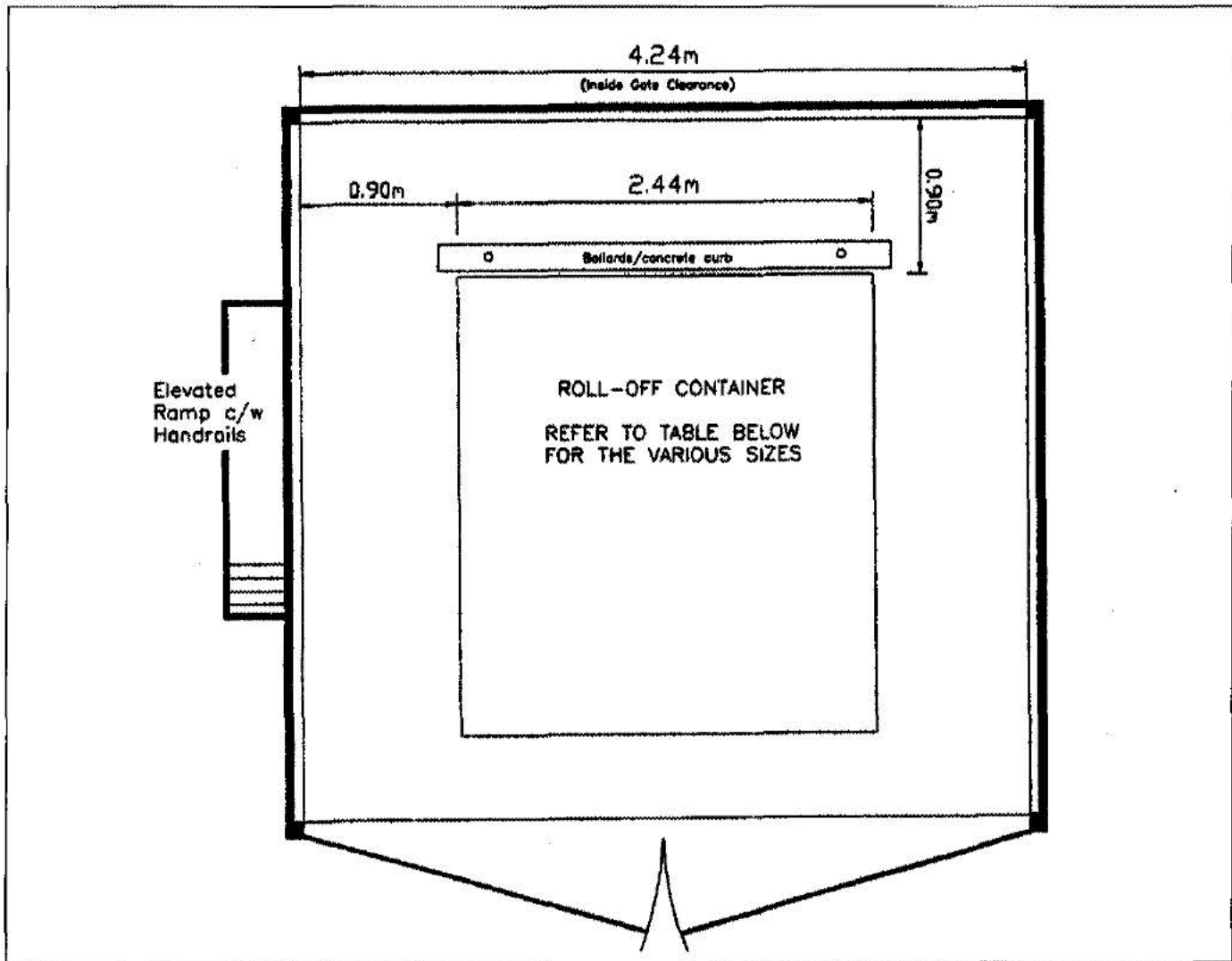


NOTES:

1. Clearance distances shown are minimum.
2. Dimensions to be measured from the edge of concrete pad.
3. Screening to be 2.2 m high.
4. Gate dimensions for waste container to be 1/2 width of slab.
5. Gates to be securely mounted on steel bollards or an approved equal & to be equipped with wheels, stoppers & latch.
6. The gates are to be a solid screened type of material.
7. 150 mm deep concrete slab to be level & flush with the approach pavement. (Refer to document for possible exceptions to this requirement).
8. Construction may be of masonry or wood, however, specific controls may be placed under the site plan agreement. If wood is approved, it must be constructed to provide solid screening.
9. Masonry enclosure must include footing drawings.
10. Bollards or concrete curb is to be secured to the concrete slab.
11. Where a centre post is constructed to reduce individual gate width, the enclosure width shall be increased to allow 0.9 m clearance between the centre post and each bin.
12. Area to contain flattened corrugated cardboard for collection should be provided.
13. Pedestrian access on rear or side may be an opening or gate. Pedestrian access must be a minimum of 0.9 m side to permit removal of recycling containers for collection. The base of this access point must be level with the concrete pad.
14. If using a wooden enclosure, the pedestrian opening can be installed by utilizing a corner post.

STANDARD ENCLOSURE & CONCRETE SLAB  
FOR 4, 6 OR 8 YD<sup>3</sup> WASTE CONTAINERS  
AND RECYCLING BINS

(NTS)



NOTES:

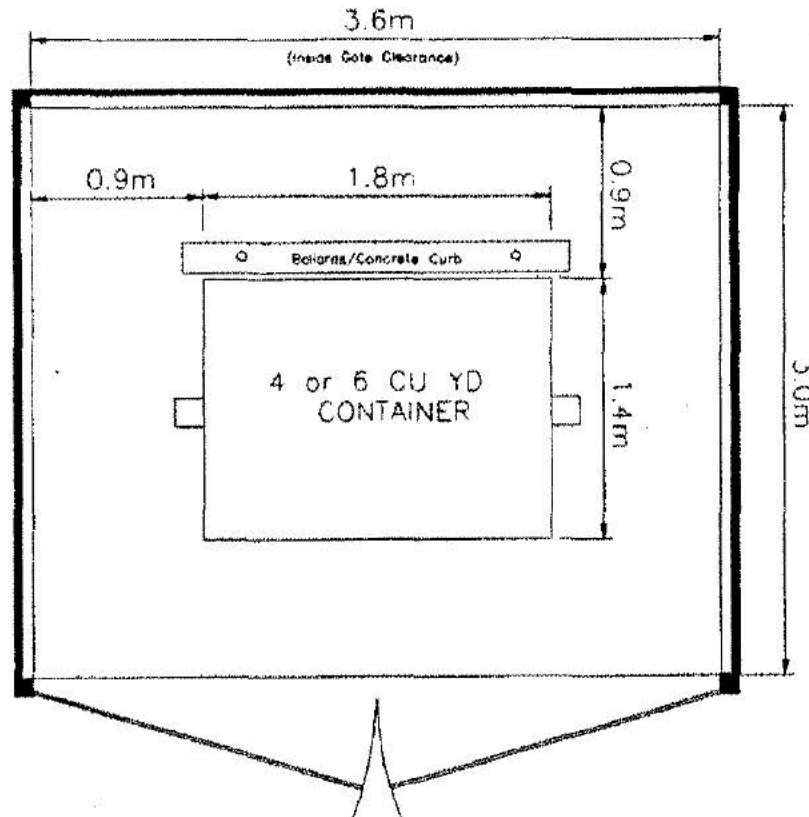
1. Clearance distances shown are minimum.
2. Dimensions to be measured from the edge of concrete pad.
3. Screening to be 1.8 m high.
4. Gate dimension for waste container to be 1 / 2 of the width of slab.
5. Gates to be securely mounted on steel bollards or an approved equal to be equipped with wheels, stoppers & latch.
6. The gates to be a solid screened type of material.
7. 150 mm deep concrete slab to be level & flush with the approach pavement. (Refer to document for possible exceptions to this requirement).
8. Construction may be of masonry or wood, however, specific controls may be placed under the site plan agreement. If wood is approved, it must be constructed to provide solid screening.
9. Masonry enclosure must include footing drawings.
10. Bollards or concrete curb to be secured to the concrete slab.
11. Roll-off container size and respective enclosure depth:

SIZE YD <sup>3</sup>	ENCL DEPTH ... (m) ...	BIN SIZE (m)	
		DEPTH	WIDTH
20	5.0	3.66	2.44

12. Pedestrian access on rear or side may be an opening or gate.
13. Recycling containers may be located along an outer wall or where suitable.

STANDARD ENCLOSURE & CONCRETE SLAB  
FOR ROLL-OFF WASTE CONTAINER

(NTS)



NOTES:

1. Clearance distances shown are minimum.
2. Dimensions to be measured from the edge of concrete pad.
3. Screening to be 2.2 m high.
4. Each gate for waste container to be 1.8 m wide.
5. Gates are to be securely mounted on steel bollards or an approved equal & to be equipped with wheels, stoppers & latch.
6. The gates are to be a solid screened type of material.
7. 150 mm deep concrete slab to be level and flush with the approach pavement. (Refer to document for possible exceptions to this requirement).
8. Construction may be of masonry or wood, however, specific controls may be placed under the site plan agreement. If wood is approved, it must be constructed to provide solid screening.
9. Masonry enclosure must include footing drawings.
10. Bollards or concrete curb is to be secured to the concrete slab.
11. Pedestrian access on rear or side walls may be an opening or gate. If using a wooden enclosure, the pedestrian opening can be installed by utilizing a corner post.

COMMERCIAL/OTHER NON-RESIDENTIAL SITES

STANDARD ENCLOSURE & CONCRETE SLAB  
FOR 4 OR 6 YD<sup>3</sup> WASTE CONTAINER

(NTS)