



Technical and Risk Management Guidelines for Municipal Waste Collection Services on Private Property and for New Residential Developments in Durham Region

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1 Introduction

The purpose of this document is to ensure that proponents of residential high-rise buildings, townhouse properties, and single-family residential developments are familiar with the minimum design criteria for residential developments to receive municipal waste collection services provided by the Regional Municipality of Durham (Region).

The collection of all waste generated by residents of new residential developments is the responsibility of the respective builder until municipal waste collection services are granted by the Region.

The type of waste collection service to be provided is based on access, set out point and storage areas on the site. The Region reserves the right to enact additional requirements during its final review of development projects as necessary to address site specific issues which may impact safe access or collection. If the Region determines that a development does not meet the requirements contained within this document, then Regional waste collection services may be denied and private waste services, at the owners' cost, will be required.

All new residential development in the Region should reflect current applicable regulations and should consider waste management storage and collection in the design stage based on the guidelines of local municipalities.

The Blue Box Regulation (O. Reg. 391/21) established producer responsibility for the financial and operational management of residential blue box material in Ontario. Blue Box producers are required to collect multi-residential blue box material at no cost to residents. Additional information on the Blue Box recycling program and how to request collection services is available from the Resource Productivity and Recovery Association ([RPRA](#)).

Under the Resource Recovery and Circular Economy Act, 2016 the Minister of the Environment, Conservation and Parks may issue policy statements in the provincial interest. [Ontario's Food and Organic Waste Policy Statement](#) requires the owners of multi-residential buildings to establish a diversion program for food and organic waste generated by residents. Owners must establish programs to divert at least 50 per cent of food and organic waste by 2025.

1.1 Other Region of Durham Municipal Waste Collection Programs

Bulky goods, electronics and batteries are collected by the Region through curbside and multi-residential programs. In approved multi-residential buildings, textiles are also collected on site in partnership with local charities. Details of these programs are outlined on the Region's website durham.ca/waste. Space for the waste diversion programs in multi-residential buildings is required as a condition for receiving municipal waste collection services.

Three local Regionally operated Waste Management Facilities are available for residential waste drop off on a pay-by-weight basis. The Region also operates four local household hazardous waste depots for residents to drop off accepted materials free of charge.

1.2 Commercial Waste

The Region of Durham is not responsible for commercial waste, and at sites where retail or commercial services are available, waste storage facilities must be kept separate from residential waste handling and storage facilities. Private collection services must be obtained for commercially generated waste material. Refer to Ontario Reg. 103/94 for more information.

Note

To be eligible for Region-provided waste collection service, the multi-residential development must participate in all available diversion programs.

The Region reserves the right to refuse or terminate waste collection services on private roads or in multi-residential developments if waste collection areas cannot be safely accessed or if adequate waste containers and resident education are not provided to separate household organics and other divertible materials from garbage.

2 Definitions

The following terms are in addition to the defined terms in By-law #2024-009.

- a) "Central Set Outs" means with respect to townhouse properties and single-family developments a common area for placement of garbage and household organic receptacles for collection by the Region; material can not be attributed to a specific address.
- b) "Collectible" means any residential waste material which may be collected pursuant to Region and/or Municipal by-law.
- c) "Collection Pad" means an external level concrete surface large enough to accommodate bins and a waste collection vehicle.
- d) "Municipality" or "Municipal" means the municipality of the Region of Durham or any of the following area municipalities Municipality of Clarington, Township of Uxbridge, Township of Scugog, Township of Brock, City of Oshawa, Town of Ajax, Town of Whitby and the City of Pickering.

- e) "Private Road or Roadway" means lanes, alley, unassumed roads, or non-conforming road which is managed and maintained by the owner not the municipality or Region.
- f) "Public Road or Roadway" means a road that is under the jurisdiction of a public authority.
- g) "Rough Grading" means shaping the ground of a construction site to create a level surface for a solid foundation.
- h) "T-turnaround" means a "T" shaped area that allows vehicles to reverse direction through a 3-point turn.
- i) "Turning Radius" means the smallest vehicular turn path of a vehicle to maneuver a circular turn.

3 Residential Site Plan Requirements

When planning for municipal residential waste services for a new development, the site plan must include internal and/or external facilities for household organics and other waste diversion initiatives. The design of an efficient waste management area to allow residents to properly sort and store materials plays an important part in achieving waste diversion.

3.1 Designated Area for Set Out

Each multi-residential property shall have a minimum of one designated area for the setting out of waste and divertible materials and the property design shall provide for easy and barrier free access for residents and collection vehicles.

3.2 Curbside Collection (Townhouse and other Private Road Developments)

See Section 6 for detailed requirements.

Each dwelling unit must have clear delineation of set outs so ownership of waste receptacles left at the curb for collection can be determined. The residential waste set-out point must clearly be shown either with a pad or at the end of the owners' driveway. No central set out area is permitted. The footprint at the set-out area should allow for sufficient space for, at a minimum, two Blue Box receptacles, Green Bin(s), Leaf and Yard waste and space for up to four bags of garbage. Organics is collected weekly and garbage is collected every other week. If access to a curb where individual set-out is not designated or available, then a multi-residential collection area is required.

3.3 Multi-residential Collection

Each collection area must be centrally located and designed in a manner that residents can safely access, sort and manage their waste.

The Region works with owners of properties with difficult accessibility to provide collection to as many multi-residential developments as possible. However, if the Guidelines outlined in this document cannot be met, private collection may be required.

3.4 Waste Plan

Development applications must include information in a waste plan that demonstrates their site plans have incorporated all guidelines pertaining to municipal waste collection services. The waste plan will include the following:

- a) Number of dwelling units and number of stories.
- b) The proposed waste handling system anticipated for Blue Box materials, household organics, other divertible wastes, and garbage at the site.
- c) A drawing showing the minimum road dimensions, turning radii, and overhead clearance that conform with the Region's requirements. The access route expected to be used showing waste collection vehicle (See Appendix "A" for dimensions) movement through the proposed development including entry, reversing, exit or any other movement necessary for waste collection must be included.
- d) A drawing showing the internal waste storage area including room dimensions and layout showing the chute details (if applicable) and the size, type and number of collection containers and how these containers will be accessed by collection vehicles, including turning radii that conform with the Region's requirements for municipal waste collection.
- e) Above ground features such as parking areas, mailboxes, common elements in relation to the waste collection access route.
- f) If curbside set-out is proposed, a drawing that clearly depicts a designated area for each dwelling unit for the set out of Blue Box receptacles, Green Bins and garbage.
- g) A drawing depicting that waste storage enclosures meet or exceed local municipality development standards and by-laws.

3.5 Start of Municipal Waste Collection Services

3.5.1 Subdivision Developments

All roads within new subdivisions are considered private until assumed by the Region for the purpose of municipal waste collection services. Regional waste collection will not occur until at least 50 per cent of homes in an approved development area are occupied and the Region has determined that the collection route is safely passable for municipal waste collection vehicles.

3.5.2 Multi-story Developments

Every developer or builder of a new development must ensure that waste from construction operations is kept separate from any residential waste at all times. The Region shall review a property for municipal waste collection services when 75 per cent occupancy is confirmed and the Region has determined that the collection route is safely passable for municipal waste collection vehicles.

3.5.3 Private Roadway Developments

Every applicant requesting municipal waste collection on a private roadway development must complete the Region's Waste Collection Service on Private Property – Durham Region application and submit the required information and proof of insurance. The application is available in hardcopy or digital copy by request from wastestaff@durham.ca or online. Once a completed application is received, the Region will schedule a site visit to confirm that the requirements for municipal waste collection services have been met before approving the subject property for service.

Before a service application is approved for municipal waste collection, roadways must be accessible, allowing waste vehicles to move in a forward motion throughout the site and at least 50 per cent of the units must be occupied on the designated route.

Upon approving a private roadway development for municipal waste collection services, the Region will issue a Notification for the Start of Service to the property owner or property manager outlining all aspects of service and equipment that will be supplied to the site.

The builder or property manager is responsible for the management and proper disposal of residential waste until municipal waste collection begins.

4 General Waste Collection Requirements on Private Roads

The following are the general requirements for Region collection of residential garbage, household organics and yard waste on private roadways. Applicants should refer to the applicable Provincial and Municipal By-laws for additional requirements.

a) The Region will only collect residential waste.

- b) The Region reserves the right to revoke collection services to any residential or multi-residential development that does not meet the requirements outlined in this document or the Region's Waste By-law #2024-009.
- c) Properties approved to receive front-end waste services are responsible for maintaining safe and accessible residential waste storage and handling systems that make waste diversion as convenient as waste disposal.
- d) All waste collection areas and the access road leading to them shall be provided exclusive of any onsite parking spaces.
- e) If access is blocked on the day of collection, no collection will be completed, and material will be left for removal at the property owner's expense and effort.
- f) All residential waste must be securely stored inside an enclosed structure between collection days. Waste storage areas must be in an easily accessible location by residents in a well-lit, secure, and barrier free environment.
- g) All residential waste receptacles must be stored in their respective waste storage areas until the scheduled collection day and must be returned to their respective waste storage areas on the same day following collection with their lids securely closed.
- h) Waste information signage for multi-residential sites must be installed in appropriate locations to identify to residents the proper separation of any divertible material. Property owners are responsible for actively promoting recycling, and other diversion programs to reduce waste.
- i) Private access roads must be constructed of a suitable material such as asphalt or concrete and be structurally adequate to support the weight and vibrations of a fully loaded waste collection vehicle without damage to the roads.
- j) The owner, or agent of the owner, of the property agrees to indemnify and hold harmless the Region and its waste collection contractors on private property against all actions, suits, claims and demands, direct or indirect, which may arise as a result of the provision of these services to the property, including, but not limited to, any damages to structures that may be located on or about the premises, as a result of any waste material collection equipment entering the property, save and except any such actions, suits, claims and demands resulting from any fault, default, negligence, act or omission of the Region, or its waste collection contractors or any other Person for whom the Region is in law responsible.
- k) The property owner is responsible for making all collection receptacles accessible to municipal waste collection vehicles on the designated collection day.

- l) The property owner is responsible for collection, processing, composting, haulage and disposal of all waste from the property until the start of municipal waste collection services.
- m) Each property owner is responsible for ensuring that residents use collection containers for their intended purpose to minimize contamination of the respective waste diversion streams. Failure by an owner to address contamination may result in suspension of municipal waste collection service at the discretion of the Region.
- n) Failure to provide proper storage space for all waste streams may result in the suspension or cancellation of municipal waste collection service.
- o) The Region reserves the right to provide notification of suspension or cancellation of municipal waste collection service for any contravention of this Guideline and/or By-law #2024-009.

4.1 Access Routes

All roadways must have the following minimum dimensions:

- a) 6.5 metres in width from curb face to curb face.
- b) 13.0 metres in turning radii to curb face.
- c) 18.0 metres straight approach for multi-residential collection areas.
- d) Overhead clearance of no less than 7.0 metres throughout.

Where the requirement for a continuous roadway cannot be achieved, a “T” type turnaround or cul-de-sac type turnaround will be permitted. See specifications listed in Appendix B and C.

Where the access route requires the collection vehicle to travel over the deck of an underground parking garage, the applicant must provide a letter to the Region certified by a Professional Engineer confirming the structural capability of the deck to support the weight and vibrations of a fully loaded waste collection vehicle.

5 General Waste Collection Requirements for High Rise Buildings

The following applies to multi-residential high- or mid-rise buildings with six or more dwelling units and stacked townhouses with no garage that utilize a central set out area. The requirements for collection on private roads outlined in Section 3 also apply.

5.1 Storage Areas

- a) The development must have internal waste collection storage rooms of sufficient size to receive and accommodate all garbage, household organics and Blue Box materials from residents.
- b) Only residential waste will be collected from front-end receptacles. No large bulky items, hazardous waste or electronic waste are to be placed in front-end receptacles.
- c) Storage rooms will be fully accessible and identified for the sole purpose of managing waste by residents.
- d) All receptacles will be legibly marked for garbage, household organics, Blue Box materials, and any other divertible materials.
- e) All waste storage rooms must be ventilated, well lit, secure, rodent-proof and separated from the living space in accordance with local zoning By-laws, and Ontario building and fire codes.
- f) All waste storage rooms must be maintained to ensure the safety of residents and collection contractors.
- g) All front-end collection containers must have heavy duty wheels that can be locked to avoid rolling.
- h) Multi-residential developments with greater than 30 units must use compactors for all garbage.
- i) Buildings with waste chutes must ensure waste is sorted for municipal collection. Separate collection receptacles must be provided for household organics, Blue Box materials and garbage. Educational information and signage are available from the Region to illustrate and encourage proper sorting of waste and must be used to promote proper management and sorting.
- j) Property owners and on-site staff must ensure appropriate internal collection procedures and waste handling systems are in place to meet Blue Box material sorting requirements established by the Blue Box material producers.
- k) Consideration must be given to in-unit storage requirements to accommodate various waste sorting receptacles necessary to meet the Region's diversion programs ensuring that waste diversion is as convenient as waste disposal.

5.2 Waste Collection Areas

- a) Direct and safe access for collection vehicles entering from and exiting to the public road must be provided.
- b) The collection area on private property must consist of a level reinforced concrete pad suitably sized to accommodate all waste receptacles and the front-end collection vehicle. A front-end waste collection vehicle must not tip on asphalt as damage can occur due to the weight of the vehicle.
- c) Front-end waste collection containers must be secured with locking wheels and bollards or curbs.
- d) Owners must ensure that municipal waste collection vehicles are able to empty and return receptacles to the collection area without requiring containers to be shuffled either manually or mechanically.
- e) Owners must ensure that municipal waste collection vehicles are able to safely drive out onto the public roadway. Reversing onto a public roadway or oncoming traffic is not permitted unless a spotter is present and the Region has approved the method.
- f) All waste collection areas must be kept clear of all obstructions and clearly marked as a “No Stopping” or “No Parking” area.
- g) Internal waste collection areas, where collection vehicles must empty collection containers inside a building, are permitted. A minimum of 7.0 metre height clearance must be provided enabling the waste collection vehicle to safely complete the maneuver without hitting or scraping walls or roof of the building. Convex mirrors inside and outside the building must be installed and maintained to ensure that municipal waste collection vehicles can safely exit the building.

5.3 Frequency of Service

The Region’s waste collection service for multi-residential collection in front-end receptacles will be limited as follows:

- a) Household Organics: weekly collection will be provided, at minimum, with twice per week collection on a case-by-case basis.
- b) Garbage: weekly for sites under 100 units and twice weekly for greater than 100 units (front-end collection from forklift designed bins).
- c) Bulky items service: by appointment only.

- d) Other diversion programs: as defined by the Region. Includes e-waste, textiles, and batteries. All programs are promoted in partnership with each respective service provider but operated independently of the Region.

5.4 Waste Collection Equipment

All receptacles must meet the requirement of the Region for waste collection.

5.4.1 Garbage Receptacle

The following information for front-end collection garbage receptacle size and requirements for multi-residential sites is intended for general guidance. Proponents should retain the services of a waste management consultant for advice specific to each development.

Compacted (internal storage)

One front-end container per 50 units. Each front-end containers size is typically 3 cubic yards, and an extra container should be available for use on the compactor. An additional extra container should be added above basic requirements for buildings over 150 units.

Uncompacted (external storage)

Table 1 in section 5.4.3 indicates the quantity and sizes of front-end bins that are suggested for uncompacted waste for each building size. 6 cubic yard front-end bins are most commonly used.

5.4.2 Household Organics

Durham Region operates an Enhanced Green Bin program that accepts the items listed in Schedule E of the Waste Management Services By-law #2024-009.

The Region of Durham supplies an in-unit kitchen catcher for each residential unit to collect household organics and wheeled tote containers as common collection containers for bulking the household organics from individual residential units.

5.4.3 Waste Collection Container Estimates

Table 1 provides a guideline for residential buildings based on an average of two residents per unit and best practices for source separation of divertible materials.

Table 1 Number of Waste Receptacle Recommendations

| Number of Dwelling Units | Organics Receptacles | Front-End Garbage Receptacles |
|--------------------------|----------------------|-------------------------------|
| 6-10 | 1 Cart | 1 x 2yd ³ |
| 11-20 | 1 Cart | 1 x 3yd ³ |
| 21-30 | 2 Carts | 1 x 4yd ³ |
| 31-40 | 2 Carts | 1 x 6yd ³ |
| 41-50 | 3 Carts | 1 x 8yd ³ |
| 51-60 | 3 Carts | 1 x 8yd ³ |
| 61-70 | 4 Carts | 2 x 6yd ³ |
| 71-80 | 4 Carts | 2 x 6yd ³ |
| 81-90 | 5 Carts | 2 x 8yd ³ |
| 91-100 | 5 Carts | 2 x 8yd ³ |
| 101-110* | 6 Carts | 3 x 8yd ³ |
| 111-120 | 6 Carts | 3 x 8yd ³ |
| 121-130 | 7 Carts | 3 x 8yd ³ |
| 131-140 | 7 Carts | 3 x 8yd ³ |
| 141-150 | 8 Carts | 3 x 8yd ³ |
| 151-160 | 8 Carts | 4 x 8yd ³ |
| 161-170 | 9 Carts | 4 x 8yd ³ |
| 171-180 | 9 Carts | 4 x 8yd ³ |
| 181-190 | 10 Carts | 4 x 8yd ³ |
| 191-200 | 10 Carts | 4 x 8yd ³ |
| 201-210 | 11 Carts | 5 x 8yd ³ |
| 211-220 | 11 Carts | 5 x 8yd ³ |
| 221-230 | 12 Carts | 5 x 8yd ³ |
| 231-240 | 13 Carts | 5 x 8yd ³ |
| 241-250 | 13 Carts | 6 x 8yd ³ |

* Note: Twice weekly collection recommended for developments with more than 100 units.

6 General Waste Collection Requirements for Townhouse Properties on Private Roads Receiving Curbside Service

A multi-residential townhouse development, where the internal private road enables curbside collection, may be approved for weekly curbside waste collection. The Waste Collection Service on Private Property – Durham Region application must be completed by the condominium board or designate on behalf of all residents and be submitted

online. The Region will conduct a review of the site to ensure it meets the vehicle accessibility requirements for waste collection service. This review will only be completed once 50 per cent of homes in an approved development area are occupied and the Region has determined that the collection route is safely passable for municipal waste collection vehicles.

The condominium board is responsible for all road maintenance and access within the site.

Townhouse developments approved for curbside collection will receive the same services as single family homes and residents must follow By-law #2024-009 requirements for curbside set out.

The following requirements may be unique to townhouse developments on private roads:

6.1 Collection Areas

- a) Collection areas must be located along the internal roadway of the development in front of each dwelling unit. It is the responsibility of the residents to properly place their waste out for collection on the designated day of the week as per the Region's Waste Collection By-law #2024-009.
- b) The collection route must be kept clear of all obstructions and clearly marked as a "No Stopping" or "No Parking" area along the private roadway.
- c) A minimum overhead clearance of 7.0 metres must be provided from all obstructions such as wires, balconies, trees or other throughout the collection access route and in all waste collection areas.
- d) Clear delineation of ownership of the waste at the set-out point of each unit is required to ensure no piles are created and illegal dumping is prevented. Waste set out may be either at the end of a driveway or on a clearly labeled set out point which reflects the unit number of the property.
- e) Access routes must meet the requirements outlined in section 4.1.

7 Regional Approval Process for Municipal Waste Collection on Private Property

The Region's Works Department Waste Management Services Branch reviews all new residential development applications. If additional information is required, a developer will be requested to submit additional details, such as a detailed waste plan, or a detailed drawing showing the proposed movements of municipal waste collection vehicles through the site. Municipal waste collection services may be denied for any

development that does not meet the minimum requirements for municipal waste collection services.

Multi-residential development applications must clearly depict details of internal waste storage rooms, respective compacting and sorting equipment, and collection areas.

The Region's comments related to approval of municipal waste collection services remain as recommendation only until a formal application is submitted and approved, and a final site visit is completed which confirms that the property conforms with the Region's design standards for municipal waste collection services.

7.1 Application for Waste Collection Services

An application for Waste Collection Service on Private Property – Durham Region and Indemnification Form must be completed for every development on private roadways as a condition for the provision of municipal waste collection on private roadways.

No application is required for developments on public roadways. However, each developer/builder must submit closing lists confirming occupancy as a condition for the Region's commencement of municipal waste collection services.

7.2 Site Reviews

The Region will complete a site review upon receipt of, either an application for Waste Collection Service on Private Property – Durham Region application and Indemnification Form or closing lists. Refer to Appendix E Checklist for Waste Collection - Services on Private Property for details of the site review. During the site review, a waste collection vehicle will traverse the route confirming uninterrupted access/egress. The internal waste collection areas will be reviewed to ensure that all equipment installations meet the Region's design standards for municipal waste collection services.

All reviews are based on meeting these Guidelines and a final decision will be provided upon final site inspection. If approved, confirmation will be provided with details of the service levels that can be provided by the Region. If application for service is made by the builder prior to completion of the development and the establishment of the condominium corporation occurs, a revised and updated Application and Certificate of Insurance must be provided by the condominium corporation.

7.3 Insurance Certificate

Upon approval of municipal waste collection services, a Certificate of Insurance must be completed and submitted to the Region confirming that the Region is named as an insured party on the property's insurance policy and will continue to be named so at renewal of the policy. A new Certificate of Insurance is required to be submitted to the Region at any time the ownership of a property changes.

The Region reserves the right to require an original up-to-date certificate of insurance at any time. Failure to comply shall result in the Region suspending municipal waste collection services the required Certificate of Insurance is provided.

7.4 Submission of Documents

All documents should be submitted either by mail to:

Supervisor, Waste Services
Regional Municipality of Durham, 5th Floor
605 Rossland Road East, PO Box 623
Whitby, Ontario L1N 6A3

Or electronically to:

wastestaff@durham.ca

The Region will respond in writing/email to the applicant acknowledging that the document has been received.

8 Revisions

The Region may, from time-to-time review, revise and update this document.

Any revisions to this document will require the approval of the Director of Waste Management Services or designate.

Appendix A: Dimensions of Waste Collection Vehicles and Containers

The following table illustrates vehicle dimensions for a typical waste collection vehicle. The dimensions are approximate and may vary from actual. All measurements are in metres.

Table 2 Typical Waste Collection Vehicle Dimensions

| Vehicle Type | Length | Width | Height | Turning Radius |
|--|---------|--------|---|----------------|
| Multi-Residential Recycling Collection (side loaded by driver) | 10.76 m | 2.77 m | <ul style="list-style-type: none"> • 3.69 m to top of cab • 5.08 m with bucket up | 11.50 m |
| Multi-Residential Front-end Waste | 9.85 m | 2.77 m | <ul style="list-style-type: none"> • 4.31 m to top of cab • 7 m with forks extended | 11.50 m |
| Curbside Waste and Organic Rear Packer (hand bombed) | 11.54 m | 2.77 m | 3.69 m | 13.00 m |
| Curbside Recycling Side Packer (hand bombed) | 10.46 m | 2.98 m | 3.85 m | 13.00 m |

Figure 1 illustrates a typical lift and tip of a front-end vehicle. Front-end collection bins contain protruding side brackets to facilitate lifting by collection truck lift arms. Extra space on either side of such bins has been incorporated into the recommended footprint column for space planning purposes. Also, the height of front-end collection bins does not include castors (wheels), which are optional on bins and could add 6 to 8 inches in height.

Collection Vehicle Used for Front-end Garbage Receptacles

Example: SU9/medium size trucks front/top loading

7,300 kg (16,094 lbs) - Front Axle Legal Weight

17,000 kg (37,479 lbs) - Rear Axle Legal Weight

Dimensions:

- Length: 10 m (collection 12.36 m)
- Width: 3.15 m
- Height: 4.2 m (collection 6.9 m)

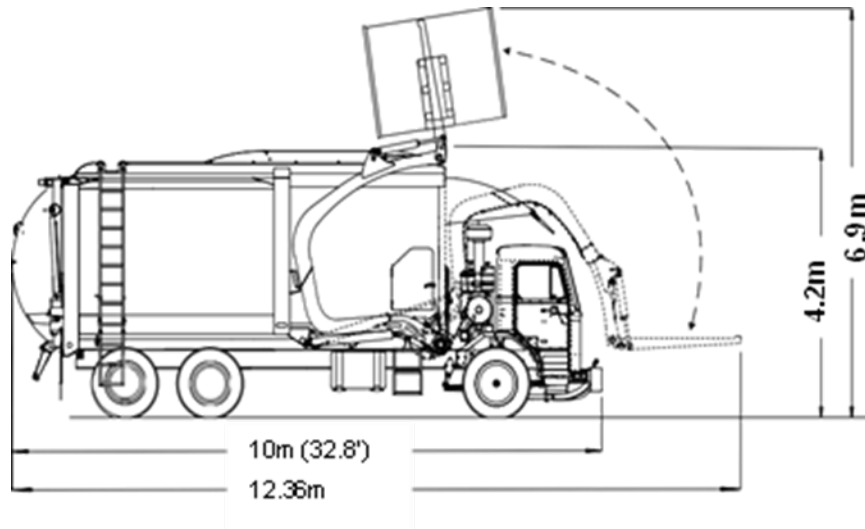


Figure 1 Schematic of Front-End Collection Vehicle

Figure 2 illustrates the motion of multi-residential organics cart recycling collection vehicle.

Organics Cart Recycling

Example: SU9/medium size trucks side loading

Dimensions:

- Length: 10.67 m
- Width: 2.74 m (collection 4.26 m)
- Height: 4.27 m (collection 5.79 m)

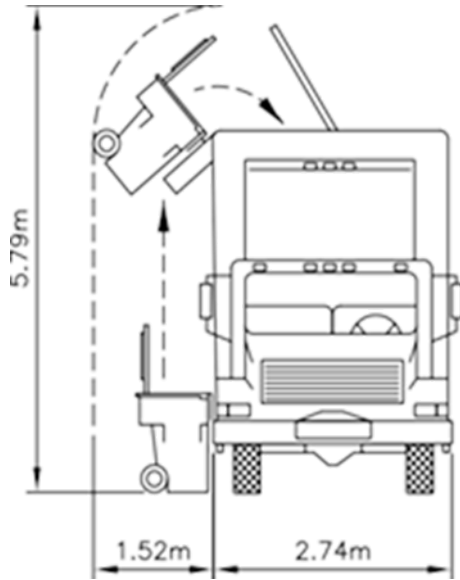


Figure 2 Cart Collection Vehicle

Table 3 Recommended Footprint of Various Front-end Forklift Vehicles

| Front-end forklift Vehicle Capacity | Length | Width | Height** | Recommended Footprint |
|-------------------------------------|-------------------|-------------------|-------------------|--------------------------------|
| 65 Gallon (246 L) | 0.68 m 2.24 ft | 0.68 m 2.24 ft | 1.09 m 3.58 ft | 1 cubic m 3.3 ft x 3.3 ft |
| 2 Cubic Yard Bin | 1.82 m 6.0 ft | 0.91 m 3 ft | 0.91 m 3 ft | 2 m x 1.2 m 6.5 ft x 4 ft |
| 3 Cubic Yard Bin | 1.82 m 6.0 ft | 1.03 m 3.4 ft | 1.21 m 4.0 ft | 2 m x 1.4 m 6.5 ft x 4.5 ft |
| 4 Cubic Yard Bin | 1.82 m 6.0 ft | 1.37 m 4.5 ft | 1.22 m 4.0 ft | 2 m x 1.7 m 6.5 ft x 5.5 ft |
| 6 Cubic Yard Bin | 1.82 m 6.0 ft | 1.82 m 6.0 ft | 1.6 m 5.25 ft | 2 m x 2.1 m 6.5 ft x 7 ft |
| 8 Cubic Yard Bin | 1.82 m 6.0 ft | 2.1 m 7.0 ft | 1.82 m 6.0 ft | 2 m x 2.4 m 6.5 ft x 8 ft |

Appendix B: Determine Access Route for Collection Vehicles and Turn Radius

A waste collection vehicle needs to safely enter and exit a site to provide municipal waste collection services. Insufficient space for the vehicle to move in and out of an area, poses a risk to pedestrians and vehicular traffic. Design guidelines are summarized to assist in developing the footprint where waste can be collected safely.

Table 4 Summary of Design Guidelines for Safe Vehicle Access

| Element | Design Guideline |
|--------------------|--|
| Access In/Out | Collection vehicles when entering a private roadway, must have clear visibility into the collection point where set-out occurs. The collection vehicle must move in a forward motion to collect. Once collection is complete, the truck may maneuver with a three-point turn either on a t-turn or cul-de-sac but must generally move in a forward motion. Reversing onto the public roadway or oncoming traffic is not permitted unless a spotter is present, and the Region has approved the method. |
| Roadway | Must meet municipal and regional road requirements ensuring clear site lines with a minimum width of 6.5 meters throughout. |
| Slope | Slope into site must not exceed 6 per cent and area where bins are placed for collection must be less than 1 per cent and ensure bins do not roll. |
| Under route | If a collection vehicle must travel over an underground parking garage or any underground utility service, the road must meet or exceed the ability to handle the weight of a fully loaded waste collection vehicle. Engineering report will be required on file to validate strength of structure. |
| Overhead clearance | Minimum vehicle clearance along route must be 7 meters. Internal building collection is permitted but design of collection point must adhere to width, height and tipping dimensions of a front-end waste vehicle and convex mirrors to enable clear visibility to exist the area. |
| Turning radius | Provide the collection vehicle a minimum turning radius of 13 metres to face of curb throughout the entire access route. |

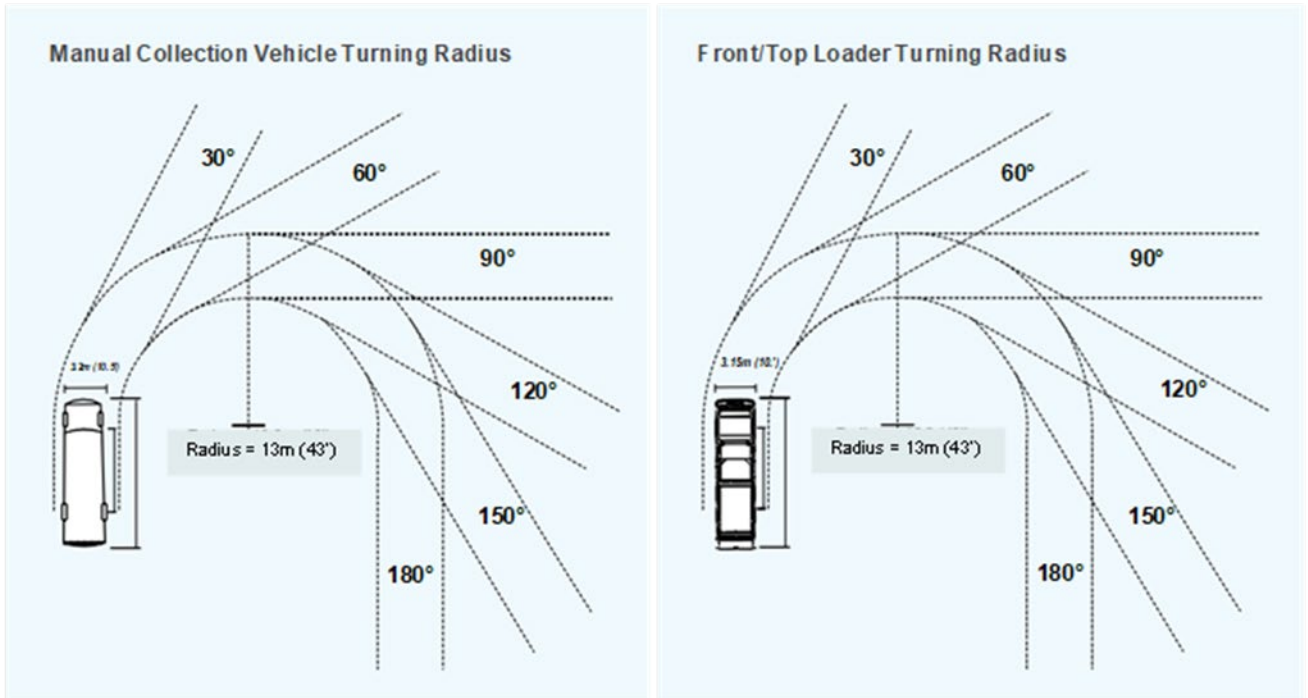


Figure 3 Collection Vehicle Turning Radius

Appendix C: Dimensions for a "T" Turnaround

Measurements of road width are pavement to pavement. Rolling curbs are considered additional width and not roadbed.

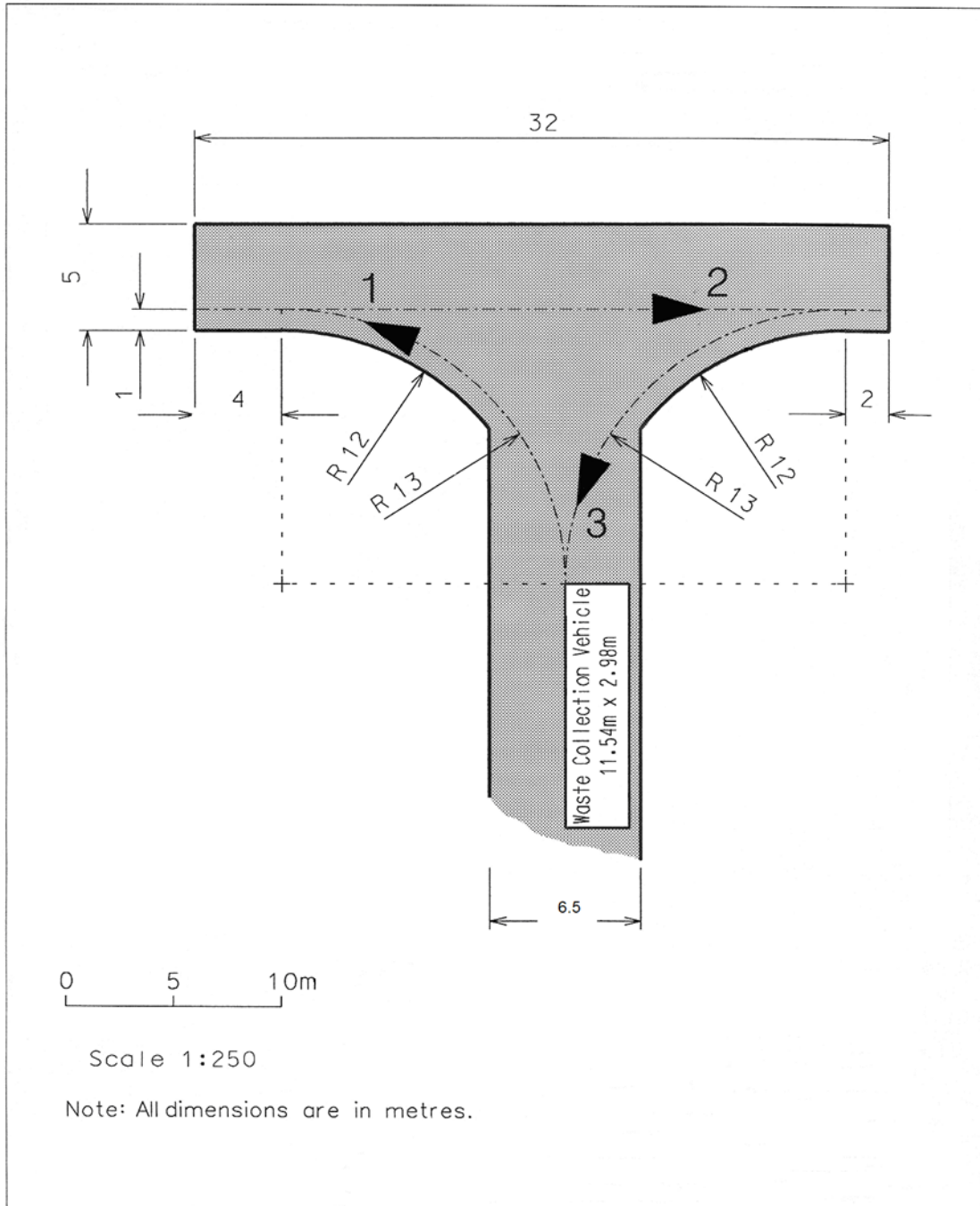


Figure 4 Dimensions for a "T" Turnaround

Appendix D: Dimensions for a Cul-de-sac Turnaround

Measurements of road width are pavement to pavement. Rolling curbs are considered additional width and not roadbed. The internal radius is measured from the centre point of the cul-de-sac to the face of the curb.

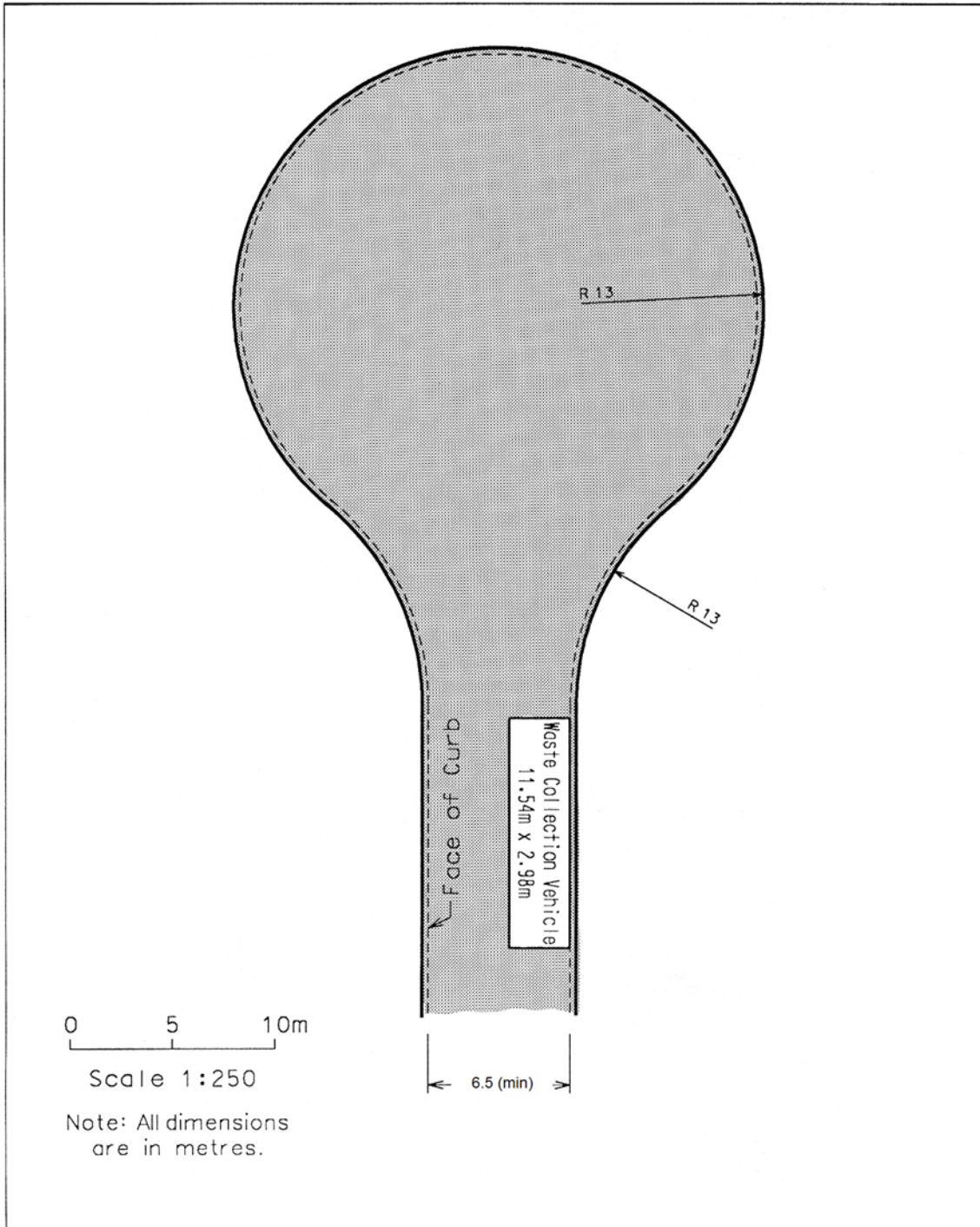


Figure 5 Dimensions for a Cul-de-Sac Turnaround

Appendix E: Checklist for Waste Collections Staff – Services on Private Property

Completed by Region or waste collection contractor staff during site review of a new application.

Address of Property: _____

Date of Review: _____

Review Completed by: _____

| General Site Requirements | Confirmed (Y/N) |
|---|-----------------|
| The property owner designed and constructed proper and safe residential waste handling systems for their residents on private property including access routes, storage facilities, collection areas, and access to a public road. Reversing onto a public roadway or oncoming traffic is not permitted unless a spotter is present and the Region has approved the method. | |
| The design of the collection area and the access road, as outlined in this document, is provided exclusive of any onsite parking spaces. No Parking signs have been installed. | |
| All containers used for source separation of waste are securely stored inside until the scheduled collection day, and a system is confirmed that bins are returned to the storage area following collection. | |
| Private access roads have been constructed of a suitable material such as asphalt or concrete and structurally adequate to prevent damage by and support of a fully loaded garbage collection vehicle of approximately 30 tonnes. | |
| Road width is equal to or greater than 6.5 meters throughout the route measuring from pavement to pavement and turn radius is no less than 13 meters. | |

High Rise Buildings Only: For multi-story residential high-rise buildings with more than six units, waste design and collection requirements are as follows:

| a) Waste Storage Checklist | Confirmed (Y/N) |
|---|------------------------|
| Internal garbage and recycling storage room(s) have sufficient size to accommodate all required garbage and recycling containers. Such space provides for easy access and movement of containers to and from the storage room. The storage room must be ventilated, well lit, rodent-proof and separated from the living space, and meet or exceed local zoning By-laws, building and fire codes. | |
| Appropriate location ensures a safe and clean environment around the waste collection areas and access routes for residents. Property owners or onsite designate confirm they can actively promote waste diversion programs onsite as a means of reducing garbage. | |
| The storage room has a roll up overhead door a minimum size of 4.0 metres wide and 4.0 metres high, leading to the collection area. | |
| Property owner/manager/designate responsible will move all garbage, recycling, organic waste storage containers to the designated collection point on the designated collection day(s). Front-end collected garbage containers that cannot be accessed from within the collection vehicle will not be collected. | |
| Large multi-storey residential development sites greater than 30 units must mechanically compact garbage waste. Waste handling systems must include separate containers for organics, Blue Box materials and garbage. | |
| If equipped with a chute system, an adequately sized chute system (designated: garbage, organics, containers, papers) exists adjacent to the building elevators, or an acceptable equivalent location, and residents can source separate waste prior to sending it down the chute system. | |
| A waste enclosure is present for bulky goods collection adjacent to and separate from the garbage and organics bins to enable material to be separate from residual waste for bulky-good collection is provided. | |

| b) Waste Collection Area Checklist | Confirmed (Y/N) |
|---|------------------------|
| The collection area is directly accessible to the garbage and organics collection vehicles on private property with direct and safe access entering in a forward motion from, and once collection is complete, exiting to the public road. | |
| The collection area is level with the access roadway and consists of a level concrete pad and apron with a minimum width of 3.0 meters for every garbage bin and 1 metre for every recycling bin. Sufficient space on the concrete pad enables the waste vehicle to complete collection operations. The minimum depth of the collection area is 3 metres. | |
| The collection area has bollards or curbs to prevent the containers from rolling. | |
| The collection vehicle is able to empty and return containers to the waste collection area without requiring containers to be shuffled either manually or mechanically. | |
| The collection area is clear of all obstructions and clearly marked as a NO STOPPING area. | |
| In the collection area, an overhead clearance of 7 metres is provided and no obstructions such as wires, balconies and trees are visible. | |
| Where the requirement for a continuous drive-through access and exit cannot be met, a “T” type turnaround is provided that includes the length of the collection vehicle plus the length. Specification listed in Appendix C. | |

| c) Waste Access Routes Checklist | Confirmed (Y/N) |
|--|------------------------|
| The internal roadway is a minimum of 6.5 metres in width, uses a minimum of 13 metres in turning radii and the approach to the collection area is designed with a minimum of 18 metres straight approach. | |
| Where the access route used by the waste collection vehicle travels over the deck of an underground parking garage, the applicant has provided a letter to the Region, certified by an Engineer that confirms the structural capability of the deck to support the weight and vibrations of a fully loaded waste collection vehicle. | |
| The internal roadway permits forward movement. Continuous drive through access is preferred. | |

Townhouse/Single Family Properties Only: For single family dwellings and multi-residential type developments with an internal private road network or unassumed road, waste collection and design services are to be as follows:

| a) Waste Storage Area Checklist | Confirmed (Y/N) |
|--|------------------------|
| The development can accommodate waste material storage inside the single-family dwellings and/or internal road type townhouse units. | |

| b) Waste Collection Area Checklist | Confirmed (Y/N) |
|--|------------------------|
| The waste collection area is along the internal access route of the development in front of each and every dwelling unit. Residents can properly place their waste materials out for waste collection on the designated day of the week. | |
| The collection area is clear of all obstructions and clearly marked as a “No Stopping” or “No Parking” area. | |
| Along the collection access route and in the collection area, an overhead clearance of 7 metres is provided from all obstructions such as wires, balconies and trees. | |

| c) Waste Access Routes Checklist | Confirmed (Y/N) |
|---|------------------------|
| The internal road layout is designed to permit continuous collection of waste. | |
| The internal roadways is a minimum of 6.5 metres in width and a minimum of 13 metres in turning radii measured curb-to-curb. | |
| Where a continuous drive-through route cannot be achieved, a "T" type turnaround or cul-de-sac type turnaround is provided. Refer to specifications in Appendix C and D. | |
| The internal access route is designed to structurally withstand the weight of fully loaded waste collection vehicles. | |
| Where the access route used by the collection vehicle travels is over the deck of an underground parking garage, a letter to the Region and/or Municipality, certified by an Engineer that confirms the structural capability of the deck to support a fully loaded waste collection vehicle has been provided. | |

Property Recommended for Service: Y/N

Recommended Service Start Date: _____