

1.0 **GENERAL**

1.1 **Related UBC Guidelines**

- .1 Coordinate with Section 10 00 10 Special Room Requirements for Interior Waste and Recycling Room requirements near the Loading Bay.
- .2 Coordinate with Campus Wide Design Guidelines, Part 3 for exterior enclosure and screening requirements of garbage and recycling containers stored on the outside of the building.

2.0 **DESIGN REQUIREMENTS**

2.1 Building designs need to allow adequate service area space for garbage and recycling containers to be stored and collected or emptied with waste management vehicles. Containers and vehicles are described in 3.0 below. Minimum requirements for most buildings include:

- .1 Concrete pad for placement of front-load waste containers to prevent long-term surface damage.
- .2 3-sided enclosure around concrete pad such that waste bins are visible only from the direction of service vehicle approach. Design to be approved by University Architect.
- .3 Direct in-line service access to front-load waste containers at least 1.5 times the length of an industry standard front-load compactor truck.
- .4 Outside service area for recycling cart pickup using an industry standard side-load truck which loads from the right side only.
- .5 Ramp or ground level access from the interior waste and recycling storage area to the service area to allow recycling carts to be wheeled easily to the designated outside pickup area. Refer to Section 10 00 10 for coordination with the interior waste and recycling storage area requirements.
- .6 Service lane widths, turning radii and load bearing capability sufficient to accommodate all waste collection vehicles noted above. Fire truck access standards are typically sufficient.
- .7 Minimum access width of 12' (feet) to any front-loads waste container enclosures.
- .8 Minimum vertical clearance above waste containers of 23' (feet).
- .9 Project specifications are to describe any proposed waste management systems or equipment within the building that differ from the standard equipment types listed in 3.0 below, and identify any anticipated need to recycle or dispose any significant amount of "specialty" waste materials that would require additional storage or handling equipment.

3.0 EQUIPMENT

3.1 UBC uses a number of standard Waste Management containers and vehicle types and utilizes the same types throughout the campus: These include:

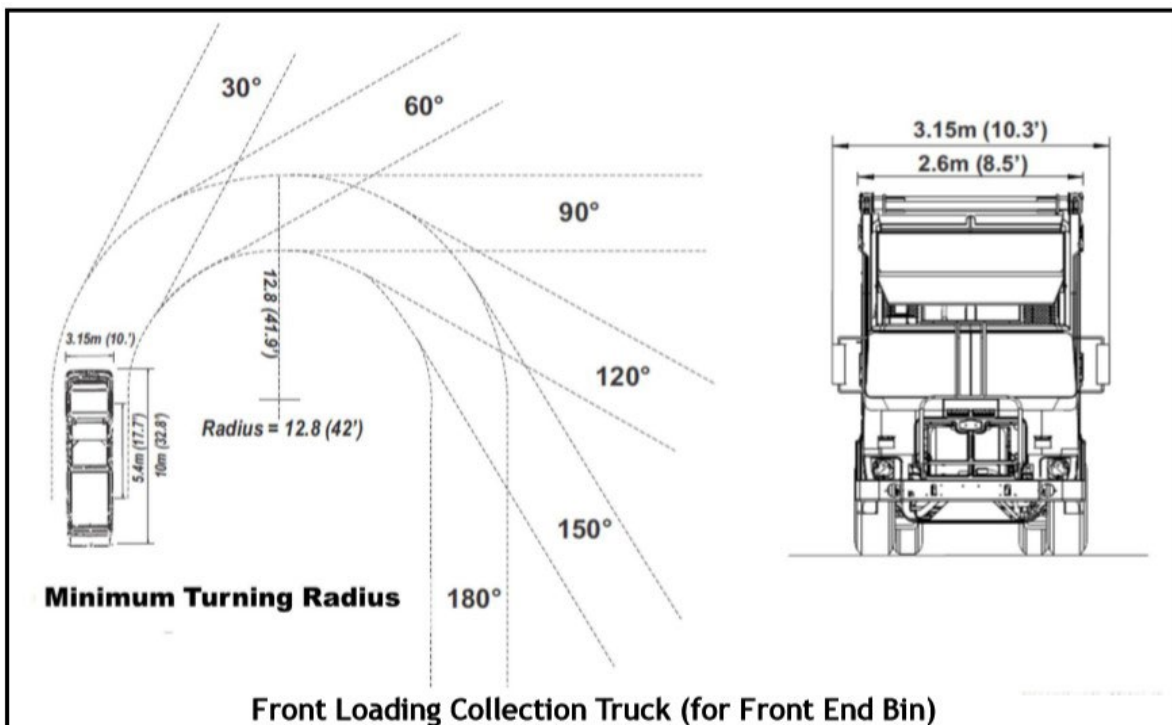
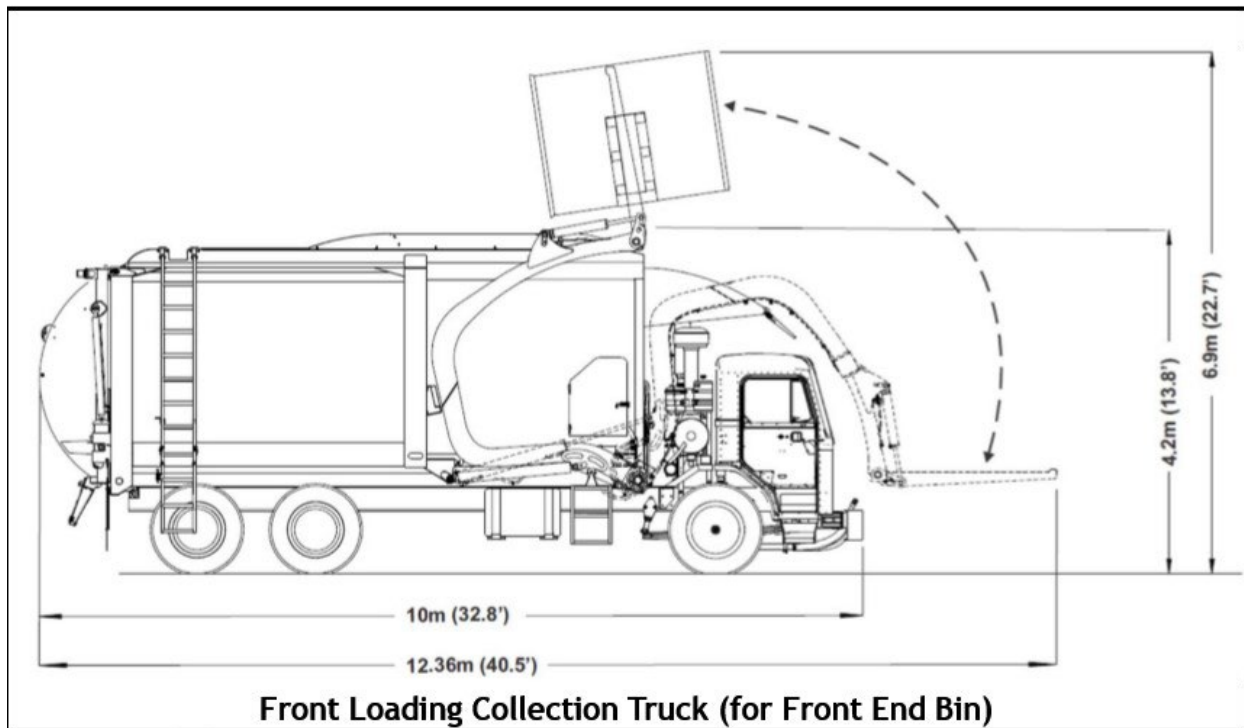
- .1 3, 4 and 6 cubic yard steel containers for collection of garbage and recyclable cardboard, serviced using an industry standard front-load compactor truck which requires direct drive-in access.
- .2 35, 65 and 95 gallon wheeled Schaefer carts for collection of recyclable paper and mixed containers, serviced using an industry standard side-load recycling truck which loads from the right side only.
- .3 30 and 40 cubic yard compactor container for collection of garbage at high waste generation, facilities, serviced, using an industry standard roll-off container truck which requires direct back-in access.
- .4 10, 20, 30, and 40 yard bins for concrete, gypsum, construction, yard waste, and steel recycling, serviced using an industry standard roll-off container truck which requires direct back-in access.
- .5 Consult with UBC Waste Management to confirm the waste management equipment that is appropriate for the project.
- .6 Standard dimensions of waste containers, recycling carts and waste vehicles are as follows:

Type	Description	Size (W x D x H)	Weight (kg)
Waste Containers	3 cubic yard front-load	79 x 42 x 48"	320
	4 cubic yard front-load	79 x 54 x 48"	410
	6 cubic yard front-load	79 x 66 x 58"	550
	30 cubic yard roll-off	96 x 256 x 79"	3,270
	40 cubic yard roll-off	96 x 256 x 90.5"	3,400
Recycling Carts	35 gallon	22.75 x 22.35 x 39.5"	
	65 gallon	28.0 x 26.8 x 42.2"	
	95 gallon	28.0 x 30.5 x 46.5"	

Vehicle Type	Size (W x D x H)	Gross Vehicle Weight (kg)
Front-Load Compactor Truck	8.5 x 32.5 x 13.5'	25,000
Roll-Off Container Truck	9.75 x 33.3 x 9.75'	25,000
Side-Load Recycle Truck	9.5 x 31.5 x 12.5'	17,000
Side-Load Truck Extended	12.5 x 31.5 x 16.0'	-

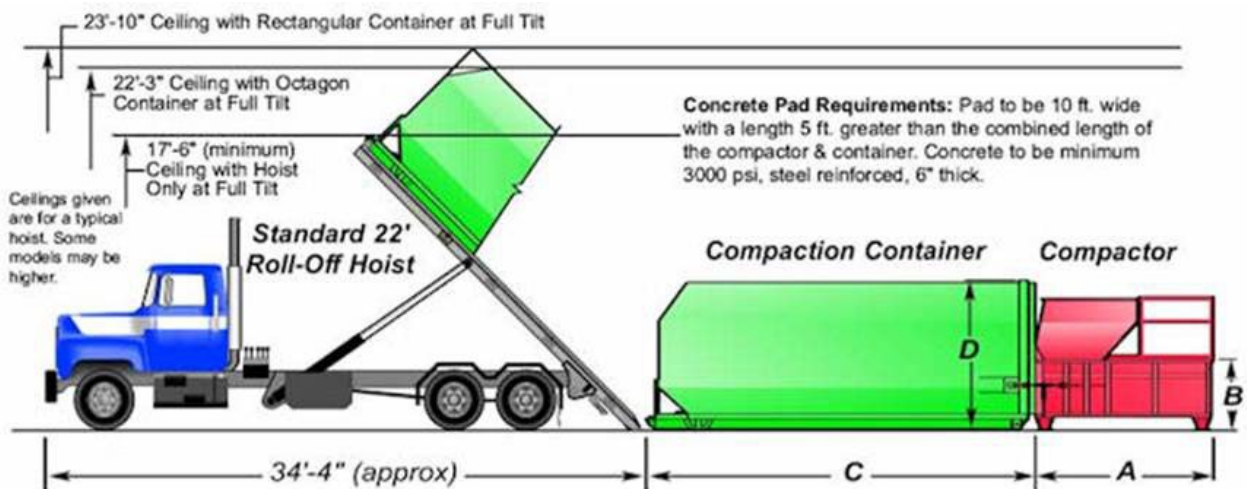
4.0 **BUILDING ACCESS**

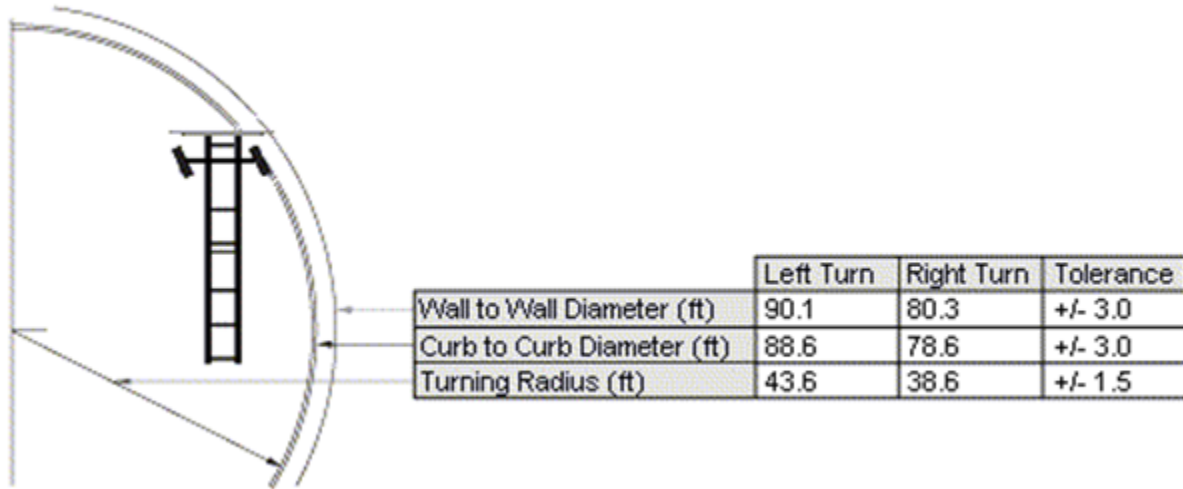
- 4.1 The access route and loading area must be designed in such a way as to allow collection vehicles to enter the site, collect the waste and exit without the need to back up onto a public street.
- .1 A turnaround area allowing for a three-point turn of not more than one truck length or a drive through access route are acceptable options. The approximate dimensions of the collection vehicle that must be accommodated are presented in the table below.
 - .2 Access driveways must be a minimum of 6 meters wide at the point of ingress/egress to the site and a minimum of 4.5 meters wide throughout the site with an unencumbered vertical clearance of 4.4 meters. Consideration should be made regarding width requirements for right or left-hand turns.
 - .3 Turning radii of 9.5 meters inside and 14 meters outside should be available throughout the access route. The slope of the access route shall not exceed 8% and provide adequate vertical clearance throughout the access route.
- 4.2 Typical Recycling, Garbage and Cardboard Collection Truck Dimensions
- .1 Typical dimensions for collection trucks used on campus are provided below together with diagrams:
 - Front Loading Collection Truck
 - (approximate) Length 10.0 m - 12.4 m
 - Width 3.2 m Minimum inside turning radius 10.0 m
 - Minimum outside turning radius 12.8 m
 - Height clearance 6.5 m - 7.5 m
 - Width clearance 4.0 m
 - Length clearance 15.2 m
 - Side Loading Recycling Truck
 - (approximate) Length 10.0 m - 12.4 m
 - Width 3.2 m Minimum inside turning radius 10.0 m
 - Minimum outside turning radius 12.8 m
 - Height clearance 6.5 m - 7.5 m
 - Width clearance 4.0 m
 - Length clearance 15.2 m
 - Compactor, Roll-Off Bin and Collection Truck
 - (approximate) Length 10.0 m - 12.4 m
 - Width 3.2 m Minimum inside turning radius 10.0 m
 - Minimum outside turning radius 12.8 m
 - Height clearance 6.5 m - 7.5 m
 - Width clearance 4.0 m
 - Length clearance 15.2 m





Typical Compactor, roll-off bin and collection truck dimensions





END OF SECTION