

# Trash and Recycling Enclosures



Design Considerations



City of Fort Collins Guidance Document  
August 2004

## **Table of Contents**

<b>Introduction</b> .....	2
<b>Applicability</b> .....	2
<b>Design</b> .....	2
<b>Space Allocation</b> .....	2
<b>Location</b> .....	3
<b>Accessibility</b> .....	3
<b>Screening</b> .....	5
<b>Signage</b> .....	5
<b>Maintenance</b> .....	5
<b>Variances</b> .....	5
<b>Layout Suggestions / Illustrations</b> .....	6
<b>The good, bad and ugly (examples)</b> .....	16

## Introduction

The City of Fort Collins Land Use Code contains provisions for trash and recycling enclosures in section 3.2.5. The purpose of the statute is to:

- 1) Ensure the provision of adequate locations, compatible with surrounding land uses, for the collection, separation, and pickup of recyclable materials.
- 2) Regulate the location of recycling and trash containers and enclosures in order to provide adequate, convenient space for the collection, storage and loading of recycled materials at multifamily residential, commercial and industrial land use sites;
- (3) Increase the recycling of reusable materials consistent with the City's goals to reduce solid waste; and
- (4) Decrease the impact of the consumption of renewable and nonrenewable resources on the environment.

## Applicability

The trash/recycling enclosure statutes contained in the City of Fort Collins Land Use Code apply to all new and significantly remodeled commercial or multi-family structures where refuse is generated by the use of the structure shall provide adequate space for the collection and storage of refuse and recyclable materials.

The following structures are exempt from the provisions: single-family dwellings; and multi-family dwellings where there are no central or communal refuse or recycling collection or storage facilities or where refuse and recyclable materials are stored and collected on an individual unit basis.

## Design

**Materials:** Trash and recycling areas must be enclosed such that they are screened from public view. The enclosure shall be constructed of durable materials, such as masonry, and shall be compatible with the structure to which it is associated. Gates on the enclosures shall be constructed of metal or some other comparable durable material, shall be painted to match the enclosure, and shall be properly maintained. Enclosure areas should be constructed on a concrete pad, for longevity and safety of handlers. Gravel, packed dirt and rutted asphalt will not be allowed. Gates should be positioned to swing clear of the enclosure's front width. Gate pins should be installed to hold gates open for integrity and safety.

Layout: Whenever possible, recyclable materials storage areas shall be located adjacent to refuse collection and storage areas in order to provide convenient recyclable materials drop-off, storage, and collection. (Refer to Illustration H)

## Space Allocation

How much space is adequate for the collection and loading of recyclable materials? This is a hard question to answer due to the variability in development types and collection methods.

The amount of space provided for the collection and storage of recyclable materials shall be designed to accommodate collection and storage containers consistent with the recyclable materials generated. It is recommended the area be at least as large as the amount of space provided for the collection and storage of refuse materials.

**Estimating area needed:** *(please note this is in addition to space needed for trash service)*

Type of Occupancy	Amount of Space Required Over and Above Standard Refuse Bin Requirements
Multi-Family	100 square ft. for the first 10 units and 5 square ft. for each additional unit
Commercial	10,000 sq. ft. and above 100 sq. ft. for the first 10,000 sq. ft. (gross) and 5 sq. ft. for each additional 1,000 sq. ft. (gross)"

Container Type	Dimensions	Square Feet
40 yard bin	8' x 20-24' / 8' deep	160-192
20 yard bin	8' x 20-24' / 8' deep	160-192
3 yard bin	4' x 3' / 3'-4' deep	12
2 yard bin	4' x 2' / 3'-3½' deep	8

Vehicle Type	Access Requirements/Concern
Front loader	25 ft. vertical clearance. Rolloff 25-30 ft. vertical clearance. 60-70 ft. horizontal distance. The greater vertical clearance, the smaller horizontal distance required.
Stake bed	Access to containers only. Forklift access may be required.
Recycling vehicle/ Compartmentalized truck	Access to containers only.

## Location

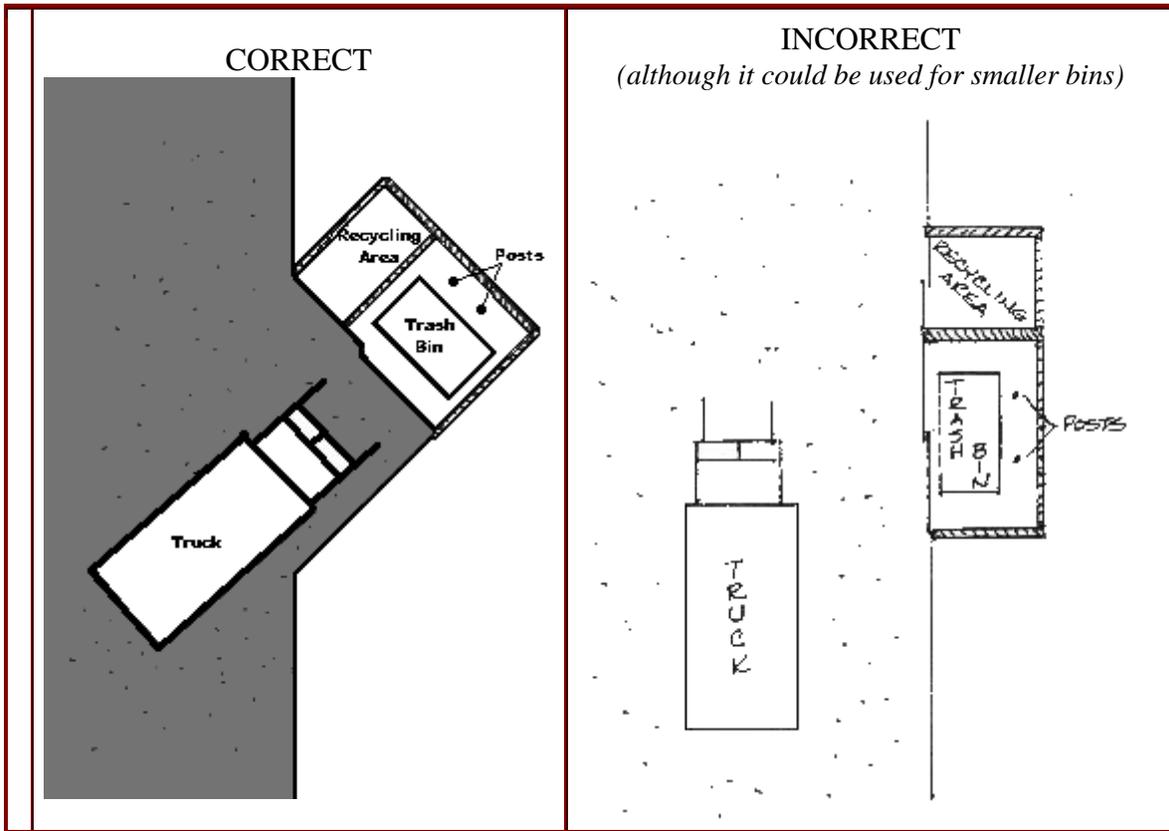
Recyclable materials storage areas shall be located adjacent to refuse collection and storage areas in order to provide convenient recyclable materials drop-off, storage, and collection.

## Accessibility

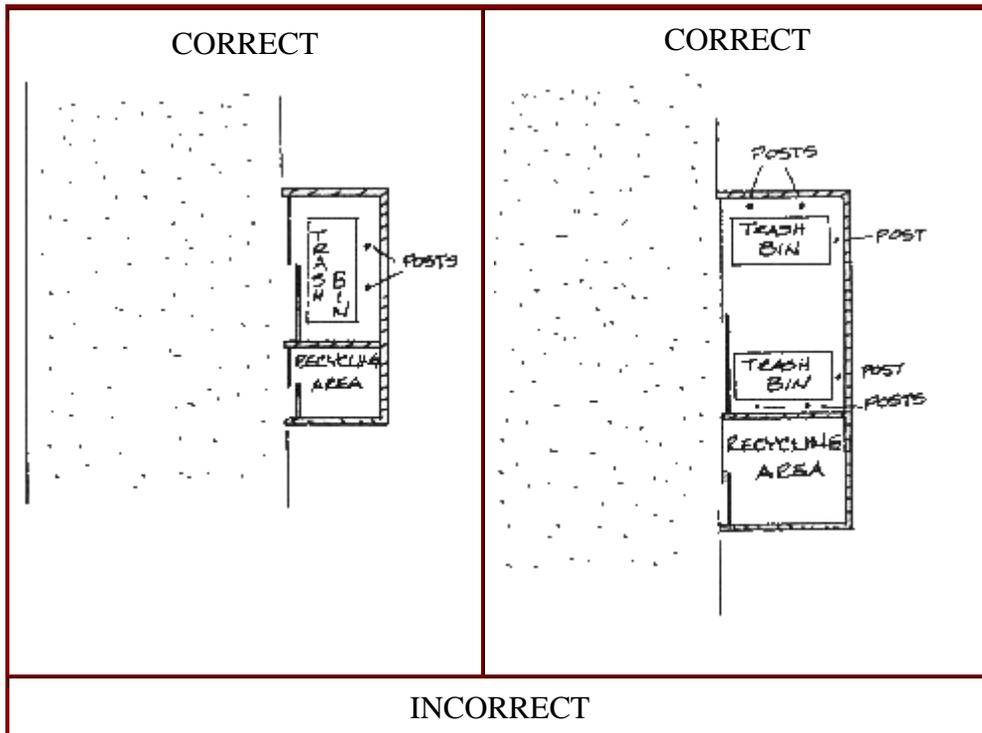
All areas designated for collection and loading of recyclable materials must provide access for those who deposit recyclables as well as those responsible for collecting and loading the materials. Each trash and recycling enclosure shall be designed to allow walk in access without having to open the main enclosure service gates.

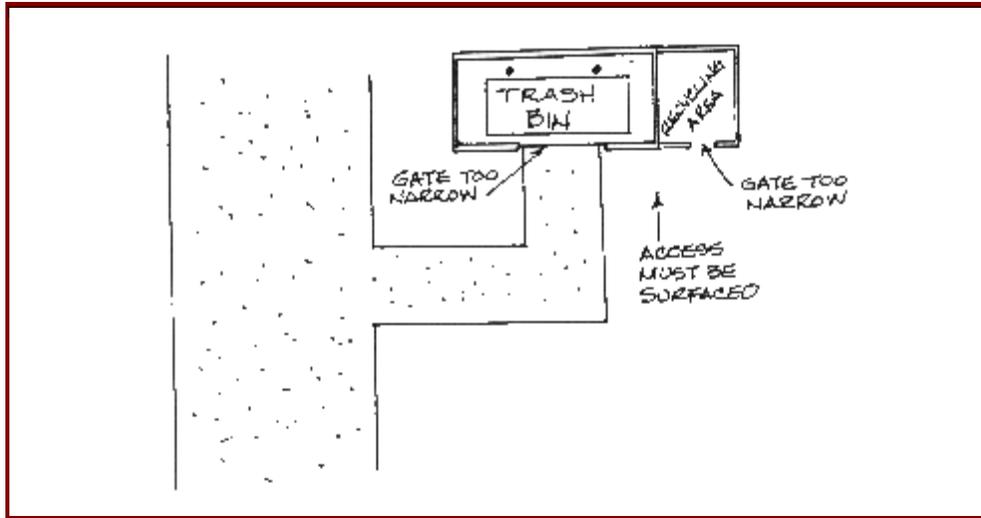
If the collection truck must enter your property to service bins, the truck must be able to circulate the parking area without backing up. Trash/Recycling vehicles require 18' of vertical clearance over the enclosure and the approach to the enclosure. Trucks are approximately 31 feet long, 8 feet wide and have an outside turning circle of 88.5 feet. Since the enclosure area should be designed to provide adequate, safe and efficient accessibility for service vehicles, the following design examples are provided:

**Large Bins (3-10 yds):** Bins are stationary (no wheels) & require that the truck drive straight up to the enclosure.



**Small bins (2 yds or smaller):** Bins may be rolled into/out of the enclosure. Manual movement can only be for a short distance.





## Screening

Trash and recycling areas must be enclosed such that they are screened from public view. Screening requirements are defined in 3.2.1(D)6 Landscaping and Tree Protection. Generally, landscape and building elements are used to screen areas of low visual interest or visually intrusive site elements (i.e. trash collection) from off-site view. Such screening shall be established on all sides of such elements except where an opening is required for access. If access is possible only on a side that is visible from a public street, a removable or operable screen shall be required. The screen shall be designed and established so that the area or element being screened is no more than twenty (20) percent visible through the screen.

Screening Materials: Required screening shall be provided in the form of new or existing plantings, walls, fences, screen panels, topographic changes, buildings, horizontal separation or a combination of these techniques.

## Signage

It is a good idea to provide signage in recycling areas, especially with larger, commercial facilities.

Clear signage is imperative to proper circulation of traffic and can also help to reduce inappropriate or illegal dumping. Signage examples include painted arrows/lines on ground as well as directional signposts at key points in the area. Containers should be clearly marked.

## Maintenance

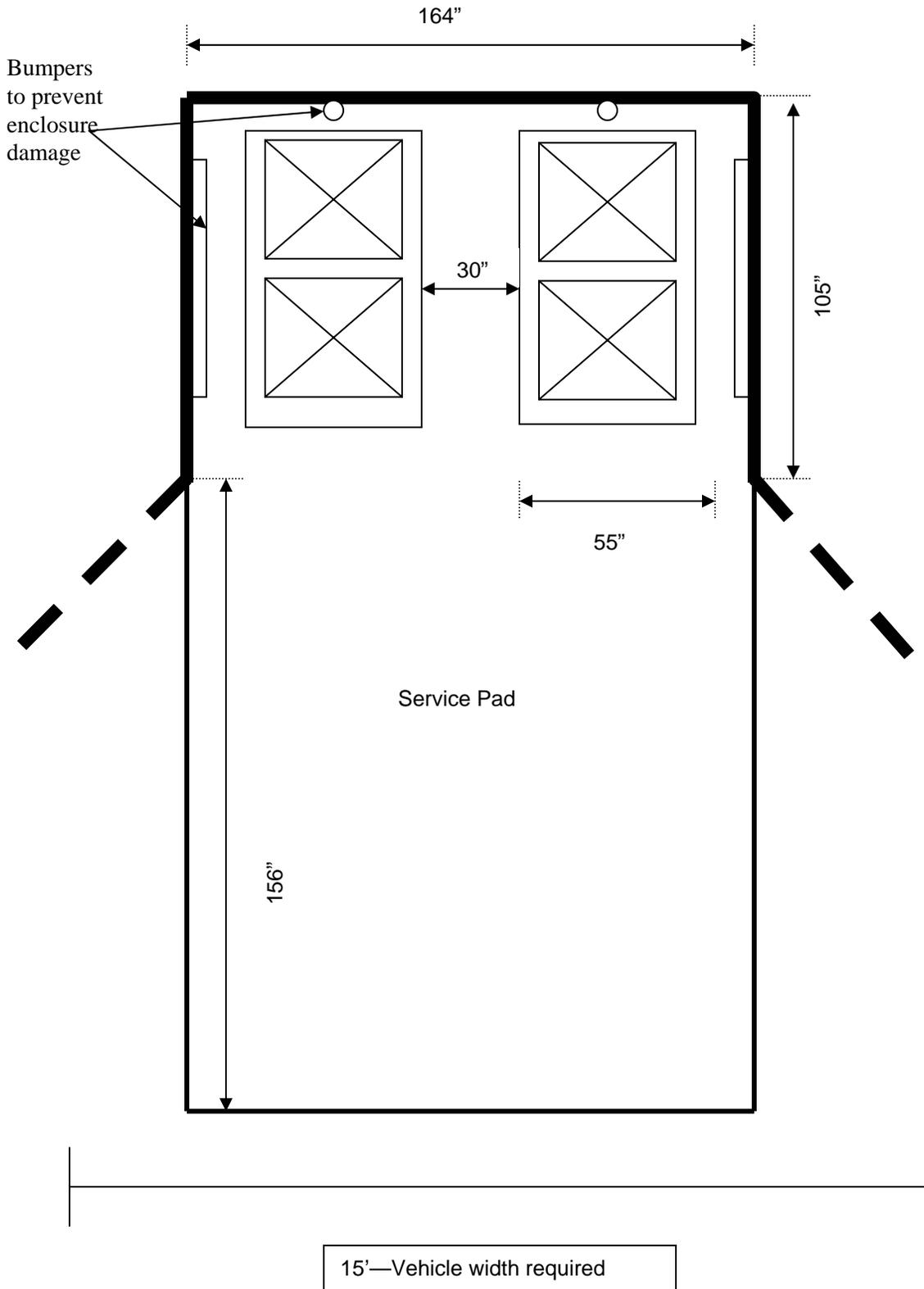
The property owner is responsible for supplying and maintaining adequate containers for recycling and waste disposal. The types of materials used in construction of the enclosure can greatly impact future maintenance requirements.

## Variances

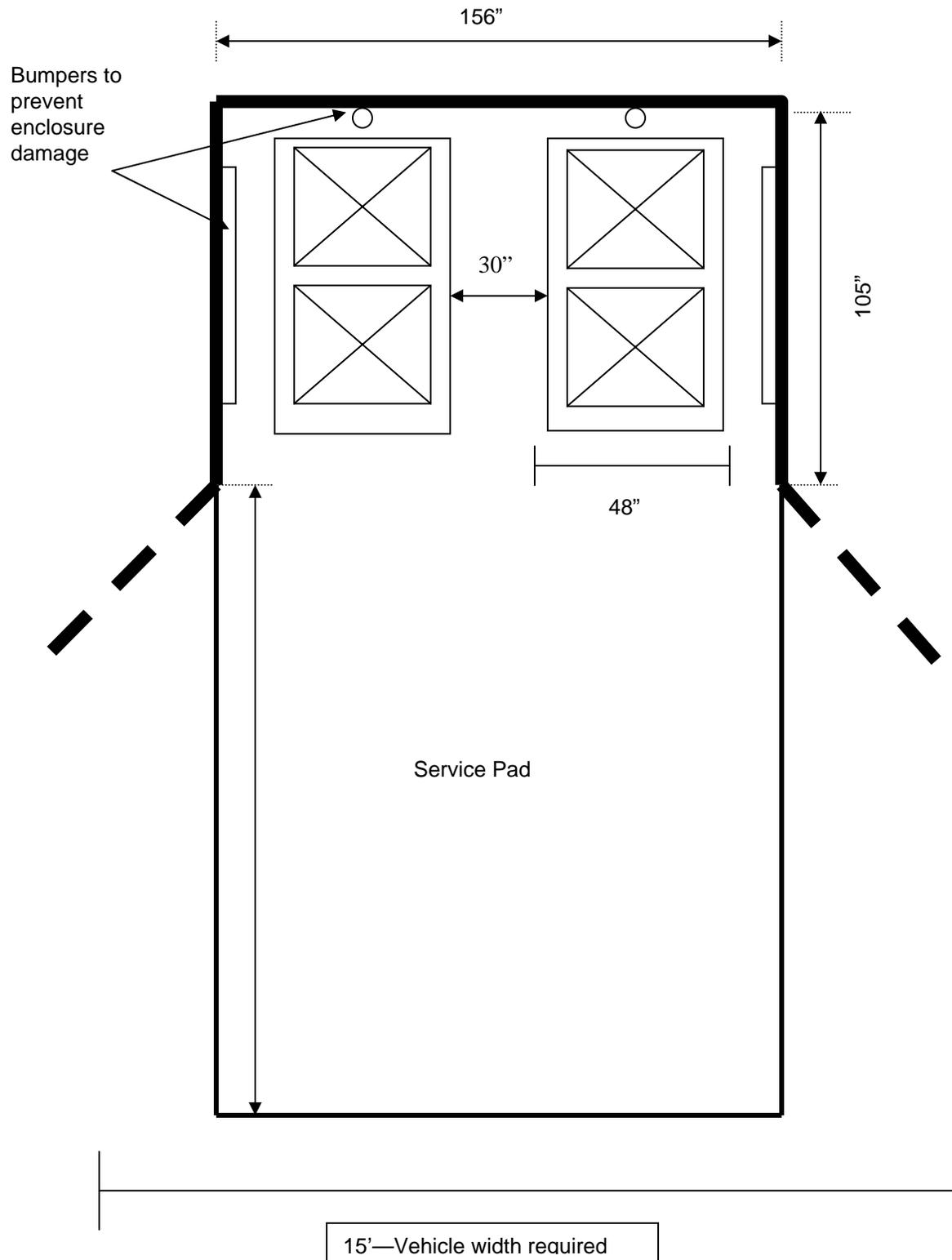
Exceptions may be granted by the City or a designee thereof for existing buildings where this provision will negatively impact parking stall requirements or other existing conditions prevent its practical application.

## Layout Suggestions/Illustrations

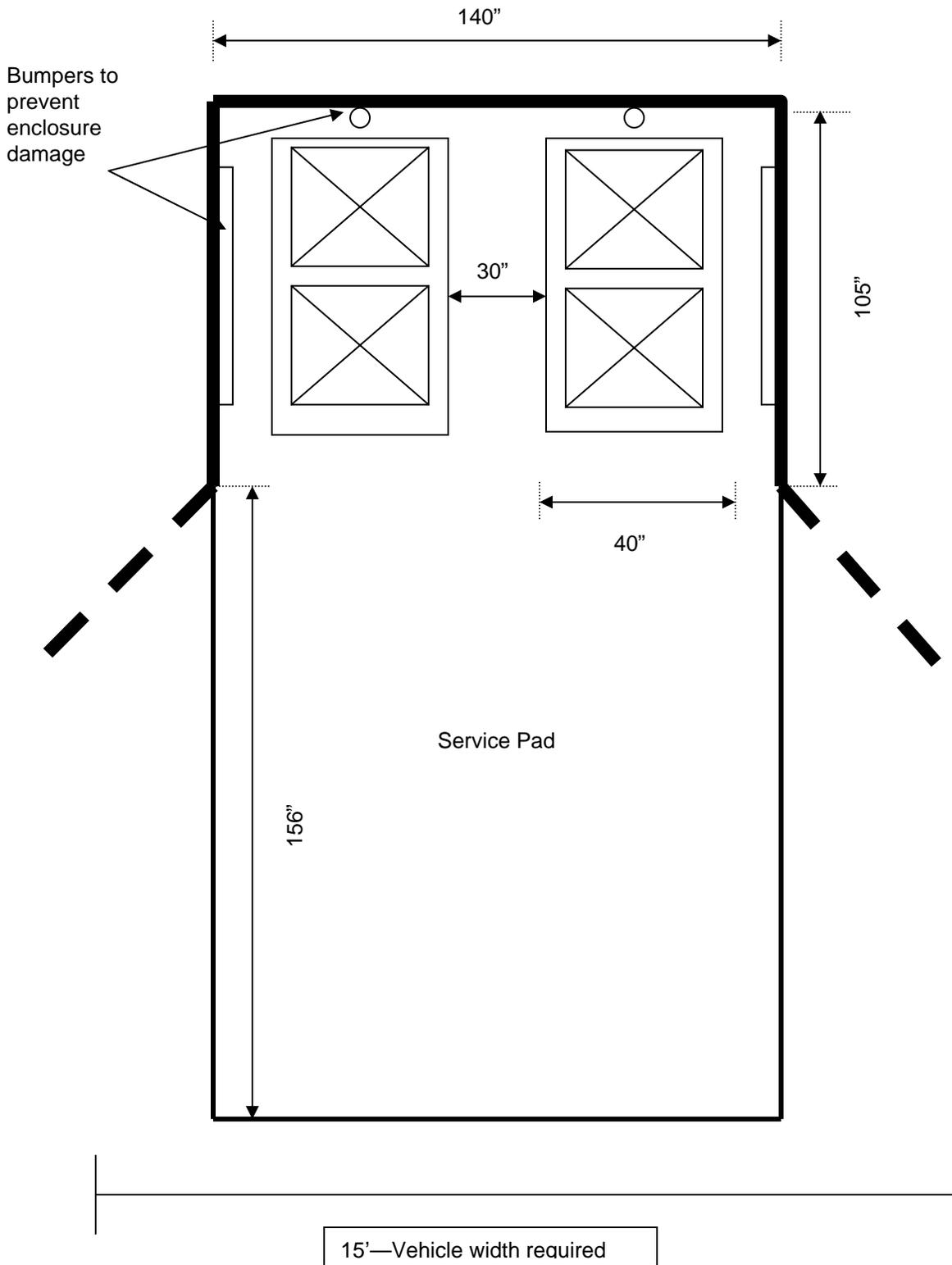
This illustration shows one, 4-yard recycling bin and one, 4-yard trash bin.



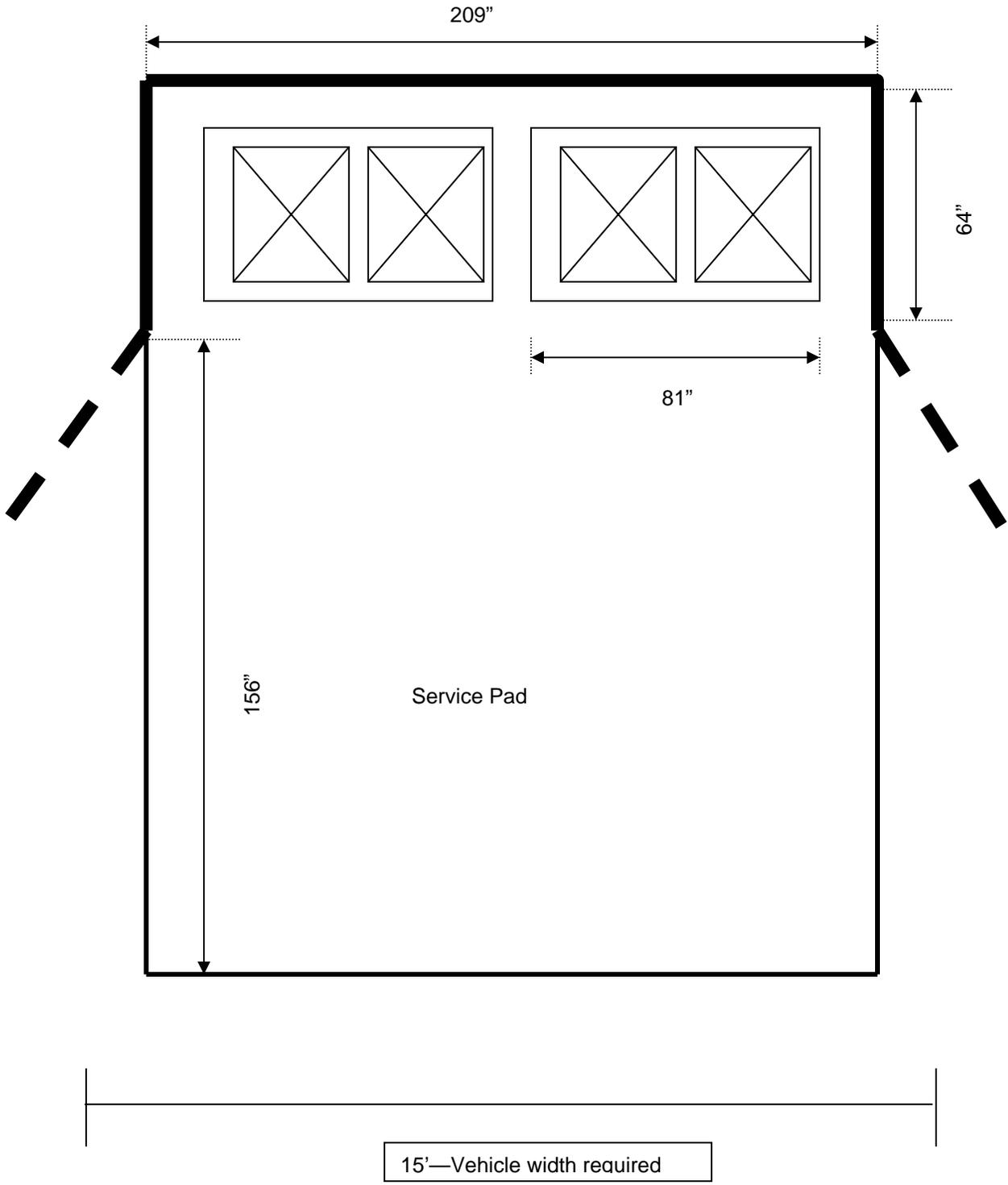
This illustration shows one 3-yard recycling bin and one 3-yard trash bin.



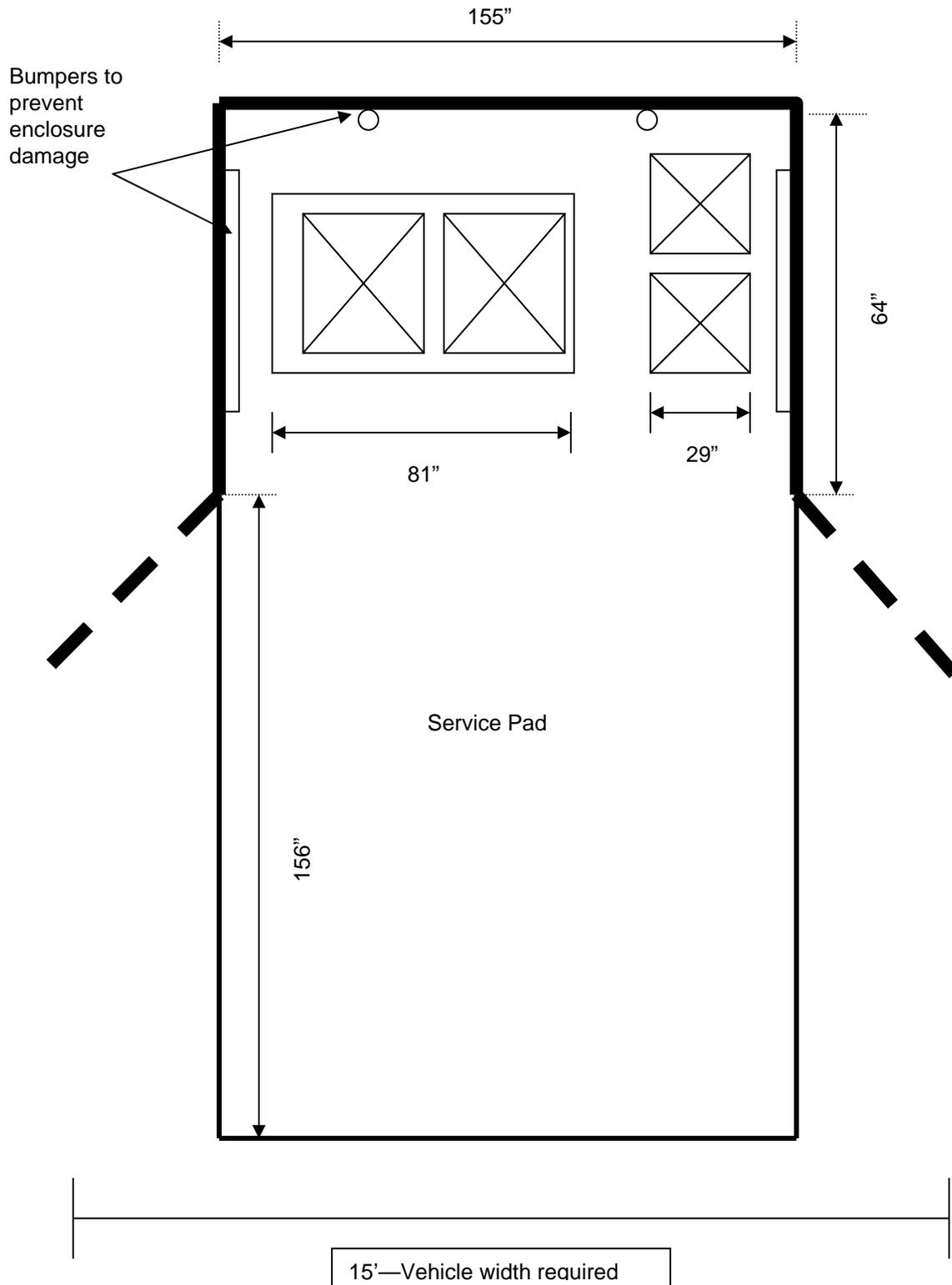
This illustration shows one 2-yard recycling bin and one 2-yard trash bin.



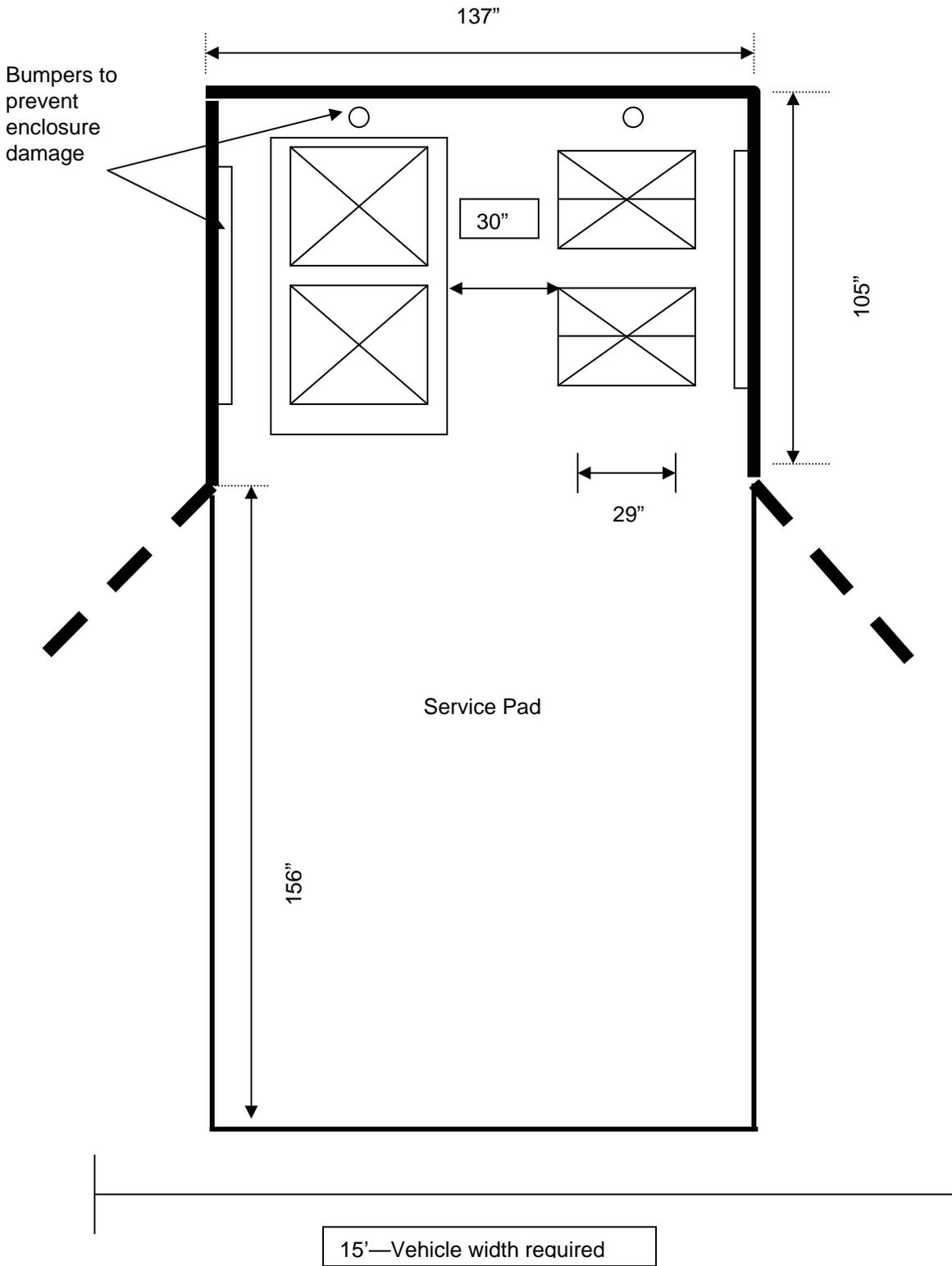
This illustration shows an alternative alignment for one 4-yard recycling bin and one 4- yard trash bin.



This illustration shows an alignment for one 3-yard recycling bin and two 95-gallon trash carts

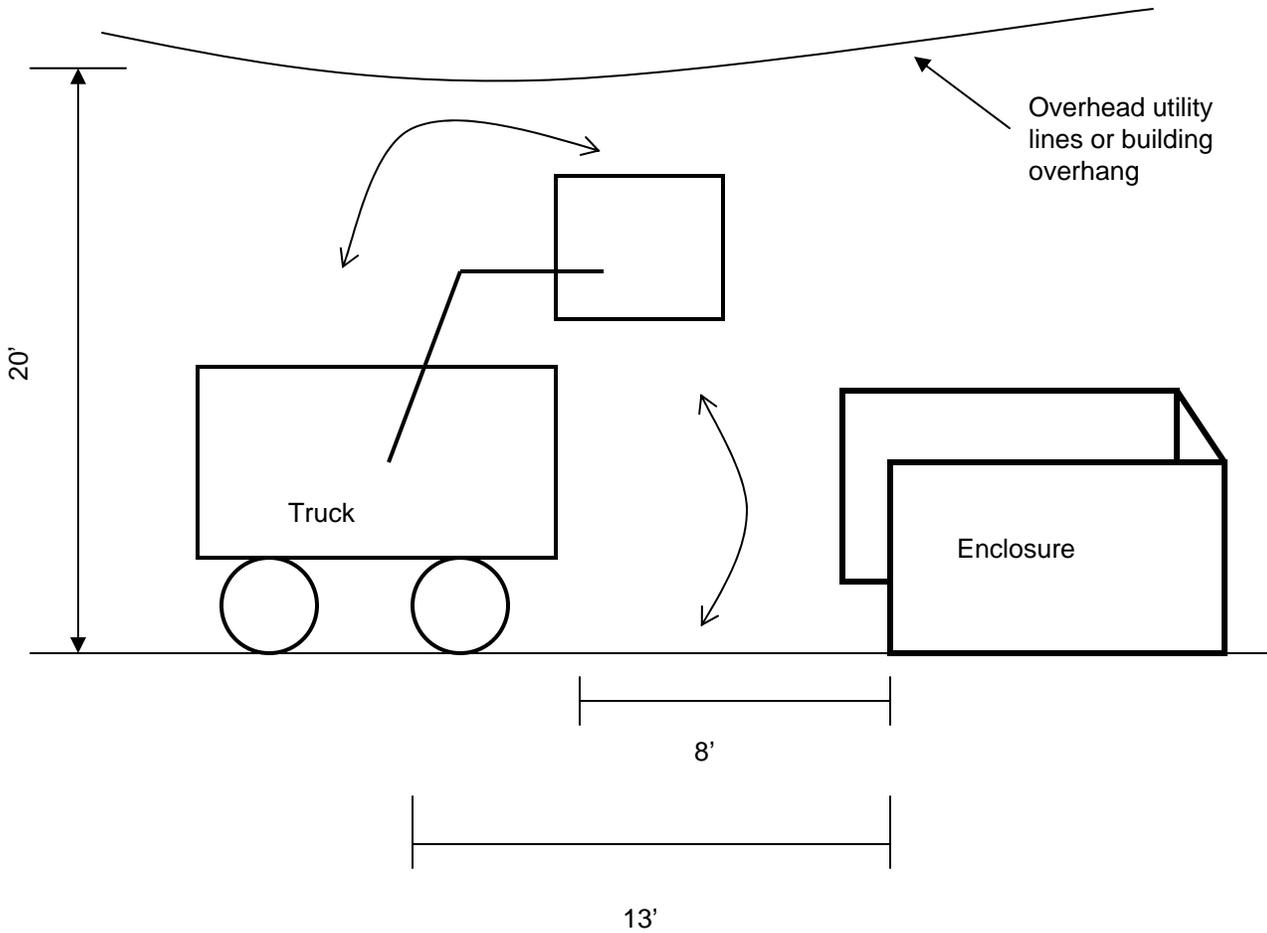


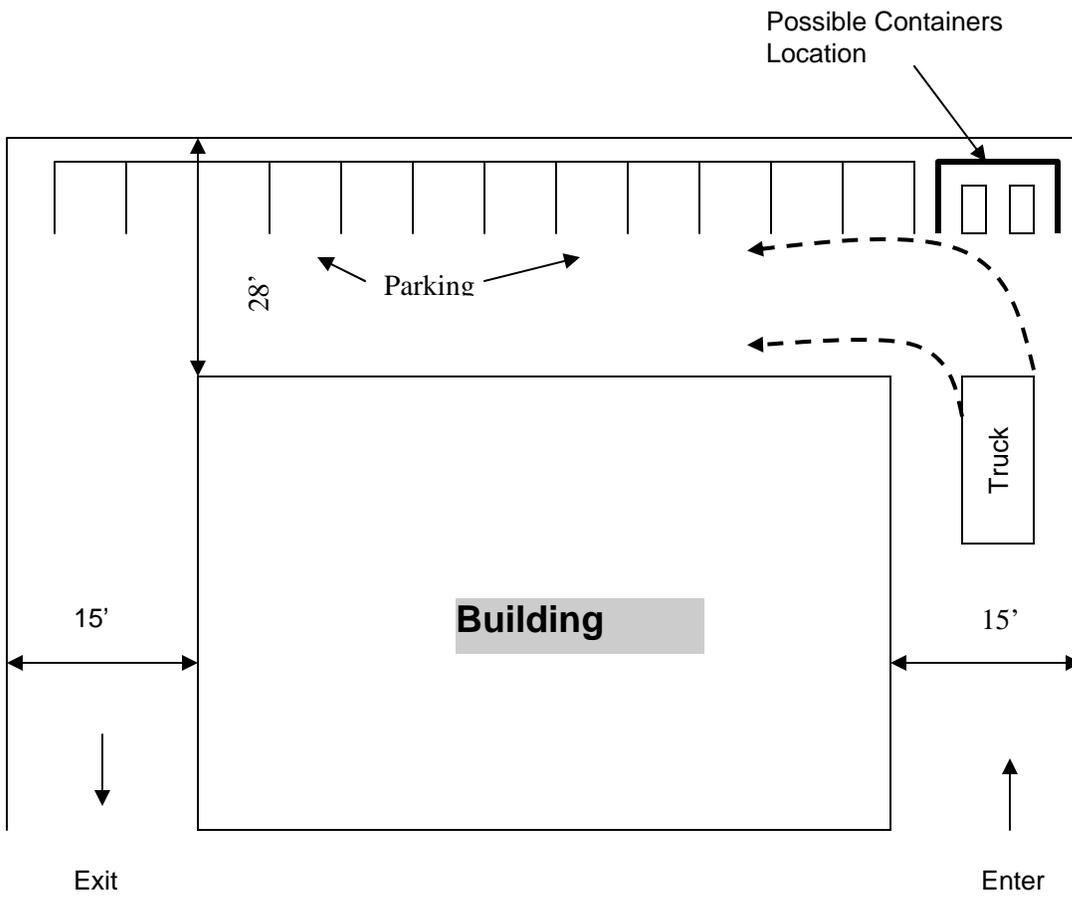
This illustration shows an alternative alignment for one 3-yard recycling bin and two 95-gallon trash carts.



Twenty-foot clearance of overhead obstructions is necessary where the vehicle will lift and empty the container. Generally, the driver will move the container out away from the enclosure about eight feet before dumping.

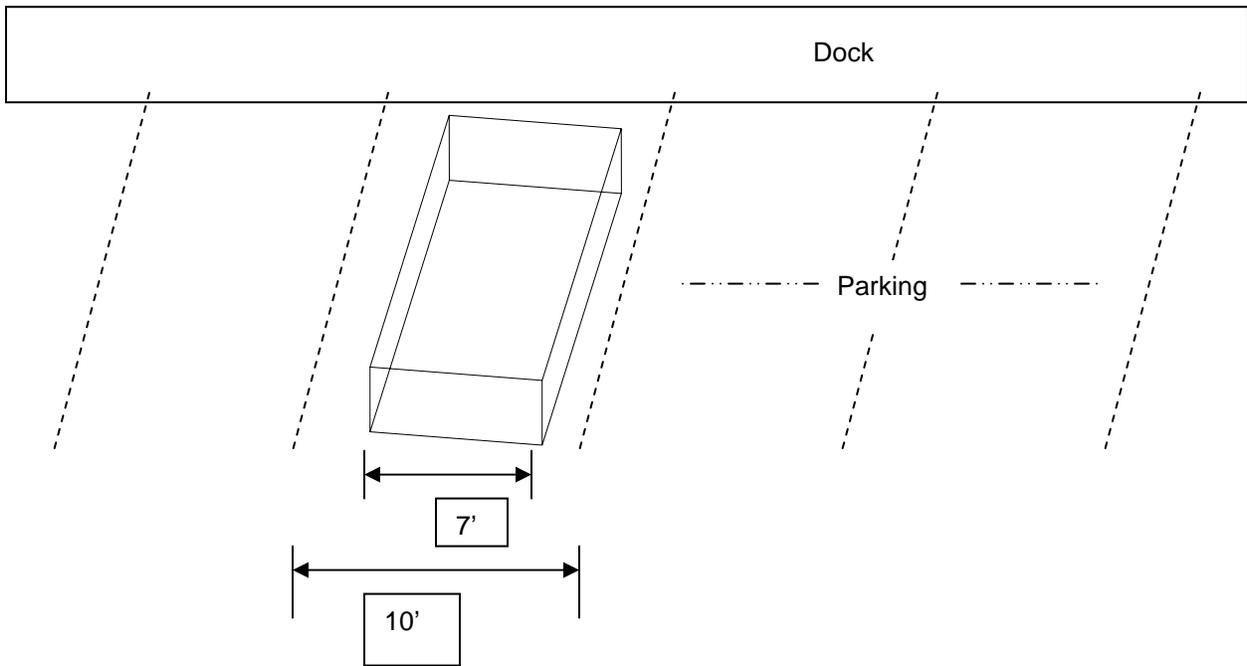
**If overhead obstructions exist it is advisable to have the hauler review plans in order to avoid future property damage.**



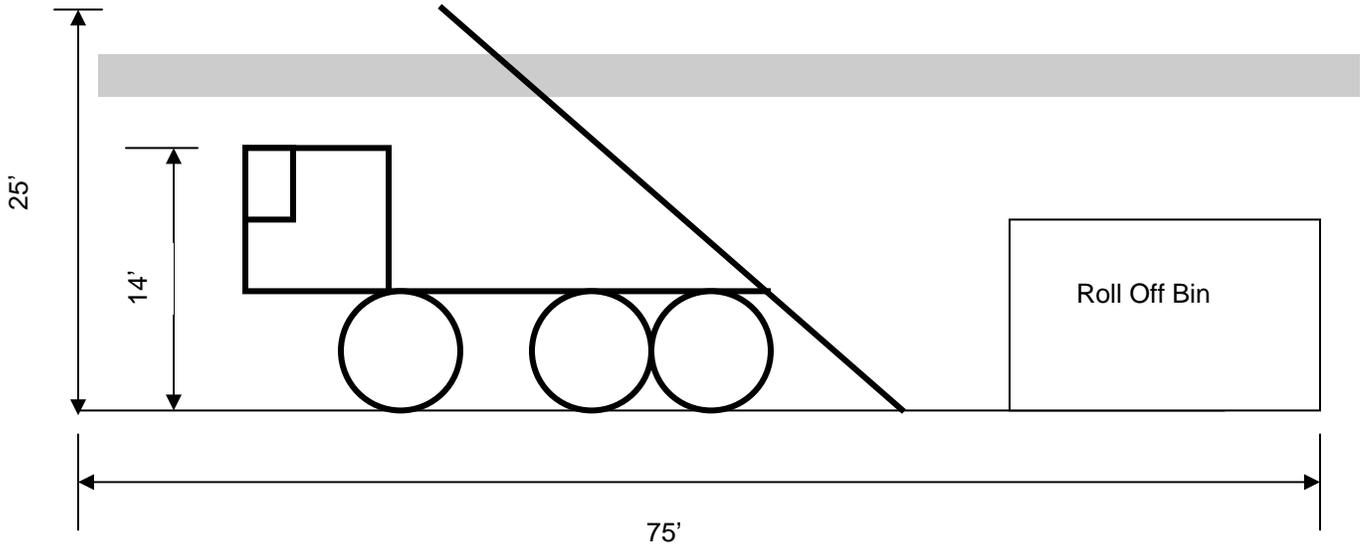


Allow 10' wide access for driver to check the rear of the bin before loading onto vehicle.

This illustration depicts top-loading of container. Container gates are at rear of container (next to dock). If container is to be loaded from ground level, allow minimum of 5' to open gates.



Allow minimum of 75' to load/unload container safely. Truck rails extend to 25' high when servicing container.



## The good, bad and ugly... (examples)



Enclosures do not have to be unsightly - this enclosure was designed to complement a new commercial office building.



Using design elements from the main building, this enclosure sits in the middle of a parking lot providing great access for service vehicles.



Built with the same cedar siding as the professional office building, this spacious enclosure looks good and works well. Posts provide extra protection.



This large enclosure uses provides continuity and blending by using design elements from the main building.



Another large, well-designed enclosure, this includes a smaller service door. It encourages employees/janitorial staff to put materials inside the enclosure since they do not have to open the heavier gates.



This enclosure has been damaged and is too small for a group of strip mall tenants. Tenants leave trash outside, creating an unsightly and potentially unhealthy area. Furthermore, it is not conducive to recycling.



This shopping area places containers in full view of the street. It is unsightly for the residential development across the street, it promotes illegal dumping, and is prone to contamination of recyclables



Small and unsightly, this enclosure does not meet the needs of this multifamily dwelling.



Don't try this at home! The collector is pulling out a 1,200 pound container that could have been picked up mechanically if the enclosure had been well designed