

# **DUMPSTER ENCLOSURE GUIDELINES**

Everyone plays a role in keeping the City of Escondido clean and safe. Dumpster enclosures protect appearances and the environment by keeping solid waste and recyclable material protected from rainwater, wind, scavenging, and unauthorized access, as well as illegal dumping. This guide helps property owners and designers plan, permit, and construct dumpster enclosures to current standards, whether retrofitting or designing for new construction.

Your waste hauler, <u>Escondido Disposal Inc.</u><sup>1</sup> (EDI), works tirelessly to provide businesses and residents with excellent hauling service. EDI and the <u>City of Escondido Recycling Division</u><sup>2</sup> work together to assist businesses and residences in developing cost-saving waste reduction plans that meet all state and local regulations. Waste diversion and organic recycling requirements depend on the business and facility type. Section C of this document (Page 9) gives some guidance to waste management planning which may inform your design, but you can always reach out to EDI at 760-745-3203 for professional advice on your level of service and other waste diversion needs.



This document contains the following sections:

Section	Title	Page #
A.	Retrofitting Existing Dumpster Areas	2
B.	Design Criteria	3
B.1.	Sizing	3
B.2.	Location	5
В.3.	Walls	6
B.4.	Roofing	6
B.5.	Slab, Concrete, Drainage and Curbs	7
B.6.	Gates & Doors	7
B.7.	Landscaping & Other Requirements	8
C.	Waste Diversion & Collection Planning	9
D.	Typical Designs	11
E.	Dumpster & Cart Arrangement Examples	13

<sup>1</sup> www.escondidodisposal.com/

<sup>&</sup>lt;sup>2</sup> www.escondido.org/recycling-waste.aspx

# A. Retrofitting Existing Dumpster Areas

The guidelines in this document are mostly geared towards new development and redevelopment projects; retrofits are given special consideration for permitting purposes to facilitate compliance.

Retrofits, expansion, or installation of enclosures may be required due to enforcement action from the City, or because your property needs are changing. This may occur if: a) there is no trash enclosure and you have received a correction notice to construct one, b) you have an existing trash enclosure but must expand it or add a roof and/or doors to properly secure it and protect the environment, or c) the use of your property is changing in a manner that will produce new types and/or additional quantities of solid waste.

Building permits are always required when a roof is being installed or the footprint of the enclosure will change. The Building Division will assist applicants through the permit process to minimize plan-check corrections, with the goal of approving building plans and issuing building permits over-the-counter.

Here are some things to consider when planning your dumpster enclosure retrofit:

- A site plan is required, even for retrofits of existing enclosures. Site plans for retrofits must show, at a minimum, the trash enclosure location and distance from the enclosure to the property lines, existing buildings, and parking spaces. Other items may be required by the Community Development Department. For example, dumpster areas shall not be located within setbacks, in required parking spaces, open space areas, or in any areas required by the City to be maintained unencumbered.
- <u>Walls:</u> If you are expanding the footprint of the enclosure to accommodate more bins, follow the Walls construction requirements in Section B.3.
  - For retrofits where the existing enclosure footprint is less than five (5) feet from the
    property line, plans should depict fire rating and opening protection. Walls must be
    a minimum one-hour construction (masonry walls OK) with no openings in the wall
    (including at the top of the wall between the wall and the roof) on the side along
    the property line.
- Parking: If parking spaces must be sacrificed for the enclosure retrofit, the Planning Division shall be consulted to determine if there are any potential conflicts with parking requirements for the property and to identify way(s) to address those conflicts.
  - Roof: Ensure the inside of the lowest point of the roof is at least eight (8) feet tall. Building plans shall show:
    - Rafter and beam size and spacing, roof slope, and direction of roof slope. Angle the roof so that it drains onto your own property.
    - Roofing materials and roof sheathing.
    - Roof framing connection details to masonry walls.

<u>Design:</u> Typical designs for retrofits are provided on Page 12. The design, colors, and materials used must be architecturally compatible with nearby buildings. Landscaping may be required for changes to the enclosure footprint (Section B.7).

Page | 2 Revised 6/2019

## **B.** Design Criteria

Enclosures and other trash storage areas must provide sufficient space for adequate capacity, number and distribution of trash, recycling and organics containers to serve the development. These guidelines are intended to provide general guidance for enclosure space and location requirements, and other requirements may apply to your project.

It is recommended that you discuss your proposed trash enclosure with Planning Division staff. They will help identify design criteria specific to your project that must be addressed as part of the permitting process. Design review by the Planning Division may be required in addition to Building and/or Engineering review. Plans may also be routed to EDI or the Recycling Division for review.

Areas designed for storage and collection of trash and recyclables shall observe the



requirements of the California Building Code and the requirements of CCR Title 24, regarding accessibility to trash and recycling collection containers for persons with disabilities.

#### **B.1. Sizing Your Enclosure**

Trash enclosure dimensions will vary based on projected usage and the following information is offered as an aid in planning new projects. Commercial, industrial, and multi-family residential projects with more than five (5) units must design a dumpster enclosure to accommodate the trash and recycling needs of both current and potential future businesses/residents. Within the enclosure, businesses/residents may use any dumpster size that is appropriate for their needs, and this should be discussed with EDI prior to project planning.

While many arrangements may exist, depending on the facility needs, applicants should plan for each enclosure to accommodate at a minimum one (1) four (4) cubic yard dumpster and two (2) 95-gallon carts. Typical trash bin and cart sizes are listed below, along with requirements for access and spacing to protect people and the structure from harm.

#### **Typical Trash Bin Sizes**

EDI will provide separate carts and/or bins for trash, recycling and organics collection. The size and number of these containers will depend on the size of the project and possibly on the frequency of collection. EDI offers carts with 35, 65 and 95 gallons of capacity and bins (dumpsters) with 1.5, 2, 3, and 4 cubic yards of capacity. The filled weight of any single dumpster should not exceed 1,000 pounds.

Page | 3 Revised 6/2019

For very high volume customers, EDI can provide roll off boxes that are typically 15 to 40 cubic yards in size. Enclosures are required for all waste compactors and must be designed to cover all hydraulic lines and accessory components required for the operation of the compactor. These situations likely require special design considerations that go beyond the scope of this document.

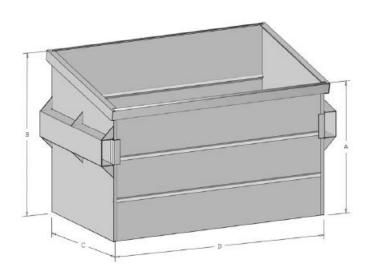
#### **Cart Dimensions**

	35 Gallon	65 Gallon	95 Gallon
Height with lid	39.13"	40.58"	45.13"
Width	20.20"	26.70"	28.70"
Depth	22.98"	28.11"	28.70"



#### **Dumpster Dimensions** (approximate)

Capacity (CY = cubic yards)	A. Height (front) Includes 8" wheels	B. Height (back) Includes 8" wheels	C. Depth Does not account for lid size/ overhang	D. Width Includes 9" for lid and side wings
1.5 CY	37.5"	42.5"	29.5"	81"
2 CY	42.5"	49.5"	34.5"	81"
3 CY	49.5"	58.5"	41.5"	81"
4 CY	54"	65″	50.5"	81"



#### Other Important Measurements for Inside the Enclosure

The enclosure shall be constructed with <u>inside dimensions</u> to accommodate at least one (1) four (4) cubic yard dumpster and two (2) 95-gallon carts. Larger enclosures may be necessary to accommodate additional trash and recycling bins, and for accessibility purposes. Pages 13-14 of this document display dumpster arrangements to consider within the enclosure, but this will always depend on your property or business needs.

The following considerations should be made when planning the inside of the enclosure:

Page | 4 Revised 6/2019

	Six (6) inch buffers are required surrounding each dumpster. This is typically in the form of a curb. See Section B.5.
	If multiple containers are to be stored in any one enclosure, space must be provided to allow access to each of the bins or carts. Access aisles between containers that face each
	other must be a minimum of 30 inches wide.  Plans should display all other items that will be housed in the same enclosure (e.g.,
	maintenance equipment, plumbing fixtures, hazardous waste, etc.). Unless approved by Utilities/Environmental Compliance Division, storage of rendered oil or grease barrels/bins in the dumpster enclosure is prohibited.
B.2. I	<u>-ocation</u>
Site pl betwe vehicle	lans for enclosures should consider vehicular and pedestrian traffic patterns. Keep the path en the enclosure doors and where the truck would stop free of parked cars, delivery es, or anything else. The location of the proposed enclosure will be assessed as part of the review process through the Planning Division. Dumpster enclosures should be located to
	External waste storage areas shall not be located in any required parking, landscaped, or open space, or any areas required by the City to be maintained unencumbered.
	Dumpsters are readily accessible to building occupants, facility maintenance personnel, and to EDI. This typically is a maximum distance of 250 feet from the appropriate doorway of each business or multi-family dwelling unit.
	Enclosures provide adequate access so as to minimize effort in the collection and removal of container contents from the enclosures. Increased collection costs (push/pull fees) may be incurred if containers must be moved by collection personnel more than five (5) feet to be emptied. The EDI driver should not have to move the bin more than 25 feet to dump it into the truck.
	Overhead obstructions do not impede the waste hauler from gaining access to the site. The minimum overhead clearance from roofs, utility lines, trees, etc. is 16 feet on the drive approach, and 22 feet at the service point.
	Minimum driveway width for straight through drive and pick-up is 14 feet; additional width
	may be necessary per Fire and Engineering Department requirements. Eighteen (18) feet is required when a truck has to back out; additional width may be required based on site

Providing a turn-around or separate exit that allows the truck to move forward rather than backwards is recommended.

□ Adequate turn-around and turning radius: It is difficult for a collection truck to back up.

o Trucks need a lane at least 30 feet long directly in front of the enclosure.

conditions.

- The maximum backup distance is 50 feet for any maneuver (unless approved by EDI) and must be in a straight line.
- Turning radius must be adequate for a 3-axle truck. A minimum outer radius of 42 feet should be provided in areas where a turn-around is required to exit. Additional radius may be required by the Fire Department or Engineering Department.

Page | 5 Revised 6/2019

Distance to property line: Most new or re-developments can locate their enclosure more than five (5) feet from the property line to avoid needing to meet fire rating requirements on the rear wall. If less than five (5) feet from property line, plans must show how enclosure meets fire rating requirements.

## **B.3. Walls**

- Standard wall height for enclosures is six (6) feet tall. Anything taller than this may require special permitting consideration.
- ☐ Enclosures shall be structurally sound and constructed of solid masonry block or reinforced masonry with a decorative finish to be compatible with the architecture of the building(s) and landscaping (split face, stucco finish, etc.). See Building Division Information Guideline for Wood and Masonry Fences³.



## **B.4. Roofing**

To prevent trash enclosures from contributing to storm water runoff pollution, all enclosures must be fitted with a solid roof and slab, and designed to drain into on-site landscape areas (where possible). The roof should extend sufficiently outward in all directions so that wind-blown rain will not enter the interior of the storage area.

The roof must provide sufficient clearance to allow the dumpster lid to open to the 90-degree position, typically allowing at least eight (8) feet vertical clearance. This vertical clearance should be applied to the lowest point of any fixtures, including sprinkler heads or lighting.

Building plans are required and must include the following information:

Rafter and beam size and spacing, roof slope, and direction of roof slope. Angle the roof sc
that it drains onto your own property.

Roof	framing	connection	details to	masonry	/ walls

Page | 6 Revised 6/2019

<sup>□</sup> Roofing materials and roof sheathing.

<sup>&</sup>lt;sup>3</sup> https://www.escondido.org/Data/Sites/1/media/pdfs/Building/InfoGuideline3.pdf

## **B.5. Slab, Concrete, Drainage, and Curbs**

Concrete slab construction specifications will vary according to methods of construction, but should be at least four (4) inches of reinforced concrete. Please provide this information to your contractor to ensure adequate slab strength.
<u>Slope:</u> The slab shall be near or at the same level or grade as the street or parking area to facilitate the rolling of bins for loading and unloading. The slab shall also be designed/sloped to keep storm water drainage out of the enclosure area (typically 0.5% slope but no more than 2%). Wheeled bins can be moved by jarring or pushing, and a sloped slab can cause them to roll, resulting in possible damage to enclosure walls, doors, vehicles, or injury to people. Therefore, the slab should not be designed with excessively steep slopes and the bins should be appropriately secured within the enclosure, as may be necessary. If the floor is above ground level, an approach ramp shall be provided and shall not exceed a maximum slope of 5%. Where a ramp leads to an enclosure, avoid placing a lip at the entrance that might impede container placement and removal.
The extra weight of the bin on the front of the truck when the bin is picked up can damage pavement in front of the enclosure. The best protection is a minimum 10 feet wide x 10 feet long reinforced concrete apron able to accommodate a 20-ton stationary load.
Concrete or asphalt drives should be of sufficient strength to accommodate $54,000$ lbs. distributed on $10$ wheels.
Interior concrete curbs (min. 6 in. width $x$ 6 in. height) or, less preferably, metal bumpers shall be provided to protect the inside of the enclosure and to extend enclosure life. Wider curbs or internal pedestrian walkways may be necessary based on enclosure design. Bolts or screws shall be inset on bumpers to avoid injury to collector or user.
Enclosure drains, if necessary, shall not be connected to the storm drain. Drains capturing enclosure wash water, typically a requirement for food service establishments, shall be connected to the business grease interceptor prior to discharge to sewer. Any internal plumbing fixtures within the enclosure shall be protected by durable shielding or curbing to prevent damage by waste containers.

## **B.6. Gates & Doors**

Sturdy gates or doors shall be installed on all enclosures, and hardware shall be of sufficient strength to accommodate repetitive swinging.

☐ The enclosure opening, including gates and hinges, must provide a minimum opening of 8 feet to allow containers to be moved in and out of the enclosure.

☐ Gates should be mounted on free standing metal posts set in concrete footings, and should not be mounted directly onto the block wall or inside of the enclosure.

Metal gates are required for all commercial and industrial projects. Wood-clad or wood-faced gates may be used for multi-family residential projects, but must be built on a solid, durable metal frame and attached to metal posts. Use bolts, not screws, to secure gates to poles. Heavy slats or other wooden finish/screening material should be at least one-inch thick. Chain link gates with slats are allowed only when the trash enclosure is in an

Page | 7 Revised 6/2019

industrial area, is not accessible to the general public, is not visible from the public streets, sidewalks, or adjacent properties, and is located within a secured area.

Gates should be at least five (5) feet in height with at least a two (2)-inch clearance off the finished pad or apron.

Gates in the open position shall not infringe on the traffic aisles and open to at least 180 degrees when secured open.

Include hardware to secure the gate's doors when they are open and when they are closed. Hardware could include a cane bolt with sleeve and a latch between the doors and sleeve in the pavement.

In residential and mixed use projects, enclosures should have a pedestrian gate or walk through that does not necessitate opening of the large gates used for servicing containers. Pedestrian gates or walk through, separate from the primary service access is recommended for commercial and industrial projects as well. Check with the Building Department for any necessary accessibility requirements in accordance with ADA and the California Building Code (i.e., path of travel,

## **B.7. Landscaping & Other Requirements**

disabled access, pedestrian gate widths, ramps, etc.).

- ☐ The enclosure design must be architecturally compatible with nearby buildings, topography, and vegetation. The wall finish and materials for the enclosure must match or be compatible with the primary building at the site.
- New trash enclosures shall contain a minimum three (3) foot planting area at the base of the wall. The landscaping shall consist of vertical planting (vines, hedges) which will screen the enclosure. Irrigation shall be provided. Additional landscaping requirements and information can be found in Article 62 of the Escondido Zoning Code.
- ☐ For properties that need to lock their enclosure or bins, EDI will supply container locks and keys at a lock charge fee in accordance with the service agreement for the property.



- ☐ The area around and inside the enclosure should include adequate lighting, fencing, and signage or other security measures to ensure safety of the development's occupants.
- ☐ In areas where unauthorized access and/or illegal dumping are prone to occur, it is recommended that you provide security grills or other protective material between the top of the enclosure wall and the roof.
- ☐ If internal posts are used to support the walls and/or roof, padding or other suitable material shall be installed on the posts to protect damage by waste containers.

Page | 8 Revised 6/2019

# C. Waste Diversion and Collection Requirements

#### WHY PROVIDE FOR WASTE DIVERSION SPACE IN BUILDINGS?

Providing adequate space for trash, recycling, and organics bins is required by state and local law in California. California's waste and recycling goals are driven by a long history of recycling polices, starting in 1989 when the State of California adopted Assembly Bill (AB) 939, which required that municipalities divert at least 50% of their waste from being sent to the landfill. After exceeding this goal and diverting 64% in 2011, the State of California adopted AB 341, which increased the diversion goal to 75% by 2020.

AB 341 requires commercial businesses generating four (4) cubic yards or more of solid waste per week, or multifamily residential dwellings of five (5) units or more, provide recycling services at their establishments. This requirement has been in effect since July 1, 2012.

In October of 2014 California adopted AB 1826, requiring all businesses and multi-family complexes of five (5) units or more to recycle their organic waste beginning April 1, 2016. The phase-in of this mandate helps California to achieve its overall waste diversion (75% by 2020) and greenhouse gas emission reduction goals. *As of January 1, 2019, generators of four (4) or more cubic yards of solid waste per week are required to recycle their organic waste.* 

## **Business Commingled Organic Recycling Includes:**

- **Food,** including but not limited to: fruit, vegetables, cheese, meat, bones, poultry, seafood, bread, rice, and pasta; coffee filters, tea bags, cut flowers and herbs.
- **Green Waste,** including but not limited to: grass clippings, brush, weeds, hedge trimmings, leaves, palm fronds, ice plant, ivy and nonhazardous wood, like branches, untreated wood and clean wood waste.
- Compostable Paper, including but not limited to: uncoated paper that is soiled with liquid or solid food waste, like napkins, paper towels and tissues, paper plates, and paper cups.

#### **Multi-family Organic Recycling Includes:**

• **Green Waste,** including but not limited to: grass clippings, brush, weeds, hedge trimmings, leaves, palm fronds, ice plant, ivy and nonhazardous wood, like branches, untreated wood and clean wood waste.

#### THE BASIC RULES FOR WASTE DIVERSION PLANNING

Designers should make trash, recycling and organics services all equally easy to use. If trash services are easier, some occupants will toss their recyclables into the trash container. If recycling is much easier, some occupants will contaminate the recyclables with trash. Collection containers (bins and carts) should be situated in groups that include one or more containers for each stream: trash, recycling and commingled organics recycling.

Page | 9 Revised 6/2019

## **Waste Diversion Planning Considerations for Enclosures**

- □ Adequate fencing, lighting, signage and other security measures to ensure the safety of development's occupants, facility maintenance personnel, residents, and the public.
- □ Signage can be very helpful to encourage users to follow waste management best practices. Relevant signage (placed inside or outside dumpsters) may include:
  - A graphic list of recyclable materials as defined by the Recycling Division/EDI.
  - o Discouragement of illegal dumping into and around trash enclosures.
  - o Deterrents to scavenging and theft of materials set out for collection.
  - English and Spanish language messages.

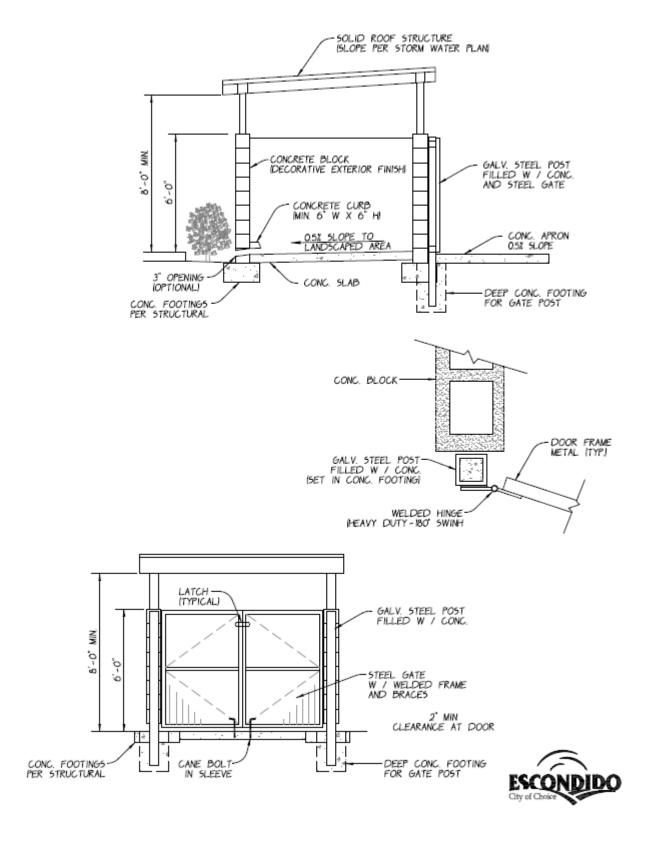
#### **Level of Service**

Please contact EDI early in your planning process to review the specific service level needs for your development, including capacities and types of containers for trash, recycling and organics.

- ☐ Municipal solid waste collection service is required for all occupied commercial, multi-family, and residential properties. EDI provides collection services for trash, recyclables and commingled organic materials.
- At a minimum, trash, recyclables and organics must be collected once every two weeks, but service must be adequate to maintain the property and to keep material intended for disposal in containers with lids.
  - To reduce the number of truck trips to provide trash, recycling and organics services to the property, it is recommended that the developer design for larger capacity containers (with less frequent service) over smaller containers (with more frequent service).
- Much of the debris generated during construction or remodeling can be recycled. Projects should follow the California Green Building Standards Code (CALGreen), which requires that 65% of non-hazardous waste materials generated during a construction projects be diverted from the landfill. Accordingly, Building Permit applicants submit a Construction Waste Plan to the Building Division for their file. For more information about construction waste management, contact the Escondido Recycling Division at 760-839-6216, or discuss with EDI.

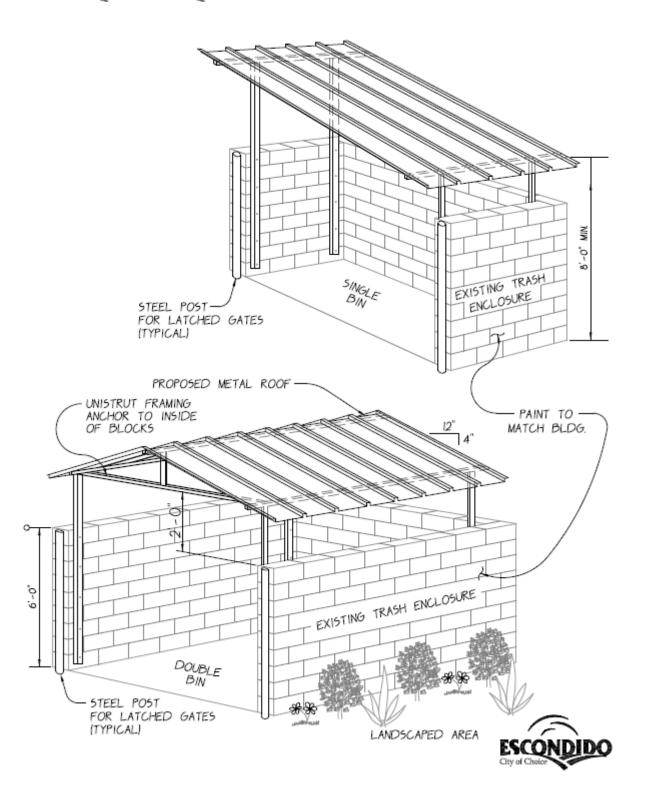
Page | 10 Revised 6/2019

# D. Typical Designs and Drawings

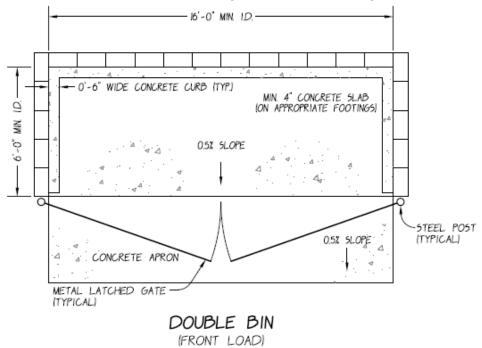


Page | 11 Revised 6/2019

# EXAMPLES OF RETROFIT DESIGNS TO CONFORM TO WATER QUALITY REQUIREMENTS FOR ROOF INSTALLATIONS

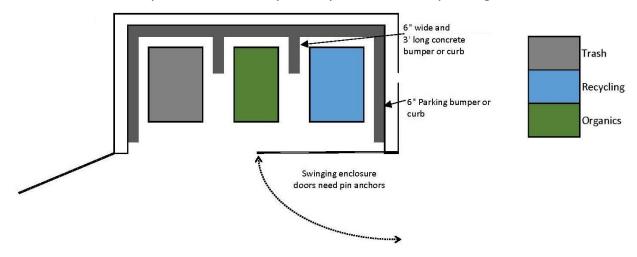


Page | 12 Revised 6/2019

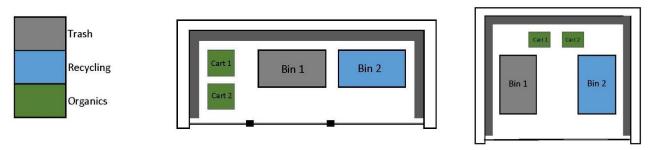


# **E. Dumpster & Cart Arrangement Examples**

**Three bins** - 4 cubic yard trash, 4 cubic yard recycle and 3 cubic yard organics.

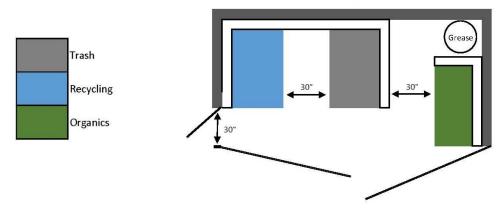


## **Two bins and Two Carts**



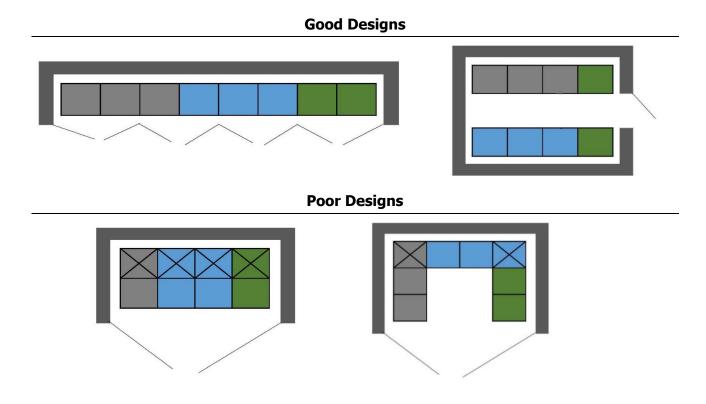
Page | 13 Revised 6/2019

**Three Bins and Grease Barrel** - 4 cubic yard trash, 4 cubic yard recycle and 2 cubic yard organics. Grease barrel measures 36 inches in diameter. Storage of grease in enclosure requires approval by Utilities/Environmental Compliance Division.



# **Enclosures Examples for Carts**

All carts should be accessible to a user without having to move carts. Carts in corners or behind other carts will be underutilized.



Page | 14 Revised 6/2019