Table of Contents

CITY OF NAPA RESOLUTION ........................................................................................................ 4
DEFINITIONS ................................................................................................................................ 5

I. COLLECTION AND STORAGE REQUIREMENTS ........................................................................ 9
A. General ........................................................................................................................................ 9
B. Non-Food Generating Businesses (Offices, Retail, Light Industrial) ........................................ 9
C. Food Facilities ........................................................................................................................... 9
D. Multi-Family Complexes .......................................................................................................... 10
A. Maximizing Collection Efficiency .......................................................................................... 10
B. User Convenience to Minimize Contamination of Recyclable Materials and Compostables ................................................................. 11
C. Indoor Solid Waste Storage .................................................................................................. 11
D. Determining Service Needs for Municipal Solid Waste (MSW) & Recyclable Materials Generators ............................................................................................................................... 11
E. Determining Service Needs for Food Facilities ....................................................................... 12
F. Determining Service Needs for Multi-Family Complexes ....................................................... 14

III. ENCLOSURE DESIGN AND COMPLIANCE REQUIREMENTS ............................................... 16
I. Construction & Design ............................................................................................................. 16
A. Location & Accessibility ........................................................................................................... 16
B. Driveways ............................................................................................................................... 17
C. Turning Radius Requirements & Truck Dimensions ............................................................... 17
D. Stress Concrete Apron ............................................................................................................ 19
E. Enclosure Concrete Pad .......................................................................................................... 19
F. Height Clearance of Enclosure Approach .............................................................................. 19
G. Interior ..................................................................................................................................... 20
H. Wall Height ............................................................................................................................. 20
I. Material ..................................................................................................................................... 20
J. Roof ......................................................................................................................................... 21
K. Gates/Pedestrian Doors ......................................................................................................... 21
L. Signage ..................................................................................................................................... 22
M. Electrical ............................................................................................................................... 22
N. Storage ................................................................................................................................... 22

II. Safety & Environmental ......................................................................................................... 23
A. Storm Water Pollution Prevention ......................................................................................... 23
B. Wastewater Pollution Prevention .......................................................................................... 23
C. Fire Prevention ....................................................................................................................... 23

EXHIBITS .................................................................................................................................. 25
MSW and Recyclable Materials Enclosures ................................................................................. 25
Exhibit A: Standards for Cart-Only MSW and Recyclable Materials Enclosure ....................... 25
Exhibit B: Standards for Small Bin MSW and Recyclable Materials Enclosure ......................... 25
Exhibit C: Standards for Medium Bin MSW and Recyclable Materials Enclosure .................... 25
Exhibit D: Standards for Large Bin MSW and Recyclable Materials Enclosure ......................... 25
Food Facility Enclosures WITHOUT Oil/Grease Tank ............................................................... 25
Exhibit E: Standards for Extra Small Food Facility Enclosure .................................................... 25
Exhibit F: Standards for Small Food Facility Enclosure ............................................................... 25
Exhibit G: Standards for Medium Food Facility Enclosure ........................................................ 25
Exhibit H: Standards for Large Food Facility Enclosure ................................................................. 25
Food Facility Enclosures WITH Oil/Grease Tank ............................................................................. 25
Exhibit I: Standards for Extra Small Food Facility Enclosure with Oil/Grease Tank ................. 25
Exhibit J: Standards for Small Food Facility Enclosure with Oil/Grease Tank ......................... 25
Exhibit K: Standards for Medium Food Facility Enclosure with Oil/Grease Tank ...................... 25
Exhibit L: Standards for Large Food Facility Enclosure with Oil/Grease Tank ............................ 25

APPENDIX A- MSW, RECYCLABLE MATERIALS & COMPOSTABLES CONTAINERS ........ 38
Cart Collection .......................................................................................................................................... 39
Front-load Bin Collection ......................................................................................................................... 40
Roll-off Box Collection ............................................................................................................................ 41
Compactor Collection ............................................................................................................................... 42
Cooking Oil/Grease Collection Containers ............................................................................................ 43

APPENDIX B – BUILDING AND OPERATIONAL BEST PRACTICES ......................... 45
State of California Green Building Standards Code (CALGreen Code) ........................................... 46
City of Napa High Performance Building Standards ........................................................................... 46
Construction & Demolition Debris (C&DD) Program .......................................................................... 46
Leadership in Environmental & Energy Design (LEED) Certification Program ............................. 47
Bay Area Green Business (BAGB) Program ......................................................................................... 47
Operational Best Practices ....................................................................................................................... 48
CITY OF NAPA RESOLUTION
DEFINITIONS

The following words used in this document have the meanings set forth below, unless otherwise noted herein. This applies whether or not the words are capitalized. Certain unique terms are capitalized to call the reader’s attention to them.

**Authorized Contractor:** “Authorized Contractor” means any person authorized by the City Council to collect municipal solid waste, recyclable materials, yard trimmings, food scraps and/or compostables from others within the city limits in accordance with the provisions of Section 5.60 of the Napa Municipal Code.

**City:** “City” means the City of Napa, a municipal corporation, and all of the territory lying within the municipal boundaries of the City as presently existing or as such boundaries may be modified in the future.

**Co-Collected Yard Trimmings and Food Scraps:** “Co-Collected Yard Trimmings and Food Scraps” means yard trimmings generated at a residential premises that are co-collected with food scraps generated at the same residential premises (including a single family dwelling, duplex, triplex, fourplex or a multi-family complex). “Co-Collected Yard Trimmings and Food Scraps” are stored together in containers and are collected together. Co-collected yard trimmings and food scraps shall not contain over 50% food scraps, by weight.

**Commercial & Business Establishments (Business or Businesses):** “Commercial & Business Establishments” or “Business” or “Businesses” means all hotels, motor courts, restaurants, offices or office buildings, stores, warehouses, factories, hospitals, assisted living facilities and all other premises used for functions other than dwelling houses.

**Compliance Official:** “Compliance Official” means the Enclosure Standards Official, who is hereby deemed to be the City of Napa’s Materials Diversion Administrator, or a designee of the Materials Diversion Administrator or the Community Development Director.

**Compostables:** “Compostables” means those materials that are processed in a controlled biological decomposition process, which are source separated from the municipal solid waste Stream. Compostables include food scraps, soiled paper products and yard trimmings that do not contain hazardous waste.

**Containers:** “Containers” means watertight metal or plastic objects with lids or covers, designed and used to hold MSW, recyclable materials, food scraps, yard trimmings, compostables or cooking oil/grease prior to collection. Containers include wheeled carts with lids, bins, open-top roll-off boxes, compactors and oil/grease tanks.

**Contamination:** “Contamination” means placing materials in a container that is labeled and intended for storage of another type of material, and which would either interfere with the processing of the material or reduce the quality and value of the recovered material. For example, placing metals or plastics in a container labeled “yard trimmings” constitutes “contamination” because it would interfere with the equipment and processes used to compost or mulch the yard trimmings. Similarly, placing food scraps in a
container labeled “recyclable materials” would contaminate the recyclable materials, making it more difficult to properly sort and process them for marketing.

**Diversion:** “Diversion” means any combination of recycling, composting, re-use, donation, source reduction or other activities that reduces the quantity of municipal solid waste disposed of from the City of Napa at the Devlin Road Transfer Station or any other appropriately permitted solid waste disposal facility.”

**Enclosure:** “Enclosure” means a walled structure for the storage of municipal solid waste, recyclable materials and compostables containers, with one or more gates for access.

**Food Facility:** “Food Facility” means a commercial & business establishment that stores, prepares, packages, serves, vends or otherwise provides food for human consumption.

**Food Scraps:** “Food Scraps” means surplus, spoiled or unsold food including, but not limited to, fruit, vegetables, meat and bones, seafood, dairy products, eggs and eggshells, rice, beans, bread, pasta, coffee grounds, and plate scrapings of these materials.

**Generate:** “Generate” means to bring into existence or create, or to use, maintain or possess an item, material or product, the result of which such creation, bringing into existence, use, maintenance or possession is that the item, material or product first becomes, or is converted, transformed, evolved to, or deemed as MSW, recyclable materials, compostables or yard trimmings.

**Multi-Family Complex:** “Multi-Family Complex” means a building, dwelling unit or complex containing multiple residential dwelling units that houses more than five dwelling units which have centralized collection points for MSW and recyclable materials and that does not have individual collection service for these materials at each unit. MSW and recyclable materials are collected from carts, bins, roll-off boxes and/or compactors located in one or more enclosures on the property. If the owner/manager of a multi-family complex elects to store yard trimmings and/or food scraps (compostables) on the property, these materials must be stored in accordance with the requirements contained in these Enclosure Standards.

**Municipal Solid Waste (MSW):** “Municipal Solid Waste” or “MSW” means any amount of discarded putrescible and non-putrescible solid, semi-solid and liquid wastes, including garbage, trash refuse, paper, rubbish, ashes, industrial wastes, construction and demolition debris, discarded home and industrial appliances, manure, vegetable or animal solid and semi-solid wastes, and other non-hazardous discarded substances or materials.

**Recyclable Materials:** “Recyclable Materials” means material which otherwise would become or be treated as MSW but which, by means of a process of collecting, sorting, cleansing, treating and reconstructing, may be returned to the economic mainstream in the form of finished or source material for new, reused or reconstituted products, which may be used in the market place. “Recyclable Materials” includes glass, plastic, newspaper, junk mail, magazines, cardboard, metals, telephone books and other soft
cover books, egg cartons, milk, juice and aseptic (foil-lined) cartons, boxboard (cereal and shoe boxes) and other similar materials.

**Significant Addition:** “Significant Addition” means a structure of (1) more than 500 square feet or (2) equal to or greater than 10% of the total building square footage, added to the original structure or site at some time after the completion of the original structure.

**Significant Remodel:** “Significant Remodel” means a remodel that (1) will increase the occupancy of the total gross building area by 50% or more; or (2) constitutes a change of use that results in one or both of the following: (a) an increase in the quantity of municipal solid waste, recyclable materials and/or compostables generated; (b) the addition of one or more type(s) of materials generated such as municipal solid waste, recyclable materials and/or compostables (example: an office becomes a Food Facility); or (3) is determined by the Community Development Director to require that the area for storage of municipal solid waste, recyclable materials and/or compostables comply with all current adopted City standards.

**Solid Waste Collection Area:** “Solid Waste Enclosure Area” means any area designated for the storage and pickup of municipal solid waste, recyclable materials and compostables containers that is not an enclosure.

**Soiled Paper Products:** “Soiled Paper Products” means paper towels, tissue products, paper napkins, paper plates and cups, coffee filters, tea bags, waxed paper, butcher paper, paper take-out boxes and containers, greasy pizza boxes, paper bags and cardboard and wax-coated cardboard produce boxes. “Soiled Paper Products” does not include polystyrene, plastic-backed paper, blue-line paper or blueprints, diapers, kitty litter, any paper containing plastics, aluminum foil or foil-lined food wrap.

**Standards:** “Standards” or “Enclosure Standards” means the “Solid Waste, Recyclable Materials and Compostables Enclosure Standards” dated November 2018 adopted by the Napa City Council on ______, 2018 by Resolution 2018- ______ and any future revisions thereto.

**Yard Trimmings:** “Yard Trimmings” means tree trimmings grass cuttings, leaves, branches, and similar green materials, including vineyard clippings.
These Standards provide information, resources and the requirements for designing enclosures for storage of municipal solid waste (MSW), recyclable materials, food scraps and yard trimmings that will be used by building occupants in new developments, and in existing structures that undergo Significant Remodels or Significant Additions.

These Enclosure Standards apply to projects/permits with a paid submittal of an application for City review dated on or after ______, 2018. This includes applications for Significant Additions and Significant Remodels of existing commercial and business establishments and existing multi-family complexes as defined in these Standards.

Projects and permits with a paid submittal of an application for City review dated on or after October 21, 2008 and prior to ______, 2018 are required to comply with the earlier version of the Standards titled “Solid Waste and Recycling Enclosure Standards” adopted by the City Council on October 21, 2008 (Napa Resolution R2008-185).

Along with ensuring adequate capacity for all of the above-listed materials generated at the site, enclosures must also be able to accommodate storage of kitchen oil/grease if it is generated. (Note: throughout these Standards food scraps, soiled paper products and yard trimmings are often referred to together as “compostables”.) State law requires new development projects, including commercial, industrial or institutional buildings and multi-family developments of 5 units or more, to provide adequate, accessible and convenient areas for collecting and loading recyclable materials (See Public Resources Code §42900 et seq.). In addition, each local government, including the City of Napa, is required to reduce waste destined for landfills by 50 percent or risk a State-initiated fine of $10,000 per day. (See Public Resources Code §40000 et seq.). A new goal of diverting 75 percent of waste from landfill disposal by 2020 was established by both the State of California and the City of Napa in 2012 (Public Resources Code §41780.01 et seq. & Napa Resolution R2012-100)

The City, in cooperation with its Authorized Contractor, offers free waste assessments and consultations to help determine what types of material may be generated by a business or multi-family complex and provides resources and recommendations related to container and enclosure sizing needs.

For questions regarding the information in these Standards, or to schedule a free waste assessment to help determine container and enclosure size needs, please contact:

City of Napa
Materials Diversion & Recycling Division
(707) 257-9520
naparecycles@cityofnapa.org
I. COLLECTION AND STORAGE REQUIREMENTS

A. General

The Napa Municipal Code (NMC) requires all businesses and multi-family complexes within the City of Napa to subscribe to solid waste and recycling service offered by the City’s Authorized Contractor unless they are exempted from those requirements (NMC Section 5.60.160, Garbage Collection & Disposal). The service must adequately collect all MSW, recyclable materials and compostables that may be generated by a business or multi-family complex. All three of these categories require separation into different containers and all containers must be properly stored in an enclosure that meets the building requirements and environmental/safety regulations listed in Section III “Enclosure Design & Compliance Requirements” of this document and applicable sections of the NMC (specifically NMC Section 5.60, Garbage Collection & Disposal and NMC Section 8.16, Public Nuisances).

B. Non-Food Generating Businesses (Offices, Retail, Light Industrial)

State law requires all businesses to divert the recyclable materials they generate effective July 1, 2012 (Public Resources Code §41780.01 et seq.). Therefore, all businesses must size enclosures to store at least MSW and recyclable materials. If yard trimmings are generated at a business and are not hauled away by the landscaper or left as mulch on the grass or on other landscaped or garden areas, then the enclosure(s) must also have adequate space for storage of yard trimmings.

C. Food Facilities

If a business stores, prepares, packages, serves, vends or otherwise provides food for human consumption it is considered a Food Facility. Food Facilities may include, but are not limited to restaurants, grocery stores, schools, nursing homes and hospitals. The City of Napa offers an environmentally beneficial commercial food composting collection program that collects compostables in 65-gallon carts with lids and special signage. All food scraps (fruit, vegetables, meat, fish, cheese, bread, pasta, coffee grounds, etc.) as well as soiled paper products are acceptable as compostables. The State of California now requires all commercial businesses that generate specified quantities of food scraps to participate in a food scrap collection program (Public Resources Code §42649.8 et seq.). The deadlines for participating are as follows:

<table>
<thead>
<tr>
<th>Business Deadlines</th>
<th>Volume Requirements for Participation</th>
</tr>
</thead>
<tbody>
<tr>
<td>April 1, 2016</td>
<td>8 yds. or more of food scraps or yard trimmings/wk.</td>
</tr>
<tr>
<td>January 1, 2017</td>
<td>4 yds. or more of food scraps or yard trimmings/wk.</td>
</tr>
<tr>
<td>January 1, 2019</td>
<td>4 yds. or more of MSW/wk.</td>
</tr>
<tr>
<td>January 1, 2020</td>
<td>2 yds. or more of MSW/wk.</td>
</tr>
</tbody>
</table>

All Food Facilities that generate 250 lbs. per week or more of compostables (consisting of food scraps, soiled paper products and/or yard trimmings that are not hauled away by a landscaper/gardener) must provide adequate space within their enclosure(s) to accommodate 65-gallon food scrap/compostables carts and comply with building requirements related to the storage of food. Per the City and County of Napa, these building requirements require the installation of a roof and drain that is connected to the
sanitary sewer. All connections to the sanitary sewer require compliance with Napa Sanitation District requirements. Detailed information about these requirements can be found in Section III “Enclosure Design & Compliance Requirements”. If any future tenants will be, or may be, Food Facilities Generating 250 lbs. per week or more of compostables (consisting of food scraps, soiled paper products and/or yard trimmings that are not hauled away by a landscaper/gardener) the enclosure(s) must be designed to accommodate an adequate number of 65-gallon carts for storage of food scraps/compostables. Additionally, Food Facilities that generate cooking oil/grease must provide adequate space in the enclosure(s) for a container designed specifically for the storage and collection of cooking oil and grease.

D. Multi-Family Complexes

State law requires all multi-family complexes to divert recyclable materials they generate effective July 1, 2012 (Public Resources Code §41780.01). Therefore, all multi-family complexes must size enclosures to store at least MSW and recyclable materials. If yard trimmings are generated at a complex and are not hauled away by the landscaper or left as mulch on the grass or on other landscaped or garden areas, then the enclosure(s) must also have adequate space for storage of yard trimmings. At this time, multi-family complexes are not considered to be “Food Facilities” and therefore are not required to divert their food scraps. If a complex voluntarily elects to divert food scraps, then the enclosure(s) must have adequate space for storage of food scraps. See Section II F. Determining Service Needs for Multi-Family Complexes. If a complex is storing yard trimmings in the enclosure(s) it may be possible for the complex to participate in the residential co-collected yard trimmings and food scrap program offered by the City’s Authorized Contractor. Depending upon the size of the complex and the frequency of collection, this could save some space in the enclosure(s).

II. DETERMINING ENCLOSURE SIZE

A. Maximizing Collection Efficiency

- The automated collection trucks used by the City’s Authorized Contractor achieve maximum efficiency when the number of times the driver gets out of the truck is minimized. Properly designed enclosures allow the driver to “stab” the bin without physically moving it when bins are used for collection. Maximizing efficiencies help keep solid waste fees reasonable.

- Additionally, the collection system is most efficient and economical if trucks only need to service a site once per week. The goal is to size enclosures to be large enough to contain one-week’s volume of MSW, recyclable materials and compostables when possible. It is also important to obtain sufficient service to prevent material from overflowing or being stored on the ground. Uncontainerized debris is a violation of the City’s municipal code and will not be collected by the City’s Authorized Contractor. (NMC Section 8.36, Stormwater Pollution Control). Please note that sizing enclosures to require collection more than 3 times per week requires the applicant to submit a written request and obtain the approval of the City Compliance Official.
B. User Convenience to Minimize Contamination of Recyclable Materials and Compostables

Enclosures must be designed to make it convenient for those using the various containers (tenants, employees, and property owners) to conveniently place MSW, recyclable materials and compostables in the correct containers with a minimum effort. Containers should not be placed in front of each other to avoid restricting access to each. Rather, containers should “wrap” the perimeter of the enclosure whenever possible to allow access to each container.

C. Indoor Solid Waste Storage

Some businesses prefer to store collection containers in a room or area that is permanently attached to the business. This is an acceptable method for the storage of all necessary collection containers. In addition to providing adequate space for all MSW, recyclable materials, compostables and cooking oil/grease that may be generated, all requirements found in Section III “Enclosure Design & Compliance Requirements” must be followed as well as any additional state and local codes related to indoor solid waste storage. These requirements include, but are not limited to the installation of an approved automatic sprinkler system and gate access into the storage area.

D. Determining Service Needs for Municipal Solid Waste (MSW) & Recyclable Materials Generators

In order to determine what type and how much service a business will need, the business must first determine the type of materials that will be generated by the business. The three primary service types that require separation into different containers are: MSW, recyclable materials, and compostables (food scraps, soiled paper products and/or yard trimmings). Will the business generate all three categories of material? Keep in mind that most multi-family complexes and business properties have commercial landscapers who leave grass clippings on lawns or remove the yard trimmings. If this is the case, there is no need to make enough room for a yard trimmings cart. If a business is a Food Facility that will produce food scraps and other compostables please see Section D “Determining Service Needs for FOOD FACILITIES” to determine the enclosure sizing needs. Food Facilities must construct an enclosure that has a roof and must install a drain connected to the sanitary sewer. Specific details can be found in Section III “Enclosure Design & Compliance Requirements” of this document. Keep in mind that light industrial/commercial properties are required to have at least one enclosure sized for the collection of compostables. Additionally, in business complexes where tenants are specified and do include businesses that generate food, the nearest enclosure to the business that generates food shall be designed to meet standards for a Food Facility enclosure. Table A will help determine the enclosure size needed based on the type and size of the business.
### TABLE A
(Municipal Solid Waste (MSW) & Recyclable Materials ONLY)
Enclosure Size & Container Need by Building Use, Square Footage, and Estimated Weekly Generation

<table>
<thead>
<tr>
<th>Business / Land Use</th>
<th>Square Footage</th>
<th>Estimated Weekly Generation*</th>
<th>Enclosure Size Required (width x depth)</th>
<th>Sample Diagram**</th>
</tr>
</thead>
<tbody>
<tr>
<td>Office, Retail, Industrial and General Commercial**</td>
<td>Less than 5,000 sq. ft.</td>
<td>2 cubic yards</td>
<td>11’ x 6’</td>
<td>A. Cart Enclosure***</td>
</tr>
<tr>
<td></td>
<td>5,000-10,000 sq. ft.</td>
<td>4 cubic yards</td>
<td>17’ x 7’</td>
<td>B. Small Bin Enclosure (two 2-yd. bins)</td>
</tr>
<tr>
<td></td>
<td>10,000-20,000 sq. ft.</td>
<td>8 cubic yards</td>
<td>17’ x 8’</td>
<td>C. Medium Bin Enclosure (two 4-yd. bins)</td>
</tr>
<tr>
<td></td>
<td>over 20,000 sq. ft.</td>
<td>12 cubic yards or more</td>
<td>17’ x 10’</td>
<td>D. Large Bin Enclosure or multiple enclosures (two 6-yd. bins or &gt;)</td>
</tr>
</tbody>
</table>

* Generation assumes 50% MSW and 50% recyclable materials with no compostables or yard trimmings (Assumes yard trimmings are removed by landscapers or mulched on-site)
** Sample diagrams for each of the MSW & recyclable materials enclosures are in Exhibits A-D
*** Cart-only service for generation beyond 2 cubic yards may require multiple pickups per week for businesses with limited space

### E. Determining Service Needs for Food Facilities

The City of Napa, via its Authorized Contractor, offers weekly collection of 65-gallon food scrap/compostables carts. Collection service is most efficient and cost effective if the enclosure is built to hold one week’s worth of material. The enclosure must be sized to hold all of the containers that a Food Facility requires, which will include containers for MSW, recyclable materials, compostables and a cooking oil/grease tank if the business generates oil and grease. Table B is a guideline to help determine weekly material generation from a restaurant based on the size of the Food Facility, the quantity and type of containers needed for service, and the size of enclosure that is needed to house containers. Individual results may vary depending on preparation methods and materials, reuse of leftovers, and type of food service. When planning, keep in mind any seasonal changes and future business changes that may increase the amount of material generated, therefore increasing the number and/or size of containers required. Food Facilities such as nursing homes and hospitals require a waste assessment to accurately assess their needs.
Table B will help determine the enclosure size needed based on the size of the Food Facility:

<table>
<thead>
<tr>
<th>Business /Land Use</th>
<th>Square Footage</th>
<th>Estimated Weekly Generation*</th>
<th>Enclosure Size Required (width x depth)</th>
<th>Sample Diagram**</th>
<th>Containers Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food Facility</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WITHOUT</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oil/Grease Tank</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than 4,000 sq. ft.</td>
<td>2 cubic yards</td>
<td>9’ x 8’</td>
<td>E. Extra Small Food Enclosure</td>
<td>1, 95-gal MSW Cart 1, 95-gal Recyclable Materials Cart 3, 65-gal Compostables Carts</td>
<td></td>
</tr>
<tr>
<td>4,000-8,000 sq. ft.</td>
<td>4 cubic yards</td>
<td>13’ x 12’</td>
<td>F. Small Food Enclosure</td>
<td>2, 95-gal MSW Carts 2, 95-gal Recyclable Materials Carts 6, 65-gal Compostables Carts</td>
<td></td>
</tr>
<tr>
<td>8,000-16,000 sq. ft.</td>
<td>8 cubic yards</td>
<td>21’ x 11’</td>
<td>G. Medium Food Enclosure***</td>
<td>1, 2 yd. MSW Bin 1, 2 yd. Recyclable Materials Bin 6, 65-gal Compostables Carts 2X/wk.</td>
<td></td>
</tr>
<tr>
<td>Over 16,000 sq. ft.</td>
<td>12 cubic yards</td>
<td>21’ x 11’</td>
<td>H. Large Food Enclosure***</td>
<td>1, 3 yd. MSW Bin 1, 3 yd. Recyclable Materials Bin 9, 65-gal Compostables Carts 2X/wk.</td>
<td></td>
</tr>
<tr>
<td>Food Facility</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WITH</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oil/Grease Tank</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than 4,000 sq. ft.</td>
<td>2 cubic yards</td>
<td>13’ x 7’</td>
<td>I. Extra Small Food/Oil Enclosure</td>
<td>1, 95-gal MSW Cart 1, 95-gal Recyclable Materials Cart 3, 65-gal Compostables Carts 1, 100-gal Oil/Grease Tank</td>
<td></td>
</tr>
<tr>
<td>4,000-8,000 sq. ft.</td>
<td>4 cubic yards</td>
<td>20’ x 10’</td>
<td>J. Small Food/Oil Enclosure</td>
<td>2, 95-gal MSW Carts 2, 95-gal Recyclable Materials Carts 6, 65-gal Compostables Carts 1, 200-gal Oil/Grease Tank</td>
<td></td>
</tr>
<tr>
<td>8,000-16,000 sq. ft.</td>
<td>8 cubic yards</td>
<td>21’ x 11’</td>
<td>K. Medium Food/Oil Enclosure***</td>
<td>1, 2 yd. MSW Bin 1, 2 yd. Recyclable Materials Bin 6, 65-gal Compostables Carts 2X/wk. 1, 200-gal Oil/Grease Tank</td>
<td></td>
</tr>
<tr>
<td>Over 16,000 sq. ft.</td>
<td>12 cubic yards</td>
<td>21’ x 12’</td>
<td>L. Large Food/Oil Enclosure***</td>
<td>1, 3 yd. MSW Bin 1, 3 yd. Recyclable Materials Bin 9, 65-gal Compostables Carts 2X/wk. 1, 300-gal Oil/Grease Tank</td>
<td></td>
</tr>
</tbody>
</table>

* Generation assumes 25% MSW, 25% recyclable materials and 50% compostables
** Sample diagrams for each of the Food Facility enclosure types are in Exhibits E-L
*** Medium and Large Food Facility enclosures require twice a week collection of compostables carts
F. Determining Service Needs for Multi-Family Complexes

The City of Napa, via its Authorized Contractor, offers service to multi-family complexes including weekly collection of 65-gallon food scrap/compostables carts. Collection service is most efficient and cost effective if the enclosure is built to hold one week’s worth of material. The enclosure must be sized to hold all of the containers that a multi-family complex requires, which will include containers for MSW, recyclable materials, yard trimmings (if needed) and compostables if the complex elects to participate in this service. Table C-1 (MSW & Recyclable Material generators) and Table C-2 (MSW, Recyclable Material & Compostables generators) provide guidelines to help determine weekly material generation from multi-family complexes based on the number of residential units, the quantity and type of containers needed for service, and the size of enclosure that is needed to house containers.

<table>
<thead>
<tr>
<th>Number of Units</th>
<th>Estimated Weekly Generation*</th>
<th>Minimum Enclosure Size Required</th>
<th>Sample Diagram** Containers Required***</th>
</tr>
</thead>
<tbody>
<tr>
<td>6-10 Units</td>
<td>4-6 cubic yards</td>
<td>17’ x 7’</td>
<td>B. Small Bin Enclosure (two 2-yd. bins)</td>
</tr>
<tr>
<td>11-20 Units</td>
<td>7-12 cubic yards</td>
<td>17’ x 8’</td>
<td>C. Medium Bin Enclosure (two 4-yd. bins)</td>
</tr>
<tr>
<td>21-30 Units</td>
<td>13-18 cubic yards</td>
<td>17’ x 10’</td>
<td>D. Large Bin Enclosure or multiple Enclosures (two 6-yd. bins or &gt;)</td>
</tr>
<tr>
<td>31-40 Units</td>
<td>19-24 cubic yards</td>
<td>17’ x 10’</td>
<td>D. Large Bin Enclosure or multiple enclosures (two 6-yd. bins or &gt;)</td>
</tr>
<tr>
<td>Each Additional 20 Units</td>
<td>12 cubic yards</td>
<td>17’ x 10’</td>
<td>D. Large Bin Enclosure or multiple enclosures (two 6-yd. bins or &gt;)</td>
</tr>
</tbody>
</table>

* Generation assumes 50% MSW and 50% recyclable materials with no compostables or yard trimmings (Assumes yard trimmings are removed by landscapers or mulched on-site)

** Sample diagrams for each of the MSW & recyclable materials enclosures are in Exhibits B-D

*** Multiple weekly pickups of containers may be required
<table>
<thead>
<tr>
<th>Number of Units</th>
<th>Estimated Weekly Generation*</th>
<th>Minimum Containers Required**</th>
</tr>
</thead>
</table>
| 6-10 Units      | 4-6 cubic yards             | 2, 95-gal MSW Carts  
                             |                              | 4, 95-gal Recyclable Materials Carts  
                             |                              | 3, 65-gal Compostables Carts |
| 11-20 Units     | 7-12 cubic yards            | 4, 95-gal Recyclable Materials Carts  
                             |                              | 1, 2-yd. MSW Bin  
                             |                              | 6, 65-gal Compostables Carts |
| 21-30 Units     | 13-18 cubic yards           | 1, 3-yd MSW Bin  
                             |                              | 1, 4-yd Recyclables Bin  
                             |                              | 9, 65-gal Compostables Carts |
| 31-40 Units     | 19-24 cubic yards           | 1, 4-yd MSW Bin  
                             |                              | 1, 6-yd Recyclables Bin  
                             |                              | 12, 65-gal Compostables Carts |
| Each Additional 20 Units | 12 cubic yards             | 3, 95-gal MSW Carts (2X/wk.)  
                             |                              | 6, 95-gal Recyclable Materials Carts (2X/wk.)  
                             |                              | 3, 65-gal Compostables Carts (3X/wk.) |

* Generation assumes 25% MSW, 50% recyclable materials & 25% compostables with no yard trimmings (Assumes yard trimmings are removed by landscapers or mulched on-site)

** Multiple weekly pickups may be required
III. ENCLOSURE DESIGN AND COMPLIANCE REQUIREMENTS

I. Construction & Design

A. Location & Accessibility

1. All enclosures are required to have direct access for collection trucks. Direct access means the collection truck can drive directly at the bin or compactor, and insert the forks into the sides of the bin without the driver having to get out of the truck again (since the driver already must open the gate) to move the bin (See Diagram Below). A minimum straight approach of 50 feet is necessary to line up directly with bins and 75 feet is required for access to compactors and roll-off boxes. Angled direct access for bin service may be acceptable (with an angle of up to 30 degrees) if approved by the Compliance Official. An applicant may request such approval by submitting a written request with appropriate drawings to the Compliance Official.

2. Opening/closing gates or fences and locking/unlocking the bin lids are part of the driver’s responsibility and are included as part of the service provided.

Enclosures with poor accessibility, no accessibility or enclosures with atypical orientations are not permitted because the likelihood of driver injury and/or property damage increases. In addition, if a driver is required to move or push the bin in order to empty it, an additional collection fee may be charged.

- It is difficult and dangerous for a collection truck to back-up. Providing a turn around or separate exit that allows the truck to move forward rather than backwards is required. Maximum back-up distance is 50 feet for any maneuver and shall be in a straight line. A 75’ distance is required for compactors or roll-off boxes.
- Containers shall not be placed in front of fire hydrants or equipment and no bin shall be placed within 5 feet of a combustible building wall, opening, or combustible roof eave line; and
- Enclosures shall not be installed behind parking spaces or landscaping.
B. **Driveways**

1. An asphalt or concrete driveway with 50 feet of straight, direct access that leads to and from the enclosures to bins and 75 feet for compactors and roll-off boxes is required and shall be built in accordance with the City Standard Plans and Specifications and be able to withstand trucks weighing up to 56,000 lbs. Gross Vehicle Weight (GVW).

C. **Turning Radius Requirements & Truck Dimensions**

1. The turning radius shall be adequate for a 3-axle truck. Please detail this on all submitted plans.
### COLLECTION TRUCK TURNING RADIUS AND DIMENSIONS FOR CITY OF NAPA SERVICE PROVIDER

#### COLLECTION TRUCK TURNING RADIUS:

<table>
<thead>
<tr>
<th>DESCRIPTION</th>
<th>RADIUS</th>
<th>DIAMETER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Turning</td>
<td>35' - 0&quot;</td>
<td>70' - 0&quot;</td>
</tr>
<tr>
<td>Curb to curb turning</td>
<td>36' - 0&quot;</td>
<td>72' - 0&quot;</td>
</tr>
<tr>
<td>Wall to wall turning</td>
<td>39' - 0&quot;</td>
<td>78' - 0&quot;</td>
</tr>
</tbody>
</table>

- **Turning radius:** Radius of the track of the centerline of the front wheel.
- **Curb to curb turning radius:** Radius of the smallest circle inside of which the vehicle’s tires can turn.
- **Wall to wall turning radius:** Radius of the smallest circle inside of which the entire vehicle can turn.

#### COLLECTION TRUCK DIMENSIONS:

<table>
<thead>
<tr>
<th>DESCRIPTION</th>
<th>FEET/INCHES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall length</td>
<td>33' - 0&quot;</td>
</tr>
<tr>
<td>Bumper to front axle</td>
<td>6' - 0&quot;</td>
</tr>
<tr>
<td>Wheelbase (front axle to pivot point rear tandem axle)</td>
<td>16' - 2&quot;</td>
</tr>
<tr>
<td>Pivot point rear tandem axle to rear of vehicle</td>
<td>10' - 10&quot;</td>
</tr>
<tr>
<td>Height</td>
<td>13' - 8&quot;</td>
</tr>
<tr>
<td>Width (includes mirrors)</td>
<td>11' - 0&quot;</td>
</tr>
<tr>
<td>Steering lock angle - 25.2 degrees</td>
<td>N/A</td>
</tr>
</tbody>
</table>
D. Stress Concrete Apron
   1. Apron surface shall be the same elevation as the enclosure pad threshold and the surrounding surfaces, with a slope of 1/8 inch (1% grade) per foot away from the enclosure pad; and,

   2. To prevent damage to the asphalt paving by container impact, the enclosure shall be provided with an apron that extends a minimum of 8 feet from the enclosure pad and matches the width of the enclosure opening. This apron shall have a minimum sub-base of 4” of class 2 aggregate and shall consist of 3,000 psi concrete (six sack mix) or stronger, which is at least 6” thick with #4 rebar placed mid height at 12" on center each way. Alternatively, the builder shall provide evidence that construction specifications are engineered to withstand a minimum of 20,000 lbs. of direct downward force from a single truck axle.

E. Enclosure Concrete Pad
   1. Enclosure pad shall be engineered to withstand up to 20,000 lbs. of direct force from a single truck axle; and

   2. Enclosure pad surface shall be the same elevation as the apron threshold.

   3. Food Facility enclosures that have a drain connected to the sanitary sewer must have a grade break line constructed on the open side at the inside edge of the wall with the slab sloping inwards on the inside of the structure and away from the structure on the outside. Additionally, the ground shall be sloped away from the structure on all other sides (Napa Sanitation District (NSD) requirement).

   4. The City requires that the grade of all non Food Facility enclosure pads be flat such that no stormwater shall escape the enclosure if commingled with MSW.

F. Height Clearance of Enclosure Approach
   1. In front of the enclosure, collection trucks require at least 14 feet of vertical clearance over the entire approach to and from the enclosure to accommodate truck height, and 32 feet high just in front of the enclosure itself or wherever the bin will be emptied to accommodate the truck lifting the bins up to dump the contents.

   2. Food Facility enclosures require a roof and must have a roof height inside the enclosure of no less than 8 feet.
G. **Interior**
   1. Please refer to Exhibits A-L to determine enclosure size.
   
   2. The minimum interior dimension for an enclosure needed to house at least two (2) cubic yard bins is 17’ X 7’. For cart-only service the minimum size is 11’ X 6’ to store two 95-gal MSW carts and two 95-gal recyclable materials carts. The smallest size enclosure for a Food Facility without an oil/grease tank is 9’ X 8’ to house one 95-gal cart for MSW, one 95-gal cart for recyclable materials and three 65-gal compostables carts. Interior dimensions will increase depending on the size, type and number of containers (See **Section II. Determining Enclosure Size** for recommended sizes.)
   
   3. The enclosure shall be large enough to provide a 6” clearance from the back interior wall to all bins and/or compactors and a minimum of 16” or more to each side of any bin or compactor. Additionally, 36” is required from the front of all bins or compactors to the front gate. All containers, including carts and oil/grease tanks must have a minimum of 3” between them. No clearance is required between the back enclosure wall and carts for cart service. Adding a wood or rubber bumper on the back wall to prevent damage to the enclosure during servicing of bins or compactors is recommended. Bollards or other permanent or semi-permanent structures shall not be used within the enclosure. These structures reduce useable interior container space and accessibility.

![Bollards reduce useable enclosure space and are not permitted inside enclosures.](image)

H. **Wall Height**
   1. Minimum 6 feet

I. **Material**
   1. Generally, the material should match the exterior surface of the building. See the Design Guidelines from the Community Development Department with questions. The City encourages compliance with the **Leadership in Energy and Environmental Design (LEED) New Construction and Major Renovations Standards for Storage and Collection of Recyclable Materials** or comparable **Build it Green** standards. (See Appendix B for more information.)
J. Roof
1. According to the City of Napa Post-Construction Stormwater Pollution Prevention Design Standards for new development and redevelopment, enclosures for Food Facilities that are connected to the sanitary sewer shall be covered and protected from roof and surface drainage. The lowest part of the roof cannot be lower than 8 feet high and shall extend past any open sides for a distance equal to ½ the height of the opening (i.e. if the roof is 10 feet above the ground it is required to extend 5 feet past the wall – Napa Sanitation District (NSD) requirement). Additionally, the City requires a 6” front roof overhang on all Food Facility enclosures. Enclosures that are not being used for the storage of food scraps are not required to have a 6” roof overhang.

2. The City has in place a Storm Water Quality Control Ordinance 8.36.00 (Ordinance O2014-15) that requires all applicants to demonstrate that their proposed enclosure is in compliance for all material generated by the businesses.

K. Gates/Pedestrian Doors
1. Two gates are required for enclosures. When the enclosure does not allow for two gates, it may necessitate a single gate that shall open to 110 degrees.

2. Gates shall be free standing with no center pole or if there is a center pole, add 12 inches to the length of the gate side of the enclosure.

3. Gates shall be solid metal with outside handles on each door and a slide latch to secure the doors;

4. Gated opening for ingress/egress of bins shall be a minimum of 16 feet wide with no posts in the middle, place gate posts outside this span to avoid reducing the span;

5. Use bolts, not screws, to secure gate to the poles or walls;

6. Provide means to secure gate doors both opened and closed, e.g. cane bolt w/sleeve and slide latch between doors and sleeve in pavement. The bolts should be a minimum ½ inch in diameter and the sleeves for both should be a minimum of 1 inch or double the size of the bolt to allow flexibility. Be sure to have bolt drop a minimum of 4 inches into the ground.

7. Gates shall remain closed unless in use and must open to at least 110 degrees and be able to be secured open.

8. Enclosure shall be kept clean with all MSW, recyclable materials and compostables placed in the proper container.

9. A separate additional pedestrian entrance with a door (to reduce scavenging) is required from the back or the side for both non-residential facilities and residential multi-family complex developments.
10. The California Building Code requires the pedestrian entrance door to open with no more than 5 lbs. of force. The opening hardware should be lever type centered 34” – 44” above the finished surface and the bottom 10” of the gate shall have a smooth, uninterrupted surface to allow the gate to be opened by a wheelchair footrest without creating a trap or hazardous condition.

L.  **Signage**
   1. The area directly in front of the enclosure gates shall have “NO PARKING” painted on the ground. The letters shall be at minimum the width of the enclosure. Additionally, “NO PARKING” signs shall either be installed permanently affixed to each gate, or painted on each gate in letters no smaller than 6” in height. Further, a minimum 12” by 18” sign with a minimum 1” lettering indicating contact information for the property owner and/or management company responsible for maintenance of the enclosure area (name/phone number) shall be permanently affixed to one of the front gates of the enclosure.

M.  **Electrical**
   1. If a compactor will be used, the enclosure will most often require a double phase 220 outlet. In some cases a single phase 110 is necessary. Compactor specifications should be consulted prior to wiring of an electrical outlet.

N.  **Storage**
   1. The property owner shall ensure that only MSW, recyclable materials and compostables containers, as well as an oil/grease tank (if applicable), are stored in the enclosure. The enclosure is strictly for the storage of containers and cannot be used for general storage of restaurant racks, wood pallets, electronic equipment, etc. Additionally, structures such as storage sheds should not be placed within enclosures.
II. Safety & Environmental

A. Storm Water Pollution Prevention
   1. Chapter 8.36, Storm water Runoff Pollution Control, of the City of Napa’s Municipal Code states that it is unlawful for any person to make or cause to be made any illicit discharge.
   2. This ordinance also requires new development and redevelopment projects to incorporate best management practices (BMPs) to minimize the generation, transport and discharge of pollutants to storm water outlets.
   3. Post-Construction Storm Water Pollution Prevention Design Standards for new development and redevelopment have been adopted by the City of Napa. These standards require the following for MSW Storage Areas - Limited Exclusion: Detached residential homes:
      a. MSW storage areas shall be paved with an impervious surface, designed not to allow run-on from adjoining areas, and screened or walled to prevent off-site transport of MSW.
      b. Enclosures for Food Facilities shall be covered and protected from roof and surface drainage.
      c. Bin and cart lids shall be closed at all times and fit securely. Do not allow MSW to spill out or overflow the bin or cart.
      d. Wastewater from the cleaning of enclosure areas and areas where MSW is stored or contained may not be discharged to, or allowed to reach, the street or storm drain system. Wastewater may not be left as “standing” water. Any enclosure wastewater discharged to the sanitary sewer shall be in accordance with Napa Sanitation District (NSD) requirements. NSD can be contacted at: (707) 258-6000 or info@napasan.com
      e. Leakage from containers shall not be discharged to, or allowed to reach, the storm drain system.

B. Wastewater Pollution Prevention
   1. The City and County of Napa require installation of drains that connect to the sanitary sewer for Food Facility enclosures that are servicing restaurants or other types of Food Facilities (i.e. grocery stores). Napa Sanitation District (NSD) requires that the wastewater drain be connected to the facility’s grease interceptor upstream of the public sanitary sewer system. NSD also has other cover and drainage requirements.

C. Fire Prevention
   Per the current California Fire Code, as amended by the City of Napa, compliance with the following is required:
   1. Storage of combustible material shall not produce conditions that will create a nuisance or a hazard to the public health, safety or welfare.
2. Combustible material, and MSW kept within a structure shall be stored in accordance with the California Fire Code.

3. Materials susceptible to spontaneous ignition, such as oily rags, shall be stored in a listed disposable container. Contents of such containers shall be moved and disposed of daily.

4. Containers with a capacity exceeding 5.33 cubic feet (40 gallons) (0.15 m cubed) shall be provided with lids. Containers and lids shall be constructed of noncombustible materials or approved combustible materials.
   a. Exception: Wastebaskets complying with Section 808 and 304.3.3 of the California Fire Code

5. Containers with an individual capacity of 1.5 cubic yards, 40.5 cubic feet (1.15 m cubed) or more shall not be stored in buildings or placed within 5 feet (1524 mm) of combustible walls, openings or combustible roof eave lines.
   a. Exception: Containers in areas protected by an approved automatic sprinkler system installed throughout in accordance with Section 903.3.1.1, 903.3.1.2 or 903.3.2.3.2 of the California Fire Code
   b. Exception: Storage in a structure shall not be prohibited where the structure is of Type I or IIA construction, located not less than 10 feet from other buildings and used exclusively for container storage.

6. Containers with an individual capacity of 1.0 cubic yards, 200 gallons or more shall not be stored in buildings or placed within 5 feet of combustible walls, openings or combustible roof eave lines unless the containers are constructed of noncombustible materials or of combustible materials with a peak rate of heat release not exceeding 300 kW/m² when tested in accordance with ASTM E 1354 at an incident heat flux of 50 kW/m² in the horizontal orientation.
   a. Exception: Containers in areas protected by an approved automatic sprinkler system installed throughout in accordance with Section 903.3.1.1, 903.3.1.2 or 903.3.2.3.2 of the California Fire Code
   b. Exception: Storage in a structure shall not be prohibited where the structure is of Type I or IIA construction, located not less than 10 feet from other buildings and used exclusively for container storage.
EXHIBITS

**MSW and Recyclable Materials Enclosures**

Exhibit A: Standards for Cart-Only MSW and Recyclable Materials Enclosure

Exhibit B: Standards for Small Bin MSW and Recyclable Materials Enclosure

Exhibit C: Standards for Medium Bin MSW and Recyclable Materials Enclosure

Exhibit D: Standards for Large Bin MSW and Recyclable Materials Enclosure

**Food Facility Enclosures WITHOUT Oil/Grease Tank**

Exhibit E: Standards for Extra Small Food Facility Enclosure

Exhibit F: Standards for Small Food Facility Enclosure

Exhibit G: Standards for Medium Food Facility Enclosure

Exhibit H: Standards for Large Food Facility Enclosure

**Food Facility Enclosures WITH Oil/Grease Tank**

Exhibit I: Standards for Extra Small Food Facility Enclosure with Oil/Grease Tank

Exhibit J: Standards for Small Food Facility Enclosure with Oil/Grease Tank

Exhibit K: Standards for Medium Food Facility Enclosure with Oil/Grease Tank

Exhibit L: Standards for Large Food Facility Enclosure with Oil/Grease Tank
Exhibit E

Food Facility
WITHOUT Oil/Grease Tank
Extra Small Food Enclosure

Interior enclosure dimensions and layout shown
Large Food Enclosure

Interior enclosure dimensions and layout shown.
APPENDIX A- MSW, RECYCLABLE MATERIALS & COMPOSTABLES CONTAINERS
The City’s Authorized Contractor provides collection service and containers. Customers have the option of using carts, bins, roll-off boxes and/or compactors for the collection of MSW and recyclable materials. 65-gal carts are utilized for compostables. The Contractor provides all containers with the only exception being that businesses can use their own compactors provided they are compatible with the Authorized Contractor’s fleet of automated collection vehicles.

### Cart Collection

Three cart sizes are available for the storage of recyclable materials (blue carts) and MSW (black carts). Commercially collected compostables utilize 65-gallon (green) carts. Cart service may be an excellent option for low-volume generators or for businesses with limited space such as downtown Napa locations. Carts are easily maneuverable in alleys and small enclosures. The chart below lists the dimensions for the various sized carts that are available.

<table>
<thead>
<tr>
<th>Cart Size</th>
<th>1 cubic yard equivalent to:</th>
<th>Height</th>
<th>Width</th>
<th>Depth</th>
<th>Footprint (rounded)</th>
</tr>
</thead>
<tbody>
<tr>
<td>35 gallons</td>
<td>6 carts</td>
<td>39&quot;</td>
<td>19&quot;</td>
<td>23&quot;</td>
<td>3 sq. ft.</td>
</tr>
<tr>
<td>65 gallons</td>
<td>3 carts</td>
<td>42&quot;</td>
<td>27&quot;</td>
<td>29&quot;</td>
<td>5 sq. ft.</td>
</tr>
<tr>
<td>95 gallons</td>
<td>2 carts</td>
<td>47&quot;</td>
<td>29&quot;</td>
<td>34&quot;</td>
<td>6 sq. ft.</td>
</tr>
</tbody>
</table>

### Container Conversion Table

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1 gallon</td>
<td>0.134 cubic feet</td>
</tr>
<tr>
<td>27 cubic feet</td>
<td>1 cubic yard</td>
</tr>
<tr>
<td>1 cubic yard</td>
<td>203 gallons or 150 lbs.</td>
</tr>
</tbody>
</table>

A 95-gallon recyclable materials cart, 65-gallon compostables cart & 35-gallon MSW cart are shown above (from left to right)
**Front-load Bin Collection**

Commercial bins for MSW and recyclable materials come in sizes ranging from 1 1/2 cubic yards to 6 cubic yards. Sizes 1 1/2 cubic yards to 4 cubic yards are equipped with wheels for maneuvering, while 6 cubic yard bins are stationary (no wheels). If a large-sized stationary bin is used, the bin MUST be directly accessible by collection trucks. The chart below lists the dimensions for each front-load bin available.

<table>
<thead>
<tr>
<th>Bin Size</th>
<th>Height</th>
<th>Depth</th>
<th>Length*</th>
<th>Footprint (rounded)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 ½ cubic yards</td>
<td>43”</td>
<td>30”</td>
<td>80”</td>
<td>15 sq. ft.</td>
</tr>
<tr>
<td>2 cubic yards</td>
<td>50”</td>
<td>35”</td>
<td>80”</td>
<td>18 sq. ft.</td>
</tr>
<tr>
<td>3 cubic yards</td>
<td>59”</td>
<td>42”</td>
<td>80”</td>
<td>21 sq. ft.</td>
</tr>
<tr>
<td>4 cubic yards</td>
<td>65”</td>
<td>51”</td>
<td>80”</td>
<td>26 sq. ft.</td>
</tr>
<tr>
<td>6 cubic yards</td>
<td>69”</td>
<td>66”</td>
<td>80”</td>
<td>33 sq. ft.</td>
</tr>
</tbody>
</table>

*The 80” includes 8” to overall length of front-load bins to include 4” pockets on each side.

**Cart to Bin Capacity**

(How many carts fit in a bin?)

<table>
<thead>
<tr>
<th># of 95-gal Carts</th>
<th>Bin Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 carts =</td>
<td>1.5 cubic yards</td>
</tr>
<tr>
<td>4 carts =</td>
<td>2 cubic yards</td>
</tr>
<tr>
<td>6 carts =</td>
<td>3 cubic yards</td>
</tr>
<tr>
<td>8 carts =</td>
<td>4 cubic yards</td>
</tr>
<tr>
<td>12 carts =</td>
<td>6 cubic yards</td>
</tr>
</tbody>
</table>

*Above chart demonstrates capacity only and does not indicate that carts and bins will take up the same amount of enclosure space. Refer to sizing charts for container dimensions.

Front load container bins from left to right (4-yd, 3 yd, 2 yd & 1 1/2 yd.) are shown above.
**Roll-off Box Collection**

Roll-off boxes are available in four sizes (10, 20, 30 & 40 cubic yards.). This type of container is most frequently used at construction sites, but is also designed for high volume users. They may be placed directly behind a building where space is available or at a loading dock to allow loading from above. If it will be placed at a loading dock, bumper pads must be installed to avoid undue dock damage from the heavy container.

Roll-off containers must be placed on a level service. If placed on an incline, roll-away protection is required. In-street placement requires the user to obtain an encroachment permit from the Public Works Department and requires a minimum of two parking spaces plus room for the collection vehicle to maneuver while servicing. A 75’ minimum is required.

Please contact the City’s Authorized Contractor at (707) 255-5200 for an on site placement inspection and before installing any loading dock bumper rails.

The chart below lists the required clearances for roll-off vehicles & container dimensions:

<table>
<thead>
<tr>
<th>Required Clearances for Roll-Off Vehicle</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vertical (Approach &amp; Exit)</td>
</tr>
<tr>
<td>Vertical (Rails raised w/bin)</td>
</tr>
<tr>
<td>Lateral</td>
</tr>
<tr>
<td>Service Area Length (direct approach w/bin)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Roll-Off Container Dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size</td>
</tr>
<tr>
<td>-------</td>
</tr>
<tr>
<td>10 cubic yards</td>
</tr>
<tr>
<td>20 cubic yards</td>
</tr>
<tr>
<td>30 cubic yards</td>
</tr>
<tr>
<td>40 cubic yards</td>
</tr>
</tbody>
</table>
Compactor Collection

Businesses may choose to utilize their own compactor to reduce volume before transport and to minimize scavenging. For improved efficiency, a compactor should be used in place of a debris box when one location requires a 6 cubic yard bin that needs to be emptied more than 3 days per week. Larger sized compactors require a roll-off truck to be emptied. The entire unit must be picked up with a roll-off truck and be taken away. A container will not be available for 1-2 hours during this time. Some smaller compactors (4 cubic yards and smaller) can be emptied on-site using a front load truck so the unit does not have to leave the property.

All compactors must have inside rail dimensions of 28”, exterior rail dimensions of 34” and a direct approach of 75’. Additionally, most require a 220V double phase electrical outlet. If a business is using a compactor for compostables, it must be leak proof to prevent discharge into the City’s storm drain system. Please contact the City’s Authorized Contractor at (707) 255-5200 before purchasing, renting or installing a compactor to ensure servicing compatibility with hauling vehicles.

Keep in mind that compactors are large pieces of equipment that need to have adequate space for both the receiver and the compaction equipment. The chart below provides the clearances required for compactors.

<table>
<thead>
<tr>
<th>Required Clearances for Compactors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vertical (Approach &amp; Exit)</td>
</tr>
<tr>
<td>Vertical (Rails raised w/compactor)</td>
</tr>
<tr>
<td>Lateral</td>
</tr>
<tr>
<td>Service Area Length</td>
</tr>
</tbody>
</table>

Compactors vary in size depending on the capacity and manufacturer. The preceding charts list the capacity and approximate dimensions of various sized compactors that are available. It is important to obtain actual dimensions from the manufacturer or vendor. Additionally, keep in mind that compostables are very liquid in content and cannot be loaded above the compactor blade of the hopper. This means the actual capacity for compostables is less than the size of the compactor.
### Front Load Truck Emptied Compactor Dimensions*

<table>
<thead>
<tr>
<th>Compactor Size</th>
<th>Height</th>
<th>Width</th>
<th>Depth</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 cubic yards</td>
<td>8.5’</td>
<td>8’</td>
<td>5’</td>
</tr>
<tr>
<td>3 cubic yards</td>
<td>7’</td>
<td>8’</td>
<td>7’</td>
</tr>
<tr>
<td>4 cubic yards</td>
<td>8’</td>
<td>8’</td>
<td>9’</td>
</tr>
</tbody>
</table>

*Dimensions listed are approximate. Exact specifications of the unit should be obtained from the manufacturer or vendor to determine enclosure dimensions.

Vertical Compactors such as the one shown above are excellent for small spaces and require a front load truck to empty.

### Roll-off Truck Emptied Compactor Dimensions*

<table>
<thead>
<tr>
<th>Compactor Size</th>
<th>Height</th>
<th>Width</th>
<th>Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 cubic yards</td>
<td>8’</td>
<td>8’</td>
<td>12’</td>
</tr>
<tr>
<td>10 cubic yards</td>
<td>8’</td>
<td>8’</td>
<td>14’</td>
</tr>
<tr>
<td>15 cubic yards</td>
<td>8’</td>
<td>8’</td>
<td>17’</td>
</tr>
<tr>
<td>20 cubic yards</td>
<td>8’</td>
<td>8’</td>
<td>20’</td>
</tr>
</tbody>
</table>

* Dimensions listed are approximate. Exact specifications of the unit should be obtained from the manufacturer or vendor to determine enclosure dimensions.

Roll-off compactors are required for compactors over 6 yards.
Cooking Oil/Grease Collection Containers

Food Facilities that generate cooking oil and grease for disposal must collect oil and grease in a separate container designed specifically for the collection of these two items. Disposal of oil and grease in a MSW collection container is not allowed. Many Food Facilities contract with a commercial oil and grease management company that will provide an exterior collection container. Since the container must be housed within the enclosure, the container size must be considered when determining the size of the enclosure. Below is a chart listing the most common sizes of cooking oil/grease containers.

<table>
<thead>
<tr>
<th>Container Size</th>
<th>Height</th>
<th>Width</th>
<th>Depth</th>
</tr>
</thead>
<tbody>
<tr>
<td>42 gallon (eco tub)</td>
<td>30”</td>
<td>20”</td>
<td>24”</td>
</tr>
<tr>
<td>55 gallon (eco tub)</td>
<td>31”</td>
<td>19”</td>
<td>30”</td>
</tr>
<tr>
<td>78 gallon (eco tub)</td>
<td>30”</td>
<td>26”</td>
<td>31”</td>
</tr>
<tr>
<td>55 gallon (drum)</td>
<td>34”</td>
<td>23”   diameter</td>
<td></td>
</tr>
<tr>
<td>100 gallon</td>
<td>36”</td>
<td>24”</td>
<td>42”</td>
</tr>
<tr>
<td>200 gallon</td>
<td>36”</td>
<td>24”</td>
<td>60”</td>
</tr>
<tr>
<td>300 gallon</td>
<td>36”</td>
<td>36”</td>
<td>60”</td>
</tr>
</tbody>
</table>

* Exact specifications of the oil/grease container should be obtained from the manufacturer or vendor.

An Eco-tub is an option for businesses that generate a small amount of cooking oil/grease.

Cooking oil/grease containers are available in sizes as large as 300 gallons.
APPENDIX B – BUILDING AND OPERATIONAL BEST PRACTICES
The following appendix provides useful information to assist builders and business owners with implementing Green Building Practices and establishing Operational Best Practices at businesses and multi-family complexes. These environmental programs and practices can save businesses money and help them to stay in compliance with State and City requirements while creating a positive green image for the business.

**State of California Green Building Standards Code (CALGreen Code)**

The California Green Building Standards Code (CALGreen Code) is Part 11 of the California Building Standards Code and is the first statewide "green" building code in the US. CALGreen is a building code that requires, at a minimum, that new buildings and renovations in California meet certain sustainability and ecological standards. Every new building built after January 1, 2011 must meet a certain baseline of efficiency and sustainability standards.

The purpose of CALGreen is to improve public health, safety and general welfare by enhancing the design and construction of buildings through the use of building concepts having a reduced negative impact or positive environmental impact and encouraging sustainable construction practices in; (1) planning and design; (2) energy efficiency; (3) water efficiency and conservation; (4) material conservation and resource efficiency; and (5) environmental quality.

The City has adopted High Performance Building Standards and a Construction & Demolition Debris Program for the enforcement of CALGreen.

**City of Napa High Performance Building Standards**

The City’s High Performance Building Standards and Checklist contain the requirements that are applied to all covered projects as defined in the NMC. (See NMC Section 15.30 et seq.) Specific mandatory requirements for recycling by occupants are in the Napa High Performance Building Standards Nonresidential Checklist under the category “Building Maintenance and Operation.”

**Construction & Demolition Debris (C&DD) Program**

The State of California and the City of Napa require that construction and demolition projects participate in a Construction & Demolition Debris (C&DD) program. The City of Napa’s Construction & Demolition Debris Ordinance (Ordinance O2010-18) requires all projects that meet one of the following criteria to divert 50% of all C&DD material and 80% of all concrete and asphalt generated:

- Projects that exceed $100,000 in building valuation
- Projects that exceed 5,000 sq. ft. of new, improved or remodeled area
- A demolition exceeding 5,000 sq. ft. in floor area
- All City projects for which a building permit would normally be issued
Separating C&DD materials keeps valuable commodities out of the landfill and can save a business money when materials such as carpet, concrete, asphalt, dirt, wood, metals, sheetrock and yard trimmings are separated and reused or recycled. If building materials cannot be reused, please divert C&DD materials to a recycling facility. The following table lists several local facilities that accept a wide variety of C&DD materials. Please call for additional details and pricing. The Napa Recycling & Composting Facility accepts the widest range of materials at low rates.

**Leadership in Environmental & Energy Design (LEED) Certification Program**

Many local businesses desire to build according to green principles in order to obtain a LEED certification. LEED is a third-party certification program and a nationally accepted benchmark for the design, construction and operation of green buildings. Building owners and operators are provided with the tools they need to have an immediate and measurable impact on their building’s performance. LEED promotes a whole-building approach to sustainability by recognizing performance in five areas of human and environmental health: sustainable site development, water conservation, energy efficiency, materials selection and indoor environmental quality. For more information, call (707) 927-3858 or visit [www.sustainablenapacounty.org](http://www.sustainablenapacounty.org)

**Bay Area Green Business (BAGB) Program**

Napa County is part of the Bay Area Green Business Program. Over 100 businesses and wineries in Napa County have been certified as Green Businesses. Green Businesses benefit from free technical assistance and public promotions, and are seen as leaders in sustainable business. To become a Certified Green Business, the business must be in compliance with all environmental regulations and must implement a minimum number of measures in the following four areas: energy, efficiency, water conservation, pollution prevention and solid waste reduction/recycling. For more information, contact Napa County’s Green Business Coordinator at (707) 259-5969 or visit [www.greenbiz.ca.gov](http://www.greenbiz.ca.gov)
### Operational Best Practices

It is important to establish a plan for reducing waste and collecting recyclable materials and/or compostables at the business or multi-Family complex. The City of Napa and its Authorized Contractor offer free waste assessments to help local businesses and multi-family complexes implement and improve upon waste diversion and recycling practices. These assessments provide businesses and multi-family complexes with strategies to reduce waste, improve upon recycling, save money and keep businesses and multi-family complexes in compliance. To schedule a free waste assessment, call (707) 257-9520 or email naparecycles@cityofnapa.org

All businesses and multi-family complex programs should utilize the following waste diversion and recycling principles in order to have a successful program:

1. **Incorporate indoor space for recycling and composting:** It is important for businesses and multi-family complexes to remember to provide adequate indoor space for containers to collect MSW, recyclable materials and compostables (if applicable).
2. **Group the collection containers together:** All interior collection containers should be placed together so that utilizing the proper container to deposit compostables or recyclable materials is equally convenient when compared with using the MSW container. Placing containers side by side provides convenience to users, maximizes recycling and decreases contamination (i.e. placing materials in the wrong container).

3. **Use consistent colors for collection containers:** Color code all interior containers to communicate a clear and consistent message to users regarding what each container is to be used for. Containers for recyclable materials should be blue, commercial compostables containers should be green, and MSW containers should be black. Additionally, all containers should be clearly labeled with graphic instructional signage. The City of Napa provides free interior containers and instructional labels to businesses, schools and multi-family complexes committed to recycling. For more information, call (707) 257-9520 or email naparecycles@cityofnapa.org

4. **Provide training to employees and tenants:** Provide training on recycling and expected green practices to employees and/or tenants. Include information in employee orientations, policy manuals, lease agreements and Covenants, Codes & Restrictions (CC&R’s) regarding expectations.