Chapter 20.970

SOLID WASTE DISPOSAL AND RECYCLING

Sections:

20.970.010 Purpose.
20.970.020 Applicability.
20.970.030 Amount of Storage Required.
20.970.040 Location, Design and Access Standards.

Section 20.970.010 Purpose.

Purpose. It is the intent and purpose of these provisions to implement the recycling and waste management policies of the City and to support the goals, priorities, and strategies of the Clark County and State of Washington Solid Waste Management Plans. Additionally, the purpose of these regulations is to facilitate the delivery of efficient, safe and convenient refuse and recycling services to facility occupants using collection containers, vehicles and technologies offered through the City’s contracted or licensed service providers. Facility designs must incorporate adequate storage space for both solid waste and recyclables and shall provide for a serviceable and accessible on-site location(s) and/or enclosures to temporarily store these materials between scheduled collection days.

(M-3643, Added, 01/26/2004)

Section 20.970.020 Applicability.

A. Chapter applicability. This section shall apply to new multi-family residential buildings containing five or more units and nonresidential construction projects that are subject to site plan review, as governed by Chapter 20.270 VMC.

(M-3643, Added, 01/26/2004)

Section 20.970.030 Amount of Storage Required.

A.A. Storage area criteria. The amount of solid waste and recyclable storage area required is based on the predominant use(s) of the building, i.e., residential, office, retail, educational/institutional, commercial/industrial or other. If a building has more than one of the uses listed in this section, and that use occupies 20% or less of the gross floor area of the building, the floor area occupied by that use shall be counted toward the floor area of the predominant use(s). If a building has more than one of the uses listed in this section, and that use occupies more than twenty percent (20%) of the gross floor area of the building, then the storage area requirement for the whole building shall be the sum of the requirement for the area of each use.

B. For multiple uses. Storage areas for multiple uses on a single site may be combined and shared.

C.C. Vertical storage requirements. The specific requirements are based on an assumed storage height of four feet for solid waste/recyclables. Vertical storage higher than four feet but no higher than seven feet may be used to accommodate the same volume of storage in a reduced floor space. Where vertical or stacked storage is proposed, the site plan shall include drawings to illustrate the layout of the storage area and dimensions of containers.

D. Storage standards. Storage shall be provided consistent with the following:
1. Multi-unit residential buildings containing five or more units shall provide a minimum weekly storage area to accommodate the equivalent of 32 gallons of garbage per residential unit plus 48 gallons of mixed recycling and 8 gallons of glass recycling. Depending on the number of units, the total volume needed for each stream of waste can be calculated and the number and size of carts or containers determined. Mixed recycling is collected in 95 gallon recycling roll carts measuring 34 inches deep, 29 inches wide and 45 inches tall (cart measurements may vary a few inches depending on manufacturer). Glass is collected in a 64 gallon roll cart measuring about 28 inches deep, 27 inches wide and 41 inches tall. Each enclosure must provide for collection of both garbage and recycling with space to walk between the containers. Here is a formula to use:

- Number of units X 32 gallons = Total weekly storage volume for garbage
- Number of units X 48 gallons = Total weekly storage volume for recycling
- Number of units X 8 gallons = Total weekly storage volume for glass

For garbage, convert gallons to cubic yards to determine the size of dumpster needed. There are roughly 202 gallons per 1 cubic yard.

Mixed recycling or cardboard dumpsters and cages, with a standard size of 3 cubic yards (606 gallons), can be planned for accommodating a portion of the required recycling storage for these commodities. Dimensions provided in table 20.970.020-1

For recycling, determine the number of mixed carts needed by dividing total weekly storage requirements by 95; determine the number of glass recycling carts needed by dividing total weekly storage requirements by 64.

EXAMPLE. A multifamily complex with six units.

6 X 32 = 192 gallons. A one-cubic yard container will accommodate the weekly garbage storage requirement and the dimensions of that container are 79 inches 30 inches. 6 X 48 = 288 gallons, divided by 95 gallons equals three mixed recycling carts. 6 X 6 = 36 gallons for glass requirement. Only one 64 gallon cart is required for glass. So, the enclosure needs to accommodate a one yard container for garbage, three 95 gallon roll carts for mixed recycling and one 64 gallon roll cart for glass. It would require an enclosure that is 8 feet by 12 feet to accommodate the containers needed for a six-plex. Complexes with less than 20 units are encouraged to include space for a recycling container large enough to accommodate flattened cardboard boxes (typically a 3 yard or larger container). Complexes larger than 20 units are required to include space for a recycling container large enough to accommodate flattened cardboard boxes.

Large apartment complexes sometimes utilize a centralized garbage compactor(s) instead of or in coordination with more distributed garbage dumpsters. Compactors are intended for commercial and industrial use by trained personnel and should not be the container that residents use directly for disposal of their household garbage. A compactor requires a concrete pad at least 14 feet wide and 25 feet long and specific electrical supply. Property owners/managers must still provide convenient recycling locations accessible to residents.

Recycling roll carts are normally located with the garbage collection containers, rather than with the compactor, to improve recycling convenience and participation. Below is a table showing garbage dumpster sizes in cubic yards, dumpster dimensions, the weight of an empty container, and the number of
apartments units that could be served by a given container size, assuming 1 to 1 ½ 32-gallon equivalent per
unit. Garbage dumpsters larger than four cubic yards do not have wheels, so it is necessary to allow
sufficient space so they can be emptied without being rolled out. No solid waste or recyclables collecting
shall be done in any residential zone before 6:30 a.m. or after 6:30 p.m. (VMC 6.12.130).

Maximum distance from residential unit to closest garbage/recycling enclosure shall be no more than 150
feet.

<table>
<thead>
<tr>
<th>Dumpster size</th>
<th>Width</th>
<th>Depth</th>
<th>Weight (empty)</th>
<th>Apartments Served</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 yard</td>
<td>79 inches</td>
<td>30 inches</td>
<td>298 pounds</td>
<td>4-6 units</td>
</tr>
<tr>
<td>1.5 yard</td>
<td>81 inches</td>
<td>39 inches</td>
<td>329 pounds</td>
<td>6-9 units</td>
</tr>
<tr>
<td>2 yard</td>
<td>81 inches</td>
<td>40 inches</td>
<td>395 pounds</td>
<td>8-12 units</td>
</tr>
<tr>
<td>3 yard</td>
<td>81 inches</td>
<td>47 inches</td>
<td>481 pounds</td>
<td>12-18 units</td>
</tr>
<tr>
<td>4 yard</td>
<td>81 inches</td>
<td>57 inches</td>
<td>565 pounds</td>
<td>16-24 units</td>
</tr>
<tr>
<td>5 yards</td>
<td>81 inches</td>
<td>64 inches</td>
<td>613 pounds</td>
<td>20-30 units</td>
</tr>
<tr>
<td>6 yard</td>
<td>81 inches</td>
<td>68 inches</td>
<td>674 pounds</td>
<td>24-36 units</td>
</tr>
<tr>
<td>8 yard</td>
<td>81 inches</td>
<td>82 inches</td>
<td>812 pounds</td>
<td>32-48 units</td>
</tr>
</tbody>
</table>

Note: Recycling containers/roll carts require additional storage space and must be located in the same
enclosure as garbage containers.

2. Nonresidential buildings shall provide a minimum storage area of 100 square feet plus:
   a. Office: four sq. ft./1,000 sq. ft. of gross floor area (GFA);
   b. Retail: 10 sq. ft./1,000 sq. ft. of GFA;
   c. Educational/Institutional: four sq. ft./1,000 sq. ft. of GFA; and
   d. Other: four sq. ft./1,000 sq. ft. of GFA.

3. Large developments or single buildings utilizing a compactor(s) for garbage and/or recycling
disposal shall plan for the size of concrete pad appropriate for the equipment being installed and the volume
of waste and recycling to be generated, plus allocate additional space for containers for materials not
compacted. It is required that space needs be determined based on an assessment of how similarly sized
facilities meet their waste disposal and recycling needs.

(M-4147, Amended, 12/07/2015, Sec 4-Effective 01/07/2016; M-3643, Added, 01/26/2004)

Section 20.970.040 Location, Design and Access Standards.

A. Location. Required storage areas for solid waste and recyclable materials shall comply with the following
standards:

1. The storage area(s) for source-separated recyclable materials in multi-unit residential
complexes shall be at the same locations(s) as storage areas for residential mixed solid waste.
2. Indoor and outdoor storage shall comply with City Adopted Building and Uniform Fire Code requirements.

3. Storage area space requirements can be satisfied with a single location or multiple locations, and can combine both interior and exterior locations. Storage areas shall be no farther than 150 feet from each unit and be easily accessed by users and maintenance personnel.

4. Outdoor storage areas can be located within interior side yard or rear yard areas. Outdoor storage areas shall not be located within a required front yard setback or in a yard adjacent to a public right-of-way or private street easement, except alleys, unless no alternative location is possible. Outdoor storage areas shall not be located in a side or rear yard setback that abuts property that is not within the same development, i.e. impacts of the location on neighboring properties is an important consideration. Every effort should be made to locate outdoor garbage and recycling areas so as to minimize their impacts on neighboring properties. When a single family home is converted to an office, the business owners are encouraged to continue roll cart garbage service instead of dumpster service to minimize the noise impacts on their neighbors.

5. Exterior storage areas shall address both user safety/security and aesthetic considerations.

6. Exterior storage areas can be located in a parking area if the proposed use provides at least the minimum number of parking spaces required per the requirements of Chapter 20.945 VMC, Parking and Loading, after deducting the area used for storage and access.

7. The storage area shall be accessible for collection vehicles and located so it will not obstruct pedestrian or vehicle traffic movement on the site or on public streets or sidewalks adjacent to the site.

B. Design standards.

1. The dimensions of the storage area shall accommodate containers consistent with current methods of local collection and allow for pedestrian (driver and residents) access between containers. See The preferred method of recycling collection is with roll carts versus recycling dumpsters. Roll carts are more easily accessed by residents and help to prevent confusion/contamination with garbage.

2. Storage containers shall meet Uniform Fire Code standards and be made of and covered with waterproof materials or situated in a covered area.

3. Exterior storage areas shall be enclosed by a screen comprised of a sight-obscuring wall, fence and/or vegetation. A gate(s) through the fence shall allow access to users and haulers. The gate(s) for haulers shall be capable of being secured in closed and open positions.

4. Storage containers shall be clearly labeled to indicate the type of materials accepted.

5. Where electrical connections or engineered structures and surfaces are required to support the utilization of specialized compaction or similar solid waste or recyclables storage and handling equipment, these shall be designed according to the applicable codes.

C. Access standards.
1. Access to storage areas can be limited for security reasons. However, the storage area shall be accessible to users at convenient times of the day, and to collection service personnel on the day and approximate time they are scheduled to provide collection service.

2. Storage areas shall be designed to be easily accessible to collection trucks and equipment, considering paving, grade and vehicle access. The percent of grade for access to the pad or enclosure shall not exceed 3%. A minimum of 10’ horizontal clearance and 8’ of vertical clearance for truck access are required if the storage area is covered. Where direct truck access to a storage area is not possible, the grade and ramp design shall consider the weights and size of containers that can reasonably and safely be managed for “roll-out” to an accessible truck loading position. Only containers 4 cubic yards and smaller can be rolled. Non-rolled containers require 18’ vertical clearance in order to be emptied in place.

3. Storage areas shall be accessible to collection vehicles without requiring backing out of a driveway onto a public street. If only a single access is available to the storage area, adequate turning radius shall be provided to allow collection vehicles to safely exit the site in a forward motion. In the absence of a through-street or driveway, a cul-de-sac with a minimum of a 50 foot turning radius should be provided for vehicle maneuvering at the end of the street or driveway. When this is not possible, a hammerhead turnaround at least 20 feet by 20 feet in addition to the street width, should be provided.

(M-4147, Amended, 12/07/2015, Sec4-Effective 01/07/2016; M-3643, Added, 01/26/2004)