

**ADMINISTRATIVE BULLETIN**

**NO. AB-088** :

**DATE** : March 25, 2008 (Updated 01/01/14 for code references)

**SUBJECT** : Resource Conservation

**TITLE** : **Collection and Storage of Trash, Recycling, and Compostable Materials**

**PURPOSE** : The purpose of this Administrative Bulletin is to provide standards and procedures for local implementation of the California Solid Waste Reuse and Recycling Access Act of 1991, and the related adopted Model Ordinance, which require that local jurisdictions enforce regulations to assure that adequate areas for collecting and loading for recyclable materials are provided in development projects. Under these regulations, cities are mandated to enforce requirements for certain new development projects and building alterations as detailed below.

**REFERENCES** : California Public Resources Code, Division 30, Part 3, Chapter 18, California Solid Waste Reuse and Recycling Access Act of 1991.  
 California Integrated Waste Management Board, Model Ordinance Relating to Areas for Collecting and Loading Recyclable Materials in Development Projects, Resolution No. 93-57.  
 2013 San Francisco Building Code, Section 106A.3.3, #24, Information to be provided on plans to determine compliance with codes and regulations.  
 2013 San Francisco Building Code, Section 3401.2, Maintenance

**DISCUSSION** : The City and County of San Francisco is required to enforce the state code regarding Solid Waste Reuse and Recycling. The enforcement of this state code will help meet locally adopted waste diversion goals of 75% by 2010 and zero waste to landfill by 2020.

This Administrative Bulletin details procedures for local enforcement of the requirements of the Model Ordinance adopted by the California Integrated Waste Management Board, Resolution 93-57, which applies to the City and County of San Francisco in the absence of a locally adopted ordinance regarding Areas for Collecting and Loading Recyclable Materials in Development Projects. State law prohibits the issuance of permits for certain development projects after July 1, 2005 unless the provisions of this Model Ordinance are met.

For the purpose of enforcement of these regulations in San Francisco, recycled materials are those which are diverted or recovered from the solid-waste stream. The word trash refers to materials that are non-recyclable and non-compostable.

**General Requirements:**

**Applicability**

As detailed in the Model Ordinance, effective July 1, 2005, the following projects or portions of projects are required to provide adequate areas for collecting and loading recyclable materials:

- Any new project for which a building permit is required for a commercial, industrial or institutional building, marina, or residential building having five or more living units, where solid waste is collected and loaded;
- Any new public facility where solid waste is collected and loaded, and any improvements for areas of a public facility used for collecting and loading solid waste;
- A new subdivision or tract of single-family detached homes if solid waste is collected and loaded in a location that services five or more living units;
- Any one of the above types of projects that is existing to which an addition is made that adds 30 percent or more to the existing floor area of the project;
- Any one of the above types of projects that is existing to which multiple additions are made over a one- year period that cumulatively add 30 percent or more to the existing floor area of the project;
- Any one of the above types of projects, occupied by multiple tenants, to which one or more tenant improvements are made under building permit over a one-year period by any one tenant that adds 30 percent or more to that tenant's leased area, in which case that tenant's leased area shall be provided with sufficient recycling areas;

### **Solid-waste collection methods and storage**

In accordance with the City and County of San Francisco's solid-waste diversion goals, the amount of space provided for the collection and storage of recyclable and compostable materials shall be sufficient to allow recovery of 100 percent of the facility's solid-waste materials. Space shall be sufficient to accommodate containers consistent with both current methods and percentages of solid-waste storage and removal, and with projected needs when full solid-waste diversion goals are met.

All areas designated for the collection and loading of recyclable and compostable materials shall be integrated into the design and, when appropriate, the structure of the project. Areas for recyclable and compostable materials shall be at least as convenient and usable as spaces provided for non-recyclable trash disposal, and shall be located in the same areas whenever possible. When separate locations must be provided due to space constraints, the locations for collection of recyclable and compostable materials shall be at least as convenient as trash disposal locations.

Each dwelling unit in a covered project shall include areas within the dwelling unit designed and designated for storage of recyclable and compostable materials.

Any chute system for solid-waste disposal in a covered project must be designed for equal convenience to all users to separate the three waste streams of trash, recycling and compostable materials.

### **Guidance on Recycling Design**

Guidance in providing adequate areas for collecting and loading of recyclable and compostable materials is available:

- The Department of the Environment (415-355-3700) will provide guidance to project sponsors regarding design for areas for collecting and loading of recyclable and compostable materials;
- The City's permitted refuse haulers will provide assistance in determining appropriate collection, storage and loading locations, dimensions and other requirements (for contact information please call the Department of the Environment at 415-355-3700) ;
- The California Integrated Waste Management Board, Planning and Assistance Division can provide a "Recycling Space Allocation Guide" and other assistance (916-255-2385). This publication is available at [www.ciwmb.ca.gov/publications/localasst/31000012.doc](http://www.ciwmb.ca.gov/publications/localasst/31000012.doc).
- US Green Building Council provides recycling area guidelines in various publications. Information is available on the USGBC website at [www.usgbc.org/resources](http://www.usgbc.org/resources). See attachment to this bulletin for an excerpt of USGBC recommendations.

**Procedures:****Submittals**

For each covered project, the submittal documents accompanying the permit application shall provide sufficient detail to assure compliance with these requirements, including the following specific information:

1. Size and location of storage, collection and loading areas for all recyclable, compostable and trash materials, including space within individual dwelling units.
2. Type, size and number of collection containers for all recyclable, compostable and trash materials.
3. Type of proposed material handling equipment (e.g. compactors, balers, tippers, turntable systems, etc.)
4. Collection routes to conveniently access all recyclable, compostable and trash loading areas, including sufficient vertical and horizontal maneuvering clearances for collection vehicles.
5. Type and number of chutes proposed for recyclable, compostable and trash materials.
6. Signage for proposed collection, storage, and loading areas and containers.
7. Path-of-travel and other access for persons with disabilities to collection facilities, when required.
8. If not all in one location in the submittal documents, an index of locations in the submittal documents of the above required information.

**Review**

Submittal documents will be reviewed by Department of Building Inspection staff, who may consult with staff of other agencies such as Department of the Environment.

When approved as part of a building permit, requirements for adequate areas for collecting and loading of recyclable, compostable and trash materials become part of the required building construction.

**Maintenance of facilities**

Maintenance of facilities designed for collection, storage and loading of recyclable, compostable and trash materials is required under San Francisco Building Code, Section 3401.2.

Signed by:

Isam Hasenin, P.E., C.B.O., Director  
Department of Building Inspection

Approved by the Building Inspection Commission on March 19, 2008

Attachment A: Model Ordinance

Attachment B: LEED-NC Version 2.2 excerpt

**MODEL ORDINANCE OF THE CALIFORNIA  
INTEGRATED WASTE MANAGEMENT BOARD RELATING TO  
AREAS FOR COLLECTING AND LOADING RECYCLABLE  
MATERIALS IN DEVELOPMENT PROJECTS**

Resolution No. 93-57

**WHEREAS**, Public Resources Code Section 42910(a) establishes that the California Integrated Waste Management Board shall adopt a model ordinance for adoption by any local agency relating to adequate areas for collecting and loading recyclable materials in development projects; and

**WHEREAS**, Public Resources Code Section 42911(b) states that if by September 1, 1993, a local agency has not adopted an ordinance for collecting and loading recyclable materials in development projects, the model ordinance adopted by the California Integrated Waste Management Board shall take effect on that date; and

**WHEREAS**, Public Resources Code Section 42911(b) further states that the model ordinance shall be enforced by the local agency and have the same force and effect as if adopted by the local agency as an ordinance; and

**WHEREAS**, there may be cities and/or counties in the State of California that do not adopt an ordinance in compliance with Public Resources Code Section 42911(a);

**NOW, THEREFORE**, be it resolved that the California Integrated Waste Management Board hereby adopts this ordinance to be in effect for and enforced by the City Councils and Boards of Supervisors of those local agencies that do not adopt an ordinance in compliance with Public Resources Code Section 42911(a):

The City Council/County Board of Supervisors of the subject cities and/or counties do ordain as follows:

**SECTION I  
PURPOSE**

Cities and counties must divert 50 percent of all solid waste by January 1, 2000, through source reduction, recycling, and composting activities.

Diverting 50 percent of all solid waste requires the participation of the residential, commercial, industrial, and public sectors.

The lack of adequate areas for collecting and loading recyclable materials that are compatible with surrounding land uses is a significant impediment to diverting solid waste and constitutes an urgent need for state and local agencies to address access to solid waste for source reduction, recycling, and composting activities. This ordinance has been developed to meet that need.

**SECTION II  
DEFINITIONS**

The following definitions shall apply to the language contained in this ordinance:

A. **DEVELOPMENT PROJECT** – Means any of the following:

1) A project for which a building permit is required for a commercial, industrial, or institutional building, marina, or residential building having five or more living units, where solid waste is collected and loaded and any residential project where solid waste is collected and loaded in a location serving five or more living units.

2) Any new public facility where solid waste is collected and loaded and any improvements for areas of a public facility used for collecting and loading solid waste.

3) The definition of development project only includes subdivisions or tracts of single-family detached homes if, within such subdivisions or tracts there is an area where solid waste is collected and loaded in a location which serves five or more living units. In such instances, recycling areas as specified in this ordinance are only required to serve the needs of the living units which utilize the solid waste collection and loading area.

**B. IMPROVEMENT**– An improvement adds to the value of a facility, prolongs its useful life, or adapts it to new uses. Improvements should be distinguished from repairs. Repairs keep facilities in good operating condition, do not materially add to the value of the facility, and do not substantially extend the life of the facility.

**C. FLOOR AREA OF A MARINA**– The floor area of a marina shall be defined as the space dedicated to the docking or mooring of marine vessels.

**D. PUBLIC FACILITY**– The definition of public facility includes, but is not limited to buildings, structures, marinas, and outdoor recreation areas owned by a local agency.

**E. RECYCLING AREA (AREAS FOR RECYCLING)**– Space allocated for collecting and loading of recyclable materials. Such areas shall have the ability to accommodate receptacles for recyclable materials. Recycling areas shall be accessible and convenient for those who deposit as well as those who collect and load any recyclable materials placed therein.

### **SECTION III GENERAL REQUIREMENTS**

A. Any new development project for which an application for a building permit is submitted on or after September 1, 1993, shall include adequate, accessible, and convenient areas for collecting and loading recyclable materials.

B. Any improvements for areas of a public facility used for collecting and loading solid waste shall include adequate, accessible, and convenient areas for collecting and loading recyclable materials.

C. Any existing development project for which an application for a building permit is submitted on or after September 1, 1993 for a single alteration which is subsequently performed that adds 30 percent or more to the existing floor area of the development project shall provide adequate, accessible, and convenient areas for collecting and loading recyclable materials.

D. Any existing development project for which an application for a building permit is submitted on or after September 1, 1993 for multiple alterations which are conducted within a twelve month period which collectively add 30 percent or more to the existing floor area of the development project shall provide adequate, accessible, and convenient areas for collecting and loading recyclable materials.

E. Any existing development project for which multiple applications for building permits are submitted within a twelve month period beginning on or after September 1, 1993 for multiple alterations which are subsequently performed that collectively add 30 percent or more to the existing floor area of the development project shall provide adequate, accessible, and convenient areas for collecting and loading recyclable materials.

F. Any existing development project occupied by multiple tenants, one of which submits on or after September 1, 1993, an application for a building permit for a single alteration which is subsequently performed that adds 30 percent or more to the existing floor area of that portion of the development project which said tenant leases shall provide adequate, accessible, and convenient areas for collecting and loading recyclable materials. Such recycling areas shall, at a minimum be sufficient in capacity, number, and distribution to serve that portion of the development project which said tenant leases.

G. Any existing development project occupied by multiple tenants, one of which submits on or after September 1, 1993 an application for a building permit for multiple alterations which are conducted within a twelve month period which collectively add 30 percent or more to the existing floor area of that portion of the development project which said tenant leases shall provide adequate, accessible, and convenient areas for collecting and loading recyclable materials. Such recycling areas shall, at a minimum be sufficient in capacity, number, and distribution to serve that portion of the development project which said tenant leases.

H. Any existing development project occupied by multiple tenants, one of which submits within a twelve month period beginning on or after September 1, 1993 multiple applications for building permits for multiple alterations which are subsequently performed that collectively add 30 percent or more to the existing floor area of that portion of the development project which said tenant leases shall provide adequate, accessible, and convenient areas for collecting and loading recyclable materials. Such recycling areas shall, at a minimum be sufficient in capacity, number, and distribution to serve that portion of the development project which said tenant leases.

I. Any costs associated with adding recycling space to existing development projects shall be the responsibility of the party or parties who are responsible for financing the alterations.

#### **SECTION IV GUIDELINES FOR ALL DEVELOPMENT PROJECTS**

A. Where local standards exist, recycling areas should be designed to be architecturally compatible with nearby structures and with the existing topography and vegetation, in accordance with such standards.

B. The design and construction of recycling areas shall not prevent security of any recyclable materials placed therein.

C. The design, construction, and location of recycling areas shall not be in conflict with any applicable federal, state, or local laws relating to fire, building, access, transportation, circulation, or safety.

D. Recycling areas or the bins or containers placed therein must provide protection against adverse environmental conditions, such as rain, which might render the collected materials unmarketable.

E. Driveways and/or travel aisles shall, at a minimum, conform to local building code requirements for garbage collection access and clearance. In the absence of such building code requirements, driveways and/or travel aisles should provide unobstructed access for collection vehicles and personnel.

F. A sign clearly identifying all recycling and solid waste collection and loading areas and the materials accepted therein shall be posted adjacent to all points of direct access to the recycling areas.

G. Developments and transportation corridors adjacent to recycling areas shall be adequately protected for any adverse impacts such as noise, odor, vectors, or glare through measures including, but not limited to maintaining adequate separation, fencing, and landscaping.

#### **SECTION V ADDITIONAL GUIDELINES FOR SINGLE TENANT DEVELOPMENT PROJECTS**

A. Areas for recycling shall be adequate in capacity, number, and distribution to serve the development project.

B. Dimensions of the recycling area shall accommodate receptacles sufficient to meet the recycling needs of the development project.

C. An adequate number of bins or containers to allow for the collection and loading of recyclable materials generated by the development project should be located within the recycling area.

#### **SECTION VI ADDITIONAL GUIDELINES FOR MULTIPLE TENANT DEVELOPMENT PROJECTS**

A. Recycling areas shall, at a minimum be sufficient in capacity, number, and distribution to serve that portion of the development project leased by the tenant(s) who submitted an application or applications resulting in the need to provide recycling area(s) pursuant to Section III of this ordinance.

B. Dimensions of recycling areas shall accommodate receptacles sufficient to meet the recycling needs of that portion of the development project leased by the tenant who submitted an application or applications resulting in the need to provide recycling area(s) pursuant to Section III of this ordinance.

C. An adequate number of bins or containers to allow for the collection and loading of recyclable materials generated by that portion of the development project leased by the tenant(s) who submitted an application or applications resulting in the need to provide recycling area pursuant to Section III of this ordinance should be located within the recycling area.

**SECTION VII  
LOCATION**

A. Recycling areas shall not be located in any area required to be constructed or maintained as unencumbered, according to any applicable federal, state, or local laws relating to fire, access, building, transportation, circulation, or safety.

B. Any and all recycling area(s) shall be located so they are at least as convenient for those persons who deposit, collect, and load the recyclable materials placed therein as the location(s) where solid waste is collected and loaded. Whenever feasible, areas for collecting and loading recyclable materials shall be adjacent to the solid waste collection areas.

**SECTION VIII  
DECLARATION OF SEVERABILITY**

All provisions of this Ordinance are severable and, if for any reason any sentence, paragraph, or section of this Ordinance shall be held invalid, such decision shall not affect the validity of the remaining parts of the Ordinance.

**CERTIFICATION**

The undersigned Executive Director of the California Integrated Waste Management Board does hereby certify that the foregoing is a full, true and correct copy of a resolution duly and regularly adopted at a meeting of the California Integrated Waste Management Board on March 31, 1993.

Dated: March 31, 1993  
Ralph E. Chandler  
Executive Director

SS	WE	EA	MR	EQ	ID
Prerequisite 1					

**Summary of Referenced Standard**

There is no standard referenced for this credit.

**Approach and Implementation**

Dense urban areas typically have a recycling infrastructure in place while some less populated areas may still be developing this type of service. Building owners and designers must determine the most appropriate method for creating a dedicated recycling collection area that meets the project occupant’s needs and also those of the collection infrastructure. It is possible that recyclable collection and storage space could increase the project footprint in some instances. It is important to address possible indoor environmental quality (IEQ) impacts on occupants due to recycling activities. Those activities that create odors, noise and air contaminants should be isolated or performed during non-occupant hours to maintain optimal IEQ. **Table 1** provides guidelines for the recycling storage area based on overall building square footage. The requirements of this prerequisite do not regulate the size of the recycling area. The intent is for the design team to size the facilities appropriate to the specific building operations, and the information provided below is intended as a resource for that exercise.

Designate well marked collection and storage areas for recyclables including office paper, cardboard, glass, plastic and metals. Locate a central collection and storage area in the basement or at the ground level that provides easy access for maintenance staff as well as collection vehicles. For projects with larger site areas, it may be possible to create a separate central collection area that is not located within the building footprint.

Design considerations for recycling areas should include signage to prevent con-

**Table 1: Recycling Area Guidelines**

Commercial Building Square Footage [sf]	Minimum Recycling Area [sf]
0 to 5,000	82
5,001 to 15,000	125
15,001 to 50,000	175
50,001 to 100,000	225
100,001 to 200,000	275
200,001 or greater	500

tamination, protection from the elements, and security for high value materials. Security of recyclable collection areas should also be designed to discourage illegal disposal. Allocate recycling space in common areas as well as a centralized collection point. Common areas may be more easily maintained if recycling containers are no larger than 20–25 gallons. It may be beneficial to specify recycling bins that have wheeled carts to transport the recyclables from the common area to a centralized collection area. At the centralized collection point, it is useful to design enough space for a front-loader bin as well as a ramp up to the recycling area.

It may be helpful to research local recycling programs to find the best method of diverting recyclable materials from the waste stream for your particular building location. When allocating space for the centralized collection point of recyclables, it is beneficial to involve the local hauler who will be providing waste management services to the site. Space allocation needs can vary depending upon collection strategies used by the hauler such as comingled or source separated recyclables. For example, if the local hauler accepts comingled recyclables, then it may be possible to reduce the area that would be required if separate collection bins for each material were required. There is no requirement for projects to provide proof of contract for hauling services to achieve this prerequisite.

Where possible, provide instruction to occupants and maintenance personnel on recycling procedures. Encourage activities to reduce and reuse materials before recycling in order to reduce the amount of recyclable volumes handled. For instance, building occupants can reduce the solid waste stream by using reusable bottles, bags and other containers. Consider employing cardboard balers, aluminum can crushers, recycling chutes and other waste management technologies to further enhance the recycling program.

**Calculations**

There are no calculations required to demonstrate compliance with this prerequisite. **Table 1** is provided as a guideline for sizing recycling areas. The values in this table were developed by the city of Seattle in support of an ordinance requiring minimum areas for recycling and storage of recyclables in commercial buildings. The ordinance is based on the total square footage of the building. Minimum areas for residential buildings were also specified in that reference document.

Another potential source of guidelines for sizing recycling areas is the California Integrated Waste Management Board's (CIWMB) 1999 Statewide Waste Characterization Study, in which the waste disposal rates of 1,200 businesses were measured. See the References section of this prerequisite for details.

**Submittal Documentation**

This prerequisite is submitted as part of the **Design Submittal**.

The following project data and calculation information is required to document prerequisite compliance using the v2.2 Submittal Templates:

- Confirm that recycling collection areas have been provided, per requirements, to meet the needs of the project.

- Confirm the types of materials that are being collected for recycling.
- Provide an optional narrative describing any special circumstances or considerations regarding the project's prerequisite approach.

SS	WE	EA	MR	EQ	ID
Prerequisite 1					

**Considerations**

**Environmental Issues**

By creating convenient recycling opportunities for building occupants, a significant portion of the solid waste stream can be diverted from landfills. Recycling of paper, metals, cardboard and plastics reduces the need to extract virgin natural resources. For example, recycling one ton of paper prevents the processing of 17 trees and saves three cubic yards of landfill space. Recycled aluminum requires only 5% of the energy required to produce virgin aluminum from bauxite, its raw material. Recycling also reduces environmental impacts of waste in landfills. Land, water and air pollution impacts can all be reduced by minimizing the volume of waste sent to landfills.

**Economic Issues**

Recycling requires minimal initial cost and offers significant savings in reduced landfill disposal costs or tipping fees. However, recycling activities use floor space that could be used otherwise. In larger projects, processing equipment such as can crushers and cardboard balers are effective at minimizing the space required for recycling activities. Some recyclables can generate revenue which can help to offset the cost of their collection and processing.

**Resources**

Please see the USGBC website at [www.usgbc.org/resources](http://www.usgbc.org/resources) for more specific resources on materials sources and other technical information.

