[Environment Code – Green Building Requirements for City Buildings]

Ordinance amending the San Francisco Environment Code, by amending Chapter 7, Sections 700 through 713, to update the green building requirements for the design, construction and operation of City buildings.

NOTE: Additions are single-underline italics Times New Roman; deletions are strike-through italics Times New Roman. Board amendment additions are double-underlined; Board amendment deletions are strikethrough normal.

Be it ordained by the People of the City and County of San Francisco:

Section 1. The San Francisco Environment Code is hereby amended by: 1) amending Sections 700, 702, 702 and 703; 2) renumbering Sections 709, 707, 705.5, 706, 705.3, 705.4, 710 and 708 as Sections 704, 705, 707, 708, 710, 711, 712 and 713, respectively, and amending them; 3) adding Sections 706 and 709; and 4) repealing former Sections 704, 705, 705.1 and 705.2, all to read as follows:

SEC. 700. FINDINGS AND PURPOSE.

The Board of Supervisors finds that:

1A. Buildings are one of the distinguishing elements of human civilization. Traditional building design and construction practices have significant negative environmental impacts, but if they are not constructed thoughtfully they can waste precious natural and financial resources, as well as harm the environment and the health of people who use them. Around the globe, building operations, construction and demolition consume 40 percent of the world’s energy, 65 percent of all electricity, and 40 percent of all raw materials. In the United States, buildings consume 48 percent of all energy, 76 percent of all electricity, and generate 38 percent of all carbon (CO₂) emissions. Each year in the United States, building-related activities are responsible for 30 percent of the nation’s carbon dioxide emissions, 40 percent of ozone pollution, and 35 percent of municipal solid waste. In San Francisco,

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buildings consume 54 percent of all energy, 80 percent of all electricity, and generate 56 percent of all carbon emissions. Advanced green buildings can generate their own energy, minimize carbon emissions, produce and process their own water, emphasize reuse of buildings and materials, and provide healthy interior environments.

2 B. The selection of sustainable design features and building materials is consistent with the City's Precautionary Principle Policy. This policy requires that the City consider a full range of alternatives in order to select products and procedures that minimize harm and maximize the protection of public health and natural resources. The construction and remodeling projects San Francisco completed as part of a Green Building Pilot Project demonstrate that thoughtful planning and design decisions can result in significant cost savings to the City over the life of such facilities, and can improve the health and productivity of City employees and visitors. "Green Buildings" are designed to make optimum use of public transportation and will offer substantial long-term economic, health and environmental benefits to the citizens of San Francisco.

C. The selection of resource efficient and less toxic building materials and design features is consistent with the City's Precautionary Principle Policy. This principle requires that the City consider a full range of alternatives in order to select products and procedures that minimize harm and maximize the protection of public health and natural resources.

3 D. The United States Green Building Council (USGBC) is a non-profit organization committed to a prosperous and sustainable future for our nation through cost-efficient and energy-saving green buildings. A nationally recognized association with membership representing all segments of the building industry, including architects, manufacturers, government agencies, and environmentalists. LEED® is an internationally-recognized green building certification system developed by the USGBC. The USGBC has created the Leadership in Energy and Environmental Design (LEED®) rating system for building design, construction, and operations that provides specific principles and practices which result in certification of environmental performance.
4. Green buildings provide financial benefits while protecting human and environmental health. Total construction costs for buildings seeking LEED certification fall into the existing range of costs for buildings not seeking LEED certification. Green buildings, on average, result in savings of 20 percent of total construction costs over the first 20 years of operation.

SEC. 701. DEFINITIONS.

The following terms shall have the meanings set forth below.

(a) "Alternative Daily Cover" or "ADC" means materials, other than soil, that have been approved by the California Department of Resources Recycling and Recovery ("CalRecycle") or a successor agency for use as a temporary overlay on an exposed landfill face.

(b) "Beneficial reuse" means the reuse of material at a landfill that does not include ADC but shall include, but not be limited to, use of the material for or as the following: alternative intermediate cover; final cover foundation layer; liner operations layer; leachate and landfill gas collection system; construction fill; road base; wet weather operations pads and access roads; and, soil amendments for erosion control and landscaping. "Beneficial reuse" does not include disposal of material at a landfill.

(c) "BioMass Energy Generation" means the controlled combustion, when separated from other solid waste and used for producing electricity or heat, of wood, wood chips, wood waste, and tree and brush prunings. "BioMass Energy Generation" does not include the controlled combustion of recyclable pulp or recyclable paper materials, or medical or hazardous waste.

(d) (a) "Building" means:

(1) Any structure used for support or shelter of any use or occupancy.

"Structure" means that which is built or constructed, an edifice or building of any kind, or any piece of work artificially built or composed of parts joined together in some definite manner and permanently attached to the ground.
(2) "Building" includes office buildings, libraries, recreation centers, museums, airport buildings, public safety buildings, hospitals, clinics, education centers, transportation facilities, cruise ship terminals, marina buildings, convention facilities, and other structures wherein things may be grown, made or produced, kept, handled, stored or disposed of. "Building" also includes marinas, outdoor recreation areas, and parking facilities.

(3) "Building" does not include machinery, equipment, or appliances installed for manufacture or process purposes only, any construction installation that is not part of a building, or any tunnel, roadway or bridge, or any vehicle or mobile equipment.

(e) "CALGreen" means the California State Green Building Code as adopted by San Francisco Building Code Chapter 13C.

(f) "City department" means any department of the City and County of San Francisco. City department does not include any other local agency or any federal or State agency, including but not limited to, the San Francisco Unified School District, the San Francisco Community College District, the San Francisco Redevelopment Agency and the San Francisco Housing Authority.

(g) "City-owned Facility" means any building owned by the City and County of San Francisco. "City-owned Facility" includes does not include City-owned facilities or portions thereof that the City leases to non-City entities, except when the City enters into a new lease or other similar agreement with a new tenant executed after August 31, 1999.

(h) "City Leasehold" means a building or portion thereof owned by others where the City is a tenant.

(i) "City Representative" means the employee of the City who oversees the construction and/or demolition process for a City construction and/or demolition project and is responsible for ensuring that the contractor complies with all aspects of the contract documents.

(j) "Commission" means the Commission on the Environment.
(k) (e) "Commissioning Process" means an independent process to ensure the attainment of quality facilities pursuant to this Chapter. The commissioning process verifies and documents focuses on verifying and documenting that the energy using systems in buildings building and all of its systems are planned, designed, installed, and tested, and operate are operating and maintained as designed. The Commissioning Process shall coordinate with, but not include, routine inspections performed by the code official having jurisdiction Department of Building Inspection.

(l) "Construction and Demolition Debris" or "C & D Debris" means building materials and solid waste generated from construction and demolition activities, including, but not limited to: fully-cured asphalt; concrete; brick; rock; soil; lumber; gypsum wallboard; cardboard and other associated packaging; roofing material; ceramic tile; carpeting; fixtures; plastic pipe; metals; and, tree stumps and other vegetative matter resulting from land clearing and landscaping for construction, deconstruction, demolition or land developments. "Construction and Demolition Debris" does not include refuse regulated under the 1932 Refuse Collection and Disposal Ordinance or sections of the Municipal Code that implement the provisions of that ordinance, or materials excavated from the public right-of-way. "Construction and Demolition Debris" does not include "hazardous waste," as defined in California Health and Safety Code Sections 25100 et seq.

(m) (f) "Construction Project" means any building, planning or construction activity, including demolition, new construction, major alteration, renovation, remodeling, or building additions by a City department at a City-owned Facility, Existing City Leasehold, or New City Leasehold.

(n) "Contractor" means the company or person to whom the City awards a contract for a construction and/or demolition project. The contractor is responsible for complying with all aspects of Section 708 of this Chapter and for ensuring that all subcontractors, lower-tier subcontractors and suppliers also comply.
(o) "Deconstruction" means the process of taking apart a structure with the primary goal of preserving the value of all useful building materials, so that they may be reused or recycled.

(p) "Demolition Project" means the decimating, razing, ruining, tearing down or wrecking of any facility, structure, pavement, building, wall or fence, whether in whole or in part and whether interior or exterior.

(q) "Department" means the Department of the Environment.

(r) "Design Phases" means the generally-accepted stages of architectural design: conceptual design, schematic design, design development and construction documents.

(s) "Director" means the Director of the Department of the Environment or his or her designee.

(t) "Disposal" means final deposition of material at a legally operating permitted landfill that does not include beneficial reuse or at a permitted transformation facility. A legally operating permitted landfill includes Class III landfills and inert fills. Disposal of inert materials at inert fills or inert backfill sites does not constitute recycling.

(u) "Diversion" means use of material for any purpose other than disposal in a landfill or transformation facility, such as source reduction, reuse, recycling, and composting activities that do not result in material being disposed at permitted landfills and transformation facilities.

(v) "Diversion Rate" means the percentage of total material that is diverted from disposal at permitted landfills and transformation facilities through processes such as source reduction, reuse, recycling, and composting.

(w) "Green Building Certification Institute" or "GBCI" is the body providing independent third-party LEED certification and professional credentials recognizing excellence in green building performance and practice.

(x) "Hazardous Material" means any material defined as hazardous in California Health and Safety Code Sections 25100 et seq., as amended.
(y) "Indoor Air Quality" means the quality of indoor air, including the concentration of particulates, fumes, odors, carbon dioxide, etc.

(z) "Indoor Environmental Quality" means the quality of the indoor environment, including air quality, thermal quality, acoustical quality, daylight, views and controllability of systems.

(aa) "Landfill" means a facility that (i) accepts for disposal in or on land non-hazardous waste such as household, commercial, and industrial waste, and waste generated during construction, remodeling, repair and demolition operations, and (ii) has a valid current solid waste facilities permit from the California Department of Resources Recycling and Recover (CalRecycle).

(i) "Existing City Leasehold" means that portion or portions of any building that is leased or otherwise occupied, but not owned, by the City and County of San Francisco or any City Department for a term of one year or more pursuant to a written agreement that was executed before August 31, 1999.

(bb) (f) "Leadership in Energy and Environmental Design" or "LEED®" is an internationally recognized green building certification system developed by the USGBC, providing third-party verification that a building or community was designed and built using strategies aimed at improving performance across all the following metrics: energy savings; water efficiency; CO2 emissions reduction; improved indoor environmental quality; and stewardship of resources and sensitivity to their impacts. LEED provides building owners and operators with a concise framework for identifying and implementing practical and measurable green building design, construction, operations, and maintenance solutions. "LEED™ rating system" or "LEED™: Leadership in Energy and Environmental Design rating system" means the rating system developed by the United States Green Building Council (USGBC) for evaluating the environmental performance of a building. LEED certified buildings are rated on a scale from lowest to highest: LEED LEED™ Certified, LEED LEED™ Silver, LEED LEED™ Gold and LEED LEED™ Platinum. Wherever specific LEED prerequisites or credits are cited, such references are to LEED Building Design and Construction
(BD+C) 2009. More recent LEED versions may be used, provided the credits and points achieved are at least as stringent as LEED BD+C 2009.

(cc) (k) "LEED Accredited Professional" or "LEED AP" "LEED™ accredited professional" means an employee of a City department or a consultant retained by the City through a design or construction contract or other agreement another individual who has fulfilled all requirements and passed the LEED LEED™ accreditation exam issued by GBCI the USGBC in applying LEED LEED™ principles to technical fields of practice in building design, construction and operations.

(l) "New City Leasehold" means that portion or portions of any building that is leased or otherwise occupied, but not owned, by the City and County of San Francisco or any City department for a term of one year or more pursuant to a written agreement that was executed or renewed after August 31, 1999. "New City Leasehold" does not include common area portions of a building that are not exclusively leased or otherwise occupied by a City department.

(m) "Recycling area" means space allocated for collecting, storing, and loading recyclable materials. Such areas shall be able to accommodate receptacles for recyclable materials.

(dd) "LEED Project Administrator" means the individual member of the design team who registers a project with GBCI, and subsequently administers the LEED documentation process. For San Francisco municipal construction projects, the LEED Project Administrator shall be a LEED AP.

(ee) "LEED Scorecard" means a summary chart indicating all LEED prerequisites and credits being pursued and reasonably expected to be achieved for a construction project.

(ff) "Major Alteration" means construction work that is extensive enough such that normal building operations cannot be performed while the work is in progress, and/or a new certificate of occupancy, or similar official indication that it is fit and ready for use, is required.

(gg) "Minimum Project Requirements" or "MPR" means the minimum requirements for projects to become LEED certified, as issued by the USGBC.
(hh) "Mixed Construction & Demolition debris" or "Mixed C & D Debris" means "Construction and Demolition Debris" or "C&D Debris", but excluding materials source-separated for reuse or recycling.

(ii) "New Construction" means construction from the ground up, including a new building envelope, and new structural, mechanical, electrical and plumbing systems.

(jj) "Person" means a natural person, a firm, joint stock company, business concern, association, partnership or corporation or, to the extent permitted by law, governmental entity, including the City and County of San Francisco and its departments, boards and commissions for projects within the nine counties surrounding the San Francisco Bay, and its or their successors or assigns.

(kk) "Recover" or "Recovery" means any activity, including source reduction, deconstruction and salvaging, reuse, recycling and composting, which causes materials to be recovered for use as a resource and diverted from disposal.

(ll) "Recycle" or "Recycling" means the process of collecting, sorting, cleansing, treating, and reconstituting materials that would otherwise become solid waste, and returning them to the economic mainstream in the form of raw material for new, reused, or reconstituted products which meet the quality standards necessary to be used in the marketplace. "Recycling" does not include "transformation," as defined in Section 40201 of California Public Resources Code.

(mm) "Recycling Facility" means an operation or person that collects and processes materials for recycling.

(nn) "Registered Facility" means a facility that accepts mixed construction and demolition debris for processing and recycling and holds a valid registration issued by the City and County of San Francisco pursuant to Chapter 14 of the Environment Code.

(oo) "Registered Transporter" means a person who removes mixed construction and/or demolition (C&D) debris from a construction and/or demolition site, using a vehicle with more than
two axles or two tires per axle (such as a large pickup truck with four tires on the rear axle or three-
axle dump trucks), and hauling at least one (1) cubic yard of mixed construction and demolition debris.
A "Registered Transporter" must hold a valid registration from the City and County of San Francisco
and is obligated to take all mixed C&D material only to a Registered Facility.

(pp) "Reuse" means using an object or material again, either for its original purpose or for a
similar purpose, without significantly altering the physical form of the object or material.

(qq) "Source Reduction" means any action which causes a net reduction in the generation of
solid waste. Source reduction includes, but is not limited to, reducing the use of non-recyclable
materials, replacing disposable materials and products with reusable materials and products, reducing
packaging, reducing the amount of yard wastes generated, establishing garbage rate structures with
incentives to reduce waste tonnage generated, and increasing the efficiency of the use of paper,
cardboard, glass, metal, plastic, and other materials.

(rr) "Source-Separated Materials" means materials that have been separated or kept separate
from the solid waste stream, at the point of generation, for the purpose of reuse, recycling or
composting in order to return them to the economic mainstream in the form of raw material for new,
reused, or reconstituted products which meet the quality standards necessary to be used in the
marketplace.

(ss) The "United States Green Building Council" or "USGBC" is a non-profit organization
committed to a prosperous and sustainable future for our nation through cost-efficient and energy-
saving green buildings.

SEC. 702. MUNICIPAL GREEN RESOURCE EFFICIENT BUILDING TASK FORCE.

(a) Establishment and Purpose. The Board of Supervisors establishes the Municipal
Green Resource Efficient Building Task Force (the "Task Force") to oversee and assist in making
City buildings resource efficient enhancing the environmental performance of City construction

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projects pursuant to this Chapter. The Task Force shall review municipal construction projects subject
to this Chapter during their design and construction to ensure that the responsible City departments
are complying with the requirements of the Chapter, and may advise the Department of the
Environment on matters of policy related to this Chapter. The Task Force shall facilitate
communication about green building issues throughout the City, and act as an educational forum to
increase knowledge and share project-related successes and lessons learned.

(b) The Task Force will consist of one member of the public appointed by the Mayor,
and a representative with building design, construction and/or finance experience from each of the
following City departments:

(1) The Department of the Environment;
(2) The Division of Building Design and Construction Bureau of Architecture within
the Department of Public Works;
(3) The Division of Infrastructure Design and Construction within the Department of
Public Works;
(4) The San Francisco Public Utilities Commission;
(5) The Department of Recreation and Park Department;
(6) The Bureau of Construction Management within the Department of Public Works;
(7) The San Francisco Municipal Transportation Agency Railway;
(8) The Department of Building Inspection;
(9) The Port of San Francisco;
(10) The San Francisco International Airport; and
(11) The Department of Public Health; and,
(12) The Real Estate Division within the Department of Administrative Services.
The Task Force shall adopt bylaws to govern its operations. At least one member of the Task Force shall be a LEED Accredited Professional LEED™ accredited professional.

The Department of the Environment shall provide staff for the Task Force.

SEC. 703. DUTIES OF THE DEPARTMENT OF THE ENVIRONMENT.

(a) General Duties under this Chapter Establishment and Purpose. The Department of the Environment shall: There is hereby created with the Department of the Environment a Resource Efficient Building Program. The purpose of the Resource Efficient Building Program is to:

(1) Develop goals, criteria, and strategies for optimizing municipal green maximizing resource-efficient building design, construction and operations and to make policy recommendations regarding requirements for municipal construction projects city and private resource-efficient buildings to the Board of Supervisors;

(2) Develop and oversee a training program in green resource-efficient building practices, including design, construction, alteration, renovation, operation and reuse of buildings in a resource-efficient and energy-efficient manner for department heads and city architects, engineers, construction managers, and building managers, department managers and finance officers employed by the City in order to implement the policies adopted by the Board of Supervisors;

(3) Coordinate with the Task Force and other City departments having expertise with, or with responsibility for, compliance with the requirements of this Chapter, and on achieving municipal green resource-efficient building goals including, but not limited to, the Department of Public Works, the San Francisco Public Utilities Commission and the Department of Building Inspection. These departments shall also assist the Director in providing advice, assistance, outreach, and education to other City departments concerning green resource-efficient building practices;
(4) Provide technical project oversight and assistance directly to City project teams or through green building technical assistance contracts; Assess the efficacy of the Pilot Program and the Resource Efficient Building Program on both environmental and economic grounds; and

(5) Develop forms and materials necessary for compliance with this Chapter. Provide information to the general public to encourage the adoption of resource efficient building guidelines by the public and private sector.

(b) Guidance, Rules and Regulations. After a public hearing, the Director may promulgate such guidance, forms, performance procedures, rules and regulations as may be necessary or appropriate from time to time to carry out the provisions of this Chapter, including the adoption of forms necessary to implement this Chapter. The Director is authorized to call upon the Task Force and other City departments as necessary and appropriate to assist in developing such guidance, forms, performance procedures, rules and regulations. Such guidance, forms, performance procedures, rules and regulations may include adopting appropriate versions of LEED and adopting or modifying San Francisco-specific LEED requirements for municipal construction projects, as provided in Section 706.

(e) Green Building Compliance Guide. In accordance with Section 703(b) and in consultation with other City departments, no later than 120 days from the effective date of this ordinance, the Director shall adopt and regularly update a Green Building Compliance Guide for San Francisco Municipal Buildings. The Compliance Guide shall contain all necessary forms and guidelines for compliance with this Chapter. At a minimum, the Compliance Guide shall contain:

1. A list of City requirements pursuant to this Chapter;
2. All applicable LEED™ methods and standards;
3. All local and state environmental regulations regarding building design and construction related to LEED™;
directions on how to prepare a conceptual design assessment and a construction documents assessment;

(5) a method for administering a LEED™-rated project;

(6) a LEED™-project checklist;

(7) commissioning guidelines, including how to identify a commissioning authority and how to obtain the LEED™-additional commissioning credit;

(8) guidelines for projects less than 5,000 square feet;

(9) a waiver request form; and

(10) an annual reporting form.

(c) (d) The Director shall determine the costs of implementing this Chapter and shall request that relevant City departments provide work orders to the Department to cover the costs of implementing and maintaining the programs required by this Chapter. Such work orders may cover the costs of departments on the Task Force.

SEC. 704 709. DUTIES OF CITY DEPARTMENTS.

(a) Each City department, board and commission subject to this Chapter shall administer its construction projects in accordance with the Chapter.

(b) (a) Each City department, board and commission subject to this Chapter shall cooperate with, and provide in writing to the Department all information necessary for the Department to carry out its duties under this Chapter.

(c) (b) Each City department shall designate an employee as a contact person for construction projects and green building communications.

(d) Each City department shall assist the Director in providing advice, assistance, outreach and education to other City departments concerning municipal green building practices.
(e) Appropriate City department personnel **shall** attend **green building** Green Building related training offered by the Department.

(f) The San Francisco Public Utilities Commission may provide energy- or water-related technical project design review assistance directly to City project teams or through technical assistance contracts.

**SEC. 704. RESOURCE EFFICIENT PILOT PROJECTS.**

(a) **Pilot Projects.** Under the original enactment of this Chapter, an interdepartmental task force selected the following as Pilot Projects:

(1) EcoCenter and San Francisco Department of the Environment Offices;
(2) Moscone West Convention Center;
(3) West End Pavilion;
(4) Visitation Valley Clubhouse;
(5) 23rd and Treat Streets New Mission Park and Clubhouse;
(6) Laguna Honda Hospital Replacement Project;
(7) New California Academy of Sciences;
(8) Golden Gate Music Concourse Underground Parking Facility; and
(9) Islais Creek, MUNI Maintenance and Operations Facility.

(b) **Commissioning Process.** Pilot projects are encouraged to follow the Commissioning Process established by the Department pursuant to Section 703.

(c) **Pilot Project Funding.**

(1) Each revenue generating City department shall, to the extent possible, fund its Pilot Projects from its own revenue. The total costs of a pilot project shall be determined by the Bureau of Architecture, in conjunction with the Department, based upon the design documents submitted by the City department to the Bureau of Architecture.
(2) The Department of the Environment shall assist departments in identifying additional public and private sector funding sources for Pilot Projects not yet completed.

SEC. 705 707. LEED CERTIFICATION GREEN BUILDING DESIGN REQUIREMENTS FOR MUNICIPAL CONSTRUCTION PROJECTS.

Except as otherwise provided by the City's Charter,

(a) In addition to complying with this Chapter, municipal construction projects shall comply with the requirements of Chapter 13C of the San Francisco Building Code, "The San Francisco Green Building Code."

(b) (a) As described in this Chapter, the LEED Leadership in Energy and Environmental Design (LEED™) rating system shall be used to certify measure the environmental design performance of the City's municipal construction projects buildings. The minimum requirement for municipal construction projects of 5,000 square feet or more shall be LEED Gold certification by GBCI. If there are substantive changes to the LEED™ rating system after the adoption of this ordinance, the Director shall recommend appropriate amendments to the Board of Supervisors.

(c) In order to achieve LEED Gold certification, municipal construction projects must meet selected San Francisco-specific LEED credit requirements as further specified by Section 706 and this Chapter.

(d) (b) Operative Effective Date. This section shall apply to any construction project otherwise subject to the provisions of this Chapter 7 where the initial appropriation request, either whole or partial, is submitted to the Board of Supervisors after November September 1, 2011.

Construction Projects for which an initial budget has been prepared on or after 120 days after the effective date of this ordinance.

(e) Conceptual Design Assessment. In accordance with the Compliance Guide and this Section, a City department proposing a Construction Project shall prepare a conceptual design
assessment. The assessment will classify the proposed Construction Project as less than 5,000 square feet or 5,000 square feet or more.

(e) Projects less than 5,000 square feet. For construction projects less than 5,000 square feet and for construction projects of any size not meeting the Minimum Project Requirements to be eligible for LEED certification, the sponsoring City department, in consultation with a LEED AP, shall prepare and submit a conceptual design phase LEED Scorecard to the Department for informational and reporting purposes. The conceptual design phase LEED Scorecard shall demonstrate the maximum LEED credits that are practicable for the project. The sponsoring City department shall pursue these LEED credits throughout the design and construction process. The department, in consultation with a LEED AP, shall prepare and submit a final as-built LEED Scorecard to the Department indicating all LEED credits that would be achieved if the project had been certified. Documentation of LEED credits is not required for these projects. For Construction Projects with square footage less than 5,000 square feet, the conceptual design assessment shall provide for the maximum LEED points practicable. The proposing City department shall submit the conceptual design assessment to the Task Force for informational and reporting purposes.

(f) Projects of 5,000 square feet or more. For Construction Projects with square footage of 5,000 square feet or more, the following applies:

(1) Conceptual Design Phase. During the conceptual design phase, the sponsoring City department shall assemble a design team, which shall must include a LEED AP assigned to be the LEED Project Administrator LEED™-accredited professional. The LEED Project Administrator shall LEED™-accredited professional member of the design team must prepare and submit to the Task Force for approval a conceptual phase LEED Scorecard design assessment to the Department for review by the Task Force. The conceptual phase LEED Scorecard design assessment shall demonstrate must propose a LEED Gold LEED™ Silver rating or higher, including all San Francisco-specific LEED credit requirements. The Task Force shall review and
make recommendations on the conceptual LEED Scorecard design assessment within 35 days of submittal.

(2) Schematic Design, Design Development and Construction Document Phases

Design Phase. During the Schematic Design design phase, the LEED Project Administrator proposing City department must retain an independent commissioning authority and provide the name of the commissioning authority to the Task Force. The proposing City department shall register the construction project Construction Project with the GBCI USGBC as a LEED registered LEED project. At the conclusion of each design phase (Schematic Design, Design Development, and Construction Documents), the LEED Project Administrator shall submit an updated LEED Scorecard to the Department; the Scorecard shall demonstrate a LEED Gold rating or higher for the project, including all San Francisco-specific LEED credit requirements. These interim LEED Scorecards shall be available for review by the Task Force.

(3) Construction Documents Phase. During the final construction documents phase, the LEED™ accredited professional member of the design team shall prepare and submit to the Task Force for approval a construction documents assessment that maintains a LEED™ Silver rating or higher. The Task Force shall review construction documents assessment within 35 calendar days of submittal, except for large complex projects for which a schedule will be determined upon submission.

(4) Commissioning Process. The City department and the independent commissioning authority for the project shall perform the Commissioning Process as described in the Compliance Guide.

(3) (5) Project Construction. At the completion of construction, the LEED Project Administrator City department shall submit the final LEED LEED™ documentation to the GBCI USGBC for certification. Upon receiving the LEED rating from the GBCI USGBC, the LEED Project Administrator City department shall submit the LEED ratings it and the final LEED Scorecard LEED™ project-checklist to the Department for review by the Task Force.
(f) Annual Report. No later than August 1 of each year, each City department with a
Construction Project subject to this Chapter shall submit a report to the Task Force in accordance with
the Compliance Guide.

(g) The USGBC updates the LEED rating system on a three-year cycle. The Director shall as
necessary adopt by the regulation the current applicable versions of LEED pursuant to Section 703(b).

SEC. 705. RESOURCE EFFICIENCY REQUIREMENTS FOR CITY BUILDINGS;
GUIDELINES.
The Commission on the Environment shall issue guidelines to all City departments to assist
them in determining which of the provisions of Section 705.1 et seq. apply to them. Pursuant to Section
703(b), the Director may revise these guidelines from time to time.

SEC. 706. SAN FRANCISCO-SPECIFIC LEED CREDIT REQUIREMENTS FOR MUNICIPAL
CONSTRUCTION PROJECTS.

(a) As part of the LEED Gold certification requirement for municipal construction projects, the
projects must achieve the following LEED credits:

(1) Stormwater Management. The LEED Project Administrator shall submit
documentation verifying that a construction project that is located outside the City and County of San
Francisco achieves the LEED SS6.2 credit. Construction projects located within the City and County of
San Francisco shall implement the applicable stormwater management controls adopted by the San
Francisco Public Utilities Commission (the "SFPUC"). All construction projects shall develop and
implement construction activity pollution prevention and stormwater management controls adopted by
the SFPUC, and achieve LEED prerequisite SSp1 or similar criteria adopted by the SFPUC, as
applicable.
(2) **Indoor Water Use Reduction.** The LEED Project Administrator shall submit documentation verifying a minimum 30 percent reduction in the use of indoor potable water, as calculated to meet and achieve LEED credit WE3.2.

(3) **Energy Performance.** Using an Alternative Calculation Method (ACM) approved by the California Energy Commission, the LEED Project Administrator shall calculate the project’s energy use, and compare it to the standard or “budget” building to achieve LEED credit EA1 by either:

(A) A 15 percent compliance margin over Title 24, Part 6, 2008 California Energy Standards; or,

(B) Document compliance with Title 24, Part 6, 2008 California Energy Standards, including submittal of all standard documentation, and additionally demonstrate that the project achieves a 15 percent or greater compliance margin over the ASHRAE 90.1 2007 energy cost baseline using the published LEED 2009 rules. Such analysis shall include all on-site building energy use, including exterior and security lighting, elevators, all process loads, and receptacle loads.

(4) **Renewable Energy.** The LEED Project Administrator shall confer with SFPUC on renewable energy opportunities for municipal construction projects, including photovoltaics, solar hot water and wind power. Space allocation and infrastructure for future renewable energy installations shall be included in municipal construction projects, as advised by SFPUC, including but not limited to structural capacity, wiring conduits, supply and return piping, and control wiring. The LEED Project Administrator shall submit documentation verifying that either:

(A) At least 1 percent of the building’s energy costs are offset by on-site renewable energy generation, achieving LEED credit EA2, including any combination of: photovoltaic, solar thermal, wind, biofuel-based electrical systems, geothermal heating, geothermal electric, wave, tidal, or low impact hydroelectric systems, or as specified in Section 25741 of the California Public Resources Code; or,
(B) In addition to meeting LEED prerequisite EA 1 Energy Performance requirement, achieve an additional 10 percent compliance margin over Title 24, Part 6, 2008 California Energy Standards, for a total compliance margin of at least 25 percent.

(5) Commissioning. The LEED Project Administrator shall submit documentation verifying that the facility has been or will meet the criteria necessary to achieve LEED credit EA 3.0 (Enhanced Commissioning), in addition to LEED prerequisite EA 1 (Fundamental Commissioning of Building Energy Systems).

(6) Enhanced Refrigerant Management. The LEED Project Administrator shall submit documentation verifying that the project will reduce ozone depletion, while minimizing direct contribution to climate change, achieving LEED credit EA 4.

(7) Construction Debris Management. The LEED Project Administrator shall submit documentation verifying the diversion of a minimum of 75 percent of the project's construction and demolition debris, as calculated to achieve LEED credit MR 2.2. The project must also satisfy the requirements of Section 708.

(8) IAQ Management: During Construction. The LEED Project Administrator shall submit documentation verifying that the sponsoring City department has prepared and implemented an Indoor Air Quality Management Plan that achieves LEED credit EQ 3.1. This requirement includes meeting or exceeding the recommended Control Measures of the Sheet Metal and Air Conditioning National Contractors Association (SMACNA) IAQ Guidelines for Occupied Buildings under Construction, 2nd Edition 2007, ANSI-SMACNA 008-2008 (Chapter 3).

(9) IAQ Management: Before Occupancy. The LEED Project Administrator shall submit documentation verifying that the sponsoring City department has prepared and implemented an Indoor Air Quality Management Plan that achieves LEED credit EQ 3.2.
(10) **Low Emitting Materials.** The LEED Project Administrator shall submit documentation verifying that the project is using low-emitting materials, subject to onsite verification, achieving LEED credits EQ 4.1, EQ 4.2, EQ 4.3, and EQ 4.4 wherever applicable:

(A) Adhesives, sealants and sealant primers shall achieve LEED credit EQ 4.1, including compliance with South Coast Air Quality Management District (SCAQMD) Rule #1168, amended January 7, 2005.

(B) Interior paints and coatings applied on-site shall achieve LEED credit EQ 4.2, including:


(ii) Anti-corrosive and anti-rust paints applied to interior ferrous metal substrates shall not exceed the VOC content limit of Green Seal Standard GC-03 (2nd Edition, 1997) of 250 g/L.


(C) Flooring systems shall achieve LEED credit EQ 4.3 Option 1, including:

(i) Interior carpet shall meet the testing and product requirements of the Carpet and Rug Institute Green Label Plus program.

(ii) Interior carpet cushioning shall meet the requirements of the Carpet and Rug Institute Green Label program.

(iii) Hard surface flooring, including linoleum, laminate flooring, wood flooring, ceramic flooring, rubber flooring, and wall base shall be certified as compliant with the FloorScore standard, provided, however, that 100 percent reused or 100 percent post-consumer recycled hard surface flooring may be exempted from this LEED credit EQ 4.3 requirement. Projects exercising this exemption for hard surface flooring shall otherwise be eligible for LEED credit EQ 4.3.
(D) Interior composite wood and agrifiber products shall achieve LEED credit EQ 4.4 by containing no added urea formaldehyde resins. Interior and exterior hardwood plywood, particleboard, and medium density fiberboard composite wood products shall additionally meet California Air Resources Board Air Toxics Control Measure for Composite Wood (17 CCR 93120 et seq.), by or before the dates specified in those sections.

(E) Project sponsors are encouraged to achieve LEED Pilot Credit 2: Persistent Bioaccumulative Toxic Chemicals Source Reduction: Dioxins and Halogenated Organic Compounds. This standard is consistent with Environment Code Chapter 5: Non-PVC Plastics.

(1) Indoor Chemical and Pollutant Source Control. The LEED Project Administrator shall submit documentation verifying that the project will minimize and control the entry of pollutants into buildings and later cross contamination of regularly occupied areas, achieving LEED credit EQ 5.

SEC. 707.705. CITY BUILDINGS; COLLECTION, STORAGE AND LOADING OF RECYCLABLES AND COMPOSTABLE MATERIALS RECYCLABLES.

(a) All City departments shall ensure that adequate, accessible, and convenient recycling, composting and waste areas are provided within City-owned facilities and leaseholds, and that all contract documents for construction activities contain this requirement. In accordance with the City and County of San Francisco’s solid-waste diversion goals, and the Mandatory Recycling and Composting Ordinance (Chapter 19 of the Environment Code), the departments shall provide sufficient space to allow the collection, storage and loading of 100 percent of the facility’s recyclable, compostable and waste materials. That space must be sufficient to accommodate containers consistent with both current methods and goals of refuse collection, storage and loading, and with projected needs when full zero waste goals are met.

(1) The departments shall integrate all areas designated for the collection, storage and loading of recyclable, compostable and waste materials into the design and construction of the project.
The departments shall ensure that areas for collection, storage and loading of recyclable and
compostable materials are at least as convenient and usable as spaces provided for non-recyclable
waste disposal, and located in the same areas whenever possible. When separate locations must be
provided due to space constraints, the locations for collection, storage and loading of recyclable and
compostable materials shall be at least as convenient as non-recyclable waste disposal locations.

(2) All areas designated for the collection, storage and loading of recyclable,
compostable and waste materials shall allow for easy access to the containers by collection vehicles.

(3) Each interior space shall include adequate area designed and designated for
collection and storage of recyclable, compostable and waste materials.

(4) Any chute system for solid-waste disposal shall be designed for equal convenience to
all users to separate the three waste streams of trash, recycling and compostable materials.

(b) Surplus Furniture, Equipment, Computers and Supplies. The Virtual Warehouse Program
facilitates the reuse, recycling, and disposal of surplus City materials. To the extent permitted by law,
all surplus furniture, equipment, computers and supplies purchased with San Francisco City and
County funds shall be turned in to the Virtual Warehouse. Before buying any new furniture, equipment
or supplies, City employees shall check the Virtual Warehouse for available products that meet their
needs.

(c) All City departments are required to recycle used fluorescent and other mercury containing
lamps, batteries, and universal waste as defined by California Code of Regulations Section 66261.9.

(a) The requirements of this Section apply to the following City departments: City departments
undertaking or authorizing others to undertake Construction Projects at City-owned Facilities; City
departments undertaking or authorizing others to undertake Construction Projects in Existing City
Leaseholds; City departments undertaking or authorizing others to undertake Construction Projects in
New City Leaseholds; City departments executing agreements for New City Leaseholds or occupying

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New City Leaseholds; and City departments occupying City-owned Facilities (but only if the City-owned Facility was acquired at least 90 days after the effective date of the Ordinance.)

(b) All City departments identified above shall ensure that adequate, accessible, and convenient recycling areas are provided within the City-owned Facility or leasehold, and that all applicable contract documents contain this requirement. The minimum allowable recycling area shall be not less than the space allocated for the storage of refuse.

(e) The requirement set forth in Subsection (g)(2) of this Section to provide adequate recycling areas shall apply to Construction Project(s) for which funds have been appropriated on or after the effective date of this Chapter for:

(1) A single alteration which is subsequently performed that adds to or modifies 20 percent or more of the existing floor area of the project; or

(2) Multiple alterations which are conducted within a twelve-month period which collectively add to or modify 20 percent or more of the existing floor area of the project.

(d) Any cost associated with recycling areas pursuant to this subsection shall be the responsibility of the party or parties who are responsible for the cost of any alterations to accommodate their occupancy.

SEC. 708.706. CONSTRUCTION AND DEMOLITION DEBRIS MANAGEMENT.

(a) This requirement applies to all Construction and/or Demolition Projects at City-owned Facilities and City leaseholds, regardless of size of the project, located within the nine counties surrounding the San Francisco Bay with a total projected cost of $90,000 or more at City-owned Facilities and new and existing city leaseholds. All City departments shall ensure that each Construction and/or Demolition Project subject to this Section Chapter shall meet minimize construction and demolition debris disposal in accordance with the following requirements:
(1) The Contractor shall employ the following hierarchy of highest and best use for handling Construction & Demolition ("C&D") debris as follows:

(A) Implement reduced material usage or reuse of materials before any recycling;

(B) Implement recycling of source-separated material before any recycling of mixed C&D debris material;

(C) Implement recycling of mixed C&D debris before all other forms of disposal.

(2) The contractor shall manage all project C&D debris materials to meet a minimum diversion rate of 75 percent. The Director may increase the minimum diversion rate by regulation under Section 703(b) based on the Director's assessment of infrastructure, markets and materials available to support the new rate.

(3) The contractor is prohibited from sending any C&D debris material directly to a landfill without submitting a request to and receiving approval from the Department. The request must demonstrate that all reuse and recycling options for the material have been evaluated and determined to be not possible. A request to send C&D material directly to landfill must demonstrate that beneficial reuse of the material is employed, if possible, before any material is used as alternative daily cover (ADC), and that material is used as landfill disposal only as a last resort if necessary, and shall include documentation such as a written statement by the landfill operator that the material will be used as designated.

The contractor should submit any initial request for approval to send C&D debris material directly to a landfill to the Department at the same time the contractor submits the Construction and Demolition and Debris Management Plan (CDDMP) to the City Representative, as provided in subsection (b)(2)(A)(ii), below. But if unforeseen circumstances affect the material during the project, the contractor may at that time submit an additional or amended request to the Department for its review and possible approval.
(4) The contractor is prohibited from sending any C&D debris materials directly to any facility that would incinerate such debris or otherwise process such debris using high temperature conversion technology, unless the debris is used as boiler fuel in BioMass Energy Generation, which will only be allowed after the contractor has submitted a request to and received approval from the Department. The contractor shall demonstrate in the request that all reuse and recycling options for the material have been evaluated and determined to be not possible.

(5) No solid waste or C&D debris material shall be buried or otherwise disposed of on the project site, unless engineered and processed on site for on-site reuse such as engineered backfill or landscaping; any such use shall be documented on all C&D debris material management plans and reports.

(6) In order for C&D debris to be considered hazardous, such as containing asbestos or lead, it shall be tested and determined to be hazardous by an independent professional, such as a Cal/OSHA Certified Asbestos Consultant. The waste determination and other verification shall be included with the C&D Debris Management Plan, together with a list of hazardous materials found at the project site and plans for proper disposal.

(b) (a) Construction and Demolition Debris Management Plan. The contract between the City department and the contractor shall require the contractor responsible for construction and/or demolition debris material management to:

(1) Conduct a site assessment to estimate the types of materials that will be generated during the by construction and/or demolition project, including packaging or shipping materials, at the site that are anticipated to be feasible and practical for reuse and recycling, and

(2) Complete a plan as set forth below in subparagraph (b) describing the procedures for disposal, reuse, or recycling and material management.

(A) (b) Plan Requirements. The contract between the City department and the contractor shall require that:
(i) (I) After award of the contract and prior to commencement of the demolition or construction project, the City Representative project engineer shall ensure that meet with the contractor develops to develop a plan for managing C&D construction and demolition debris material from the project to meet the requirements of this Section to enable the City and the contractor to develop a mutual understanding regarding recycling and reuse.

(ii) (2) The contractor shall prepare, sign and submit to the City project engineer a Construction and Demolition Debris Management Plan ("CDDMP") to the City Representative written construction and demolition debris management plan. The City Representative shall review the plan to ensure the contractor and the City are maximizing highest and best use of all C&D debris material and are meeting the requirements of this Section. The City Representative shall, if appropriate, approve and sign the CDDMP to ensure that the contractor abides by all requirements of this Section.

(B) The Director shall specify the form of the CDDMP by regulation pursuant to Section 703(b). The form shall include, but not be limited to: The construction and demolition debris management plan shall include, but not be limited to the following information:

(i) (A) Contractor and project identification information;

(ii) (B) Procedures to be used for C&D debris management;

(iii) (C) A list listing of the materials generated from the project, their estimated weight by tons, and how they will to be reused, recycled, or otherwise handled landfilled;

and,

(D) An estimate of the quantities to be reused, recycled, or landfilled;

and

(iv) (D) The names and locations of reuse and recycling facilities or sites, and companies that will transport the material.

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(3) If the project involves a Full Demolition Permit from the code official having jurisdiction, or if the projected cost of the project exceeds $100,000, or as may be required by the Department, the City Representative shall send the approved CDDMP to the Department for optional review and approval. The construction and demolition debris management plan is subject to the approval of the City project engineer.

(e) Recycling of Construction and Demolition Debris. The contract between the City department and the contractor shall require that:

(1) The contractor shall develop and implement procedures to reuse and recycle materials to the greatest extent feasible based upon the contract, the construction and demolition debris management plan, the estimated quantities of materials, and the availability of recycling facilities.

(2) The contractor shall develop and implement programs for on-site or off-site recycling of source-separated materials, including asphalt, concrete, concrete block, and rocks; dirt and sand; metals (ferrous and non-ferrous); wood; green materials (e.g., tree trimmings) and other materials as appropriate, such as red clay brick, corrugated cardboard, and wall board; mixed debris; and salvageable items. Prior to delivering materials, the contractor shall familiarize itself with the specifications for acceptance of construction and demolition materials at recycling facilities.

(3) Approval of the contractor's construction and demolition debris management plan by the City project engineer shall not relieve the contractor of the duty to comply with any other applicable laws regulating control or disposal of solid waste or other pollutants.

(c) (d) Summary of Diversion; Disposal. The contract between the City department and the contractor shall require that:

(1) With each application for progress payment, the contractor shall submit a signed Summary of Diversion to the City Representative showing C&D debris material diversion and disposal coinciding with the time period of the progress payment, summary of construction and demolition debris diversion and disposal. This summary shall quantify quantifying all materials
generated by the construction and/or demolition project, at the work site and disposed of in Class III Landfills, as defined in Title 27 CCR 20260, or and how they were diverted from disposal through reuse or recycling, plus supporting documentation in the form of weight slips or other similar proof. The means used to reuse or recycle debris material must be consistent with the CDDMP for the project. No material may be taken to any landfill without prior approval pursuant to section 708(a)(3), and landfill documentation provided with the Summary of Diversion must show that material was used as specified in the CDDMP. Failure to submit the Summary of Diversion and supporting documentation to the City Representative in the form of weight slips or other similar proof shall render the application for progress payment incomplete and delay progress payment. The Summary of Diversion must be submitted on a form specified by regulation of the Director under Section 703(b).

(2) The City Representative shall review and, if appropriate, sign as approved, the Summary of Diversion and supporting documentation to ensure that the contractor is adhering to the approved CDDMP, and that the reported diversion rate is correct. The City Representative shall send the Department a copy of the approved Summary of Diversion for any projects subject to subsection (b)(3). The contractor shall be responsible for transporting and disposing of materials that cannot be delivered to a source-separated or mixed materials recycling facility to a transfer station or disposal facility that can accept the materials in accordance with state law. No solid waste shall be burned, buried or otherwise disposed of on the project site.

(d) Final Diversion Report. The contract between the City department and the contractor shall require that:

(1) A Final Diversion Report signed by the contractor showing the weight of C&D debris material diverted for the entire construction and/or demolition project and the overall diversion rate achieved shall be prepared and submitted to the City Representative for approval prior to final
payment. The Final Diversion Report will be submitted on a form established by regulation, pursuant to Section 703(b).

(2) The City Representative will send an approved copy of the Final Diversion Report to the Department. The City Representative shall retain all supporting documentation and make it available to the Department upon request.

(e) **Retention of Records.** The City Representative shall retain all C&D Debris Management Plans, Summaries of Diversion, Final Diversion Reports and all supporting documentation after completion of the project for a period of time determined by the Department by regulation.

(f) (e) **Revenue.** Revenues or other savings obtained from recycled or reused materials shall accrue to the City department or the contractor as negotiated between them and embodied in the contract.

(g) All factual representations required by this Section shall be signed under penalty of perjury.

(h) All forms and documentation required by this Section will be submitted electronically, if possible.

(i) **Enforcement.** The Director and his or her designee may administer all provisions of this section and enforce those provisions by any lawful means available for such purpose except as otherwise provided in this Chapter.

**SEC. 709. WATER CONSERVATION RETROFIT REQUIREMENTS.**

(a) On or before January 1, 2017, the department responsible for any City-owned facility’s operation and maintenance shall take all steps necessary to bring the facility into compliance with this Section.

(b) The department shall use San Francisco Public Utilities Commission ("SFPUC") guidelines to determine which of the following provisions applies.

(c) **Water Conservation Requirements for Water Closets (Toilets) and Urinals.**
(1) This subsection applies to all City-owned facilities.

(2) City leaseholds are subject to all the requirements of the Commercial Water Conservation Ordinance of Chapter 13A of the San Francisco Building Code, including provisions requiring the replacement of non-compliant water closets and urinals on or before January 1, 2017.

(3) The responsible department shall ensure that all water closets in City-owned facilities with a rated flush volume exceeding 1.6 gallons per flush and all urinals with a rated flush volume exceeding 1.0 gallon per flush are replaced with high-efficiency water closets that use no more than 1.28 gallons per flush and high-efficiency urinals that use no more than 0.5 gallons per flush, respectively.

(4) The responsible department shall replace the bowl and flushometer valve together in all City-owned facilities to meet high-efficiency standards for flushometer type water closets and urinals. The department shall replace the bowl and tank together to meet high-efficiency standards for tank type water closets.

(5) The department shall be responsible for the costs of compliance and for ensuring that all applicable contract documents for the replacement of water closets and urinals contain the above requirement.

(6) Installation of water closets and urinals:

   (A) City departments purchasing water closets and urinals may only purchase high-efficiency water closets and urinals listed by the General Manager of the SFPUC.

   (B) City departments shall confer with the General Manager and incorporate technical assistance and water conservation audit findings in project plans.

(7) City departments shall comply with inspection findings determined to be necessary by the General Manager of the SFPUC to ensure that all fixtures have been properly installed for buildings subject to the requirements in subsection (c)(3) where four or more high-efficiency water closets or urinals are replaced.
(8) Should the General Manager of the SFPUC determine that water closets and urinals that are more water-efficient than those specified in the foregoing sections exist, City departments shall install fixtures identified on a SFPUC list of other water-efficient water closets and urinals that City departments may use pursuant to Section 703(b).

(d) Water Conservation Requirements for Shower Heads.

(1) This subsection applies to all City-owned facilities.

(2) City leaseholds are subject to the Commercial Water Conservation Ordinance of Chapter 13A of the San Francisco Building Code, including provisions requiring the replacement of non-compliant showerheads on or before January 1, 2017.

(3) The department responsible for any City-owned facility’s operation and maintenance shall take all necessary steps to ensure that all showerheads in the facility having a maximum flow rate exceeding 2.5 gallons per minute are replaced with showerheads having a maximum flow rate not to exceed 1.5 gallons per minute.

(4) The department shall be responsible for the costs of compliance and for ensuring that all applicable contract documents for the replacement of showerheads contain the above requirement.

(5) Should the General Manager of the SFPUC determine that shower heads that are more water efficient than those specified in the foregoing section exist, City departments shall install fixtures identified on a San Francisco Public Utilities Commission list of other water-efficient shower heads that City departments may use pursuant to Section 703(b).

(e) Water Conservation Requirements for Faucets and Faucet Aerators.

(1) This subsection applies to all City-owned facilities.

(2) City leaseholds are subject to requirements of the Commercial Water Conservation Ordinance of Chapter 13A of the San Francisco Building Code, including provisions requiring the replacement of non-compliant faucets and faucet aerators on or before January 1, 2017.
(3) The department responsible for any City-owned facility’s operation and maintenance shall take all necessary steps to ensure that all faucets and faucet aerators in the facility with a maximum flow rate exceeding 2.2 gallons per minute are replaced with fixtures having a maximum flow rate not to exceed 0.5 gallons per minute per appropriate site conditions.

(4) The department shall be responsible for the costs of compliance and for ensuring that all applicable contract documents for the replacement of faucet or faucet aerators containing the above requirement.

(5) Should the General Manager of the SFPUC determine that faucet aerators that are more water efficient than those specified in the foregoing section exist, City departments shall install fixtures identified on a SFPUC list of other water-efficient faucets or faucet aerators that City departments may use pursuant to Section 703(b).

SEC. 705.1. CITY BUILDINGS; WATER CONSERVATION REQUIREMENTS—TOILETS.

(a) The requirements of this Section apply to the following City departments: City departments undertaking or authorizing others to undertake Construction Projects with a total projected cost of $90,000 or more at City-owned Facilities; City departments undertaking or authorizing others to undertake Construction Projects with a total projected cost of $90,000 or more in Existing City Leaseholds (but only if restrooms are included in the leasehold space and the City department has a separate metering account with the San Francisco Public Utilities Commission); City departments undertaking or authorizing others to undertake Construction Projects with a total projected cost of $90,000 or more in New City Leaseholds (but only if restrooms are included in the leasehold space and the City department has a separate metering account with the San Francisco Public Utilities Commission—Water Department); City departments executing agreements for New City Leaseholds or occupying New City Leaseholds (but only if restrooms are included in the leasehold space and the City department has a separate metering account with the San Francisco Public Utilities Commission); City
departments occupying City-owned Facilities (but only if the City department has separate metering account with the San Francisco Public Utilities Commission); and all City departments purchasing toilets beginning 90 days after the effective date of this ordinance.

(b) All City departments listed above shall ensure that all toilets are replaced with toilets that use no more than 1.6 gallons of water per flush. Replacement shall occur at the earlier of:

1. The time of major remodeling, defined as when a water drainage system is substantially altered, modified or renovated (as those terms are defined in 2001 California Plumbing Code Section 101.4.4 or when two or more toilets and/or urinals are replaced in a single bathroom; or


(c) Each City department subject to this Section shall be responsible for the costs of compliance and for ensuring that all applicable contract documents for the replacement of toilets contain the above requirement.

(d) To facilitate the installation of these toilets, the San Francisco Public Utilities Commission shall:

1. Negotiate and secure, within 90 days of the effective date of this Chapter, contracts with one or more vendors that all City departments may use for the purchase and installation of 1.6-gallon per flush valves and tank toilets. The contract will include a list of toilets approved by the International Association of Plumbing and Mechanical Officials. The toilets on this list shall be the only toilets purchased. This list shall be updated annually by the San Francisco Public Utilities Commission and shall be provided to all heads of City departments responsible for purchases and/or installations at City-owned Facilities or leaseholds and to the Purchasing Department.

2. Establish a procedure (including a fixed price) by which City departments may contract with the Department of Public Works’ Bureau of Building Repair for the installation of such toilets. This procedure shall be distributed to all City departments responsible for purchases and/or installations at City-owned Facilities or leaseholds within 90 days of the effective date of this Chapter.
It shall be updated by the San Francisco Public Utilities Commission annually and sent to all heads of City departments responsible for purchases and/or installations at City-owned Facilities or leaseholds and to the Purchasing Department.

(e) Between July 1, 2005, and June 23, 2007, the San Francisco Public Utilities Commission shall inspect all buildings subject to this requirement to ensure that all toilets have been installed as required by this subsection.

(f) Should the Director determine that toilets that are more water-efficient than those specified in the foregoing sections exist, the Director may, in consultation with the San Francisco Public Utilities Commission, establish a list of other water-efficient toilets that City departments may use pursuant to Section 703(b).

SEC. 705.2. CITY BUILDINGS; WATER CONSERVATION REQUIREMENTS—SHOWER HEADS.

(a) The requirements of this Section apply to the following City departments: City departments undertaking or authorizing others to undertake Construction Projects with a total projected cost of $90,000 or more in City-owned Facilities; City departments undertaking or authorizing others to undertake Construction Projects with a total projected cost of $90,000 or more in Existing City Leaseholds (but only if restrooms are included in the leasehold space and the City department has a separate metering account with the San Francisco Public Utilities Commission); City departments undertaking or authorizing others to undertake Construction Projects with a total projected cost of $90,000 or more in New City Leaseholds (but only if restrooms are included in the leasehold space and the City department has a separate metering account with the San Francisco Public Utilities Commission); City departments executing agreements for New City Leaseholds or occupying New City Leaseholds (but only if restrooms are included in the leasehold space and the City department has a separate metering account with the San Francisco Public Utilities Commission); City departments
occupying City-owned Facilities (but only if the City department has a separate metering account with the San Francisco Public Utilities Commission); and all City departments purchasing shower heads beginning 90 days after the effective date of this Ordinance.

(b) All City departments listed above shall ensure that all shower heads are replaced with shower heads using no more than 1.5 gallons per minute by June 30, 2005.

each City department subject to subsection (a) shall be responsible for the costs of compliance and for ensuring that all applicable contract documents for the replacement of shower heads contain the above requirement.

d) To facilitate the installation of these shower heads, the San Francisco Public Utilities Commission shall:

(1) Provide a list of the approved shower head brands and models to all heads of City departments responsible for purchases and/or installations at City-owned Facilities or City Leaseholds and to the Purchasing Department;

(2) Negotiate and secure, within 90 days of the effective date of this Chapter, a contract with one or more vendors for the purchase and installation by City departments of 1.5 gallon per minute shower heads; and

(3) Negotiate a set price for the installation of the shower heads with the Department of Public Works.

(4) Distribute information on the price for installation, and lists of approved shower heads and contract vendors to all heads of City departments responsible for purchases and/or installations at City-owned Facilities or City Leaseholds and to the Purchasing Department.

e) Should the Director determine that shower heads that are more water efficient than those specified in the foregoing section exist, the Director may, in consultation with the San Francisco Public Utilities Commission, establish a list of other water efficient shower heads that City departments may use pursuant to Section 703(b).
SEC. 710.705.3. ENERGY EFFICIENT LIGHTING RETROFIT REQUIREMENTS CITY BUILDINGS; ENERGY CONSERVATION REQUIREMENTS—LIGHT FIXTURES AND EXIT SIGNS.

(a) The requirements of this Section (or of California Code of Regulations Title 24, Part 6, or subsequent State standards, whichever are more stringent) shall apply in all cases except those in which a City department is not responsible for maintenance of light fixtures or exit signs.

(b) City departments shall be responsible for the cost of compliance and for ensuring that all applicable contract documents for the replacement and installation of light fixtures and exit signs contain the following requirements:

(1) Exit Signs. At the time of installation or replacement of broken or non-functional exit signs, all exit signs shall be replaced with light-emitting diode (L.E.D.)-type signs. Edge-lit compact fluorescent signs may be used as replacements for existing edge-lit incandescent exit signs.

(2) Fluorescent Fixtures.

(A) Definitions. For the purposes of this Section 705.3(b), the following definitions shall apply:

(i) "Luminaire" "Luminaire" is an interior or exterior complete lighting unit, including internally or externally illuminated signs, consisting of the lamp and the parts designed to distribute the light, to protect the lamp, and to connect the lamp to the power supply, but not including illuminated utilization equipment or exit signs.

(ii) "Occupancy Sensor Control Device" is a device that automatically turns off a luminaire luminaire or series of luminaires luminaires no more than 30 minutes after it senses that the area is vacated.
(iii) "Utilization Equipment" is commercial, retail or industrial equipment, including but not limited to refrigeration equipment, fully enclosed retail display cases, vending machines, printing equipment or conveyors, which uses 4-foot or 8-foot fluorescent lamps ("tubes" or "bulbs") as an integrated part of such equipment. "Utilization Equipment" shall not include furniture or workstations.

(iv) "Compliance Deadline" is the final date by which all fixtures using 4-foot or 8-foot linear fluorescent lamps to provide illumination are to be in compliance.

(B) **Compliance Deadline.** The Compliance Deadline is December 31, 2011.

(C) **Mercury Content.** The mercury content of each 4-foot or 8-foot fluorescent lamp ("tube" or "bulb") installed in a *luminaire* after the Compliance Deadline shall not exceed 5 mg for each 4-foot fluorescent lamp, or 10 mg for each 8-foot fluorescent lamp.

(D) **Energy Efficiency.** The lamp and ballast system in each *luminaire* that utilizes one or more 4-foot or 8-foot linear fluorescent lamps to provide illumination in a *City-Owned Facility building subject to this Chapter* must meet at least one of the following requirements:

(i) The lamp and ballast system emits 81 or more lumens per watt of electricity consumed;

(ii) The *luminaire* is controlled by an occupancy sensor control device that does not control an area in the building of more than 250 square feet;

(iii) The *luminaire* is fitted with a lighting efficiency measure approved by the Director as equivalent to the measures in subsections (i) or (ii) above;
(iv) The Director finds, based on the facts of the particular building and luminaires, that the energy savings from installing lighting efficiency measures meeting the requirements of this Section will be so insignificant over the life of the luminaires that the measure is not cost-effective; or,

(v) If the City department elects to meet the requirements of this Section 705.3(b)(2) with measures that require permits, such permits shall comply with all other applicable requirements of this Code and all other applicable state and local laws.

(E) Low Light Levels. The requirements of this Section 705.3(b)(2) shall not apply where the resulting luminaires will provide lighting levels at the work surface that are below the standards established by the Illuminating Engineering Society.

(F) Waivers. By September 30, 2011, the Director shall act on all pending requests for City Departments for a temporary waiver of the requirements of this Section 705.3(b). The criteria for waivers for this Section 705.3(b) shall be described in rules issued by the Director. The Director shall submit to the Board of Supervisors a list of all departments receiving waivers, and shall identify budgetary or other barriers to compliance cited in those departments' waiver requests. Thereafter, the Director shall report on the effects of this Ordinance as part of the tri-annual report required by Section 712.710.

(3) Exterior Light Fixtures. At the time of installation or replacement of broken or non-functional exterior light fixtures, a photocell or automatic timer shall be installed to prevent lights from operating during daylight hours. The existing switching capabilities shall be maintained. Upon written request by a City department the Director may grant an exemption from the requirement of this subsection where lighting is necessary during daylight hours.

(c) Other Technologies. Should the Director determine that light fixtures or exit signs that are more energy than those specified in the foregoing sections exist, the Director may, in consultation with the San Francisco Public Utilities Commission, establish a list of other
energy-efficient light fixtures and exit signs that City departments may use pursuant to Section 703(b).

SEC. 711 705.4. CITY BUILDINGS; INDOOR ENVIRONMENTAL AIR QUALITY.

(a) The requirements of this Section apply to all City-Owned Facilities and City leaseholds, the following City departments: City departments undertaking or authorizing others to undertake Construction Projects with a total projected cost of $90,000 or more in City-owned Facilities; City departments undertaking or authorizing others to undertake Construction Projects with a total projected cost of $90,000 or more in Existing City Leaseholds; City departments undertaking or authorizing others to undertake Construction Projects with a total projected cost of $90,000 or more in New City Leaseholds; City departments occupying an Existing City Leasehold (if the City is responsible for managing the Existing City Leasehold); City departments executing agreements for New City Leaseholds or occupying New City Leaseholds (if the City is responsible for managing the New City Leasehold); and City departments occupying City-owned Facilities (if the City department is responsible for managing the City-owned Facility.)

(b) The San Francisco Department of Public Health ("DPH"), in consultation with the Department, shall track Indoor Environmental Quality (IEQ) problems, including indoor air pollution, fumes, odors, humidity problems, and thermal and acoustical comfort issues, in City-owned buildings and City leaseholds through the Department of Public Works and the Real Estate Division's Computerized Maintenance Management System (CMMS).

(c) City Departments not using the CMMS may complete a voluntary annual survey of IEQ information.

(d) DPH shall compile tracking information from the CMMS and survey results into an annual analysis including commonalities among complaints and preventative techniques. The annual survey
results and analysis will provide information with which to provide better solutions to IEQ problems and improve IEQ policy-making.

(e) DPH will coordinate research and interventions relating to the causes, effects, extent, prevention, and control of indoor pollution, and will disseminate outcomes to City departments.

(f) Pursuant to Section 703(a)(2), the Department, in consultation with DPH, will provide outreach and education programs for City Departments and design professionals on the importance of IAQ management in the design, construction, operation and maintenance of municipal buildings.

(g) Construction specifications and facility maintenance protocols for City-owned Facilities and City Leaseholds shall include the following:

(1) Implementation of moisture and mold management practices during the design, construction and maintenance of a building. City-owned Facilities and City Leaseholds shall have a system in place that provides prompt response and remediation for moisture infiltration, water damage and/or mold.

(2) For new construction, elimination of building materials manufactured with lead. Eliminated materials are established by regulation, pursuant to Section 703(b).

(h) Additional IEQ construction specifications and facility maintenance protocols for City-owned Facilities and City Leaseholds may be adopted by regulation pursuant to Section 703(b).

(b) Maintenance. Within 90 days of the effective date of this Chapter, the Department shall provide informational guidelines for the development of indoor air quality maintenance plans to all City departments identified above. The guidelines shall include, at a minimum, guidance and recommendations on the following:

(1) A schedule and procedures for thorough cleaning of finishes, furniture and fixtures in order to remove and reduce the growth of organisms hazardous to human health at the time of delivery and regularly after installation.
(2) A schedule and procedures for inspecting and maintaining mechanical systems, including heating, ventilation and air conditioning systems (hereinafter "HVAC" systems).

(3) A schedule and procedures for inspecting for mold and/or mildew contamination in porous building materials, fixtures and furnishing, including provisions for the complete removal and replacement of such materials where it is determined by inspection that the materials have become contaminated by mold and/or mildew.

(4) A commitment to using cleaners and polishes with minimal effects on indoor air quality.

(c) Within 90 days of the development of guidelines pursuant to Subsection (f)(2), all City departments identified in Subsection (f)(1) shall develop and implement indoor air quality maintenance plans.

(d) Pollutant Source Control.

(1) Reduction of Health Hazards from Microbial Contaminants. Commencing 90 days after the effective date of this Chapter, all City departments undertaking or authorizing others to undertake Construction Projects with a total projected cost of $90,000 or more in City-owned Facilities, New City Leaseholds, and Existing City Leaseholds shall include in their contracts for Construction Projects provisions requiring:

(A) Prevention of Moisture Contamination. Building materials that are intended to be kept dry before, during and following installation (e.g., fabrics, carpeting, drywall, ceiling tiles, and insulation) shall be protected from moisture prior to, during, and after installation.

(B) Removal of Building Materials Contaminated by Moisture. If, in the judgment of the City project engineer, project architect or project manager, any building material that is intended to be kept dry before, during and after installation has become wet, such material shall be removed immediately from the job site, disposed of in accordance with this Chapter, and replaced. It shall be the responsibility of the relevant contractor or subcontractor to monitor the storage of such materials.
materials to ensure that they remain dry and to remove and dispose of such materials if they become wet.

(C) Determination by Independent Industrial Hygienist. On Construction Projects with a total construction cost exceeding $1,000,000, if any building material that is intended to be kept dry becomes, in the judgment of the subcontractor or the City project engineer, contaminated by moisture, the City's project manager shall obtain an assessment by an independent industrial hygienist to assess the extent of contamination and supervise the containment and removal of moisture-contaminated materials. Where the hygienist determines that moisture contamination has occurred, the contractor responsible for causing or allowing the contamination to occur shall be responsible for the costs of the hygienist's services and the costs for removal and replacement of the contaminated materials. Should no moisture contamination be found, the City shall be responsible for the costs of the hygienist's services.

(2) Elimination or Encapsulation of Fibrous Insulation Materials. The use of exposed fibrous duct insulation material in Construction Projects shall be prohibited. If the design of a Construction Project requires the use of fibrous insulation material, such material shall be encapsulated to minimize mold and/or mildew growth and emissions of volatile organic compounds into the habitable space.

SEC. 712.710. REPORT TO THE BOARD OF SUPERVISORS.

No later than July 1, 2014, Within three years of the effective date of this ordinance and every three years thereafter, the Director, in consultation with the Task Force and affected City departments and with input from members of the public who have asked to be informed by the Task Force or the Department, shall submit to the Board of Supervisors a report on the effects of this Chapter, including but not limited to the following:

Mayor Lee
BOARD OF SUPERVISORS
(1) A report of the compliance description of the environmental performance of construction projects under the LEED rating system, including a report on waivers and of the pilot projects;

(2) A report of City departments' compliance with this Chapter, including a report on waivers;

(3) An assessment of whether this Chapter has achieved its stated goals; and

(4) Recommended changes, if any, to this Chapter.

SEC. 713. WAIVERS.

(a) Waivers from the requirements of this Chapter are available under the following circumstances:

(i) Emergency. A City department may grant itself a waiver from any requirement of this Chapter, except the requirements of Section 706(a)(4), when it is necessary to respond to an emergency which endangers public health or safety. In such case, the City department shall report to the Director on a form provided by the Director regarding the emergency that prevented compliance with this Chapter within five business days. City departments desiring an emergency waiver from the requirements of Section 706(a)(4) shall confer with the General Manager of the San Francisco Public Utilities Commission.

(ii) Cost Prohibitive. A City department may request a waiver from the Director on a form provided by the Director if compliance with this Chapter is cost prohibitive. The Task Force shall provide the Director with a recommendation with respect to the waiver request. The Director may grant a waiver upon a finding that the requesting department has:

(A) Demonstrated which specific requirements are cost prohibitive as weighed against the potential economic, environmental and health benefits posed by a particular requirement; and
(B) (2) If applicable for Section 705 707, developed a reasonable plan to maximize the number of LEED LEED™ points attainable.

(3) (e) Other. If, due to specific circumstances, compliance would defeat the intent of this Chapter or create an unreasonable burden on the construction project Construction Project or City department, the City department may request a waiver from that requirement from the Director on a form provided by the Director. The Task Force shall provide the Director with a recommendation with respect to the waiver request. The Director may grant a waiver upon a finding that the requesting Department has:

(A) (f) Documented the circumstances and burdens at issue; and

(B) (2) If applicable for Section 705 707, developed a reasonable plan to maximize the number of LEED LEED™ points attainable.

(b) The Director shall respond to a request for a waiver within 35 days.

c) The Director may not waive the requirements of Sections 706(a)(4), 707, and 708, except in the case of emergencies as provided in subsection (a)(1). Departments seeking waivers of the requirements of Section 710(b) must follow the procedures provided for in Section 710(b)(2)(F).

Granting of a waiver for any requirement of this Chapter does not waive any requirement of San Francisco Building Code Chapter 13C.

d) The Director shall report to the Commission on the Environment regularly on waivers requested, granted and denied.
Section 2. Effective Date. This ordinance shall become effective 30 days from the date of passage.

APPROVED AS TO FORM:
DENNIS J. HERRERA, City Attorney

By: 
THOMAS J. OWEN
Deputy City Attorney
Ordinance amending the San Francisco Environment Code, Chapter 7, Sections 700 through 713 to update the green building requirements for the design, construction, and operation of City buildings.

September 19, 2011 Land Use and Economic Development Committee - RECOMMENDED

September 27, 2011 Board of Supervisors - AMENDED
Ayes: 11 - Avalos, Campos, Chiu, Chu, Cohen, Elsbernd, Farrell, Kim, Mar, Mirkarimi and Wiener

September 27, 2011 Board of Supervisors - PASSED ON FIRST READING AS AMENDED
Ayes: 11 - Avalos, Campos, Chiu, Chu, Cohen, Elsbernd, Farrell, Kim, Mar, Mirkarimi and Wiener

October 04, 2011 Board of Supervisors - FINALLY PASSED
Ayes: 11 - Avalos, Campos, Chiu, Chu, Cohen, Elsbernd, Farrell, Kim, Mar, Mirkarimi and Wiener

File No. 110854

I hereby certify that the foregoing Ordinance was FINALLY PASSED on 10/4/2011 by the Board of Supervisors of the City and County of San Francisco.

Angela Calvillo
Clerk of the Board

Mayor Edwin Lee
Date Approved