City of Albany

GREEN BUILDING

STANDARDS OF COMPLIANCE

&

CHECKLISTS

DRAFT REVISION OCTOBER 21, 2009

City of Albany Community Development Department
510-528-5760 / www.albanyca.org

City of Albany Green Building Standards of Compliance

Draft Standards: October 21, 2009

Project Description		Building Improvements		
		Checklist Required	**Minimum Threshold**	**Third-party Verification**
City Sponsored Projects	New construction **less** than 5,000 sq ft	LEED-NC Checklist (Version 3)	Maximum points practicable	Plan check and spot check field verification
	New construction **more** than 5,000 sq ft		Gold (39 points)	US Green Bldg Council
	Renovation **less** than 5,000 sq ft	LEED-CI Checklist (Version 3)	Maximum points practicable	Plan check and spot check field verification
	Renovation **more** than 5,000 sq ft		Gold (32 points)	US Green Bldg Council
Commercial Construction & Renovation Projects	New construction **less** than 10,000 sq ft	Small Commercial Green Building Checklist (Feb. 2009)	Maximum points practicable	Plan check and spot check field verification
	New construction **more** than 10,000 sq ft	LEED-NC or LEED-CS Checklist (Version 3)	Gold (39 points)	US Green Bldg Council
	Renovation **less** than 10,000 sq ft	Small Commercial Green Building	Maximum points practicable	Plan check and spot check field verification
	Renovation **more** than 10,000 sq ft	LEED-CI Checklist (Version 3)		
Single Family Residential	New construction	New Home Construction Green Building Guidelines (2009 edition)	50 Points	Plan check and spot check field verification.
	Renovation subject to Design Review	Green Points Rating System for Remodeling projects (2004 version + City Point Incentives)		
Multi-family Residential	New construction or renovation of **less** than 5 units	Multifamily Greenpoint Checklist (2005 Edition version v.2)	Maximum points practicable	City Staff and/or certified 3rd party inspection
	New construction or renovation of **more** than 5 units		Minimum Points Standard	
Education Facilities	New Construction or Renovation more than 5,000 sq ft	Collaborative for High Performance Schools	Maximum points practicable	City Staff and/or certified 3rd party inspection
Mixed Use	Consult with Planning Division staff			

Approved by City Council: _____

City of Albany Green Building Standards of Compliance

Draft Standards: October 21, 2009

Project Description		Landscaping Improvements		
		Checklist Required	Minimum Threshold	Third-party Verification
City Sponsored Projects	New landscape **less** than 2,500 sq ft	Bay-Friendly Scorecard for Commercial & Civic Landscapes (January 2008 3rd Ed.)	60 points	Plan check and spot check field verification
	New landscape **more** than 2,500 sq ft	Calif Code Regs Title 23 Water Efficient Landscape Ordinance (as amended by City of Albany)	Compliance	
Commercial Construction & Renovation Projects	New landscape **less** than 2,500 sq ft	Bay-Friendly Scorecard for Commercial & Civic Landscapes (January 2008 3rd Ed.)	60 points	
	New landscape **more** than 2,500 sq ft	Calif Code Regs Title 23 Water Efficient Landscape Ordinance (as amended by City of Albany)	Compliance	
Developer-Builder Residential Construction & Renovation Projects	New landscape **less** than 2,500 sq ft	Not Required	Not Required	
	New landscape **more** than 2,500 sq ft	Calif Code Regs Title 23 Water Efficient Landscape Ordinance (as amended by City of Albany)	Compliance	
Owner-Builder Residential Construction & Renovation Projects	New landscape **less** than 5,000 sq ft	Not Required	Not Required	
	New landscape **more** than 5,000 sq ft	Calif Code Regs Title 23 Water Efficient Landscape Ordinance (as amended by City of Albany)	Compliance	
Education Facilities	New landscape **less** than 2,500 sq ft	Bay-Friendly Scorecard for Commercial & Civic Landscapes (January 2008 3rd Ed.)	60 points	
	New landscape **more** than 2,500 sq ft	Calif Code Regs Title 23 Water Efficient Landscape Ordinance (as amended by City of Albany)	Compliance	
Mixed Use	New landscape **less** than 2,500 sq ft	Bay-Friendly Scorecard for Commercial & Civic Landscapes (January 2008 3rd Ed.)	60 points	
	New landscape **more** than 2,500 sq ft	Calif Code Regs Title 23 Water Efficient Landscape Ordinance (as amended by City of Albany)	Compliance	

Approved by City Council: _____

Checklists

Green Building Program Rating System for Remodeling Projects

City of Albany

Green Building Program Rating System for Remodeling Projects
Supplemental Application Form

Project Address: _____

Checklist Prepared By: _____

Date Prepared: _____

		INPUT	Resources	Energy	IAQ/Health
A. Site					
1. Recycle Job Site Construction & Demolition Waste 65% = 1 point; 75% = 2 points; 80% = 4 points	up to 4 Resource pts				
2. Salvage Reusable Building Materials	4 Resource pts y=yes				
3. Remodel for Mixed Use, Adaptive Reuse, and Historic Preservation	4 Resource pts y=yes				
4. Protect Native Soil	2 Resource pts y=yes				
5. Minimize Disruption of Existing Plants & Trees	1 Resource pt y=yes				
6. Implement Construction Site Stormwater Practices	2 Resource pts y=yes				
7. Protect Water Quality with Landscape Design	2 Resource pts y=yes				
8. Design Resource-Efficient Landscapes and Gardens	4 Resource pts y=yes				
9. Reuse Materials/Use Recycled Content Materials for Landscape Areas	2 Resource pts y=yes				
10. Install High-Efficiency Irrigation Systems	2 Resource pts y=yes				
11. Provide for On-Site Water Catchment / Retention	2 Resource pts y=yes				
B. Foundation					
1. Incorporate Recycled Flyash in Concrete 25% Recycled Flyash = 2 points; Add 1 point for every 10% increase of flyash, up to 5 points	up to 5 Resource pts				
2. Use Recycled Content Aggregate	2 Resource pts y=yes				
3. Insulate Foundation/Slab before backfill	3 Energy pts y=yes				
C. Structural Frame					
1. Substitute Solid Sawn Lumber with Engineered Lumber	3 Resource pts y=yes				
2. Use FSC Certified Wood for framing (For every 10% of FSC lumber used = 2 points, up to 10)	up to 10 Resource pts.				
3. Use Wood I-Joists for Floors and Ceilings	2 Resource pts y=yes				
4. Use Web Floor Trusses	2 Resource pts y=yes				
5. Design Energy Heels on Trusses 6" or more	2 Energy pts y=yes				
6. Use Finger-Jointed Studs for Vertical Applications	2 Resource pts y=yes				
7. Use Engineered Studs for Vertical Applications	2 Resource pts y=yes				
8. Use Recycled Content Steel Studs for Interior Framing	2 Resource pts y=yes				
9. Use Structural Insulated Panels (SIPs)					
a. Floors	3 Energy pts y=yes				
b. Wall	3 Energy pts y=yes				
c. Roof	3 Energy pts y=yes				
10. Apply Advanced Framing Techniques	4 Resource pts y=yes				

		INPUT	Resources	Energy	IAQ/Health
11. Use Reclaimed Lumber for Non Structural Applications	3 Resource pts y=yes				
12. Use OSB					
a. Subfloors	1 Resource pt y=yes				
b. Sheathing	1 Resource pt y=yes				
D. Exterior Finish					
1. Use Sustainable Decking Materials					
a. Recycled content	3 Resource pts y=yes				
b. FSC Certified Wood	3 Resource pts y=yes				
2. Use Treated Wood That Does Not Contain Chromium/Arsenic	1 IAQ/Health pt y=yes				
3. Install House Wrap under Siding	1 IAQ/Health pt y=yes				
4. Use Fiber-Cement Siding Materials	1 Resource pt y=yes				
E. Plumbing					
1. Install Water Heater Jacket	1 Energy pt y=yes				
2. Insulate Hot and Cold Water Pipes	2 Energy pts y=yes				
3. Retrofit all Faucets and Showerheads with Flow Reducers					
a. Faucets (1 point each, up to 2 points)	Up to 2 Resource pts.				
b. Showerheads (1 point each, up to 2 points)	Up to 2 Resource pts.				
4. Replace Toilest with Ultra-Low Flush Toilets (1 point each, up to 3 points)	Up to 3 Resource pts.				
5. Install Chlorine Filter on Showerhead	1 IAQ/Health pt y=yes				
6. Convert Gas to Tankless Water Heater	4 Energy pts y=yes				
7. Install Water Filtration Units at Faucets (2 points each, up to 4 points)	Up to 4 IAQ/Health pts.				
8. Install On-Demand Hot Water Circulation Pump	4 Resource pts y=yes				
F. Electrical					
1. Install Compact Fluorescent Light Bulbs (CFLs) (6 bulbs=2 points, 10 bulbs =3 points, 12 bulbs = 4 points)	Up to 4 Energy pts.				
2. Install IC-AT Recessed Fixtures with CFLs (1 point each, up to 5 points)	Up to 5 Energy pts.				
3. Install Lighting Controls (1 point per fixture, up to 4 points)	Up to 4 Energy pts.				
4. Install High Efficiency Ceiling Fans with CFLs (1 point each, up to 4 points)	Up to 4 Energy pts.				
G. Appliances					
1. Install Energy Star Dishwasher	1 Energy pt y=yes				
2. Install Washing Machine with Water and Energy Conservation Features	1 Energy pt y=yes				
3.Install Energy Star Refrigerator	1 Energy pt y=yes				
4. Install Built-In Recycling Center	3 Resource pts y=yes				
H. Insulation					
1. Upgrade Insulation to Exceed Title 24 Requirements					
a. Walls	2 Energy pts y=yes				
b. Ceilings	2 Energy pts y=yes				
2. Install Floor Insulation over Crawl Space	4 Energy pts y=yes				
3. Install Recycled-Content, Fiberglass Insulation with No Added Formaldehyde	3 IAQ/Health pts y=yes				

			INPUT	Resources	Energy	IAQ/Health
4. Use Advanced Infiltration Reduction Practices	2 Energy pts	y=yes				
5. Use Cellulose Insulation						
a. Walls	4 Resource pts	y=yes				
b. Ceilings	4 Resource pts	y=yes				
6. Alternative Insulation Products (Cotton, spray-foam)						
a. Walls	4 Resource pts	y=yes				
b. Ceilings	4 Resource pts	y=yes				
I. Windows						
1. Install Energy-Efficient Windows						
a. Double-Paned	1 Energy pt	y=yes				
b. Low-Emissivity (Low-E)	2 Energy pts	y=yes				
c. Low. Conductivity Frames	2 Energy pts	y=yes				
2. Install Low Heat Transmission Glazing	1 Energy pt	y=yes				
J. Heating Ventilation and Air Conditioning						
1. Use Duct Mastic on All Duct Joints	2 Energy pts	y=yes				
2. Install Ductwork within Conditioned Space	3 Energy pts	y=yes				
3. Vent Range Hood to the Outside	1 IAQ/Health pt	y=yes				
4. Clean all Ducts Before Occupancy	2 IAQ/Health pts	y=yes				
5. Install Solar Attic Fan	2 Energy pts	y=yes				
6. Install Attic Ventilation Systems	1 Energy pt	y=yes				
7. Install Whole House Fan	4 Energy pts	y=yes				
8. Install Sealed Combustion Units						
a. Furnaces	3 IAQ/Health pts	y=yes				
b. Water Heaters	3 IAQ/Health pts	y=yes				
9. Replace Wall-Mounted Electric and Gas Heaters with Through-the-Wall Heat Pumps	3 Energy pts	y=yes				
10. Install 13 SEER/11 EER or higher AC with a TXV	3 Energy pts	y=yes				
11. Install AC with Non-HCFC Refrigerants	2 Resource pts	y=yes				
12. Install 90% Annual Fuel Utilization Efficiency (AFUE) Furnace	2 Energy pts	y=yes				
13. Retrofit Wood Burning Fireplaces						
a. Install EPA certified wood stoves/inserts	1 IAQ/Health pt	y=yes				
b. Install/Replace Dampers	1 Energy pt	y=yes				
c. Install Airtight Doors	1 Energy pt	y=yes				
14. Install Zoned, Hydronic Radiant Heating	3 Energy pts	y=yes				
15. Install High Efficiency Filter	4 IAQ/Health pts	y=yes				
16. Install Heat Recovery Ventilation Unit (HRV)	5 IAQ/Health pts	y=yes				
17. Install Separate Garage Exhaust Fan	3 IAQ/Health pts	y=yes				
K. Renewable Energy and Roofing						
1. Pre-Plumb for Solar Water Heating	4 Energy pts	y=yes				
2. Install Solar Water Heating System	10 Energy pts	y=yes				
3. Pre-Wire for Future Photovoltaic (PV) Installation	4 Energy pts	y=yes				
4. Install Photovoltaic (PV) System (1.2 kw = 6 points, 2.4 kw = 12 points, 3.6 kw = 18 points)	Up to 18 Energy pts					
6. Select Safe and Durable Roofing Materials	1 Resource pt	y=yes				
7. Install Radiant Barrier	3 Energy pts	y=yes				

		INPUT	Resources	Energy	IAQ/Health
L. Natural Heating and Cooling					
1. Incorporate Passive Solar Heating	5 Energy pts y=yes				
2. Install Overhangs or Awnings over South Facing Windows	3 Energy pts y=yes				
3. Plant Deciduous Trees on the West and South Sides	3 Energy pts y=yes				
M. Indoor Air Quality and Finishes					
1. Use Low/No-VOC Paint	1 IAQ/Health pts y=yes				
2. Use Low VOC, Water-Based Wood Finishes	2 IAQ/Health pts y=yes				
3. Use Low/No VOC Adhesives	3 IAQ/Health pts y=yes				
4. Use Salvaged Materials for Interior Finishes	3 Resource pts y=yes				
5. Use Engineered Sheet Goods with no added Urea Formaldehyde	6 IAQ/Health pts y=yes				
6. Use Exterior Grade Plywood for Interior Uses	1 IAQ/Health pts y=yes				
7. Seal all Exposed Particleboard or MDF	4 IAQ/Health pts y=yes				
8. Use FSC Certified Materials for Interior Finish	4 Resource pts y=yes				
9. Use Finger-Jointed or Recycled-Content Trim	1 Resource pts y=yes				
10. Install Whole House Vacuum System	3 IAQ/Health pts y=yes				
N. Flooring					
1. Select FSC Certified Wood Flooring	8 Resource pts y=yes				
2. Use Rapidly Renewable Flooring Materials	4 Resource pts y=yes				
3. Use Recycled Content Ceramic Tiles	4 Resource pts y=yes				
4. Install Natural Linoleum in Place of Vinyl	5 IAQ/Health pts y=yes				
5. Use Exposed Concrete as Finished Floor	4 Resource pts y=yes				
6. Install Recycled Content Carpet with Low VOCs	4 Resource pts y=yes				
O. City of Albany Incentives					
1. 15% better than Title 24 Energy Calcs	Required				
1. Additions less than 50% increase in floor area	10 Resource pts y=yes				
2. Additions less than 200sq.ft. or resulting in less than 1,500sq.ft.	15 Resource pts y=yes				
3. Seismic upgrade of existing building (5 pts bolts;	20 Resource pts y=yes				
5 pts soft story brace; 5 pts roof diaphram; 3 pts gas shutoff; 2 pts kit)					
4. Installation of AC	-10 Resource pts y=yes				
6. Plant more than one street tree when feasible	2 IAQ/Health pts y=yes				
7. Comply with Voluntary Calif. Green Bldg Standards Code	30 Resource pts y=yes				

Small Commercial Green Building Checklist

Small Commercial Green Building Checklist

GREEN BUILDING in Alameda County

This Commercial Checklist is intended to address new construction and renovations/expansions up to 10,000 square feet or $3 million. Projects are recommended to meet all applicable measures on the checklist. For measures that are not applicable or are not in the project's scope of work, select "N/A" and make a note of why the measure does not apply to the project. For appendices, electronic copies of this checklist, and other green building resources, visit www.buildgreennow.org.

Project:

Address: **Date:**

Site

Access to alternative transportation sources reduces the number of single passenger vehicle trips, reduces traffic congestion, and saves fuel and associated greenhouse gas emissions. Allowing space for bike parking increases participation in alternative transportation services. Cool sites and roofs reduce the amount of heat stored and re-radiated during summer days in urban environments that contribute to higher energy use and pollution.

Yes	No	N/A	Measure & Requirement	Documentation	Notes
☐	☐	☐	**1. Alternative Transportation Access** Project is located within 1/4 mile of two or more bus lines AND/OR within 1/2 mile of a light rail or commuter rail transit stop (BART, Amtrak, etc.). Project also includes bicycle racks or storage areas for use by building occupants (workers) in a secure and covered area. If the project is in a high use public area, provide bicycle racks and/or storage options for visitors to the building as well. Provide bike racks or storage area capable of securing at least 1 bike for every 2,000 sf of building space.	1. Provide a simple map showing distances to public transit stops from the main entry of the buildings. Use the "Nearby Routes & Services" calculator on the www.511.org website or other transit agency website to calculate distances from the project address. 2. Provide a site plan that shows bike rack/storage locations. Highlight or circle the bike racks/storage areas and provide a total number of bikes able to be parked at the site. Bike racks dedicated to building occupants (workers) should be in a covered and secure location.	
☐	☐	☐	**2. Reduced Parking** Project does not exceed minimum local parking requirements OR the project does not provide any new parking.	1. Provide proof of the minimum local parking requirements for the site OR provide proof that no parking will be added. Minimum parking requirements usually come from the City. 2. If parking is added, provide a site plan with parking areas highlighted. Total and highlight the number of existing and new parking spaces.	
☐	☐	☐	**3. Reduced Heat Island Effect** Combine cool roof and/or cool site techniques for 75% of site area being impacted by construction (including roof and all landscaping/hardscapes on site). Cool roofs are reflective surfaces applied to the roof. To find cool roof products, go to www.coolroofs.org and use the "Rated Products Directory". Cool site techniques include pervious surfaces (including open grid pavement and vegetation) and light colored concrete.	1. Site plan with the following areas calculated and clearly visible (if applicable): total site area, building/roof area, photovoltaic array area, landscape area, area of hardscapes under shade (from trees or awnings, etc.), and hardscape area. 2. Calculate the percent of the total site area that includes cool roof and/or cool site techniques. Photovoltaic panels can be exempt from the calculation if mounted on the roof or if they shade hard surfaces (subtract the photovoltaic array area from the total site area). For low-sloped roofs (<2:12), eligible cool roof materials must have a Solar Reflective Index (SRI) of 78 or higher. If SRI is not available for the cool roof product, then products with an initial solar reflectance of 0.70 or higher AND an initial thermal emittance of 0.75 or higher are acceptable. Steep sloped roofs (>2:12) do not need to comply and should have their square footage removed from calculation. 3. Provide manufacturer literature stating the cool roof SRI.	

GREEN BUILDING in Alameda County

Yes	No	N/A	Measure & Requirement	Documentation	Notes

Water

Water-efficient fixtures reduce water use and sewer costs and reduce demand on water supplies and treatment facilities. For sites that have landscapes, see the Bay-Friendly for Permitted Landscapes checklist at www.buildgreennow.org.

Yes	No	N/A				
☐	☐	☐	**4. Water Efficient Plumbing Fixtures**			
			The following performance thresholds are required for all new fixtures: 1. Toilets: High Efficiency Toilets (HETs) with flush rate ≤1.28 gallons per flush (gpf). 2. Urinals: Waterless or low-flow with flush rate ≤ 0.5 gpf. 3. Faucets: flow rates ≤ 1.5 gallons per minute (gpm) for all faucets except kitchen sinks. 4. Pre-rinse Spray Valves: flow rates ≤ 2.0 gpm.	1. Floor plan(s) with fixture schedule(s) showing location of all new toilets, urinals, faucets and kitchen pre-rinse spray valves in the project. Include flow rates in the fixture schedule. 2. Specification sections showing that low-flow fixtures are specified for all new fixtures (if specifications are created for the project). 3. Manufacturer literature (cut sheets) showing flush rate of toilets and urinals to be installed, and flow rates for faucets and spray valves.	

Energy

Exceeding energy efficiency minimums results in reduced greenhouse gas emissions, lower utility costs and increased comfort. Another benefit is higher quality construction, thanks to better air sealing, increased insulation, and high efficiency equipment.

5. Improved Energy Efficiency

There are 2 paths for achieving this measure:
Path 1. Performance: For buildings that require Title 24 energy modeling, complete Path 1. Check "N/A" in the Path 2 box.
Path 2. Prescriptive: For projects that do not require energy modeling, complete Path 2. Check "N/A" in the Path 1 box.

Yes	No	N/A				
☐	☐	☐	**Path 1: Building Energy Modeling**			
			Beat California minimum energy efficiency standards (Title 24, Part 6) by 10% or more.	1. Submit Title 24 report for whole building or by component. Percent better than code is determined by energy cost from ECON-1 report.		
☐	☐	☐	**Path 2: For projects that DO NOT require building energy modeling: Complete A&B below.**			
			A. Select at least 2 of the following prescriptive energy efficiency measures			
		☐	i. Reduce Lighting Power Density (LPD) in the facility to 90% of code.	1. Provide lighting design plans and/or specifications. 2. Calculate the total LPD and include on plans or in other format. The LPD can be calculated from lighting design plans or from Title 24 submissions. Must be a maximum of 90% of Title 24 LPD. Do not include occupancy sensor or other switches/control strategies in this calculation.		
		☐	ii. Verify outside air economizer operation.	1. Evaluate economizer operation upon startup. Confirm operation of actuator from minimum position to 100% open. 2. Verify economizer operates per control sequence (outside air, room set point) to meet space requirements.		
		☐	iii. High performance windows - for all windows replaced.	1. Provide plans and/or specifications with window schedule. All new windows must be NFRC rated and have a U-factor no higher than 0.40. Solar Heat Gain Coefficient (SHGC) is dependent on glazing percentage, for buildings with less than 20% glazing, SHGC should be no higher than 0.45. For buildings with more than 20% glazing, SHGC should be no higher than 0.35. 2. Provide manufacturer cut sheets or other documentation of NFRC label for windows chosen.		
		☐	iv. All new or replaced windows have low-conductivity frames. Metal frames do not qualify, except those with thermal breaks.	1. Provide window schedule or specifications showing all new or replaced windows frames are vinyl, fiberglass, thermally-broken metal, or other non-metal. 2. Provide manufacturer cut sheet illustrating frame type.		

Yes	No	N/A	Measure & Requirement	Documentation	Notes
☐			v. High Efficiency HVAC Equipment. All new HVAC equipment must comply with the Consortium for Energy Efficiency (CEE) Tier 1 commercial HVAC standards. See www.buildgreennow.org for a link to the CEE standards or download them at www.cee1.org/com/com-main.php3.	1. Provide plans and specifications showing equipment schedule and performance specifications. 2. Provide manufacturer literature confirming compliance with CEE Tier 1 standards.	
☐			vi. Provide on-site renewable energy generation (solar, wind, etc) system capable of producing at least 5% of the building's total electrical load OR at least 10% of the building's hot water demand.	1. Provide estimated output and percent of building load to be offset with renewable energy system. Calculations to be provided by a licensed solar installer, electrical contractor, or from the CEC rebate application. 2. Provide manufacturer cut sheets for solar panels. If photovoltaics are installed, provide cut sheet for inverter(s).	
			B. Select at least 3 of the following prescriptive energy efficiency measures		
☐			i. Automatic daylight sensors are installed in at least 75% of spaces with exterior non-north facing windows. Automatic sensors must turn lights on, off, or dim depending on amount of daylight. (B.i and B.iii cannot both be attained on the same project).	1. Highlight areas to be daylit on plans (those areas or rooms within 15 feet of skylights or exterior, non-north windows). 2. Highlight locations of daylight sensors. 3. Provide calculation showing that 75% or more of the space in daylit areas (by square feet or rooms) are under daylighting control.	
☐			ii. Locate occupancy sensors in 40% of intermittent or non regularly occupied spaces (hallways, bathrooms, closets, private offices). Exclude areas containing mechanical equipment or electrical panels which require light for maintenance activities.	1. Provide lighting plans with intermittent/non-regularly occupied spaces highlighted. 2. Highlight occupancy sensors on plans that serve these spaces. 3. Provide calculation showing that 40% or more of the spaces are controlled by occupancy sensors.	
☐			iii. Multi-level switching in all "daylit" areas (B.i and B.iii cannot both be attained on the same project).	1. Provide lighting plans with daylit areas highlighted (those areas within 15 feet of skylights or exterior, non-north windows). 2. Confirm electrical design allows for multi-level switching.	
☐			iv. All new exit signs in the project are to be LED or nuclear. Recommend replacing all existing exit signs as well, even if not in project scope.	1. Provide lighting plans specifying correct signage product.	
☐			v. Install ENERGY STAR rated office equipment and appliances. For eligible equipment, at least 75% of all new office equipment and 90% of all new appliances must be ENERGY STAR rated. See www.energystar.gov for product lists.	1. Submit list of all planned new office equipment and appliances. 2. Calculate the percent of planned office equipment and appliances that are to be ENERGY STAR. If ENERGY STAR products are not available for a particular appliance or piece of equipment, note that on the list and do not include those in the percentage calculation.	
☐			vi. High efficiency heating: If new furnaces are specified, they will have a minimum energy efficiency of 92 AFUE.	1. Submit plans or specifications highlighting efficiency of forced air furnace(s). 2. Submit manufacturer cut sheet for furnace(s) and highlight efficiency.	
☐			vii. High efficiency water heating: Specify gas water heaters above 0.65 EF or preferably a condensing hot water heater at 0.86. Avoid electric hot water heaters. Specify boilers with efficiency of 90% or more. (This excludes all tankless water heaters and any small kitchen or bathroom water heaters under 5 gallons.)	1. Submit plans or specifications highlighting efficiency of water heater(s) or boiler(s). 2. Submit manufacturer cut sheet for water heaters/boilers and highlight efficiency.	

Yes	No	N/A	Measure & Requirement	Documentation	Notes
☐			viii. Tight ducts: Duct testing and sealing for all ductwork.	1. Submit evidence that duct sealing and testing will be performed. This could be in the specifications; be a HERS duct testing contract or report; or other documentation that ducts will been sealed and tested. 2. Provide final duct testing report.	
☐			ix. Develop and implement an Operations & Maintenance (O&M) Plan for the building. Download a guide to green O&M at www.StopWaste.Org/EPP.	1. Develop an O&M plan for the project. The plan should address all that apply: building lighting, heating, cooling, plumbing, solar, rainwater catchment, irrigation/landscaping practices and other systems as well as more general building policies (such as green cleaning, environmental purchasing, etc). The plan should describe accessibility of units, proper maintenance techniques, descriptions of proper use, model numbers & cut sheets, manufacturer contact information for replacement/repair/questions. The plan should include switching/controls diagrams, lighting plans, heating, cooling, plumbing, solar, rainwater, irrigation/landscaping practices. 2. Submit signed O&M plan from the owner saying that the O&M plan will be followed once occupied.	

Materials

Construction materials constitute about 22% of the disposed waste stream statewide. Many of these materials can be reduced, reused or recycled. Recycling reduces the amount of material entering landfills and can save money for building owners through reduced disposal and operating fees. Buying environmentally preferable new products can reduce the impact on raw materials extraction and disposal at end of life.

Yes	No	N/A			
☐	☐	☐	**6. Construction Waste Management**		
			During construction, divert 100% of concrete and asphalt concrete and divert at least 65% of remaining job site construction waste from landfill via recycling or reuse.	1. Prior to construction, complete a construction waste management plan. The City should provide a sample template, or one can be downloaded at www.buildgreennow.org. 2. After construction, provide final waste management plan and verification (service provider weight tags and/or receipts) that 100% of concrete and asphalt concrete were diverted and at least 65% of remaining job site construction waste diverted from landfill via recycling or reuse. If material was taken to a transfer station, a facility average recycling rate must be applied to the amount of material sent to that facility.	

☐	☐	☐	**7. Environmentally Preferable Materials** Achieve at least 5 Environmentally Preferable Materials from i-xiv below. Materials or finishes listed below meet at least one of the following environmentally preferable criteria: Plywood/MDF/wood is FSC certified; salvaged/reclaimed materials (including onsite materials); flyash in concrete; rapidly renewable materials (bamboo, etc); recycled content materials (at least 40% combined pre and post consumer); exposed concrete (for flooring only); or low-emitting (Volatile Organic Compounds (VOCs) and other chemicals. See www.buildgreennow.org for links and resources on Environmentally Preferable Materials.		
			i. Cabinets & Shelving (includes boxes, face frames and doors). *At least 50% of cabinets and shelving (by volume or linear feet) meet environmentally preferable criteria.*	1. Provide finish schedule or specifications with applicable material(s) highlighted. 2. Provide manufacturer literature to support environmental claims of material (recycled content %, FSC certification, etc.). 3. Provide calculation of applicable material percentage.	
☐			ii. Interior Trim (includes all trim for floors, doors, walls, ceilings, windows, wainscot). *At least 50% of all interior trim (by volume or linear feet) meet environmentally preferable criteria.*	1. Provide finish schedule or specifications with applicable material(s) highlighted. 2. Provide manufacturer literature to support environmental claims of material. 3. Provide calculation of applicable material percentage.	

Yes	No	N/A	Measure & Requirement	Documentation	Notes
☐			iii. Doors and Door Cores *At least 50% of all doors (by count) meet environmentally preferable criteria.*	1. Provide finish schedule or specifications with applicable material(s) highlighted. 2. Provide manufacturer literature to support environmental claims of material. 3. Provide calculation of applicable material percentage.	
☐			iv. Countertops and Substrates. *At least 50% of all countertops and substrates (by volume or linear feet) meet environmentally preferable criteria.*	1. Provide finish schedule or specifications with applicable material(s) highlighted. 2. Provide manufacturer literature to support environmental claims of material. 3. Provide calculation of applicable material percentage.	
☐			v. Furniture (Includes systems and stand-alone furniture). *At least 75% of all furniture (by number of pieces or by cost) meet environmentally preferable criteria.*	1. Provide finish schedule or specifications with applicable material(s) highlighted. 2. Provide manufacturer literature to support environmental claims of furniture. 3. Provide calculation of applicable material percentage.	
☐			vi. Ceiling Tiles. *At least 75% of all ceiling tile (by square feet) meet environmentally preferable criteria.*	1. Provide finish schedule or specifications with applicable material(s) highlighted. 2. Provide manufacturer literature to support environmental claims of material. 3. Provide calculation of applicable material percentage.	
☐			vii. Insulation. *At least 75% of all insulation (by volume, square feet, or cost) meet environmentally preferable criteria.*	1. Provide finish schedule or specifications with applicable material(s) highlighted. 2. Provide manufacturer literature to support environmental claims of material. 3. Provide calculation of applicable material percentage.	
☐			viii. Flooring. *At least 50% (by square feet) of all flooring (exposed or stained concrete) or floor coverings (carpet, resilient flooring, tile, hardwood, etc.) meet environmentally preferable criteria.*	1. Provide finish schedule or specifications with applicable material(s) highlighted. 2. Provide manufacturer literature to support environmental claims of material. 3. Provide calculation of applicable material percentage.	
☐			ix. Flyash in Concrete *Achieve 15% flyash as percentage of portland cement for all new concrete poured.*	1. Provide proposed mix designs showing flyash as percentage of portland cement. 2. Provide calculation showing planned 15% flyash for total new poured concrete (ensure that flyash is percentage of portland cement).	
☐			x. Exterior Paint. *At least 50% of all exterior paint (by square footage or volume) is recycled content (40%+).*	1. Provide finish schedule or specifications with applicable material(s) highlighted. 2. Provide manufacturer literature showing recycled content. 3. Provide calculation of applicable material percentage.	
☐			xi. Low-Emitting Interior Paint. *All interior paints are low emitting: ≤ 50 grams/liter for flat paints, ≤ 150 g/L for non-flat paints and other coatings.*	1. Provide finish schedule or specifications with applicable material(s) highlighted. 2. Provide manufacturer literature to support environmental claims of material. 3. Provide documentation that all paints and coatings are low-emitting. Provide MSDS sheets.	
☐			xii. Low-Emitting Adhesives & Sealants. *All adhesives and sealants are low-emitting according to the South Coast Air Quality Management District Rule 1168 (see www.aqmd.gov/rules/reg/reg11/r1168.pdf for VOC limits).*	1. Provide finish schedule or specifications with applicable material(s) highlighted. 2. Provide manufacturer literature to support environmental claims of material. 3. Provide documentation that all adhesives and sealants are low-emitting. Provide MSDS sheets.	

Yes	No	N/A	Measure & Requirement	Documentation	Notes
		☐	xiii. Low-Emitting Carpeting. *All carpeting, carpet pads, and adhesives are certified Green Label Plus per the Carpet and Rug Institute (CRI). See www.carpet-rug.org for label requirements and product lists.*	1. Provide finish schedule or specifications with applicable material(s) highlighted. 2. Provide manufacturer literature to support environmental claims of material. 3. Provide CRI Green Label Plus documentation.	
		☐	xiv. Low-Emitting Composite Wood. *All interior composite wood (MDF, plywood, particleboard, etc.) contain no added urea formaldehyde.*	1. Provide finish schedule or specifications with applicable material(s) highlighted. 2. Provide manufacturer literature to support environmental claims of material. 3. Provide MSDS sheets of composite wood.	

8. Collection of Recyclables

			Encourage ongoing recycling by providing at least as much bin volume for recycling as for waste. Additionally, recycle at least 5 of the following material streams: glass, plastic, cardboard, aluminum, food scraps, hazardous waste (fluorescent lamps, batteries, oil, etc.), and e-waste (computer equipment).	1. Provide plans showing recycling receptacles are provided in all applicable areas: offices, private rooms, meeting rooms, kitchens, etc. 2. Provide calculation of adequate recycling volume. 3. Provide evidence of recycling for at least 5 of the material streams. Submit recycling hauler information for recyclables and food scraps. Provide a short narrative on how the facility will collect and recycle hazardous and e-waste.	

Indoor Environment & Air

Effective daylighting and natural ventilation may improve indoor environmental quality. Natural ventilation can reduce heating and cooling requirements and may justify smaller, simpler HVAC systems, which can reduce the project's first costs. Ventilation (natural or mechanical) improves indoor air quality. Daylighting can offset some of the electric lighting load.

9. Daylight, Views & Natural Ventilation

			Provide access to views to the outdoors (any window or skylight can provide a view) from 80% of regularly occupied areas. Operable windows are recommended for all projects; required if 2 or more walls have windows or access to outdoor air and there is not a security compromise by having operable windows.	1. Provide site plans with view areas highlighted (those areas within sightline of skylights or exterior windows). 2. Calculate percent of regularly occupied areas with/without access to views. 3. Provide window schedule showing operable and non-operable windows.	

10. Fresh Air Monitors for Densely Occupied Spaces

			For systems with moveable outside air dampers: For all densely occupied spaces, such as multi-purpose rooms or conference rooms, provide CO2 monitors with alarms (example: small visual indicator such as a light to alert building occupants or building operator), and the ability to manually adjust air flow.	1. Provide mechanical plans with CO2 monitors highlighted. 2. Confirm alarm function (user adjustable) of Building Automation System. Verify control sequence resulting from "alarm" in Sequence of Operations. 3. Provide Title 24 "Acceptance" forms. 4. Written confirmation that testing, adjusting and balancing (TAB) contractor will adjust and balance the moveable outside air damper to provide cooling as required for air conditioning the space. When CO2 monitor located within referenced AC unit's conditioned space sends an alarm signal the economizer damper actuator shall open outside air damper to provide 30% more air than the minimum damper setting.	

Single Family GreenPoint Checklist

Single Family GreenPoint Checklist

date: _____

Build It Green
Smart Solutions From The Ground Up

The GreenPoint checklist tracks green features incorporated into the home. The recommended minimum requirements for a green home are: Earn a total of 50 points or more; obtain the following minimum points per category: Energy (11), Indoor Air Quality/Health (5), Resources (6), and Water (3); and meet the prerequisites A.3.a (50% construction waste diversion) and N.1 (Incorporate Green Points checklist in blueprints).

The green building practices listed below are described in the New Home Construction Green Building Guidelines, available at www.builditgreen.org.

ENTER PROJECT NAME	Community	Energy	IAQ/Health	Resources	Water
A. SITE	Possible Points				
1. Protect Native Soil and Minimize Disruption of Existing Plants & Trees					
☐ a. Protect Native Topsoil from Erosion and Reuse after Construction	1				1
☐ b. Limit and Delineate Construction Footprint for Maximum Protection					1
☐ 2. Deconstruct Instead of Demolishing Existing Buildings On Site				3	
3. Recycle Job Site Construction Waste (Including Green Waste)					
☐ *a. Minimum 50% Waste Diversion by Weight (Recycling or Reuse) - Required*				R	
☐ b. Minimum 65% Diversion by Weight (Recycling or Reuse)				2	
☐ c. Minimum 80% Diversion by Weight (Recycling or Reuse)				2	
4. Use Recycled Content Aggregate (Minimum 25%)					
☐ a. Walkway and Driveway				1	
☐ b. Roadway Base				1	

B. LANDSCAPING	Possible Points				
1. Construct Resource-Efficient Landscapes					
☐ a. No Invasive Species Listed by Cal-IPC Are Planted					1
☐ b. No Plant Species Will Require Hedging				1	
☐ c. 75% of Plants Are California Natives or Mediterranean Species					1
☐ 2. Use Fire-Safe Landscaping Techniques	1				
3. Minimize Turf Areas in Landscape Installed by Builder					
☐ a. All Turf Will Have a Water Requirement Less than or Equal to Tall Fescue					2
☐ b. Turf Shall Not Be Installed on Slopes Exceeding 10% or in Areas Less than 8 Feet Wide					2
☐ c. Turf is <33% of Landscaped Area					2
☐ d. Turf is <10% of Landscaped Area					2
☐ 4. Plant Shade Trees		1			1
☐ 5. Implement Hydrozoning: Group Plants by Water Needs					1
6. Install High-Efficiency Irrigation Systems					
☐ a. System Uses Only Low-Flow Drip, Bubblers, or Low-flow Sprinklers					1
☐ b. System Has Smart (Weather-Based) Controllers					2
☐ 7. Apply Two Inches of Compost in the Top 6 to 12 Inches of Soil					2
☐ 8. Mulch All Planting Beds to the Greater of 2 Inches or Local Water Ordinance Requirement					1
☐ 9. Use 50% Salvaged or Recycled-Content Materials for 50% of Non-Plant Landscape Elements				1	
☐ 10. Reduce Light Pollution by Shielding Fixtures and/or Directing Light Downward	1				

C. FOUNDATION	Possible Points				
1. Incorporate Recycled Flyash in Concrete					
☐ a. Minimum 20% Flyash				1	
☐ b. Minimum 25% Flyash				1	
☐ 2. Use Frost-Protected Shallow Foundation in Cold Areas (C.E.C. Climate Zone 16)				3	
☐ 3. Use Radon Resistant Construction (In At-Risk Locations Only)			1		

D. STRUCTURAL FRAME & BUILDING ENVELOPE	Possible Points				
1. Apply Optimal Value Engineering					
☐ a. 2x4 Studs at 24-Inch On Center Framing				1	
☐ b. Door and Window Headers Sized for Load				1	
☐ c. Use Only Jack and Cripple Studs Required for Load				1	

ENTER PROJECT NAME	Community	Energy	IAQ/Health	Resources	Water
2. Use Engineered Lumber					
☐ a. Beams and Headers				1	
☐ b. Insulated Engineered Headers		1			
☐ c. Wood I-Joists or Web Trusses for Floors				1	
☐ d. Wood I-Joists or Rafters				1	
☐ e. Engineered or Finger-Jointed Studs for Vertical Applications				1	
3. Use FSC-Certified Wood					
☐ a. Dimensional Studs: Minimum 40%				2	
☐ b. Dimensional Studs: Minimum 70%				2	
☐ c. Panel Products: Minimum 40%				1	
☐ d. Panel Products: Minimum 70%				1	
☐ 4. Design Energy Heels on Trusses (75% of Attic Insulation Height at Outside Edge of Exterior Wall)		1			
☐ 5. Design Trusses to Accommodate Ductwork		1			
6. Use Oriented Strand Board (OSB)					
☐ a. Subfloor				1	
☐ b. Sheathing				1	
☐ 7. Use Recycled-Content Steel Studs for 90% of Interior Wall Framing				1	
8. Use Solid Wall Systems (Includes SIPs, ICFs, & Any Non-Stick Frame Assembly)					
☐ a. Floors		2		2	
☐ b. Walls		2		2	
☐ c. Roofs		2		2	
☐ 9. Thermal Mass Walls: 5/8-Inch Drywall on All Interior Walls or Walls Weigh more than 40 lb/cu.ft.		1			
10. Design and Build Structural Pest Controls					
☐ a. Install Termite Shields & Separate All Exterior Wood-to-Concrete Connections by Metal or Plastic Fasteners/Dividers				1	
☐ b. All New Plants Have Trunk, Base, or Stem Located At Least 36 Inches from Foundation				1	
11. Reduce Pollution Entering the Home from the Garage					
☐ a. Tightly Seal the Air Barrier between Garage and Living Area			1		
☐ b. Install Separate Garage Exhaust Fan			1		
12. Install Overhangs and Gutters					
☐ a. Minimum 16-Inch Overhangs and Gutters				1	
☐ b. Minimum 24-Inch Overhangs and Gutters		1			

E. EXTERIOR FINISH	Possible Points				
☐ 1. Use Recycled-Content (No Virgin Plastic) or FSC-Certified Wood Decking				2	
☐ 2. Install a Drainage Plane (Rain Screen Wall System)				2	
☐ 3. Use Durable and Non-Combustible Siding Materials				1	
☐ 4. Select Durable and Non-Combustible Roofing Materials				2	

F. PLUMBING	Possible Points				
1. Distribute Domestic Hot Water Efficiently					
☐ a. Insulate Hot Water Pipes from Water Heater to Kitchen					1
☐ b. Insulate All Hot Water Pipes OR Install On-Demand Hot Water Circulation System in conjunction with F.1.a Insulate Hot Water Pipes from Water Heater to Kitchen		1			1
☐ c. Locate the Water Heater within 25 feet of All Hot Water Fixtures and Appliances					1
☐ d. Use Engineered Parallel Piping					1
☐ 2. Install Only High Efficiency Toilets (Dual-Flush or <=1.3 gpf)					3

G. APPLIANCES	Possible Points				
1. Install ENERGY STAR Dishwasher					
☐ a. ENERGY STAR		1			
☐ b. Dishwasher Uses No More than 6.5 Gallons/Cycle		1			1
☐ 2. Install ENERGY STAR Clothes Washing Machine with Water Factor of 6 or Less		1			3
3. Install ENERGY STAR Refrigerator					
☐ a. ENERGY STAR: 15% above Federal Minimum		1			
☐ b. Super-Efficient Home Appliance Tier 2: 25% above Federal Minimum		1			
☐ 4. Install Built-In Recycling Center				2	

ENTER PROJECT NAME	Community	Energy	IAQ/Health	Resources	Water
H. INSULATION	Possible Points				
1. Install Insulation with 75% Recycled Content					
☐ a. Walls and/or Floors				1	
☐ b. Ceilings				1	
2. Install Insulation that is Low-Emitting (Certified Section 01350)					
☐ a. Walls and/or Floors			1		
☐ b. Ceilings			1		
☐ 3. Pre-Drywall Inspection Shows Quality Installation of Insulation		1			
I. HEATING, VENTILATION & AIR CONDITIONING	Possible Points				
☐ 1. Design and Install HVAC System to ACCA Manual J, D, and S Recommendations		4			
2. Install Sealed Combustion Units					
☐ a. Furnaces			2		
☐ b. Water Heaters			2		
☐ 3. No Fireplace or Sealed Gas Fireplace with Efficiency Rating Not Less Than 60%			1		
☐ 4. Install ENERGY STAR Ceiling Fans with CFLs in Living Areas and Bedrooms		1			
5. Install Mechanical Ventilation System for Nighttime Cooling (Points are Cumulative up to 3)					
☐ a. Whole House Fan		1			
☐ b. Automatically Controlled Integrated System		2			
☐ c. Integrated System with Variable Speed Control		3			
☐ 6. Install Air Conditioning with Non-HCFC Refrigerants	1				
7. Design and Install Effective Ductwork					
☐ a. Install HVAC Unit and Ductwork within Conditioned Space		3			
☐ b. Use Duct Mastic on All Duct Joints and Seams		1			
☐ c. Install Ductwork under Attic Insulation (Buried Ducts)		1			
☐ d. Pressure Balance the Ductwork System for Master Bedroom		1			
☐ e. Protect Ducts during Construction and Clean All Ducts before Occupancy			1		
☐ 8. Install High Efficiency HVAC Filter (MERV 6+)			1		
☐ 9. Install Zoned, Hydronic Radiant Heating with Slab Edge Insulation		1	1		
10. Install Mechanical Ventilation System					
☐ a. Any Whole House Ventilation System That Meets ASHRAE 62.2		1	2		
☐ b. Install ENERGY STAR Bathroom Fan			1		
☐ c. All Bathroom Fans Are on Timer or Humidistat			1		
☐ 11. Use Low-Sone Range Hood Vented to the Outside			1		
☐ 12. Install Carbon Monoxide Alarm(s)			1		
J. BUILDING PERFORMANCE	Possible Points				
0% 1. Design and Build High Performance Homes (2 points for each 1% above T-24, up to 30 pts) *Enter the percent above Title 24 in the cell at left. Any value over 15% will automatically earn 30 points.*		30			
☐ 2. House Obtains ENERGY STAR with Indoor Air Package Certification			5	2	
3. Inspection and Diagnostic Evaluations					
☐ a. Third Party Energy and Green Building Review of Home Plans		1	1	1	
☐ b. Blower Door Test Performed		1			
☐ c. House Passes Combustion Safety Backdraft Test			1		
K. RENEWABLE ENERGY	Possible Points				
☐ 1. Pre-Plumb for Solar Hot Water Heating		4			
☐ 2. Install Solar Water Heating System		10			
☐ 3. Install Wiring Conduit for Future Photovoltaic Installation & Provide 200 ft^2 of South-Facing Roof		2			
4. Install Photovoltaic (PV) Panels					
☐ a. 1.2 kW System		6			
☐ b. 2.4 kW System		6			
☐ c. 3.6 kW or more		6			

ENTER PROJECT NAME	Community	Energy	IAQ/Health	Resources	Water
L. FINISHES	Possible Points				
☐ 1. Provide Permanent Walk-Off Mats and Shoe Storage at Home Entrances			1		
2. Use Low/No-VOC Paint					
☐ a. Low-VOC Interior Wall/Ceiling Paints (<50 gpl VOCs (Flat) and <150 gpl VOCs (Non-Flat))			1		
☐ b. Zero-VOC: Interior Wall/Ceiling Paints (<5 gpl VOCs (Flat))			3		
☐ 3. Use Low VOC, Water-Based Wood Finishes (<150 gpl VOCs)			2		
☐ 4. Use Low-VOC Construction Adhesives (<70 gpl VOCs) for All Adhesives			2		
☐ 5. Use Recycled-Content Paint				1	
6. Use Environmentally Preferable Materials for Interior Finish: A) FSC-Certified Wood, B) Reclaimed Lumber, C) Rapidly Renewable D) Recycled-Content or E) Finger-Jointed					
At Least 50% of Each Material (1 pt each):					
☐ a. Cabinets				1	
☐ b. Interior Trim				1	
☐ c. Shelving				1	
☐ d. Doors				1	
☐ e. Countertops				1	
7. Reduce Formaldehyde in Interior Finish (Section 01350) for At Least 50% of Each Material Below:					
☐ a. Cabinets			1		
☐ b. Interior Trim			1		
☐ c. Shelving			1		
☐ d. Subfloor			1		
☐ 8. After Installation of Finishes, Test of Indoor Air Shows Formaldehyde Level <27ppb			3		

M. FLOORING	Possible Points				
1. Use Environmentally Preferable Flooring: A) FSC-Certified or Reclaimed Wood, B) Rapidly Renewable Flooring Materials, C) Recycled-Content Ceramic Tiles, D) Exposed Concrete as Finished Floor or E) Recycled-Content Carpet. *Note: Flooring Adhesives Must Have <50 gpl VOCs.*					
☐ a. Minimum 15% of Floor Area				1	
☐ b. Minimum 30% of Floor Area				1	
☐ c. Minimum 50% of Floor Area				1	
☐ d. Minimum 75% of Floor Area				1	
☐ 2. Thermal Mass Floors: Floor Covering Other than Carpet on 50% or More of Concrete Floors		1			
☐ 3. Flooring Meets Section 01350 or CRI Green Label Plus Requirements (50% Minimum)			2		

N. OTHER	Possible Points				
☐ *1. Incorporate Green Points Checklist in Blueprints - Required*				R	
☐ 2. Develop Homeowner Manual of Green Features/Benefits		1	1		1
3. Community Design Measures & Local Priorities: See the Community Planning & Design section in Chapter 4 of the New Home Guidelines for measures. Maximum of 20 points for suggested measures. Local requirements may also be listed here.					
0 Enter description here					
0 Enter description here					
0 Enter description here					
0 Enter description here					
4. Innovation: List innovative measures that meet the green building objectives of the Guidelines. Enter up to a maximum combined total of 20 pts. See Innovation Checklist for suggested measures.					
0 Innovation in Community: Enter description here					
0 Innovation in Energy: Enter description here					
0 Innovation in IAQ/Health: Enter description here					
0 Innovation in Resources: Enter description here					
0 Innovation in Water: Enter description here					

Summary

	Community	Energy	IAQ/Health	Resources	Water
Points Achieved from Specific Categories	0	0	0	0	0
Total Points Achieved	0				

Project has not yet met the recommended minimum requirements

- *Total Project Score of At Least 50 Points*
- *Minimum points in specific categories: Energy (11), IAQ/Health (5), Resources (6), Water (3)*
- *Required measures A.3.a and/or N.1*

Multifamily GreenPoint Checklist

Multifamily GreenPoint Checklist

Build It Green
Smart Solutions From The Ground Up

Current Point Total	0

0	0	0	0	0

The GreenPoint Rated checklist tracks green features incorporated into the home. The recommended minimum requirements for a green home are: Earn a total of 50 points or more; obtain the following minimum points per category: Community (6), Energy (30), Indoor Air Quality/Health (5), Resources (6), and Water (3); and meet the prerequisites B.1.a (50% construction waste diversion), A.8 (exceed Title 24 requirements by 15%), C.10.a (3-year subcontractor guarantee and 20-year manufacturer warranty for shingle roofing), and F.1 (incorporate Green Points checklist in blueprints).

Build It Green is a non-profit organization providing the GreenPoint Rated program as a public service. Build It Green encourages local governments to leverage program resources to support voluntary, market-based programs and strategies.

The green building practices listed below are described in greater detail in the Multifamily Green Building Guidelines, available at www.builditgreen.org/greenpoint-rated/guidelines

Enter Total Conditioned Floor Area of the Project:	**10,000**
Enter Total Non-Residential Floor Area of Project:	
Percent of Project Dedicated to Residential Use	**100%**

ENTER PROJECT NAME	Community	Energy	IAQ/Health	Resources	Water
A. PLANNING & DESIGN	Possible Points				
1. Infill Sites					
☐ a. Project is Located Within an Urban Growth Boundary & Avoids Environmentally Sensitive Sites	1				
☐ b. Project Includes the Redevelopment of At Least One Existing Building				1	
0 c. Housing Density of 15 Units Per Acre or More (1 pt for every 5 u/a) *Enter Project Density Number (In Units Per Acre)*	10				
☐ d. Locate Within Existing Community that has Sewer Line & Utilities in Place	1				
☐ e. Project Redevelops a Brownfield Site or is Designated a Redevelopment Area by a City	1				
f. Site has Pedestrian Access Within ½ Mile to Neighborhood Services (1 Pt for 5 Or More, 2 Pts for 10 Or More):					
☐ 1) Bank ☑ 2) Place of Worship ☐ 3) Full Scale Grocery/Supermarket	2				
☐ 4) Day Care ☑ 5) Cleaners ☐ 6) Fire Station					
☐ 7) Hair Care ☑ 8) Hardware ☐ 9) Laundry					
☐ 10) Library ☐ 11) Medical/Dental ☐ 12) Senior Care Facility					
☐ 13) Public Park ☐ 14) Pharmacy ☐ 15) Post Office					
☐ 16) Restaurant ☐ 17) School ☐ 18) After School Programs					
☐ 19) Commercial Office ☐ 20) Community Center ☐ 21) Theater/Entertainment					
☐ 22) Convenience Store Where Meat & Produce are Sold.					
g. Proximity to Public Transit					
Development is Located Within:					
☐ 1/4 Mile of One Planned or Current Bus Line Stop	1				
☐ 1/4 Mile of Two or More Planned or Current Bus Line Stops	1				
☐ 1/2 Mile of a Commuter Train/Light Rail Transit System	1				
h. Reduced Parking Capacity:					
☐ Less than 1.5 Parking Spaces Per Unit	1				
☐ Less than 1.0 Parking Spaces Per Unit	1				
2. Mixed-Use Developments					
☐ a. At least 2% of Development Floorspace Supports Mixed Use (Non-Residential Tenants)	1				
☐ b. Half of Above Non-Residential Floorspace is Dedicated to Neighborhood Services	1				
3. Building Placement & Orientation					
☐ a. Protect Soil & Existing Plants & Trees	1				
4. Design for Walking & Bicycling					
☐ a. Sidewalks Are Physically Separated from Roadways & Are 5 Feet Wide	1				
☐ b. Traffic Calming Strategies Are Installed by the Developer	1				
☐ c. Provide Dedicated, Covered & Secure Bicycle Storage for 15% of Residents	1				
☐ d. Provide Secure Bicycle Storage for 5% of Non-Residential Tenant Employees & Visitors	1				
5. Social Gathering Places					
☐ a. Outdoor Gathering Places for Residents (Average of 50 sf Per Unit Or More)	1				
☐ b. Outdoor Gathering Places Provide Natural Elements *(For compact sites only)*	1				
6. Design for Safety and Natural Surveillance					
☐ a. All Main Entrances to the Building and Site are Prominent and Visible from the Street	1				
☐ b. Residence Entries Have Views to Callers (Windows or Double Peep Holes) & Can Be Seen By Neighbors	1				

ENTER PROJECT NAME	Community	Energy	IAQ/Health	Resources	Water
7. Landscaping					
☐ *Check here if the landscape area is <10% of the total site area.* *Projects with <10% landscape area can cnly check up to 3 boxes in this section.*					
☐ a. No Plant Species will Require Shearing				1	
☐ b. No plantings are Listed on the Invasive Plant Inventory by the California Invasive Plant Council				1	
☐ c. Specify Drought-tolerant California Natives, Mediterranean or Other Appropriate Species					1
d. Create Drought Resistant Soils:					
☐ i. Mulch All Planting Beds to a Depth of 2 Inches or Greater as Per Local Ordinance					1
☐ ii. Amend with 1 Inch of Compost or as per Soil Analysis to Reach 3.5% Soil Organic Matter					1
e. Design & Install High-Efficiency Irrigation System					
☐ i. Specify Smart (Weather-Based) Irrigation Controllers					1
☐ ii. Specify Drip, Bubblers or Low-Flow Sprinklers for All Non Turf Landscape Areas					1
☐ f. Group Plants by Water Needs (Hydrozones) in Planting Plans & Identify Hydrozones on Irrigation Plans					1
g. Minimize Turf in Landscape Installed by Builder					
☐ i. Do Not Specify Turf on Slopes Exceeding 10% or in Areas Less Than 8 Feet Wide					1
☐ ii. Less Than 33% of All Landscaped Area is Specified as Turf AND All Turf has Water Requirement <= To Tall Fescue					1
8. Building Performance Exceeds Title 24 by at least 15%-*Required*					
Enter the Percent Above the 2005 Version of Title 24 for Residential and Non-Residential Portions of the Project.					
0% a. Residences: 2 Points for Every 1% Above 2005 T24					
0% b. Non-Residential Spaces: 2 Points for Every 1% Above 2005 T24		0			
9. Cool Site					
☐ a. At least 30% of the Site Includes Cool Site Techniques	1				
10. Adaptable Buildings					
a. Include Universal Design Principles in Units					
☐ 50% of Units	1				
☐ 80% of Units	1				
☐ b. Live/Work Units Include A Dedicated Commercial Entrance	1				
11. Affordability					
a. A Percentage of Units are Dedicated to Households Making 80% or Less of AMI					
☐ 10% of All Units	1				
☐ 20%	1				
☐ 30%	1				
☐ 50% or More	1				
☐ b. Development Includes Multiple Bedroom Units (At least 1 Unit with 3BR or More at or Less Than 80% AMI)	2				

B. SITEWORK	Possible Points				
1. Construction & Demolition Waste Management					
Divert a Portion of all Construction & Demolition Waste:					
☐ a. *Required* : Divert 50%				R	
☐ b. Divert 65%				2	
☐ c. Divert 80% or more				2	
2. Construction Material Efficiencies					
☐ a. Lumber is Delivered Pre-Cut from Supplier (80% or More of Total Board Feet)				1	
b. Components of the Project Are Pre-Assembled Off-Site & Delivered to the Project					
☐ 25% of Total Square Footage				2	
☐ 50% of Total Square Footage				2	
☐ 75% of Total Square Footage or More				2	
3. Construction Indoor Air Quality (IAQ) Management Plan					
☐ a. An IAQ Management Plan is Written & Followed for the Project			2		

C. STRUCTURE	Possible Points				
1. Recycled Aggregate					
☐ a. Minimum 25% Recycled Aggregate (Crushed Concrete) for Fill, Backfill & Other Uses				1	
2. Recycled Flyash in Concrete					
a. Flyash or Slag is Used to Displace a Portion of Portland Cement in Concrete					
☐ 20%				1	
☐ 30% or More				1	

ENTER PROJECT NAME	Community	Energy	IAQ/Health	Resources	Water
3. FSC-Certified Wood for Framing Lumber					
a. FSC-Certified Wood for a Percentage of All Dimensional Studs:					
☐ 40%				2	
☐ 70%				2	
b. FSC-Certified Panel Products for a Percentage of All Sheathing (OSB & Plywood):					
☐ 40%				1	
☐ 70%				1	
4. Engineered Lumber or Steel Studs, Joists, Headers & Beams					
☐ a. 90% or More of All Floor & Ceiling Joists				1	
☐ b. 90% or More of All Studs				2	
☐ c. 90% or More of All Headers & Beams				2	
5. Optimal Value Engineering Framing					
☐ a. Studs at 24" Centers on Top Floor Exterior Walls &/or All Interior Walls				1	
☐ b. Door & Window Headers Sized for Load				1	
☐ c. Use Only Jack & Cripple Studs Required for Load				1	
6. Steel Framing					
☐ a. Mitigate Thermal Bridging by Installing Exterior Insulation (At Least 1-Inch of Rigid Foam)		2			
7. Structural Insulated Panels (SIPs) Or Other Solid Wall Systems					
a. SIPs Or Other Solid Wall Systems are Used for 80% of All:					
☐ Floors		2		2	
☐ Walls		2		2	
☐ Roofs		2		2	
8. Raised Heel Roof Trusses					
☐ a. 75% of All Roof Trusses Have Raised Heels		1			
9. Insulation					
☐ a. All Ceiling, Wall & Floor Insulation is 01350 Certified OR Contains No Added Formaldehyde			1		
☐ b. All Ceiling, Wall & Floor Insulation Has a Recycled Content of 50% or More				1	
10. Durable Roofing Options					
☐ a. *Required:* No Shingle Roofing OR All Shingle Roofing Has 3-Yr Subcontractor Guarantee & 20-Yr Manufacturer Warranty				R	
☐ b. All Sloped Roofing Materials Carry a 40-Year Manufacturer Warranty				1	
11. Moisture Shedding & Mold Avoidance					
☐ a. Building(s) Include a Definitive Drainage Plane Under Siding				4	
☐ b. ENERGY STAR Bathroom Fans are Supplied in All Bathrooms, Are Exhausted to the Outdoors & Are Equipped with Controls				1	
☐ c. A Minimum of 80% of Kitchen Range Hoods Are Vented to the Exterior			1		
12. Green Roofs					
a. A Portion of the Low-Slope Roof Area is Covered By A Vegetated or "Green" Roof					
☐ 25%	2				2
☐ 50% or More	2				2

D. SYSTEMS	Possible Points				
1. Passive Solar Heating					
☐ a. Orientation: At Least 40% of the Units Face Directly South		2			
☐ b. Shading On All South-Facing Windows Allow Sunlight to Penetrate in Winter, Not in Summer		1			
☐ c. Thermal Mass: At Least 50% of the Floor Area Directly Behind South-Facing Windows is Massive		2			
2. Radiant Hydronic Space Heating					
☐ a. Install Radiant Hydronic Space Heating for IAQ purposes (No Forced Air) in All Residences			2		
3. Solar Water Heating					
☐ a. Pre-Plumb for Solar Hot Water		1			
☐ b. Install Solar Hot Water System for Preheating DHW		4			
4. Air Conditioning with Advanced Refrigerants					
☐ a. Install Air Conditioning with Non-HCFC Refrigerants	1				
5. Advanced Ventilation Practices					
Perform the Following Practices in Residences:					
☐ a. Infiltration Testing by a C-HERS Rater for Envelope Sealing & Reduced Infiltration		2			
☐ b. Operable Windows or Skylights Are Placed To Induce Cross Ventilation (At Least One Room In 80% of Units)		1	1		
☐ c. Ceiling Fans in Every Bedroom & Living Room OR Whole House Fan is Used		1			
6. Garage Ventilation					
☐ a. Garage Ventilation Fans Are Controlled by Carbon Monoxide Sensors (Passive Ventilation Does Not Count)			1		

ENTER PROJECT NAME	Community	Energy	IAQ/Health	Resources	Water
7. Low-Mercury Lamps					
☐ a. Low-Mercury Products Are Installed Wherever Linear Fluorescent Lamps Are Used				1	
☐ b. Low-Mercury Products Are Installed Wherever Compact Fluorescent Lamps Are Used				2	
8. Light Pollution Reduction					
☐ a. Exterior Luminaires Emit No Light Above Horizontal OR Are Dark Sky Certified	1				
☐ b. Control light Trespass Onto Neighboring Areas Through Appropriate Fixture Selection & Placement	1				
9. Onsite Electricity Generation					
☐ a. Pre-Wire for Photovoltaics & Plan for Space (Clear Areas on Roof & in Mechanical Room)				1	
b. Install Photovoltaics to Offset a Percent of the Project's Total Estimated Electricity Demand					
☐ 10%	2	2			
☐ 20%	2	2			
☐ 30% or more	2	2			
☐ c. Educational Display is Provided in a Viewable Public Area	1				
10. Elevators					
☐ a. Gearless Elevators Are Installed		1			
11. ENERGY STAR® Appliances					
a. Install ENERGY STAR Refrigerators in All Locations					
☐ ENERGY STAR-Qualified		1			
☐ ACEEE-Listed Refrigerators		1			
b. Install ENERGY STAR Dishwashers in All Locations					
☐ All Dishwashers Are ENERGY STAR-qualified		1			
☐ Residential-grade Dishwashers Use No More than 6.5 Gallons Per Cycle		1			1
☐ c. Install ENERGY STAR Clothes Washers In All Locations		1			2
☐ d. Install Ventless Natural Gas Clothes Dryers in Residences			1		
12. Central Laundry					
☐ a. Central Laundry Facilities Are Provided for All Occupants				1	
13. Water-Efficient Fixtures					
☐ a. All Showerheads Use 2.0 Gallons Per Minute (gpm) or Less		1			1
b. High-Efficiency Toilets Use 1.28 gpf or Less or Are Dual Flush					
☐ In All Residences					3
☐ In All Non-Residential Areas					3
c. Install High Efficiency Urinals (0.5 gpf or less) or No-Water Urinals Wherever Urinals Are Specified:					
☐ Average flush rate is 0.5 gallons per flush or less					1
☐ Average flush rate is 0.1 gallons per flush or less					1
d. Flow Limiters Or Flow Control Valves Are Installed on All Faucets					
☐ Residences: Kitchen - 2.0 gpm or less		1			1
☐ Non-Residential Areas: Kitchen - 2.0 gpm or less		0			0
☐ Residences: Bathroom Faucets- 1.5 gpm or less		1			1
☐ Non-Residential Areas: Bathroom Faucets - 1.5 gpm or less		0			0
☐ e. Non-Residential Areas: Install Pre-Rinse Spray Valves in Commercial Kitchens - 1.6 gpm or less					1
14. Source Water Efficiency					
☐ a. Use Recycled Water for Landscape Irrigation or to Flush Toilets/Urinals					2
☐ b. Use Captured Rainwater for Landscape Irrigation or to Flush 5% of Toilets &/or Urinals					4
☐ c. Water is Submetered for Each Residential Unit & Non-Residential Tenant					4

E. FINISHES AND FURNISHINGS	Possible Points				
1. Construction Indoor Air Quality Management					
☐ a. Perform a 2-Week Whole Building Flush-Out Prior to Occupancy			1		
2. Entryways					
☐ a. Provide Permanent Walk-Off Mats and Shoe Storage at All Home Entrances			1		
☐ b. Permanent Walk-Off Systems Are Provided at All Main Building Entrances & In Common Areas			1		
3. Recycling & Waste Collection					
☐ a. Residences: Provide Built-In Recycling Center In Each Unit				2	

ENTER PROJECT NAME	Community	Energy	IAQ/Health	Resources	Water
4. Use Low/No-VOC Paints & Coatings					
a. Low-VOC Interior Paints (<50 gpl VOCs (Flat) and <150 gpl VOCs (Non-Flat))					
☐ In All Residences			1		
☐ In All Non-Residential Areas:			0		
b. Zero-VOC: InteriorPaints (<5 gpl VOCs (Flat))					
☐ In All Residences			1		
☐ In All Non-Residential Areas:			0		
c. Wood Coatings Meet the Green Seal Standards for Low-VOCs					
☐ In All Residences			2		
☐ In All Non-Residential Areas:			0		
d. Wood Stains Meet the Green Seal Standards for Low-VOCs					
☐ In All Residences			2		
☐ In All Non-Residential Areas:			0		
5. Use Recycled Content Exterior Paint					
☐ a. Use Recycled Content Paint on 50% of All Exteriors				1	
6. Low-VOC Construction Adhesives					
☐ a. Use Low-VOC Construction Adhesives (<70 gpl VOCs) for All Adhesives			1		
7. Environmentally Preferable Materials for Interior Finish					
Use Environmentally Preferable Materials for Interior Finish: A) FSC-Certified Wood, B) Reclaimed Lumber, C) Rapidly Renewable D) Recycled-Content or E) Finger-Jointed					
a. Residences: At Least 50% of Each Material:					
☐ i. Cabinets				1	
☐ ii. Interior Trim				1	
☐ iii. Shelving				1	
☐ iv. Doors				1	
☐ v. Countertops				1	
b. Non-Residential Areas: At Least 50% of Each Material:					
☐ i. Cabinets				0	
☐ ii. Interior Trim				0	
☐ iii. Shelving				0	
☐ iv. Doors				0	
☐ v. Countertops				0	
8. Reduce Formaldehyde in Interior Finish Materials					
Reduce Formaldehyde in Interior Finish Materials (Section 01350) for At Least 50% of Each Material Below:					
a. Residences:					
☐ i. Cabinets			1		
☐ ii. Interior Trim			1		
☐ iii. Shelving			1		
☐ iv. Subfloor			1		
b. Non-Residential Areas:					
☐ i. Cabinets			0		
☐ ii. Interior Trim			0		
☐ iii. Shelving			0		
☐ iv. Subfloor			0		
9. Environmentally Preferable Flooring					
Use Environmentally Preferable Flooring: A) FSC-Certified or Reclaimed Wood, B) Rapidly Renewable Flooring Materials, C) Recycled-Content Ceramic Tiles, D) Exposed Concrete as Finished Floor or E) Recycled-Content Carpet. Note: Flooring Adhesives Must Have <50 gpl VOCs.					
a. Residences:					
☐ i. Minimum 15% of Floor Area				1	
☐ ii. Minimum 30% of Floor Area				1	
☐ iii. Minimum 50% of Floor Area				1	
☐ iv. Minimum 75% of Floor Area				1	
b. Non-Residential Areas:					
☐ i. Minimum 15% of Floor Area				0	
☐ ii. Minimum 30% of Floor Area				0	
☐ iii. Minimum 50% of Floor Area				0	
☐ iv. Minimum 75% of Floor Area				0	
10. Low-Emitting Flooring					
☐ a. Residences: Flooring Meets Section 01350 or CRI Green Label Plus Requirements (50% Minimum)			1		
☐ b. Non-Residential Areas: Flooring Meets Section 01350 or CRI Green Label Plus Requirements (50% Minimum)			0		

ENTER PROJECT NAME	Community	Energy	IAQ/Health	Resources	Water
11. Durable Cabinets					
Install Durable Cabinets in All:					
☐ a. Residences				1	
☐ b. Non-Residential Areas				0	
12. Furniture & Outdoor Play Structures					
☐ a. Play Structures & Surfaces Have an Overall Average Recycled Content Greater Than 20%				1	
☐ b. Environmentally Preferable Exterior Site Furnishings				1	
☐ c. At Least 25% of All newly Supplied Interior Furniture has Environmentally Preferable Attributes			1		
13. Vandalism Deterrence					
☐ a. Project Includes Vandalism Resistant Finishes and Strategies	1				

F. OTHER	Possible Points				
1. Incorporate GreenPoint Checklist in Blueprints					
☑ a. *Required:* Incorporate GreenPoint Checklist in Blueprints	Y				
2. Operations & Maintenance Manuals					
☐ a. Provide O&M Manual to Building Maintenance Staff		1			
☐ b. Provide O&M Manual to Occupants		1			1
3. Transit Options					
☐ a. Residents Are Offered Free or Discounted Transit Passes	2				
4. Educational Signage					
☐ a. Educational Signage Highlighting & Explaining the Project's Green Features is Included	1				
5. Vandalism Management Plan					
☐ a. Project Includes a Vandalism Management Plan for Dealing with Disturbances Post-Occupancy	1				

6. Innovation: List innovative measures that meet the green building objectives of the Multifamily Guidelines. Enter up to a 4 Points in each category. Points will be evaluated by local jurisdiction or GreenPoint rater.

0	Innovation in Community: Enter up to 4 Points at left. Enter description here
0	Innovation in Energy: Enter up to 4 Points at left. Enter description here
0	Innovation in IAQ/Health: Enter up to 4 Points at left. Enter description here
0	Innovation in Resources: Enter up to 4 Points at left. Enter description here
0	Innovation in Water: Enter up to 4 Points at left. Enter description here

Summary

Points Achieved from Specific Categories	0	0	0	0	0
Current Point Total	0				

Project has not yet met the recommended minimum requirements

- *Total Project Score of At Least 50 Points*
- *Minimum points in specific categories: Community (6), Energy (30), IAQ/Health (5), Resources (6), Water (3)*
- *Required measures B.1a, C.10a, and/or F.1a*

LEED 2009 for New Construction and Major Renovation

LEED 2009 for New Construction and Major Renovation

Project Checklist

Project Name

Date

Sustainable Sites — Possible Points: 26

Y	N	?			
Y			Prereq 1	Construction Activity Pollution Prevention	
			Credit 1	Site Selection	1
			Credit 2	Development Density and Community Connectivity	5
			Credit 3	Brownfield Redevelopment	1
			Credit 4.1	Alternative Transportation—Public Transportation Access	6
			Credit 4.2	Alternative Transportation—Bicycle Storage and Changing Rooms	1
			Credit 4.3	Alternative Transportation—Low-Emitting and Fuel-Efficient Vehicles	3
			Credit 4.4	Alternative Transportation—Parking Capacity	2
			Credit 5.1	Site Development—Protect or Restore Habitat	1
			Credit 5.2	Site Development—Maximize Open Space	1
			Credit 6.1	Stormwater Design—Quantity Control	1
			Credit 6.2	Stormwater Design—Quality Control	1
			Credit 7.1	Heat Island Effect—Non-roof	1
			Credit 7.2	Heat Island Effect—Roof	1
			Credit 8	Light Pollution Reduction	1

Water Efficiency — Possible Points: 10

Y			Prereq 1	Water Use Reduction—20% Reduction	
			Credit 1	Water Efficient Landscaping	2 to 4
			Credit 2	Innovative Wastewater Technologies	2
			Credit 3	Water Use Reduction	2 to 4

Energy and Atmosphere — Possible Points: 35

Y			Prereq 1	Fundamental Commissioning of Building Energy Systems	
Y			Prereq 2	Minimum Energy Performance	
Y			Prereq 3	Fundamental Refrigerant Management	
			Credit 1	Optimize Energy Performance	1 to 19
			Credit 2	On-Site Renewable Energy	1 to 7
			Credit 3	Enhanced Commissioning	2
			Credit 4	Enhanced Refrigerant Management	2
			Credit 5	Measurement and Verification	3
			Credit 6	Green Power	2

Materials and Resources — Possible Points: 14

Y			Prereq 1	Storage and Collection of Recyclables	
			Credit 1.1	Building Reuse—Maintain Existing Walls, Floors, and Roof	1 to 3
			Credit 1.2	Building Reuse—Maintain 50% of Interior Non-Structural Elements	1
			Credit 2	Construction Waste Management	1 to 2
			Credit 3	Materials Reuse	1 to 2

Materials and Resources, Continued

Y	N	?			
			Credit 4	Recycled Content	1 to 2
			Credit 5	Regional Materials	1 to 2
			Credit 6	Rapidly Renewable Materials	1
			Credit 7	Certified Wood	1

Indoor Environmental Quality — Possible Points: 15

Y			Prereq 1	Minimum Indoor Air Quality Performance	
Y			Prereq 2	Environmental Tobacco Smoke (ETS) Control	
			Credit 1	Outdoor Air Delivery Monitoring	1
			Credit 2	Increased Ventilation	1
			Credit 3.1	Construction IAQ Management Plan—During Construction	1
			Credit 3.2	Construction IAQ Management Plan—Before Occupancy	1
			Credit 4.1	Low-Emitting Materials—Adhesives and Sealants	1
			Credit 4.2	Low-Emitting Materials—Paints and Coatings	1
			Credit 4.3	Low-Emitting Materials—Flooring Systems	1
			Credit 4.4	Low-Emitting Materials—Composite Wood and Agrifiber Products	1
			Credit 5	Indoor Chemical and Pollutant Source Control	1
			Credit 6.1	Controllability of Systems—Lighting	1
			Credit 6.2	Controllability of Systems—Thermal Comfort	1
			Credit 7.1	Thermal Comfort—Design	1
			Credit 7.2	Thermal Comfort—Verification	1
			Credit 8.1	Daylight and Views—Daylight	1
			Credit 8.2	Daylight and Views—Views	1

Innovation and Design Process — Possible Points: 6

			Credit 1.1	Innovation in Design: Specific Title	1
			Credit 1.2	Innovation in Design: Specific Title	1
			Credit 1.3	Innovation in Design: Specific Title	1
			Credit 1.4	Innovation in Design: Specific Title	1
			Credit 1.5	Innovation in Design: Specific Title	1
			Credit 2	LEED Accredited Professional	1

Regional Priority Credits — Possible Points: 4

			Credit 1.1	Regional Priority: Specific Credit	1
			Credit 1.2	Regional Priority: Specific Credit	1
			Credit 1.3	Regional Priority: Specific Credit	1
			Credit 1.4	Regional Priority: Specific Credit	1

Total — Possible Points: 110

Certified 40 to 49 points Silver 50 to 59 points Gold 60 to 79 points Platinum 80 to 110

LEED 2009 for Core and Shell Development

LEED 2009 for Core and Shell Development

Project Checklist

Project Name

Date

Sustainable Sites — Possible Points: 28

Y	N	?			
Y			Prereq 1	Construction Activity Pollution Prevention	
			Credit 1	Site Selection	1
			Credit 2	Development Density and Community Connectivity	5
			Credit 3	Brownfield Redevelopment	1
			Credit 4.1	Alternative Transportation—Public Transportation Access	6
			Credit 4.2	Alternative Transportation—Bicycle Storage and Changing Rooms	2
			Credit 4.3	Alternative Transportation—Low-Emitting and Fuel-Efficient Vehicles	3
			Credit 4.4	Alternative Transportation—Parking Capacity	2
			Credit 5.1	Site Development—Protect or Restore Habitat	1
			Credit 5.2	Site Development—Maximize Open Space	1
			Credit 6.1	Stormwater Design—Quantity Control	1
			Credit 6.2	Stormwater Design—Quality Control	1
			Credit 7.1	Heat Island Effect—Non-roof	1
			Credit 7.2	Heat Island Effect—Roof	1
			Credit 8	Light Pollution Reduction	1
			Credit 9	Tenant Design and Construction Guidelines	1

Water Efficiency — Possible Points: 10

Y			Prereq 1	Water Use Reduction—20% Reduction	
			Credit 1	Water Efficient Landscaping	2 to 4
			Credit 2	Innovative Wastewater Technologies	2
			Credit 3	Water Use Reduction	2 to 4

Energy and Atmosphere — Possible Points: 37

Y			Prereq 1	Fundamental Commissioning of Building Energy Systems	
Y			Prereq 2	Minimum Energy Performance	
Y			Prereq 3	Fundamental Refrigerant Management	
			Credit 1	Optimize Energy Performance	3 to 21
			Credit 2	On-Site Renewable Energy	4
			Credit 3	Enhanced Commissioning	2
			Credit 4	Enhanced Refrigerant Management	2
			Credit 5.1	Measurement and Verification—Base Building	3
			Credit 5.2	Measurement and Verification—Tenant Submetering	3
			Credit 6	Green Power	2

Materials and Resources — Possible Points: 13

Y	N	?			
Y			Prereq 1	Storage and Collection of Recyclables	
			Credit 1	Building Reuse—Maintain Existing Walls, Floors, and Roof	1 to 5
			Credit 2	Construction Waste Management	1 to 2
			Credit 3	Materials Reuse	1
			Credit 4	Recycled Content	1 to 2
			Credit 5	Regional Materials	1 to 2
			Credit 6	Certified Wood	1

Indoor Environmental Quality — Possible Points: 12

Y			Prereq 1	Minimum Indoor Air Quality Performance	
Y			Prereq 2	Environmental Tobacco Smoke (ETS) Control	
			Credit 1	Outdoor Air Delivery Monitoring	1
			Credit 2	Increased Ventilation	1
			Credit 3	Construction IAQ Management Plan—During Construction	1
			Credit 4.1	Low-Emitting Materials—Adhesives and Sealants	1
			Credit 4.2	Low-Emitting Materials—Paints and Coatings	1
			Credit 4.3	Low-Emitting Materials—Flooring Systems	1
			Credit 4.4	Low-Emitting Materials—Composite Wood and Agrifiber Products	1
			Credit 5	Indoor Chemical and Pollutant Source Control	1
			Credit 6	Controllability of Systems—Thermal Comfort	1
			Credit 7	Thermal Comfort—Design	1
			Credit 8.1	Daylight and Views—Daylight	1
			Credit 8.2	Daylight and Views—Views	1

Innovation and Design Process — Possible Points: 6

			Credit 1.1	Innovation in Design: Specific Title	1
			Credit 1.2	Innovation in Design: Specific Title	1
			Credit 1.3	Innovation in Design: Specific Title	1
			Credit 1.4	Innovation in Design: Specific Title	1
			Credit 1.5	Innovation in Design: Specific Title	1
			Credit 2	LEED Accredited Professional	1

Regional Priority Credits — Possible Points: 4

			Credit 1.1	Regional Priority: Specific Credit	1
			Credit 1.2	Regional Priority: Specific Credit	1
			Credit 1.3	Regional Priority: Specific Credit	1
			Credit 1.4	Regional Priority: Specific Credit	1

Total — Possible Points: 110

Certified 40 to 49 points Silver 50 to 59 points Gold 60 to 79 points Platinum 80 to 110

LEED 2009 for Commercial Interiors

LEED 2009 for Commercial Interiors

Project Checklist

Project Name

Date

Sustainable Sites — Possible Points: 21

Y	N	?			
			Credit 1	Site Selection	1 to 5
			Credit 2	Development Density and Community Connectivity	6
			Credit 3.1	Alternative Transportation—Public Transportation Access	6
			Credit 3.2		2
			Credit 3.3	Alternative Transportation—Parking Availability	2

Water Efficiency — Possible Points: 11

Y	N	?			
Y			Prereq 1	Water Use Reduction—20% Reduction	
			Credit 1	Water Use Reduction	6 to 11

Energy and Atmosphere — Possible Points: 37

Y	N	?			
Y			Prereq 1	Fundamental Commissioning of Building Energy Systems	
Y			Prereq 2	Minimum Energy Performance	
Y			Prereq 3	Fundamental Refrigerant Management	
			Credit 1.1	Optimize Energy Performance—Lighting Power	1 to 5
			Credit 1.2	Optimize Energy Performance—Lighting Controls	1 to 3
			Credit 1.3	Optimize Energy Performance—HVAC	5 to 10
			Credit 1.4	Optimize Energy Performance—Equipment and Appliances	1 to 4
			Credit 2	Enhanced Commissioning	5
			Credit 3	Measurement and Verification	2 to 5
			Credit 4	Green Power	5

Materials and Resources — Possible Points: 14

Y	N	?			
Y			Prereq 1	Storage and Collection of Recyclables	
			Credit 1.1	Tenant Space—Long-Term Commitment	1
			Credit 1.2	Building Reuse	1 to 2
			Credit 2	Construction Waste Management	1 to 2
			Credit 3.1	Materials Reuse	1 to 2
			Credit 3.2	Materials Reuse—Furniture and Furnishings	1
			Credit 4	Recycled Content	1 to 2
			Credit 5	Regional Materials	1 to 2
			Credit 6	Rapidly Renewable Materials	1
			Credit 7	Certified Wood	1

Indoor Environmental Quality — Possible Points: 17

Y	N	?			
Y			Prereq 1	Minimum IAQ Performance	
Y			Prereq 2	Environmental Tobacco Smoke (ETS) Control	
			Credit 1	Outdoor Air Delivery Monitoring	1
			Credit 2	Increased Ventilation	1
			Credit 3.1	Construction IAQ Management Plan—During Construction	1
			Credit 3.2	Construction IAQ Management Plan—Before Occupancy	1
			Credit 4.1	Low-Emitting Materials—Adhesives and Sealants	1
			Credit 4.2	Low-Emitting Materials—Paints and Coatings	1
			Credit 4.3	Low-Emitting Materials—Flooring Systems	1
			Credit 4.4	Low-Emitting Materials—Composite Wood and Agrifiber Products	1
			Credit 4.5	Low-Emitting Materials—Systems Furniture and Seating	1
			Credit 5	Indoor Chemical & Pollutant Source Control	1
			Credit 6.1	Controllability of Systems—Lighting	1
			Credit 6.2	Controllability of Systems—Thermal Comfort	1
			Credit 7.1	Thermal Comfort—Design	1
			Credit 7.2	Thermal Comfort—Verification	1
			Credit 8.1	Daylight and Views—Daylight	1 to 2
			Credit 8.2	Daylight and Views—Views for Seated Spaces	1

Innovation and Design Process — Possible Points: 6

			Credit 1.1	Innovation in Design: Specific Title	1
			Credit 1.2	Innovation in Design: Specific Title	1
			Credit 1.3	Innovation in Design: Specific Title	1
			Credit 1.4	Innovation in Design: Specific Title	1
			Credit 1.5	Innovation in Design: Specific Title	1
			Credit 2	LEED Accredited Professional	1

Regional Priority Credits — Possible Points: 4

			Credit 1.1	Regional Priority: Specific Credit	1
			Credit 1.2	Regional Priority: Specific Credit	1
			Credit 1.3	Regional Priority: Specific Credit	1
			Credit 1.4	Regional Priority: Specific Credit	1

Total — Possible Points: 110

Certified 40 to 49 points Silver 50 to 59 points Gold 60 to 79 points Platinum 80 to 110

Bay-Friendly Scorecard for Commercial & Civic Landscapes

Bay-Friendly Scorecard for Commercial & Civic Landscapes

2008 Version

This scorecard tracks Bay-Friendly features incorporated into the design and constructon of new landscapes. The minimum requirements for a Bay-Friendly Landscape are: earn a total of 60 points or more; and complete the 9 required practices indicated by the "R" in the columns labeled "Possible Points."

	Landscape Locally	Less to Landfill	Nurture the Soil	Conserve Water	Conserve Energy	Water and Air Quality	Create Wildlife Habitat
A. Site Planning	**POSSIBLE POINTS**						
1. Select and evaluate the site carefully							
a. Submit the completed Bay-Friendly Site Analysis before 100% design development documents	5						
b. The site is located within an urban growth boundary and avoids environmentally sensitive sites	3						
c. The site development results in the clean up of a contaminated site (i.e. brownfield) or is in a designated redevelopment area						3	
2. Consider the potential for fire							
a. For sites adjacent to fire sensitive open space or wildlands only: Submit a Fire Mitigation Plan	5						
3. Keep plant debris on site							
a. Produce mulch from plant debris							
i. Design documents specify areas under tree & shrub canopies and at least 10 feet away from hard surfaces and storm drains, to be used as a leaf repository for mulch		1					
ii. Construction documents specify that of the trees identified for removal, some are chipped for use as mulch onsite		1					
b. Produce compost from plant debris							
i. A site for composting is included in landscape plans. Systems for composting up to and including 3 cubic yards at one time		1					
ii. Systems for composting more than 3 and up to 10 yards at one time (total 2 points)		1					
iii. Systems 10 cubic yards or larger (total 3 points)		1					
4. Reduce and recycle waste							
a. An easily accessible area is dedicated to the collection and storage of materials for recycling		2					
5. Minimize site disturbance							
a. On greenfield sites, limit site disturbance to protect topography, vegetation and hydrology (total 3 points)	1					1	1
b. On previously developed sites, restore vegetation and hydrology (total 3 points)	1					1	1
6. Provide water and/or shelter for wildlife such as birdhouse, bathouses, boulders, logs, wood piles, large native shrubs or trees							1
7. Conserve or restore natural areas & wildlife corridors							
a. The landscape is designed to preserve 80% of existing mature healthy trees and penalties for destruction of protected trees are included in construction contract							2
b. The landscape is designed to increase open space compared to its previous use and/or to connect it to other open space or wildlife corridors							2
c. Create or protect a diverse plant buffer of low maintenance vegetation along creeks, shorelines or monocultured landscaped areas							2
Site Planning Subtotal, out of possible 33 points:							

	Landscape Locally	Less to Landfill	Nurture the Soil	Conserve Water	Conserve Energy	Water and Air Quality	Create Wildlife Habitat
B. Stormwater and Site Drainage	**POSSIBLE POINTS**						
1. Minimize impervious surfaces							
a. Permeable paving, gravel or other porous surfaces are installed for							
i. 25% OR						1	
ii. 33% (total 3 ponts) OR						2	
iii. 50% of the paved area (total 5 points)						2	
b. No impervious surfaces directly connect to the storm drain						2	
2. Design a system to capture and filter storm water							
a. Capture and filter runoff from parking lots into landscape beds, vegetated swales or other landscape stormwater bmps						2	
b. Incorporate landscape measures,including vegetated swales, infiltration planters, detention basins and/or stormwater wetlands, that are designed to capture and filter 85% of average annual stormwater runoff OR						2	
c. Designed to capture and filter 100% of average annual runoff (total 4 points)						2	
d. Bioswales specify flat bottoms of at least 18 inches across and/or rock cobble at points of concentrated flow						1	
e. Turf is not specified in bioswales						1	
f. Direct rain water from all down spouts to planters, swales or landscaped areas						1	
Stormwater and Site Drainage Subtotal, out of possible 16 points:							
C. Earthwork and Soil Health							
1. Assess the soil and test drainage							
a. Submit laboratory soil analysis results and recommendations for compost and natural fertilizers (total 3 points)	2		1				
2. Remove and store topsoil before grading							
a. The removal, temporary storage, and re-spreading of topsoil is specified in the landscape design documents AND specifications include a maximum topsoil pile height of 6 feet, as well as measures to protect the stored topsoil from erosion			2				
3. Protect soil from compaction							
a. Grading specifications and construction plans call for the installation and maintenance of fencing to prohibit parking or materials staging in areas identified for protection			2				
b. Design documents specify that soil is not worked when wet			1				
4. Aerate compacted soils							
a. Design documents include specification to alleviate compacted soils to a depth of at least 8 inches, before planting, for all landscaped areas that can not be protected during construction			1				
b. Design documents include specification to alleviate compacted soils to a depth of at least 12 inches, before planting, for all landscaped areas that can not be protected during construction (total 2 points)			1				
5. Feed soils naturally & avoid synthetic fertilizers							
a. Fertilizers or soil amendment materials prohibited by Organic Materials Research Institute in its generic materials list are prohibited in construction of the project			1				
6. Mulch							
a. **Required:** Planting specifications and plans indicate that after construction, all soil on site is protected with a minimum of 3 inches of recycled mulch			**R**				

	Landscape Locally	Less to Landfill	Nurture the Soil	Conserve Water	Conserve Energy	Water and Air Quality	Create Wildlife Habitat
	POSSIBLE POINTS						
7. Amend the soil with compost before planting							
a. Quality compost is specified as the soil amendment, at the rates indicated by a soil analysis, to bring the soil organic matter content to a minimum of:							
i. **Required:** 3.5% by dry weight OR 1 inch of quality compost OR				**R**			
ii. 5% by dry weight OR (total 2 points)				1	1		
iii. Specify the use of compost from processors that participate in the US Composting Council's Standard Testing Assurance program				1			
8. Use IPM design and construction practices to prevent pest problems							
a. Sheet mulch is specified for weed control (total 3 points)			1			2	
b. Synthetic chemical pre-emergents are prohibited						2	
9. Keep soil & organic matter where it belongs							
a. Compost berms or blankets or socks are specified for controlling erosion (total 2 points)			1			1	
Earthwork and Soil Health Subtotal, out of possible 21 points:							
D. Materials							
1. Use salvaged items & recycled content materials							
a. Non-plant landscape materials are salvaged or made from recycled content materials or FSC certified wood:							
i. Decking (100% of non structural materials)		1					
ii. Fencing (100% of non structural materials)		2					
iii. Outdoor furniture such as bike racks, benches, tables and chairs (50% minimum)		2					
iv. Planters or retaining walls (100% of either or both)		1					
v. Parking stops or lighting/sign posts (100% of either or both)		1					
vi. Play structures or surfaces (100% of either or both)		2					
vii. Edging or decorative glass mulch (100% of either or both)		1					
b. A minimum 25% of recycled aggregate (crushed concrete) is specified for walkway, driveway, roadway base and other uses		2					
c. Replace Portland cement in concrete with flyash or slag							
i. 20%		1					
ii. 25% (total 2 points)		1					
d. Purchased compost and/or mulch is recycled from local, organic materials such as plant or wood waste							
i. 100% of compost OR 100% of mulch		1					
ii. 100% of both (total 2 points)		1					
2. Reduce and recycle landscape construction waste							
a. **Required:** Divert 50% of landscape construction and demolition waste.		**R**					
b. Divert 100% of asphalt and concrete and 65% of remaining materials OR		2					
c. Divert 100% of asphalt and concrete and 80% of remaining materials (total 4 points)		2					
d. Donate unused materials		1					
3. Reduce the heat island effect with cool site techniques							
a. at least 50% of the paved site area includes cool site techniques					2		

	Landscape Locally	Less to Landfill	Nurture the Soil	Conserve Water	Conserve Energy	Water and Air Quality	Create Wildlife Habitat
	POSSIBLE POINTS						
4. Design lighting carefully							
a. Low energy fixtures are specified for all site lighting					2		
b. Photovoltaic is specified for site lighting							
i. all path lighting is solar powered					1		
ii. 50% of all other site lighting is solar powered					2		
iii. 100% of all other site lighting is solar powered (total 4 points)					2		
c. Reduce light pollution and trespass: exterior luminaries emit no light above horizontal or are Dark Sky certified					1		
d. The site and exterior building lighting does not cast direct beam illumination onto adjacent properties or right of ways					1		
5. Choose and maintain equipment for fuel conservation							
a. Specify solar powered pump(s) for water features					1		
6. Specify low embodied energy products							
a. 100% of any stone and non-concrete hardscapes materials are produced within 500 miles of the project site					2		
7. Use integrated pest management							
a. Design documents include construction specifications that require integrated pest management						2	
8. Use organic pest management							
a. Design documents include construction specifications that prohibit the use of pesticides that are not allowed by Organic Materials Research Institute in its generic materials (total 4 points)							2
Materials Subtotal, out of possible 39 points:							
E. Planting							
1. Select appropriate plants: choose & locate plants to grow to natural size and avoid shearing							
a. **Required:** No species will require shearing		**R**					
b. Plants specified can grow to mature size within space allotted them		1					
2. Select appropriate plants: do not plant invasive species							
a. **Required:** None of the species listed by Cal-IPC as invasive in the San Francisco Bay Area are included in the planting plan		**R**					
3. Grow drought tolerant CA native, Mediterranean or climate adapted plants							
a. **Required:** Specify California native, Mediterranean or other climate adapted plants that require occasional, little or no summer water for 75% of all non-turf plants				**R**			
b. Specify California native or Mediterranean or other climate adapted plants that require occasional, little or no summer water for 100% of all non-turf plants				2			
c. 100% of the non-turf plant palette need no irrigation once established (total 5 points)				3			
4. Minimize the lawn							
a. Turf is not specified in areas less than 8 feet wide or in medians, unless irrigated with subsurface or low volume irrigation				2			
b. Turf shall not be installed on slopes exceeding 10%				2			
c. **Required:** A maximum of 25% of total irrigated area is specified as turf, with sports or multiple use fields exempted				**R**			
d. A maximum of 15% of total landscaped area is specified as turf, with sports or multiple use fields exempted				2			
e. No turf is specified (total 5 points)				3			

	Landscape Locally	Less to Landfill	Nurture the Soil	Conserve Water	Conserve Energy	Water and Air Quality	Create Wildlife Habitat
	POSSIBLE POINTS						
5. Implement hydrozoning							
a. Group plants by water requirements and sun exposure and select plant species that are appropriate for the water use within each zone and identify hydrozones on the irrigation plan (with separate irrigation valves for differing water needs, if irrigation is required)				2			
6. Provide shade to moderate building temperatures							
a. Protect existing trees and/or specify new trees such that 50% or more of west facing glazing and walls will be shaded (at 4 pm in September) by the trees at their mature size AND trees must be deciduous					2		
7. Plant trees							
a. At least 50% of the paved site area is shaded by trees or other vegetation					2		
b. At least one tree species is a large stature species (total 2 points)					1		1
8. Diversify							
a. Landscapes less than 20,000 square feet shall have a minimum of:							
ii. 20 distinct species OR							1
iii. 30 distinct plant species (total 3 points)							2
c. Landscapes with 20,000 to 43,560 square feet (1 acre) shall include a minimum of:							
i. 30 distinct plant species OR							1
ii. 40 distinct species OR (total 2 points)							1
iii. 50 distinct plant species (total 4 points)							2
d. Landscapes of greater than 1 acre shall include a minimum of 40 distinct plant species AND							
i. one additional species per acre over 1 acre OR							2
ii. two additional species per acre over 1 acre (total 4 points)							2
9. Choose California natives first							
a. CA natives are specified for 50% of non-turf plants							2
Planting Subtotal, out of possible 36 points:							
F. Irrigation							
1. Design for on-site rainwater collection, recycled water and/or graywater use							
a. Irrigation systems and/or all ornamental uses of water (ponds, fountains, etc) are plumbed for recycled water where it is available from a municipal source				3			
b. Design a system that can store and use rainwater and/or graywater to satisfy a percentage of the landscape irrigation requirements:							
i. 10% OR				3			
ii. 50% OR (total 4 points)				1			
iii. 100% of dry season landscape water requirements satisfied with harvested rainwater (total 5 points)				1			

	Landscape Locally	Less to Landfill	Nurture the Soil	Conserve Water	Conserve Energy	Water and Air Quality	Create Wildlife Habitat
	POSSIBLE POINTS						
2. Design and install high efficiency irrigation systems							
a. **Required:** Specify weather based (automatic, self adjusting) irrigation controller(s) that includes a moisture and/or rain sensor shutoff				R			
b. **Required:** Sprinkler and spray heads are not specified for areas less than 8 feet wide				R			
c. For 75% or greater of non-turf irrigated areas: Specify and install irrigation equipment with an operational distribution uniformity of 80% or greater, such as drip or bubblers				2			
d. For 100% of non-turf irrigated areas: Specify and install irrigation equipment with an operational distribution uniformity of 80% or greater, such as drip or bubblers (total 5 points)				3			
e. For all turf areas: Specifiy and install equipment with a precipitation rate of 1 inch or less per hour and an operational distribution uniformity of 70% or greater				2			
f. Design and install irrigation system that will be operated at 70% of reference ET				3			
3 Install a dedicated meter for landscape water use or install a submeter							
a. A dedicated irrigation meter or submeter is specified to track irrigation water				2			
Irrigation Subtotal, out of possible 20 points:							
G. Maintenance							
1. Keep plant debris on site							
a. Grasscycle							
i. Maintenance specifications and/or task list includes grasscycling (grass clippings left on the lawn after mowing) for all lawns from April through October, or longer. Sports turf may be excluded "in season" when clippings will interfere with play		2					
b. Produce mulch from plant debris							
i. Maintenance specifications and/or task list requires that leaves and/or seed free vegetative debris less than 4 inches (including cut or chipped woody prunings) be re-incorporated into the mulch layer of landscaped areas away from storm drain		2					
c. Produce compost from plant debris							
i. Composting plant debris on site is included in maintenance specifications or task list		3					
2. Separate plant debris for clean green discounts							
a. Maintenance specifications and/or task list require all exported plant debris be separated from other refuse and taken to a facility where it will be used to produce compost or mulch		3					
3. Protect soil from compaction							
a. maintenance task list specifies that soil is not worked when wet, generally between October and April			1				
4. Feed soils naturally & avoid synthetic fertilizers							
a. Maintenance manual include specifications to topdress turf with finely screened quality compost after aeration and/or 1-4 times per year			1				
b. Plant and soil amendments for maintenance are specified as compost, compost tea or other naturally occuring, non-synthetic fertilizers for all landscape areas			1				
c. Fertilizers prohibited by Organic Materials Research Institute are prohibited in the project			1				
5. Mulch Regularly							
a. Regular reapplication of organic mulch, to a minimum depth of 3 inches is included in the maintenance specifications or task list (total 2 points)			1	1			

	Landscape Locally	Less to Landfill	Nurture the Soil	Conserve Water	Conserve Energy	Water and Air Quality	Create Wildlife Habitat
	POSSIBLE POINTS						
6. Manage and maintain irrigation system so every drop counts							
a. Maintenance task list includes a schedule for reading the dedicated meter or submeter and reporting water use				1			
b. At completion of the installation, the contractor shall provide the property owner with 1. precipitation rate for each valve zone, 2. area calculations for each irrigation zone and the irrigation plans which include the location of irrigation supply shut off, 3. internet address for watering index information				2			
c. Maintenance task list includes regular checking of irrigation equipment, and/or checking soil moisture content before watering AND/OR immediate replacement of broken equipment with equal or superior materials				1			
7. Use IPM as part of maintenance practices							
a. Maintenance task list includes integrated pest management specifications						2	
b. At least one landscaping staff member or contractor is trained in the use of IPM or is a Bay-Friendly Qualified Professional						2	
8. Choose and maintain your materials, equipment & vehicles carefully							
a. Maintenance task list specifies that all oil leaks are repaired immediately and that repairs are not done at the landscape site						1	
b. Equipment that uses biobased lubricants and/or alternative fuels is specified in the maintenance task list						2	
9. Use organic pest management							
a. Maintenance task list prohibits the use of pesticides that are not allowed by Organic Materials Research Institute in its generic materials list							2
Maintenance Subtotal, out of possible 29 points:							
H. Innovation							
1. Bay-Friendly Landscape Guidelines and Principles are defined and referenced in the construction bid documents	3						
2. Design & install educational signage							
a. Provide instructional signs and other educational materials to describe the landscapes Bay-Friendly design, construction and maintenance practices	4						
3. Create a Bay-Friendly Maintenance task list							
a. Provide a detailed Bay-Friendly maintenance task list and/or use the BF Maintenance Specification Guidelines as an official reference docoument in the the landscape maintenance contract and/or with on site landscape staff (total 7 points)	1	1	1	1	1	1	1
4. Employ a holistic approach							
a. Site analysis is submitted AND 65% of landscape construction waste is diverted AND planting plan includes a diverse pallette AND 50% of non-turf plants are California native species AND none of the landscape area is in turf AND compost is specified for amending the soil during installation AND natural fertilizers are specified as the exclusive source of nutrients AND integrated OR organic pest management is specified (total 7 points)	1	1	1	1	1	1	1
5. Innovation: Design your own Bay-Friendly innovation							
a. Enter the description of the innovation here, and enter up to 4 points to the right. Points will be evaluated by the Bay-Friendly rater	0	0	0	0	0	0	0
Innovation Subtotal, out of possible 25 points:							
Summary							
Total Possible Points:	25	41	18	45	22	36	28
Total Points Achieved:	0	0	0	0	0	0	0

California Green Building Standards Code Worksheet

APPLICATION MATRIX (AM-HCD)

GREEN BUILDING MEASURE	REQUIRED	VOLUNTARY
PLANNING AND DESIGN		
SITE DEVELOPMENT (406)		
406.2 A plan is developed and implemented to manage storm water drainage during construction.	2010 CBC[1]	
ENERGY EFFICIENCY		
PERFORMANCE APPROACH (503)		
503.2 Minimum requirements. Low-rise residential buildings shall meet or exceed the minimum standard design required by the California Energy Standards currently in effect.	2010 CBC[1]	
PRESCRIPTIVE APPROACH (504)		
504.6 Minimum requirements Low-rise residential buildings shall meet or exceed the minimum standard design required by the California Energy Standards currently in effect.	2010 CBC[1]	
AIR SEALING PACKAGE (506)		
506.1 Joints and openings. Joints and other openings at the following locations: 1. Exterior joints around window and door frames, including doors between the house and garage, between interior HVAC closets and unconditioned space, between attic and underfloor access and conditioned space and between wall sole plates, floors, exterior panels and all siding materials. 2. Openings for plumbing, electrical and gas lines in exterior walls and interior wall, ceilings and floors. 3. Openings into the attic. 4. Exhaust ducts from clothes dryers and other exhaust fans shall have a damper. 5. Cuts or notches in exterior wall plates.	2010 CBC[1]	
506.1.1 Other openings. Whole house fan louvers shall close tightly and be insulated or covered to a minimum of R-4.2.		
WATER EFFICIENCY AND CONSERVATION		
INDOOR WATER USE (603)		
603.2 Indoor water use shall be reduced by 20 percent using one of the follow methods: 1. Water saving fixtures or flow restrictors shall be used. 2. A 20 percent reduction in baseline water use shall be demonstrated.	7/01/2011	
603.2.1 Multiple showerheads shall not exceed maximum flow rates.	7/01/2011	
MATERIAL CONSERVATION AND RESOURCE EFFICIENCY		
CONSTRUCTION WASTE REDUCTION, DISPOSAL AND RECYCLING (708)		
708.3 A minimum of 50 percent of the construction waste generated at the site is diverted to recycle or salvage. **Exception:** Alternate waste reduction methods are developed by working with local agencies if diversion or recycle facilities capable of compliance with this item do not exist.	2010 CBC[1]	
BUILDING MAINTENANCE AND OPERATION (710)		
710.2 An operation and maintenance manual shall be provided to the building occupant or owner.	2010 CBC[1]	

(continued)

APPLICATION MATRIX (AM-HCD)—continued

GREEN BUILDING MEASURE	REQUIRED	VOLUNTARY
INDOOR ENVIRONMENTAL QUALITY		
POLLUTANT CONTROL (804)		
804.3 Duct openings and other related air distribution component openings shall be covered.	2010 CBC[1]	
804.4.1 Adhesives shall be No- or Low-VOC.	2010 CBC[1]	
804.4.2 Paints, stains and other coatings shall be No- or Low-VOC.	2010 CBC[1]	
804.4.3 Carpet and carpet systems shall be Low-VOC.	2010 CBC[1]	
804.4.4 Particleboard, medium density fiberboard (MDF) and plywood used in interior finish systems shall comply with low formaldehyde emission standards.	2010 CBC[1]	
INTERIOR MOISTURE CONTROL (805)		
805.2 Vapor retarder and capillary break is installed at slab on grade foundations.	2010 CBC[1]	
805.3 Moisture content of wood used in wall and floor framing is checked before enclosure.	2010 CBC[1]	
AIR QUALITY AND EXHAUST (806)		
806.3 Exhaust fans which terminate outside the building are provided in every bathroom.	2010 CBC[1]	
806.4 MERV 6, or higher filters are installed on central air and heating systems.	2010 CBC[1]	

1. Unless specified otherwise, this measure shall become effective on the effective date of the 2010 *California Building Code*.

APPLICATION MATRIX (AM-DSA/SS)
(RESERVED)

GREEN BUILDING MEASURE	REQUIRED	VOLUNTARY
PLANNING AND DESIGN		
(Reserved)		
ENERGY EFFICIENCY		
(Reserved)		
WATER EFFICIENCY AND CONSERVATION		
(Reserved)		
MATERIAL CONSERVATION AND RESOURCE EFFICIENCY		
(Reserved)		
ENVIRONMENTAL AIR QUALITY		
(Reserved)		