

## Green Purchasing Requirements and Best Practices: PBS Mid-Atlantic Region (Updated: 5/15/14)

The standards below represent the minimum green product requirements for all GSA procurements. The standards are categorized by product type.

Section A contains specific green product requirements, including required ecolabels/third party certifications, for individual product types. These labels are mandatory and specific for each product type. In addition to the requirements contained in this document, refer to individual contracts/task orders to check for any additional sustainability requirements for each product category in this document as well as all other product types not covered by this document.

These green standards must be incorporated into each applicable specification section and/or drawing per each product, not indicated as a 'catch all' overview.

For some product categories, there are **optional best practices listed in the right column** that should be considered when life cycle cost effective and appropriate for an individual project. This is only intended to provide a brief description of each technology or practice. Links are provided for many best practices where additional information can be found.

Section B contains the general green product requirements for products not covered in Section A.

For questions on this criteria please contact your GSA Project COR/PM.

Product Category	Federal Building Green Product Requirements (Mandatory)	Best Practices For Consideration (Optional)
<b>Section A: Product Category Specific Green Standards and Best Practices</b>		
<b>Cleaning</b>		
Adhesive Remover	USDA BioPreferred product	
Carpet Cleaner	CRI Green Label	
Coil Cleaner	USDA BioPreferred	
Degreaser	Green Seal Standard GS-34	
Descaler	USDA BioPreferred	
Floor Cleaner	USDA BioPreferred, Design for Environment, or Green Seal	
Floor Stripper	USDA BioPreferred, Design for Environment, or Green Seal	
Graffiti Remover	USDA BioPreferred	
Hand Soap	USDA BioPreferred, Design for Environment, or Green Seal	
Multipurpose Cleaners	USDA BioPreferred, Design for Environment, or Green Seal	
Odor Control/Neutralizer	USDA BioPreferred, Design for Environment, or Green Seal	
Paper Towels	EPA Comprehensive Procurement Guideline designated or USDA BioPreferred	
Plastic Trash Can Liner	EPA Comprehensive Procurement Guideline designated or USDA BioPreferred	
Toilet Paper	EPA Comprehensive Procurement Guideline designated or Green Seal	
Upholstery and Rug Cleaner	USDA BioPreferred, Design for Environment, or Green Seal	
Vacuum Cleaner & Other Cleaning Equipment	CRI Green Label	
<b>Electrical</b>		
Lighting Fixtures and Bulbs	1) EPA Energy Star or Federal Energy Management Program (FEMP); AND 2) See PBS P-100 for additional lighting requirements	1) LED Retrofit Luminaire: Upgrade existing recessed fluorescent troffer luminaires to LED luminaires. <a href="http://www.gsa.gov/portal/content/141067">http://www.gsa.gov/portal/content/141067</a> 2) LED Lighting With Integrated Controls: Lighting technology integrates the LED lamp, driver, daylight controls, and occupancy sensors into a single fixture for easy one-for-one replacement of the existing luminaires. <a href="http://www.gsa.gov/portal/content/181315">http://www.gsa.gov/portal/content/181315</a>

<b>Controls (Lighting)</b>	See PBS P-100	<p>1) <i>FEMP Best Practices For Lighting Controls:</i>  <a href="http://www1.eere.energy.gov/femp/technologies/eep_light_controls.html">http://www1.eere.energy.gov/femp/technologies/eep_light_controls.html</a></p> <p>2) <i>Wireless Lighting Control System:</i> Leverages low cost radios developed for the cell phone industry and recent advances in powering devices using scavenged power. A small wireless module mounted on the inside of an existing light fixture communicates with other wireless modules, self-powered switches, photovoltaic-powered daylight and infrared sensors, and a facility automation server to create a low-power wireless control network throughout the commissioned work area.  <a href="http://www.gsa.gov/portal/mediaId/181239/fileName/Wireless_Lighting_Control-508-11-15b">http://www.gsa.gov/portal/mediaId/181239/fileName/Wireless_Lighting_Control-508-11-15b</a></p> <p>3) <i>Occupant Responsive Lighting System:</i> Workstation-specific (WS) lighting system, dimmable ballasts, occupancy sensors at each WS luminaire, and a lighting management control system (LMCS) that coordinated these components.  <a href="http://www.gsa.gov/portal/content/164607">http://www.gsa.gov/portal/content/164607</a></p>
<b>Envelope</b>		
<b>Doors</b>	See PBS P-100	<i>Fiberglass Door With Polyurethane Core</i>
<b>Entrance Track-Off System Mats</b>	<p>1) EPA Comprehensive Procurement Guideline; AND</p> <p>2) The combined length of entrance system mats must be at least 10 feet in the primary direction of travel where space allows</p>	<p>3-Part System Recommended by ASHRAE Indoor Air Quality Guide:</p> <ul style="list-style-type: none"> <li>- Initial Scraper Section outside entrance (removes loose dirt and water)</li> <li>- Stiff Bristled Absorption Mats just inside entrance (removes additional dirt and water via brushing and scrubbing action)</li> <li>- Final Finishing Mats (located after Absorption Mats to remove particles left after scaping and brushing mats)</li> </ul>
<b>Insulation</b>	<p>1) Insulation products shall contain recovered materials as required by EPA Comprehensive Procurement Guideline; AND</p> <p>2) No insulation installed shall be material manufactured using chlorofluorocarbons (CFCs), nor shall CFCs be used in the installation of the product; AND</p> <p>3) All insulation shall be low emitting with not greater than .05 ppm formaldehyde emissions.</p>	<p>1) <i>Vacuum Sealed Roof Insulation:</i> Thin, highly efficient insulation material that can provide thermal resistance up to 5 times greater per unit of thickness than polystyrene or polyurethane insulation and up to 10 times greater than glass wool, with state of the art product achieving R50 in one-half inch thickness. <a href="http://www.gsa.gov/portal/content/141031">http://www.gsa.gov/portal/content/141031</a></p> <p>2) <i>Closed Cell Spray Foam Insulation</i></p>
<b>Non-Vegetated Roof</b>	<p>1) EPA Energy Star; AND</p> <p>2) Solar Reflective Index above 82 for slope <math>\leq</math> 2:12 or Solar Reflective Index above 39 for slope &gt; 2:12</p>	<p>1) <i>Concrete Roof Tiles</i></p> <p>2) <i>Thermoplastic PVC Membranes</i></p>
<b>Windows</b>	See PBS P-100	<p>1) <i>Electrochromic Windows:</i> Switch from a clear to dark state with a small applied voltage, and promise to optimize daylighting, visual comfort, and solar heat gains without the need for blinds. <a href="http://www.gsa.gov/portal/content/142547">http://www.gsa.gov/portal/content/142547</a></p> <p>2) <i>Glazing Retrofit:</i> This clear, water-based spray-on window coating molecularly bonds to existing windows surfaces and is designed to reduce heat gains across the entire solar spectrum without significantly reducing transmittance of visible light.  <a href="http://www.gsa.gov/portal/content/141035">http://www.gsa.gov/portal/content/141035</a></p> <p>3) <i>High R Value Window:</i> Reduces average heat loss by 30 percent, lowering heating, ventilating, and air-conditioning loads. <a href="http://www.gsa.gov/portal/content/180891">http://www.gsa.gov/portal/content/180891</a></p>
<b>Finishes/Furnishes</b>		
<b>Bamboo Flooring</b>	<p>1) 91% Biobased Content minimum; AND</p> <p>2) Low VOC</p>	
<b>Broadloom and Carpet Tile</b>	<p>1) NSF-140 Gold; AND</p> <p>2) 7% Biobased Content minimum or 10% Recycled Content; AND</p> <p>3) Face yarn must be type 6 or 6,6 BCF nylon fiber; AND</p> <p>4) Texture appearance retention rating of 3 or higher (heavy traffic)</p>	

<b>Ceilings</b>	1) 20% Recycled Content minimum; AND 2) Recyclable in closed loop process or 37% Biobased content minimum; AND 3) 80% Light Reflectance minimum; AND 4) Meets Collaborative for High Performance Schools (CHPS) VOC guidelines; AND 5) Environmental Product Declaration Available; AND 6) Directional or non-directional fissured texture; AND 7) Acoustical qualities as follows: Open Plan NRC ≥ 0.80; Open Plan CAC = N/A; Closed Plan NRC ≥ 0.70; Closed Plan = ≥ 30 "	
<b>Composite Board</b>	1) 30% Recycled Content minimum or 89% Biobased minimum AND 2) Low VOC	
<b>Floor Finish</b>	USDA BioPreferred, Design for Environment, or Green Seal	
<b>Furniture</b>	EPA Comprehensive Procurement Guideline or Greenguard or Business and Institutional Furniture Manufacturer's Association Level	
<b>Glazed Wall Tile</b>	Green Squared	
<b>Laminate Flooring</b>	1) VOC Emissions= CA 1350 compliant; AND 2) 50% Recycled Content minimum	
<b>Linoleum</b>	1) 10% Recycled Content minimum or 30% Biobased Content minimum; AND 2) Binder Content= 30% minimum; AND 2) VOC Emissions= CA 1350 compliant	
<b>Mats</b>	EPA Comprehensive Procurement Guideline	
<b>Mosaic Tile</b>	Green Squared	
<b>Pressed Floor Tile</b>	Green Squared	
<b>Quarry Tile</b>	Green Squared	
<b>Restroom Partitions</b>	EPA Comprehensive Procurement Guideline	
<b>Rubber Tile</b>	VOC Emissions= CA 1350 compliant	
<b>Sculptural Panel</b>	1) 30% Recycled Content minimum or 89% Biobased Content minimum; AND 2) Low VOC	
<b>Sheet Vinyl</b>	1) 5% Recycled Content minimum; AND 2) CA1350 Compliant; AND 3) Floor Score; AND 4) NSF 332	
<b>Terrazzo</b>	Recycled Marble Chips	
<b>Vinyl Tile</b>	1) 5% Recycled Content minimum; AND 2) CA 1350 Compliant; AND 3) Floor Score; AND 4) NSF 332	
<b>Wall Base/Cover Base</b>	Low VOC	
<b>Wall Coverings/Finishes</b>	1) NSF 342 Silver; AND 2) 5% Postconsumer Content minimum or 10% Preconsumer Content minimum; AND 3) VOC Emissions= CA 1350 compliant; AND 4) Adhesives for Wall Covering must meet SCAQMD Rule 1168	
<b>Wall Paneling (Non-Wood)</b>	1) 50% Recycled Content minimum; AND 2) Low VOC	
<b>Wood Paneling (Wood)</b>	91% Biobased Content minimum	
<b>Window Blinds</b>	Green Guard	
<b>Wood Flooring</b>	91% Biobased Content minimum	
<b>HVAC and Plug Load</b>		

<b>Air Conditioners</b>	1) EPA Energy Star or Federal Energy Management Program (FEMP); AND 2) ASHRAE Standard 90.1- 2010	
<b>Boilers</b>	1) EPA Energy Star or Federal Energy Management Program (FEMP); AND 2) ASHRAE Standard 90.1- 2010	<p>1) <i>Condensing Boiler: By extracting heat from waste gases, condensing boilers can achieve up to 98 percent thermal efficiency. Integrated on-demand project design yields additional energy savings. <a href="http://www.gsa.gov/portal/content/163495">http://www.gsa.gov/portal/content/163495</a></i></p> <p>2) <i>Condensation Heat Recovery System</i></p> <p>3) <i>Preheat combustion air, feedwater, or makeup water with heat exchanger using waste heat from boiler</i></p> <p>4) <i>Low Excess Air Burners</i></p> <p>5) <i>Wood-Pellet Biomass Boilers: Use agricultural, forest, urban, and industrial residues and waste to generate heat. <a href="http://www.gsa.gov/portal/category/103655">http://www.gsa.gov/portal/category/103655</a></i></p>
<b>Chillers</b>	1) EPA Energy Star or Federal Energy Management Program (FEMP); AND 2) ASHRAE Standard 90.1- 2010	<p>1) <i>Chilled Beams: Chilled beams, which take advantage of water's more efficient thermal transfer rate, promise energy savings of up to 30 percent, as well as reductions in space (no ductwork) and O&amp;M costs (there are fewer moving parts). <a href="http://www.gsa.gov/portal/content/121231">http://www.gsa.gov/portal/content/121231</a></i></p> <p>2) <i>Magnetic Bearing Compressor: Magnetic bearing compressors are essentially frictionless, and their speed is controlled by a variable frequency drive. Eliminating the friction in these compressors greatly increases their efficiency at part-load conditions, reducing space-cooling energy by an average of 40 percent. <a href="http://www.gsa.gov/portal/content/121127">http://www.gsa.gov/portal/content/121127</a></i></p> <p>3) <i>Variable Refrigerant Flow: Using refrigerant as the heating and cooling medium, VRF systems connect a single outdoor condensing unit to multiple, individually controlled indoor evaporators. Energy savings of up to 55 percent are predicted over comparable unitary equipment. <a href="http://www.gsa.gov/portal/content/163491">http://www.gsa.gov/portal/content/163491</a></i></p> <p>4) <i>Modular micro-channel absorption chillers are powered by readily available alternative or waste heat sources (excess solar thermal, heat exhaust, or cheaper natural gas) instead of electricity, and can directly replace legacy heating, ventilation, and air conditioning (HVAC) chillers. In addition to air conditioning, this technology can also be dual-purposed for space heating. <a href="http://www.gsa.gov/portal/mediaId/181231/fileName/Modular_Absorption_Chiller">http://www.gsa.gov/portal/mediaId/181231/fileName/Modular_Absorption_Chiller</a></i></p>
<b>Controls (HVAC)</b>	See PBS P-100	<p>1) <i>Wireless Pneumatic Thermostat: provides standard pneumatic thermostats with networked Direct Digital Control (DDC) functionality. <a href="http://www.gsa.gov/portal/content/141043">http://www.gsa.gov/portal/content/141043</a></i></p> <p>2) <i>Wireless Sensor Networks: <a href="http://www.gsa.gov/portal/content/164615">http://www.gsa.gov/portal/content/164615</a></i></p> <p>3) <i>Variable Speed Chiller Plant Control: By treating the chilled water plant as an optimized complete system, variable-speed chiller plant control technology saves energy, water, and even provides the possibility of an overall plant-size reduction. <a href="http://www.gsa.gov/portal/content/121183">http://www.gsa.gov/portal/content/121183</a></i></p> <p>4) <i>Central Plant Control Technology: designed to optimize energy use in chilled water systems. To reduce energy consumption, chillers, cooling towers, and associated pumps are operated as a single system. <a href="http://www.gsa.gov/portal/content/142551">http://www.gsa.gov/portal/content/142551</a></i></p> <p>5) <i>Socially Driven HVAC Control System: heating, ventilation, and air conditioning (HVAC) control system that enables office building occupants to control their thermal environment through a mobile device or web page. <a href="http://www.gsa.gov/portal/mediaId/181235/fileName/Socially_Driven_HVAC">http://www.gsa.gov/portal/mediaId/181235/fileName/Socially_Driven_HVAC</a></i></p>
<b>Cooling Tower</b>	ASHRAE Standard 90.1- 2010	<p><i>Nonchemical Prevention of Hard Water Scale: Reduces wastewater associated with typical scale prevention equipment and reduces operation and maintenance costs associated with scale prevention, especially where water is untreated or insufficiently treated. The process does not use chemicals, power, or additional water. <a href="http://www.gsa.gov/portal/content/142947">http://www.gsa.gov/portal/content/142947</a></i></p>

<b>Controls (Plug Load)</b>	N/A	<p><i>Advanced Power Strips</i></p> <p>a) <i>Schedule Timer Control: allows the user to set the day and time when a circuit will be energized and de-energized</i></p> <p>b) <i>Load-sensing Control: monitors a specific device's (master) power state and de-energizes auxiliary devices (slaves) if the master's power consumption dips below a predetermined threshold;</i></p> <p>c) <i>Combination of Schedule Timer Control and Load-sensing Control.</i></p> <p><a href="http://www.gsa.gov/portal/content/164611">http://www.gsa.gov/portal/content/164611</a></p>
<b>Fans</b>	1) EPA Energy Star; AND 2) ASHRAE Standard 90.1- 2010	<i>Variable Speed Drives</i>
<b>Heat Pumps</b>	1) EPA Energy Star or Federal Energy Management Program (FEMP); AND 2) ASHRAE Standard 90.1- 2010	<p><i>Ground Source Heat Pump: GSHP systems rely on the earth's relatively constant subsurface temperatures to effect heat transfer to and from buildings. They save energy (25 to 50 percent, compared to conventional systems), space, and reduce O&amp;M costs significantly.</i></p> <p><a href="http://www.gsa.gov/portal/content/121227">http://www.gsa.gov/portal/content/121227</a></p>
<b>HVAC Filters</b>	1) Pre-filters shall have a MERV efficiency minimum of 8; AND 2) Final filters shall have a MERV efficiency minimum of 13	
<b>Motors</b>	ASHRAE Standard 90.1- 2010	
<b>Pumps</b>	ASHRAE Standard 90.1- 2010	<i>Integrated, Sensor-less Controls For VFDs</i>
<b>Water Heater</b>	1) EPA Energy Star or Federal Energy Management Program (FEMP); AND 2) ASHRAE Standard 90.1- 2010	
<b>Information Technology</b>		
<b>Computer Products</b>	EPEAT Silver Level	
<b>Electronic Displays</b>	EPA Energy Star or Federal Energy Management Program (FEMP)	
<b>Imaging Equipment</b>	1) EPEAT Bronze; AND 2) EPA Energy Star or Federal Energy Management Program (FEMP)	
<b>Uninterruptible Power Supplies</b>	EPA Energy Star or Federal Energy Management Program (FEMP)	
<b>Miscellaneous Construction / Operations &amp; Maintenance</b>		
<b>Adhesives and Sealants</b>	Must meet VOC limits within SCAQMD Rule 1168	
<b>Appliances</b>	EPA Energy Star	
<b>Cement</b>	EPA Comprehensive Procurement Guideline	
<b>Compost</b>	USDA BioPreferred, EPA Comprehensive Procurement Guideline, or Green Seal	
<b>Concrete/Wood Sealer</b>	USDA BioPreferred	<p>1) <i>Photocatalytic Concrete</i></p> <p>2) <i>Permeable Interlocking Concrete Pavement</i></p>
<b>Deicer (Road and Windshield)</b>	USDA BioPreferred	
<b>Fuel Additive</b>	USDA BioPreferred	
<b>Food Service Equipment</b>	EPA Energy Star	
<b>Grease or Lubricant</b>	USDA BioPreferred	

<b>Insect Control</b>	<p>1) The Contractor shall use non-pesticide methods of control wherever possible. For example:</p> <ul style="list-style-type: none"> <li>a. Portable vacuums with HEPA or MICRO filtration</li> <li>b. Trapping devices</li> </ul> <p>2) Chemical Pesticide Products and Use: When it is determined that chemical pesticides must be used in order to obtain adequate control, the Contractor shall employ the least hazardous material, most precise application technique, and minimum quantity of pesticide necessary to achieve control. The Contractor shall minimize the use of liquid pesticide applications wherever possible, for example:</p> <ul style="list-style-type: none"> <li>a. Bait stations and other types of bait formulations rather than sprays.</li> <li>b. As a general rule, liquid, aerosol, or dust formulations shall be applied only as crack and crevice treatment.</li> <li>c. Application of pesticide liquids, aerosols, or dust to exposed surfaces and pesticide space sprays (including fogs, mists, and ultra-low volume applications) shall be restricted to unique situations where no alternative measures are practical.</li> </ul>	
<b>Landscaping</b>	<p>1) Must use landscaping products with recycled content as required by EPA Comprehensive Procurement Guideline; AND</p> <p>2) Must not use 2,4-Dichlorophenoxyacetic Acid (2,4 D) herbicide and organophosphates</p>	<p><i>1) Bioswales</i>  <i>2) Bioremediation (e.g. enzyme bacterial colony within soil)</i>  <i>3) Ponds</i>  <i>4) Storage Tanks</i>  <i>5) Permeable Pavers</i></p>
<b>Lawn / Garden Edging</b>	EPA Comprehensive Procurement Guideline	
<b>Mastic</b>	Water or Acrylic Based	
<b>Miscellaneous Wood Products</b>	<p>1) Must not contain wood from endangered wood species, as listed by the Convention on International Trade in Endangered Species. The list of species can be found at <a href="http://www.cites.org/eng/resources/species.html">www.cites.org/eng/resources/species.html</a>; AND</p> <p>2) Particle board, strawboard, and plywood materials shall comply with Department of Housing and Urban Development (HUD) standards for formaldehyde emission controls. Plywood materials shall not emit formaldehyde in excess of 0.2 parts per million (ppm), and particleboard materials shall not emit formaldehyde in excess of 0.3 ppm</p>	
<b>Mulch</b>	USDA BioPreferred, EPA Comprehensive Procurement Guideline, or Green Seal	
<b>Paints and Coatings</b>	<p>1) Low VOC California Air Resources Board (CARB) 2007 standard; AND</p> <p>2) Burnish Resistant</p>	
<b>Paint Remover</b>	USDA BioPreferred	
<b>Paper and Paper Products</b>	EPA Comprehensive Procurement Guideline	
<b>Replacement and New Plants</b>	Must use plants that are native to the area.	

<b>Rodent Control</b>	<p>1) Indoor Trapping: Generally, rodent control inside buildings shall be accomplished with trapping devices only. All such devices shall be concealed out of the general view and in protected areas so as not to be affected by routine cleaning and other operations.</p> <p>2) Use of Rodenticides: All rodenticides, regardless of packaging, shall be placed either in locations not accessible to children, pets, wildlife, and domestic animals or in EPA-approved tamper-resistant bait boxes. As a general rule, rodenticide application outside buildings shall emphasize the direct treatment of rodent burrows wherever feasible.</p> <p>3) Use of Bait Boxes:</p> <p>a. All bait boxes shall be maintained in accordance with EPA regulations, with an emphasis on the safety of non-target organisms.</p> <p>b. All bait boxes shall be placed out of the general view, in locations where they will not be disturbed by routine operations.</p> <p>c. The lids of all bait boxes shall be securely locked or fastened shut.</p> <p>d. All bait boxes shall be securely attached or anchored to floor, ground, wall, or other immovable surface, so that the box cannot be picked up or moved.</p> <p>e. Bait shall always be secured in the feeding chamber of the box and never placed in the runway or entryways of the box.</p> <p>f. All bait boxes shall be labeled on the inside with the Contractor's business name and address and dated by the Contractor's technician at the time of installation and each servicing.</p>	
<b>Signage</b>	EPA Comprehensive Procurement Guideline	
<b>Sorbents</b>	EPA Comprehensive Procurement Guideline	
<b>Snow and Ice Removal</b>	<p>1) EPA Design for the Environment; AND</p> <p>2) No sodium chloride or calcium chloride salt shall be used due to environmental risk. Less disruptive chemicals such as magnesium chloride, potassium acetate, and potassium chloride are viable alternatives.</p>	
<b>Spray Foam</b>	USDA BioPreferred	
<b>Vending Machine</b>	EPA Energy Star	
<b>Waste / Recycling Container</b>	EPA Comprehensive Procurement Guideline	
<b>Plumbing and Irrigation</b>		
<b>Bathroom Sink Faucets and Accessories</b>	EPA WaterSense	<p>1) High Efficiency Lavatory Faucets With Automatic Electronic Operation</p> <p>2) Solar Powered Flushometers</p>
<b>Nonpressure Pipe</b>	EPA Comprehensive Procurement Guideline	
<b>Showerheads</b>	EPA WaterSense	
<b>Urinals</b>	EPA WaterSense	Solar Powered Flushometers
<b>Water Closets</b>	EPA WaterSense	Solar Powered Flushometers

<p><b>Water Irrigation and Irrigation Controllers</b></p>	<p>1) At a minimum, watering systems must be installed that use automatic timers coupled with rain/freeze sensors in an efficient manner that considers local weather and local mandates; AND 2) All irrigation controllers must be EPA WaterSense.</p>	<p>1) <i>Wireless Moisture Sensing Irrigation System: Measures the actual soil moisture directly at the plant root level in real time. Based on algorithms, fault detection and business rules, irrigation is applied in the precise amounts needed, and leaks and broken sprinkler heads can be detected. <a href="http://www.gsa.gov/portal/content/141099">http://www.gsa.gov/portal/content/141099</a></i> 2) <i>Wireless Weather Station Irrigation Control: Uses data collected from an on-site weather station to wirelessly control an automated lawn irrigation system, eliminating the need for facility operators to make regular scheduling adjustments, because the "smart" controller adjusts the schedule automatically as weather changes. <a href="http://www.gsa.gov/portal/content/142467">http://www.gsa.gov/portal/content/142467</a></i></p>
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**Section B: General Green Standards and Best Practices For Product Categories Not Covered in Section B**

<p><b>General Green Standards</b></p>	<p>1) The contractor shall use EPA Comprehensive Procurement Guideline-designated products as required by FAR clause 52.223-17 2) The contractor shall use Energy Star-qualified products or Federal Energy Management Program-designated products as required by FAR clause 52.223-15 3) The contractor shall use Electronic Product Environmental Assessment Tool-registered products as required by FAR clause 52.223-16 4) The contractor shall use USDA BioPreferred products as required by FAR clause 52.223-2 5) All products must be an acceptable substitute for an ozone-depleting substance as identified under EPA's SNAP Program. The substitute product must not contain any Class I or Class II ozone-depleting substances. 6) All products do not contain any Priority Chemicals as identified by EPA when a less harmful substitute substance exists. 7) Eliminate or reduce the generation of hazardous waste and the need for special material processing (including special handling, storage, treatment, and disposal). 8) Promote the use of nonhazardous and recovered materials 9) Promote cost-effective waste reduction when creating plans, drawings, specifications, standards, and other product descriptions authorizing material substitutions, extensions of shelf-life, and process improvements. 10) Promote waste reduction through the use of duplexing (two-sides copying and printing) and electronic communications.</p>	<p>1) <i>Green Facades: vines or climbing plants rooted in soil or containers growing upwards or cascading downwards</i> 2) <i>Living Walls / Vertical Gardens</i> 3) <i>Hybrid PV / Solar Thermal Systems for Roof or Wall</i> 4) <i>Unitized Flashing Systems</i> 5) <i>Water Mist Fire Protection Systems</i> 6) <i>Photoluminescent Technology: for lighting exit stairways or emergency egress areas</i> 7) <i>Wood Products: acetylated wood from softwood species.</i> 8) <i>VOC Content: Consider products with low/no Semi-Volatile Organic Compounds (SVOC), Volatile Organic Compounds (VOC), and Very Volatile Organic Compounds (VVOC). Look for products giving information on total emissions of VOCs versus content of VOC. Content of VOC is not accurate due to varying degrees of toxicity for each type of VOC.</i></p>
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