



August 17, 2022

Addendum 1

RP030-22, Development of Private/Corporate Hangar Building(s) at the Gwinnett County Airport Central Basing Area

Questions:

- Q1. Does the vendor need to rent all 11 acres or is proposing on a smaller section acceptable?
A1. No, the vendor does not need to rent all 11 acres. As stated in Section II – Scope of Proposals, Item 3 – Site Description “Any development that does not occupy the entire 11 acres must provide for sharing the central ramp area and taxi-lane with additional hangar tenants. It is the intent of the County/Authority to place multiple hangars on the site if any single development is not large enough to occupy the entire site.”
- Q2. There is evidence of recent borings in the central basing area; please provide details of the scope of work completed and any available formal reports.
A2. The airport is not aware of any recent borings. Without knowing specifically what is being referred to, it is suspected that this question is referring to pavement core samples that were removed for testing. Core sampling is a requirement on any grant funded paving project to ensure that the pavement meets specifications and is eligible for reimbursement. The pavement did meet specifications and was designed to support a Gulfstream 550 size aircraft.
- Q3. Has the County explored design and cost opinions for the access driveway and or deceleration lane?
A3. No.
- Q4. Please provide the Sustainable Design Check List
A4. See Attached.
- Q5. Is the County aware of the timeline of the GDOT 0013893 improvements?
A5. It is the airport’s understanding that Right of Way acquisition has been authorized and construction is tentatively scheduled for 2024.
- Q6. Do you know when they plan to award the contract? Also, will that info be published?
A6. It is Gwinnett County’s intent to award this proposal in 2022. However, no definite date has been set and the Board of Commissioners will have final approval of award. Award information will be posted on Gwinnett County’s website.

Acknowledge receipt of this addendum on the Firm Information page of the RFP document.

Sincerely,
Lindsey Gravitt
Purchasing Associate II

APPENDIX

Sustainability Design and Implementation Options							
<i>Sustainable Practices for the Administration Building</i>							
Practice	LEED	Activity					
		Potential LEED Applicability	Planning & Design	Construction Activity	Day to Day Airport Operations	Maintenance	Administration & Finance
Administrative							
Policies, Procedures, and Plans							
1							✓
2							✓
3			✓	✓	✓	✓	✓
4			✓	✓	✓	✓	✓
5			✓	✓	✓	✓	✓
6							✓
7			✓	✓	✓		✓
8							✓
9	✓		✓	✓	✓		✓
10					✓		✓
11					✓		✓
12							✓
13			✓	✓			✓
14							✓
15							✓
16			✓				✓
17			✓	✓			✓

18	Develop and compile a maintenance manual that outlines required schedules and procedures to maintain sustainable performances, such as recommendations for "green" cleaning products, coordination of indoor air filter replacements, comprehensive recycling and composting programs, pavement maintenance, landscaping, etc.					✓	✓
19	Require a LEED building standard and green operating commitment from non-airport controlled buildings that are on airport-controlled land, such as hotels and restaurants.	✓	✓				✓
20	Develop an Environmentally Preferable Purchasing (EPP) Program, utilizing the EPA's EPP website (www.epa.gov/epp/index.htm) to find and evaluate green products and services.		✓		✓	✓	✓
21	Develop and implement an air quality improvement program.		✓		✓		✓
22	Prepare an airport-wide greenhouse gas emissions inventory.		✓	✓	✓	✓	✓
23	Develop and implement a recycling program for day to day airport operations (employees, passengers, concessions).		✓		✓	✓	✓
24	Develop and implement an Asset or Infrastructure Management Plan.		✓		✓	✓	✓
25	Develop and implement a Pavement Management Plan.			✓	✓	✓	✓
26	Develop or enhance equipment vehicle maintenance policies, plans, and/or Best Management Practices.					✓	✓
27	Adopt a transit-first policy that prioritizes investments, design, and promotion of high-occupancy vehicles (HOV), lanes, and facilities before single-occupancy vehicles (SOV).		✓				✓
28	Adopt official employee and contractor trip-reduction requirements (policies/plans).						✓
29	Review airport processes and complete a Pollution Prevention Opportunity Assessment to focus on applicable sustainable initiatives (see http://epa.gov/opptintr/dfe/pubs/tools/ctsa/ch9/mod9-1.pdf).		✓				✓
30	Include sustainable practices as part of airport's Minimum Operating Standards requirements.		✓	✓	✓	✓	✓
31	Evaluate sustainable options and practices as part of the Airport Master Plan Update and other planning studies.		✓				✓
32	Develop a "green" landscaping and maintenance practices plan (i.e., limit chemical, water and energy use, use of native materials, etc.).	✓	✓		✓	✓	✓
33	Use the "Total Cost Assessment" (TCA) method to eliminate unjustified and misleading financial barriers in consideration of pollution prevention processes and projects. The TCA method's focus is on the "true" profitability of proposed projects (see http://205.153.241.230/P2_Opportunity_Handbook/2_1_A_4.html).		✓		✓	✓	✓
34	Purchase fair trade products (such as coffee, bags, boxes, artwork, chocolate, sugar, etc.) instead of regular products to build equitable and sustainable trading partnerships and create opportunities to alleviate poverty (www.fairtradefederation.org/).				✓	✓	✓
Sustainability Meetings, Teams, and Presentations							
35	Consider creating a "sustainability coordinator" position or an "office of sustainability" within the organization.						✓
36	Establish a sustainability oversight committee or "Green Team" to guide, direct, and evaluate the airport. The Green Team will be responsible for managing the integration of selected sustainability goals.						✓
37	Establish a regular meeting schedule to discuss sustainability progress. Engage the airport's construction and maintenance, tenants, airlines, local regulators, and/or FAA and US EPA representatives.		✓	✓	✓	✓	✓

38	Plan for annual meetings at times of the year when temperatures are less extreme to reduce energy consumption due to the use of air conditioning/heat.		✓	✓	✓	✓	✓
39	Post sustainable meeting best practices in meeting rooms and on internet and intranet sites,		✓	✓	✓	✓	✓
40	Integrate various departments and functions to promote sustainability goals, including planning and design, operations and maintenance, procurement, ground transportation, real estate, and legal.		✓	✓	✓	✓	✓
41	Utilize electronic visual aids instead of paper where appropriate to facilitate discussion in sustainability meetings.						✓
42	Use zero-emission or low-emitting materials for exhibit displays.						✓
43	Reuse display boards; utilize both front and back sides.						✓
44	To take advantage of natural light and fresh air, conduct meetings outdoors when appropriate.						✓
45	Utilize project planning and tracking tools to facilitate documentation and communication and reduce paper use.						✓
46	Establish a sustainability liaison to the airport sponsor (for all design, construction, operations, maintenance, tenants).		✓	✓	✓	✓	✓
47	Adopt electronic library and documentation procedures and protocols for posted materials.						✓
48	Establish central depositories for viewing secure project information to reduce paperwork.						✓
49	Provide sustainability training and awareness programs, presentations, and/or meetings for airport tenants.						✓
50	Have tenants create a "tenant environmental handbook" that includes emergency contact numbers, policies, reporting requirements, spill response, handling international waste,, managing and disposing wastes such as fluorescent bulbs, etc.						✓
51	Assign one or more project team members to take the LEED® Professional Accreditation Exam.	✓	✓	✓	✓	✓	✓
52	Assign a LEED® AP to review information regarding sustainable concepts and practices with project team members including green building planning, design, construction, operation, maintenance, and tenants.	✓	✓	✓	✓	✓	✓
Community Outreach							
53	Initiate and facilitate community partnering and community outreach programs.						✓
54	Develop partnerships with community groups and local businesses.						✓
55	Establish working relationships with the local community leadership.						✓
56	Establish working relationships with local, regional, and/or national environmental organizations.						✓
57	Establish airport sustainability internships, stewardships, and/or public education programs (focus on low-income and diverse populations).						✓
58	Solicit feedback on a particular project from local community leaders from time to time.						✓
59	Issue a newsletter to local residents, businesses, libraries, and the city hall that discusses construction progress, airport updates, events, facts, and/or other information.						✓
60	Provide construction information kiosks at the airport.						✓
61	Create and maintain open communication among stakeholders.						✓
62	Participate in statewide purchasing alliances with a focus on local procurement.		✓		✓	✓	✓

63	Offer and manage volunteer programs where students, retirees, and/or aviation enthusiasts can tour/learn about the airport and can assist with landscaping tasks, discussing sustainability with passengers, aiding vendors, showcasing the city, informing tourists, and etc.						✓
64	Host recycling programs that involve participation from local communities.						✓
65	Host a seminar open to the community that provides education on the airport, aviation, and sustainability related topics.						✓
66	Create an interactive multimedia display (i.e. video, website, etc.) that would engage and educate visitors about the sustainable aspects of completed projects or airport operations.						✓
67	Coordinate with local schools to arrange for field trips or presentations for education on airport and aviation related issues.						✓
68	Partner with universities and research centers to evaluate, demonstrate, and commercialize new airport sustainability technologies.						✓
69	Partner with local environmental or conservation groups to fund restoration of nearby areas.						✓
70	Host a meeting or panel discussion during airport projects as an opportunity for questions and education about a project (separate from the required public hearing).						✓
71	Develop and distribute a press release about specific airport projects.						✓
72	Engage the airport's customers in sustainability goals and encourage vendors to participate.						✓
73	Work with municipalities to prevent incompatible land uses and zoning.						✓
74	Provide means of transportation to public meetings as appropriate.						✓
75	Ensure that public meetings are at varied locations within the community.						✓
76	Ensure that public meetings are at varied times (day/evening).						✓
77	Provide child care during public meetings.						✓
78	Provide a foreign language translator, a sign language translator, and/or equipment for handicapped/disadvantaged attendees during land acquisition processes, public meetings, and similar events.						✓
79	Proactively engage local schools to evaluate and implement noise reduction programs for school facilities.						✓
80	Work with local radio affiliates to include construction updates during morning and afternoon traffic alerts. Announce construction traffic reports on local AM radio stations.			✓			✓
81	Display construction traffic information on signage near the airport.			✓			✓
82	Release a construction project outlook report at the start of the construction season to local media outlets to provide advanced notice of any modifications to existing streets and intersections and provide information regarding truck haul routes in use.			✓			✓
83	Hold press conferences and issue press releases in conjunction with construction changes and milestones.			✓			✓
84	Enter into a partnership with community groups or local businesses to mitigate adverse effects of the project, if any.						✓
85	For all design and construction projects, indicate sustainability goals in all interactions with the public.	✓		✓			✓
86	Provide public information in a simple and easy to understand manner.						✓

87	Produce training materials, flyers, and press releases in languages other than English that will reach local minority or ethnic groups in the community.							✓
88	Develop and implement a 'Periodicals for Education' program, collecting magazines, newspapers, and books from international passengers and donating them to educational facilities that teach foreign languages, senior centers, and/or united service organizations.							✓
89	For renewable energy projects, provide information to the public on performance measurement data of energy systems.							✓
90	Arrange for space in public areas for sustainability displays and awareness training.							✓
91	Actively work with local community leaders to attract new clean businesses and educational institutions to the community. Provide incentives and/or establish foreign trade zones.							✓
92	Offer a free roadway advertisement/sponsorship, or a reduced advertisement fee, for tenants who clean up an airport roadway environment.							✓
93	Work with state, regional, and local planning agencies to coordinate airport sustainability measures with official planning objectives.							✓
94	Urge state and local legislative authorities to adopt laws that support sustainability and remove barriers to sustainability measures (such as state and local purchasing requirements).							✓
95	Develop/use airport and local municipality websites to detail current and anticipated sustainability practices and provide an opportunity for community input.							✓
Human Resources								
96	Promote employee work force retention through: employee training programs; training/recruiting of the local minority workforce; and traditional M/WBE programs, certification and goals.							✓
97	Link achievement of the organization's sustainability goals to performance reviews of key personnel.							✓
98	Include educational training on sustainability in periodic employee meetings.							✓
99	Provide training on the airport's sustainable planning, design and construction guidelines, including their basis, the parties responsible for using the guidelines, and the sustainable rating system.	✓	✓	✓	✓	✓	✓	✓
100	Provide appropriate training for the operations and maintenance of airport facilities and systems.			✓	✓			✓
101	Conduct frequent employee reviews to ensure alignment of labor practice goals with business strategy.							✓
102	Develop an employee retention and development plan consistent with the overall organizational goals.							✓
103	Measure and communicate changes in absenteeism of affected employees.							✓
104	Measure and communicate user satisfaction with airport facilities.							✓
105	Install "green" suggestion boxes to obtain airport passenger and employee input and to identify any questions or concerns regarding existing sustainable practices.							✓
106	Include objectives of ADA compliance/accommodation of personnel with special needs in the planning phase so that any additional costs can be properly managed.	✓	✓					✓

107	Provide sustainability awareness training for employees, consultants and contractors. Discuss the airport's definition of sustainability, the organization's approach to sustainability, current initiatives, and the airport's desired outcomes. Utilize these forums to capture ideas on how to further improve sustainability performance.		✓	✓	✓	✓	✓
108	Develop labor practice indicators consistent with the goals for employee development and maintaining a strong and viable work force.						✓
109	Incorporate sustainable practice requirements in standard land lease contract language. Sustainable practices may include operational requirements and/or new building construction requirements to encourage/require tenants to become involved, and to understand the importance of the airport's sustainability program.						✓
110	Implement corrective actions as soon as key performance indicators fall below allowable standards.						✓
111	Require documented sustainability experience from contractors/sub-contractors.		✓	✓	✓	✓	✓
112	Communicate sustainability goals and requirements at pre-bid, bid, project start, update meetings, and review at project closeout.		✓	✓	✓	✓	✓
113	Review sustainable building requirements in specifications with each sub-contractor prior to commencement of work.		✓	✓	✓	✓	✓
Health and Safety							
114	Participate in the Occupational Safety and Health Administration's (OSHA's) Voluntary Protection Programs.						✓
115	Provide first responder life support training for employees.						✓
116	Develop and communicate alternative routes to the nearest medical facility as part of the organization's overall health and safety program. Include this information in the Airport Disaster and Emergency Preparedness Plan.						✓
117	Conduct safety observations to ensure workers are abiding by the health and safety plan.						✓
118	Provide/improve employee health and welfare programs such as fitness centers/events, health screening, health seminars and workshops.						✓
119	Provide art and cultural programs for employees and the general public.						✓
120	Address health and safety in design and planning stages.		✓	✓			✓
121	Work with area police and fire departments, notifying them of any road closures or heavy construction traffic.			✓			✓
122	Record and submit weekly reports summarizing all safety incidences as well as all events which may have resulted in an accident and an evaluation of what steps can be taken to prevent those events in the future.						✓
123	Measure and communicate healthcare cost impacts.						✓
Stormwater Management							
Erosion and Sedimentation Control							
124	Develop and maintain a Soil Erosion and Sedimentation Control (SESC) plan consistent with EPA regulations on stormwater management for construction activities.	✓	✓	✓		✓	✓
125	Incorporate temporary sedimentation basins, temporary ditch checks, diversion dikes, temporary ditches, sediment traps, silt fences, and/or pipe slope drains into construction plans.	✓	✓	✓		✓	
126	Design for/implement curb breaks and drainage ditches, and/or detention basins.	✓	✓	✓		✓	
127	Incorporate temporary and permanent soil stabilization techniques, including: compost, hydraulic mulch, hydroseeding, soil binders, straw mulch, and wood mulch.	✓	✓	✓		✓	

128	Use lime as an aid for the modification and stabilization of soil beneath roadways and similar construction projects. Using lime can substantially increase the stability, impermeability, and load-bearing capacity of the subgrade.		✓	✓		✓	
129	Install rolled mats (organic, biodegradable mulch mats used to reduce erosion) and ensure that they conform to site contours.		✓	✓		✓	
130	Monitor water quality impacts by conducting sampling before and during construction, especially after significant storm events.	✓	✓	✓		✓	
131	Chip or compost all vegetation for re-use on site and replant disturbed vegetation.	✓	✓	✓		✓	
132	Use stormwater Best Management Practices (BMPs) such as water quality swales, rain gardens, dry wells, and constructed wetlands to control stormwater rates.	✓	✓	✓		✓	
133	Minimize disturbed landscape areas, and keep pre-existing vegetation intact whenever feasible.	✓	✓	✓		✓	
134	Build vertically rather than horizontally to minimize building footprint, to the extent practicable.	✓	✓				✓
135	Locate parking areas underground to reduce impervious area.	✓	✓				✓
136	Achieve permanent soil stabilization in seeded areas by covering all exposed soil surfaces with vegetation. Do not use vegetation that may attract wildlife or impact the safety of aircraft operations on or adjacent to airport operating areas.	✓		✓	✓	✓	
137	Use natural fiber geotextiles (permeable fabrics) that are biodegradable.		✓	✓		✓	
138	When using vegetation to stabilize soils, make sure a layer of topsoil and compost is present to support growth.			✓	✓	✓	
139	Locate construction lay-down areas and stockpiles on areas that will be paved as part of the construction.		✓	✓	✓	✓	
Stormwater Management, Rate and Quantity							
140	Design projects to ensure no net increase in rate and quantity of stormwater runoff (minimize the amount of impervious surface constructed).	✓	✓	✓			
141	Install permeable pavement for roadways, shoulders, non-traffic pavements, maintenance roads, utility yards, and airside and landside parking facilities, where possible.	✓	✓	✓			
142	As part of an ongoing construction project, remove/recycle existing pavement that is not required or needed for future use (only if the emissions, erosion, etc. of doing so would not outweigh the stormwater benefits achieved).	✓	✓	✓	✓	✓	
143	Install landscaping and plant materials that will reduce runoff rates, where possible.	✓	✓	✓	✓	✓	
144	Reduce flow velocities in stormwater conveyance systems to encourage settling of sediments (for later removal).		✓	✓	✓	✓	
145	Design storm sewer conveyance systems with reduced diameter pipes.		✓	✓	✓	✓	
146	Install "extensive" green roof systems to filter and treat rainwater, evaporate rainfall to the atmosphere, and provide stormwater retention.	✓	✓		✓	✓	
147	Collect and reuse stormwater for non-potable uses such as landscape irrigation and building flush systems.	✓	✓		✓	✓	
148	For areas prone to flooding or those that are projected to have increased flooding due to climate change, design stormwater storage and conveyance systems for the 100-yr or 500-yr storm, at a minimum.	✓	✓	✓			
149	Coordinate with local or city governments to determine if other properties (e.g., parks) can be used for regional stormwater infiltration to prevent flooding.		✓	✓			

Stormwater Management, Treatment							
150	Implement Best Management Practices outlined in the U.S. EPA's Guidance <i>Specifying Management for Sources of Nonpoint Pollution in Coastal Waters</i> .	✓	✓	✓	✓	✓	✓
151	Use Best Management Practices (BMPs) that also function as ecological features and provide aesthetic benefits (e.g., constructed wetland systems).	✓	✓	✓	✓	✓	✓
152	Utilize engineered wetlands to treat wastewater, glycol, and other chemicals (off-airport and/or ensure non-wildlife attracting).	✓	✓	✓		✓	
153	Incorporate underground infiltration BMPs such as dry wells or perforated drain pipe. These methods avoid creating inundated areas, which attract wildlife.	✓	✓	✓		✓	
154	Install first flush systems including slotted edge drains connected to underground holding tanks. First flush sediment would settle in the tanks and be removed at a later date for treatment and/or disposal.	✓	✓	✓		✓	
155	Install detention basins, detention ditches, ditch checks and/or other BMP's for effective first flush treatment.	✓	✓	✓		✓	
156	Install bioswales along roadways and parking areas to encourage groundwater infiltration of stormwater runoff. These strategies must be designed so that they do not provide habitat for hazardous wildlife.	✓	✓	✓		✓	
157	Plant nitrogen-fixing vegetation in fertilized areas.		✓			✓	
158	Develop stormwater collection and rain harvesting systems for treatment prior to reuse or discharge.	✓	✓	✓		✓	
159	Use sand filters for storm water quality control and managing storm water runoff volumes (see http://205.153.241.230/links.aspx?topic=160&linktype=3).	✓	✓	✓		✓	
160	Use vortex solids separators for treating storm water runoff. Separators may be used for pre- or supplementary wastewater treatment (see http://205.153.241.230/links.aspx?topic=160&linktype=3).	✓	✓	✓		✓	
161	Use water quality inlets (WQIs) to separate pollutants from the first flush of storm water (referred to as oil/grit separators or oil/water separators) (see http://205.153.241.230/links.aspx?topic=160&linktype=3).	✓	✓	✓		✓	
162	Install a closed-loop aircraft washrack wastewater recycling system.		✓			✓	
Stormwater Pollution Prevention Plan (SWPPP)							
163	Develop and Implement a Stormwater Pollution Prevention Plan (SWPPP).	✓	✓	✓	✓	✓	✓
164	Coordinate SWPPP elements with tenant plans.	✓	✓	✓	✓	✓	✓
165	Coordinate equipment and material storage with contractors.		✓	✓	✓		
166	Specify ramp vacuum trucks to recover spent fluids for on-site reclamation.				✓	✓	
167	Prepare a hydrology report to document typical rainfall, drainage patterns, flow rates, and run-in/run-off expected during storms.	✓	✓				✓
168	Prepare a soil report to document drainage characteristics, soil stability, and design constraints.	✓	✓				✓
169	From the hydrology and soil reports, prepare a preliminary grading and drainage plan, which records slopes, areas of cut and fill, areas of soil disturbance, and protection of existing vegetation.	✓	✓				✓
170	Delineate the site perimeter to prevent disturbance beyond the construction area.	✓		✓			
171	Store materials and waste in areas sheltered from rain and runoff.			✓	✓	✓	

172	Analyze weather conditions, construction phases, and materials currently in use before selecting the most applicable best management practices (BMPs).	✓		✓	✓	✓	
173	Inspect the site frequently to ensure compliance with the Stormwater Pollution Prevention Plan (SWPPP) and BMPs.	✓		✓	✓	✓	
174	Train on-site personnel in pollution prevention procedures and always make the SWPPP available at the construction site for review.			✓	✓	✓	
175	Collect and treat and/or properly dispose of (or recycle, if possible) water used for vehicle, aircraft washing, and other activities conducted outside that generate process wastewater or wastewater.	✓		✓	✓	✓	
Hazardous Waste Spill Prevention/Response							
176	Develop and implement a Spill Prevention Countermeasure and Control Plan (SPCC).				✓	✓	✓
177	Develop and implement an underground storage tank management plan.				✓	✓	✓
178	Develop and implement an above ground storage tank management plan.				✓	✓	✓
179	Establish hazardous waste spill response chain of command with tenant and fuel supplier's planners (i.e., pipeline vs. fuel trucking).				✓	✓	✓
Deicing Facilities/Operations							
180	Store, handle, and apply deicing and anti-icing materials only within designated deicing pads and contained areas.		✓		✓	✓	
181	Provide central deicing facilities to capture excess glycol in underground storage tanks. Incorporate drainage designs that capture deicer-laden runoff and segregate deicing runoff from "clean" runoff to minimize runoff volumes for treatment and disposal.		✓		✓	✓	
182	Use deicing materials that have a low biochemical oxygen demand (BOD).				✓	✓	
183	Collect excess glycol in separate collection systems.		✓		✓	✓	
184	Install Hydronic runway pavement to control snow accumulation on runways.		✓			✓	
185	Install heated pavement to control snow accumulation on paved areas.		✓			✓	
186	Use non-electrified snowmelters.		✓	✓	✓	✓	
187	Implement non-electrified snowmelt procedures such as Epoxy overcoat with glycol.		✓		✓	✓	
188	Maintain adequate supplies of deicing/anti-icing spill response equipment and materials in locations accessible to and near areas where spills may occur.		✓		✓	✓	
189	Provide and require employee education as appropriate in the following areas: deicing storage and handling, deicing procedures, spill response and prevention, and stormwater pollution prevention.				✓	✓	✓
190	Block storm drains during deicing/anti-icing material handling operations to prevent contamination of stormwater runoff.	✓			✓	✓	
191	Prevent stormwater runoff onto deicing/anti-icing material storage and handling areas.	✓	✓		✓	✓	
192	Clearly designate aircraft deicer/anti-icer storage and transfer areas.		✓		✓	✓	
193	Where possible, store deicing/anti-icing materials indoors or in a sheltered area.		✓		✓	✓	
194	Perform and document frequent inspections of storm drains, deicer application equipment, deicer runoff controls, and storage tanks; perform maintenance as required.	✓			✓	✓	
195	Proactively apply aircraft anti-icing fluids (AAFs), potentially reducing the volume of deicing agents required.				✓	✓	

196	Develop standard operating procedures for proactive anti-icing, including anti-icing equipment coordination, anti-icing agent application, and scheduling.				✓	✓	
197	Use forced air/hybrid deicing which adds aircraft-deicing fluid (ADF) to the air stream to aid in breaking loose snow and ice.				✓	✓	
198	Use infrared (IR) energy for aircraft deicing, reducing the need for deicing fluids.				✓	✓	
199	Perform initial deicing using hot water at a temperature of at least 60°C or 140°F; an anti-icing fluid is then applied before the water freezes.				✓	✓	
200	Purchase and install enclosed deicing buckets on deicing vehicles, protecting operators from exposure to deicing fluid and encouraging deicing closer to the aircraft, which may reduce overspray and increase efficiency.				✓	✓	
201	Install Holdover Time Determination Systems (HOTDS) to record measurements of winter conditions to enable to calculate de/anti-icing fluid holdover time.				✓	✓	
202	Quantify the volumes of aircraft deicers and anti-icers used to improve aircraft-deicing practices, analysis and design of deicing management systems, and compliance with environmental requirements.				✓	✓	
203	Use Tempered Steam Technology (TST) to defrost or pre-deice aircraft, potentially reducing the volume of ADF required.				✓	✓	
204	Store containers of deicing/anti-icing material away from direct traffic routes to prevent accidental spills.				✓	✓	
205	Routinely inspect AAF and ADF containers and tanks for leaks.				✓	✓	
206	Use sweeper-vacuums, glycol recovery vehicles (GRVs), and/or "mobile collection units" to remove (and potentially reuse) spent deicing fluid.				✓	✓	
207	Clear accumulations of clean snow from aircraft deicing areas prior to deicing operations to prevent contamination.				✓	✓	
208	Use temporary, portable frac tanks, delivered when and where needed, for storage of deicer-laden stormwater runoff prior to transporting for treatment or disposal.				✓	✓	
209	Install large-scale, permanent or temporary (modular, metal frame tanks with membrane liners and floating covers) tanks to store deicer-laden stormwater prior to transport for treatment or disposal.				✓	✓	
210	Dispose deicer-laden stormwater to publicly owned off-site treatment works (POTWs) that use biological processes to break down glycols and other organic constituents of deicing runoff.				✓	✓	✓
211	Use an on-site biological system for treating deicing runoff to concentrations acceptable for discharge to surface waters or the sanitary sewer, including: a moving bed biofilm reactor (MBBR) system; a sequencing batch reactor system; a reciprocating subsurface treatment system; or a anaerobic fluidized bed reactor (FBR) system.				✓	✓	
212	Use a natural treatment system (NTS) to treat runoff impacted by aircraft and airfield deicers. NTSs use soil, water, and plant ecosystems to remove pollutants through physical, chemical, and biological processes.				✓	✓	
213	Use membrane filtration to physically separate glycol/deicer dissolved substances to increase the concentrate reject stream on the basis of molecular size.				✓	✓	

214	Use recovered glycol as "feed stock" for products such as coolants, coatings, paints, and plastics. Recovered glycol may be reformulated as aircraft-deicing fluid after meeting all SAE AMS 1424 specifications. Other airport uses for recovered glycol include anti-freeze for maintenance trucks and aircraft lavatory fluid.		✓		✓	✓	
Water Efficiency							
Water Management Plan							
215	Consult applicable state/local water recycling criteria regulations governing the proper use of reclaimed water for non-potable needs. Also, consult with federal regulations such as the Safe Drinking Water Act of 1974.	✓					✓
216	Educate maintenance staff, employees, passenger and tenants about the strategies and practices to make water efficiency a success.				✓	✓	✓
217	Develop a schedule to track life-cycle water usage and cost savings.				✓	✓	✓
218	Incorporate water usage and conservation goals in the sustainability vision statement or policy.	✓	✓				✓
Innovative Wastewater Technologies							
219	Install high-efficiency fixtures and dry fixtures to reduce potable water usage and wastewater volumes.	✓	✓		✓	✓	
220	Test and repair water supply and wastewater conveyances to conserve water and stop leaks.				✓	✓	
221	Use an external NoFoam unit/kit for ARFF vehicles and for application on aircraft hangar foam-water suppression systems (www.environment.navy.mil/currents/fall2002/TTIPS_NoFoamSystem.pdf).				✓	✓	
Water Use Reduction							
222	Install an on-site wastewater treatment plant.	✓			✓	✓	
223	Install automatic sensors on toilets, urinals, and on faucets to conserve water.	✓	✓		✓		
224	Install water-conserving aerators on lavatories.	✓	✓		✓		
225	Install pressure-assisted toilets to conserve water usage.	✓	✓		✓		
226	Install dual-flush toilets.	✓	✓		✓		
227	Install composting toilets.	✓	✓		✓		
228	Install waterless urinals.	✓	✓		✓		
229	Install variable flush urinals.	✓	✓		✓		
230	Use low-volume, high pressure sprayer nozzles on water hoses used for vehicle washing.	✓			✓	✓	
231	Recycle used non-potable water for landscaping, machine washing, urinal and toilet flushing, custodial uses, etc. to the extent allowed by the Safe Drinking Water Act of 1974.	✓	✓		✓	✓	
232	Collect and use reclaimed graywater for non-potable needs like building sewage conveyance, cooling tower make-up, irrigation, vehicle maintenance and washing.	✓	✓		✓	✓	
233	Reclaim water used during training exercises at the aircraft rescue and fire-fighting (ARFF) facility "burn pit" for landscaping or other non-potable uses.	✓			✓	✓	
234	Use pulsed-power electromagnetic water treatment, ultraviolet treatment, or ozone treatment for the cooling tower water.	✓	✓		✓		
235	To process waste water, use reverse osmosis and ultra filtration (which may use less electricity and chemicals than a cooling tower).	✓	✓		✓		
236	Use tank-less hot water heaters (instantaneous hot water heating).		✓		✓		
237	Install high-efficiency products certified by U.S. EPA WaterSense program (www.epa.gov/WaterSense/).	✓	✓		✓		

238	Utilize stormwater cisterns for capturing rainwater from roofs for irrigation.	✓	✓		✓	✓	
239	Provide training for employees and signage for facility users instructing them on how they can help reduce water use.			✓	✓	✓	✓
240	Install metering networks to facilitate accurate measurement of water use.	✓			✓	✓	
Ground Transportation							
Public Transportation Access							
241	Provide direct transit access to an existing - or planned and funded - commuter rail or subway/elevated train station (within 0.5 mile).	✓	✓				
242	Provide direct access to one or more stops for two or more bus lines usable by airport passengers and employees (within 0.25 mile).	✓	✓				
243	Determine strategies to reduce shuttle bus needs--i.e., connecting terminals and rental car facilities.		✓		✓		✓
244	Financially contribute to the greening of the transit systems which serve the airport.		✓				✓
245	Provide incentives to employees to use public transportation, such as subsidized train and/or bus passes, to reduce emissions and parking required.	✓		✓			✓
246	Provide employees with directions to public transportation facilities.			✓			✓
247	Consider the density and the ability to walk and bike to commercial office, retail, and hotel zones on airport property; ensure that sidewalks are present and provide direct, safe access to bus stops, rail stops, and etc.	✓	✓				✓
248	Consolidate rental car facilities and shuttle transportation to minimize congestion on terminal roadways and reduce emissions.		✓				✓
249	Provide a centralized rental car facility with connection to the airport transit system.		✓				✓
250	Operate satellite 'check-in' facilities (downtown and suburban locations) to minimize congestion on terminal access roads.		✓				✓
251	Communicate with local and regional transit authorities to advance multiple transit connection opportunities.		✓				✓
252	Provide a waiting area for vehicles picking up passengers (such as cell phone lots).		✓				✓
253	Provide a remote curb location outside of the terminal core (such as Kiss-n-Fly).		✓				✓
254	Use an off-site delivery consolidation center to reduce delivery traffic.		✓		✓		✓
255	Help implement and support all four elements of the International Air Transport Association's (IATA) Fast Travel Program (www.iata.org/stbsupportportal/fasttravel.htm) including: bags ready-to-go, self-document scanning, self-boarding, and electronic baggage recovery.				✓		✓
256	Help implement and support IATA's Simplifying the Business initiatives including: 2-D BCBP (Bar-Coded Boarding Passes such as on mobile phones), radio-frequency identification (RFID) tags for baggage, in-flight services, parts management, and participation in the Baggage Improvement Program (BIP) audit, or encourage airlines to participate in BIP audits.				✓		✓
Bicycle Access/Usage							
257	Provide safe bicycle lanes and paths for access to and from the airport.	✓	✓				
258	Provide centralized facilities for secure bicycle storage.	✓	✓				

259	Ensure bikes remain visible; maintain an image of "bikes belong here" (e.g., signage).		✓				
260	Provide incentives for employees to bike to work.	✓					✓
261	Encourage transit agencies to provide bicycle friendly transit vehicles (e.g. buses and trains).	✓					✓
262	Encourage that a minimum of 5% of airport employees use bicycles for all or part of their daily commute.	✓					✓
263	Make bicycle facilities available for airport passengers as well.	✓	✓				
264	Develop and implement a "ZipBike" or other bike sharing program for employees and passengers to travel between airport facilities.	✓	✓				✓
Parking Capacity							
265	Provide incentives such as rebates and/or preferred parking for staff vanpools/carpools for 5% of the total provided parking spaces.	✓	✓		✓		✓
266	Provide infrastructure and support programs to facilitate shared vehicle usage such as carpool drop-off areas, designated parking for vanpools, or car-share services, ride boards, and shuttle services to mass transit.	✓	✓		✓		✓
267	Formulate a multifaceted approach to increasing transit ridership among employees, transit awareness day, guaranteed ride home, etc.		✓		✓		✓
268	Encourage telecommuting and off-site work, and restructure organization to minimize travel requirements.	✓					✓
269	Provide a Centralized Intermodal Ground Transportation Center.	✓	✓				✓
270	Require airport agencies and vendors to implement flexible or non-traditional work hours.						✓
271	Require all airport agencies/vendors to implement discounted vanpooling services.	✓	✓		✓		✓
Alternative Fuel Vehicles							
272	Provide incentives to airport staff and the public to encourage the usage of alternative fuel vehicles.	✓	✓		✓		✓
273	Establish tax or government credits for support of alternative fuel vehicles.	✓	✓		✓		✓
274	Use alternative fuel service vehicles on airside and landside.	✓		✓	✓		
275	Provide low-emitting and fuel-efficient vehicles for 3% of Full-Time Equivalent (FTE) airport occupants AND provide preferred parking for these vehicles.	✓	✓		✓		✓
276	Use alternatively fueled GSE and shuttle buses.	✓	✓		✓		✓
277	Install quick charge electric charging stations for public and commercial vehicles.	✓	✓		✓		
278	Participate in the FAA's Voluntary Airport Low Emissions Vehicle Program (VALE) including funding for intermodal connections, underground fuel hydrants, alternatively fueled vehicles, etc.	✓					✓
279	Enhance existing programs for alternative fuel vehicles within the airport operations.	✓		✓	✓		
280	Provide preferred parking incentives for alternative fuel vehicles or 20% discounted parking rates.	✓			✓		✓
281	Develop preferred parking and/or lot locations for rental fleets that offer alternative fuel rental vehicles.	✓	✓		✓		✓
282	Grant concessions to tenants that have the lowest average fleet emissions.	✓					✓
283	Provide incentives for hybrid/electric airport vehicle purchases/conversions.	✓					✓
284	Provide incentives for hybrid/electric taxi vehicle purchases/conversions, such as priority line placement for taxis.	✓					✓

285	Establish reduced access fees for hybrid taxis.	✓					✓
286	Provide incentives for hybrid/electric rental car vehicle purchases, conversions, and/or rentals.	✓					✓
287	Install alternative fuel refueling stations for 3% of the total vehicle parking capacity at the airport (for public use).	✓	✓		✓		✓
288	Install compressed natural gas (CNG) refueling stations on-site.	✓	✓		✓		✓
289	Replace conventional gasoline-based equipment with alternative-fuel based equipment, including biodiesel, compressed natural gas (CNG), Hythane, hybrid electric, fuel cell, liquid petroleum gas (LPG), or newly developed alternative fuel.	✓	✓	✓	✓	✓	
290	Provide airport employees with access to a hybrid car sharing program.	✓			✓		✓
Reduced Vehicle Idling Plan							
291	Develop a reduced vehicle idling plan for commercial vehicles, construction vehicles, airport service vehicles, tenant vehicles, ground service equipment (GSE), etc.			✓	✓		✓
292	Turn off vehicles if they will be left idle for more than 2 minutes (or other airport-specified time limit).			✓	✓		✓
293	Ensure that no vehicle idling occurs within 100 feet of a sensitive receptor area, such as air intakes.		✓	✓	✓		✓
294	Post no-idling signs to remind vehicle operators to turn off vehicles whenever possible.			✓	✓		✓
295	Install idling and emission limiting/reduction technologies whenever technologically feasible.			✓	✓	✓	
296	Require diesel idling restrictions for commercial delivery vehicles.			✓			✓
297	Develop a system to regulate idling; this could include issuing notices or fines for vehicles that are left idle for excessive periods.			✓	✓		✓
Roadway Design							
298	Design roadways to meet long life pavement design criteria.		✓				
299	Design roadway lanes for use by HOV, including appropriate turning lane dimensions.	✓	✓				
300	Utilize warm-mix asphalt to reduce energy needs during construction.		✓	✓			
301	Use asphalt containing recycled tires to achieve a longer life cycle and reduce required maintenance.	✓	✓	✓			
302	Use at least 50% recycled aggregate in roadbase materials.	✓	✓	✓			
303	Use at least 25% recycled aggregate in cement or asphalt bound pavement materials.	✓	✓	✓			
304	Use at least 25% replacement of Portland cement with suitable supplementary cementitious material (SCM) in all concrete pavements, curbs and gutters, and sidewalks.	✓	✓	✓			
305	Specify the use of blended (ASTM C595) and/or Performance Specified (ASTM C1157) cements for all Portland cement concrete pavements, sidewalks, and curbs and gutters.		✓	✓			
306	Reduce the total Portland cement content to a maximum of 470 lbs/yd ³ for all pavements, sidewalks, and curbs and gutters.		✓	✓			
307	To identify additional sustainable choices/practices for roadways, consult the State of Washington's Green Roads rating system (www.epa.gov/epawaste/rcc/resources/meetings/rcc-2008/sessions/imr/highways/muench.pdf) and/or the New York State Department of Transportation's GreenLITES program (www.nvsdot.gov/programs/greenlites).		✓	✓			✓
Landscape and Exterior Design							

Landscape and Exterior Design to Reduce Heat Islands, Non-Roof							
308	Establish and follow sustainable airside landscape guidelines.		✓	✓	✓	✓	✓
309	Establish and follow sustainable landside landscape guidelines.		✓	✓	✓	✓	✓
310	Provide structured parking in lieu of asphalt paved surface lots. This provides additional 'green' areas and reduces stormwater runoff from roofs and potentially the size of storm sewer systems. Parking structures may also provide space for housing solar systems.	✓	✓				
311	Specify non-toxic, non-chemical materials for initial landscape planting and fertilization.				✓	✓	✓
312	Avoid planting vegetation that requires regular maintenance with pesticides.		✓			✓	
313	Top-dress soil with compost to decrease fertilizer and irrigation needs, to control erosion, and to retain moisture.					✓	
314	Spot treat landscape problem areas instead of chemically treating a larger area than necessary.					✓	
315	Design infrastructure for composting methods that accommodates the anticipated waste levels.		✓				
316	Use pavement materials that have a high Solar Reflectance Index (SRI) of at least 29.	✓	✓	✓			
317	Substitute vegetated surfaces for impervious surfaces wherever possible. Vegetated areas reduce the heat island effect through plant transpiration.	✓	✓	✓			
318	Implement landscaping specifications that are low-maintenance, drought resistant, and non-wildlife attracting. Consider xeriscaping, a landscape design tailored to withstand drought conditions.	✓	✓	✓		✓	✓
319	Install trees to provide shade for dark colored impervious surfaces.	✓	✓	✓		✓	
320	Have the building service contractors provide a monthly log of all of the low-impact landscape management techniques implemented.	✓		✓	✓	✓	✓
Landscape & Exterior Design to Reduce Heat Islands, Roof							
321	Install a vegetated green roof system to reduce the heat island effect and to reduce stormwater runoff from buildings.	✓	✓		✓		
322	Install high reflectance/high albedo roofing materials with a high solar reflectance index (SRI), as described in the ASTM E 1980 standard. Low-sloped roofs (slope <= 2:12) should have a SRI value of 78 or above; steep-sloped roofs (slope > 2:12) should have a SRI value greater than 29.	✓	✓	✓			
323	Install a Cool Roof Rating Council (CRRC) rated roof product or an Energy Star cool roof with equivalent reluctance and emittance properties (visit www.energystar.gov/).	✓	✓	✓			
324	Use a non-asphalt-based single-ply roofing membrane with high emittance properties.	✓	✓	✓			
325	Apply high reflectance coating to the surface of a conventional roof membrane.	✓		✓	✓	✓	
326	Utilize a combination of vegetated and high albedo roof surfaces.	✓	✓		✓		
Light Pollution Reduction							
327	Minimize site lighting where possible (maintain light use for safety, access, and building identification).	✓		✓	✓	✓	
328	Monitor lighting systems regularly to maintain proper illumination and minimize off-site impacts.	✓			✓	✓	

329	Meet or provide lower light levels and uniformity ratios than those recommended by the Illuminating Engineering Society of North America (IESNA) <i>Recommended Practice Manual: Lighting for Exterior Environments (RP-33-99)</i> .		✓	✓	✓	✓	
330	Adopt site lighting criteria to maintain appropriate/adequate light levels while avoiding off-site lighting and night sky pollution.	✓		✓	✓	✓	✓
331	Ensure that the maximum candela value of all interior lighting falls within the building (not out through windows) and the maximum candela value of all exterior lighting falls within the property.	✓			✓	✓	
332	Model the site lighting using a computer model to establish a baseline level and evaluate benefits.		✓		✓	✓	✓
333	Utilize full cutoff luminaires, low-reflectance, non-specular surfaces and low-angle spotlights for roadway and building lighting.	✓	✓	✓	✓	✓	
334	Develop greenbelts along the airport perimeter as an attractive light and noise buffer between the airport and the community.		✓				
335	Where acceptable, use High Pressure Sodium (HPS) lamps instead of Metal Halide (MH) lamps; HPS Lamps produce more lumens per watt, have less mercury content per lamp, and have a greater average rated life expectancy than MH lamps.	✓	✓		✓	✓	
336	Use high frequency electronic ballasts with fluorescent 2, 4, and 8-foot Tubular lamps that do not contain mercury.	✓	✓		✓	✓	
337	Install self-dimming fluorescent lamp ballasts.	✓	✓		✓	✓	
338	Specify strict site lighting criteria and update periodically in conjunction with seasonal daylight fluctuations.	✓		✓	✓	✓	✓
339	Coordinate electrical lighting scenarios with daylight strategies.			✓	✓	✓	✓
340	Install recyclable lamps and provide recycling information for all luminaires.				✓	✓	✓
341	Ensure that all openings in the building envelope (translucent or transparent) with a direct line of sight to any nonemergency luminaires have shielding that is controlled/closed by an automatic device between 11 p.m. and 5 a.m.	✓		✓	✓	✓	✓
342	Focus light toward the earth to minimize night-sky pollution.	✓		✓	✓	✓	✓
Water Efficient Landscaping							
343	Where possible, avoid installing any type of irrigation system.	✓	✓			✓	
344	Avoid installing an irrigation system supplied by potable water.	✓	✓			✓	
345	Install high-efficiency irrigation systems (if irrigation is a necessity) with a slow-drip, sub-soil irrigation and automated linkages to meteorological data.	✓	✓			✓	
346	Perform a soil and climate analysis to determine the appropriate landscape strategy.	✓	✓			✓	✓
347	Plant drought-resistant vegetation that does not attract wildlife.	✓	✓			✓	
348	Segregate drought-resistant vegetation from conventional and ornamental vegetation (non-wildlife attracting).	✓	✓			✓	
349	Use mulching and composting around plant root zones to increase water retention.	✓	✓			✓	
350	Increase plant shade to retain water.	✓	✓			✓	
Energy Efficiency and Atmosphere							
Systems Commissioning							
351	Develop and utilize a systems commissioning plan.	✓	✓	✓			✓
352	Identify an individual to lead the commissioning process early on.	✓	✓	✓			✓

353	Establish and follow systems commissioning requirements consistent with sustainable design to ensure optimal performance of systems. Consider the following systems: central building automation; HVAC equipment; lighting controls and sensors; site lighting; refrigeration systems; vertical transport; building envelope; emergency power generators and automatic transfer switching; uninterruptible power supply systems; life safety systems (i.e., fire alarms); Egress pressurization; lightning protection, domestic and process water pumping and mixing systems; sound control systems; data and communication systems; paging systems; security systems; irrigation systems; plumbing.	✓		✓	✓		✓
354	Implement or have a contract in place to implement best practice commissioning procedures.			✓			✓
355	Review the design intent and the basis of design documentation for proper systems commissioning.	✓		✓			✓
356	Provide the airport owner with a single manual that contains the information required for recommissioning systems.	✓		✓			✓
357	Engage a commissioning team that does not include individuals directly responsible for project design or construction management to evaluate both building and site systems as part of the commissioning plan.	✓	✓	✓			✓
358	For support and ancillary buildings, follow all of the applicable systems commissioning requirements and assemblies.			✓			✓
359	Establish and follow systems commission requirements for runway lighting and illuminated signage, runway NAVAIDS, runway site lighting systems, traffic signals, pump stations, and oil/water separators.	✓		✓			✓
360	Incorporate commissioning requirements into the construction documents.			✓			✓
361	Complete a systems commissioning report.	✓	✓	✓	✓		✓
362	Include recommissioning of affected systems as part of any building modification or addition.	✓		✓		✓	✓
363	Recommission systems when building energy usage deviates from the planned energy usage.			✓		✓	
364	Evaluate whether energy systems are sized appropriately.			✓	✓	✓	
365	Include airport facility operators and users in design teams to insure installed equipment is used as intended (i.e., HVAC systems).		✓				✓
366	Acquire manufacturer documentation and guarantee of installations, projected results, and in-situ performance criteria to compare to standard performance results.		✓	✓			✓
Minimum Energy Performance							
367	Meet or exceed the local Energy Conservation Code.	✓	✓		✓		✓
368	Design buildings to comply with ASHRAE/IESNA Standard 90.1-1999.	✓	✓				✓
369	For runways, civil/stormwater and roadways/rail, design site systems to comply with the energy saving intents of ASHRAE/IESNA Standard 90.1-1999.		✓				✓
370	Develop baseline energy consumption (e.g., perform an energy audit of buildings and facilities).	✓					✓
Optimize Energy Performance							
371	Develop an overall strategic energy efficiency/conservation plan to reduce design energy cost and use compared to baseline (standard) energy use.	✓	✓				✓
372	Develop an Energy Master Plan for the organization's facilities.		✓				✓

373	Consistent with the LEED "Optimize Energy Performance" Credit, ASHRAE 90.1-2004 guidelines, seek energy use reductions on all projects (i.e. 12%, 14%, 16%, etc.).	✓	✓				✓
374	Report annual energy numbers/savings after implementing energy reduction strategies for use as a marketing mechanism, to set/accomplish energy goals, manage strategies, and etc.				✓		✓
375	Use a computer simulation model to assess energy performance and identify the most cost effective energy measures.	✓	✓				✓
376	Conduct and implement recommendations from an energy audit periodically (e.g., every 4 years).	✓					✓
377	Install metering/monitoring devices and energy management control systems.	✓	✓		✓		✓
378	Use a maintenance log to track energy use processes, problems, and ideas.				✓	✓	✓
379	Gather input from maintenance staff to develop energy management plans.				✓	✓	✓
380	Install high-efficiency motors and energy systems.	✓	✓		✓	✓	
381	Install a motor efficiency controller (such as those made by EcoStart™) in escalators and automated people movers/moving walkways to reduce energy consumption.		✓		✓		
382	Provide energy efficient lighting systems.	✓	✓		✓	✓	
383	Utilize compact fluorescent light (CFL) bulbs in lieu of incandescent lamps.	✓	✓		✓	✓	
384	Organize lighting circuitry and building systems so that individual areas are separately controlled.	✓	✓		✓		
385	Implement a "turn off your light and computer" campaign to raise awareness about unnecessary energy usage.						✓
386	Install occupancy sensors, either infrared (heat detection), ultrasonic (movement detection), or a combination of both, to control lighting in areas that are intermittently occupied (i.e., rest rooms, storage areas, stairwells, etc.).		✓		✓		
387	Install large revolving doors to create an air lock and reduce heat transfer.		✓		✓		
388	Install automatic hand towel dispensers in restrooms.		✓		✓	✓	
389	Install efficient next-generation hand dryers (such as Dyson AirBlade) instead of conventional dryers or paper towels.		✓		✓	✓	
390	Minimize air infiltration through all exterior openings during HVAC operation.		✓		✓		
391	Group flights in a certain part of the concourse during nonpeak hours, allowing the airport to shut off air-conditioning and lighting in unused areas.		✓		✓		✓
392	Install cogeneration systems to improve energy efficiency.	✓	✓				
393	Install energy peak shaving units to offset higher demand periods and costs.	✓	✓		✓		
394	Install on-site energy production systems and facilities to create excess power.	✓	✓				
395	Use LED "exit" signs and other LED lighting in buildings.		✓		✓		
396	For non-buildings, including civil/stormwater and roadways/rail projects, runways and taxiways (as applicable), use LED lighting and signals.		✓		✓		
397	Install daylight harvesting control systems, optimize lighting controls, and integrate lighting systems with building automation systems.	✓	✓		✓		
398	Use high performance glazing and window systems.		✓	✓			
399	Maximize existing levels of insulation and thermal mass for existing, modified, or new buildings.	✓	✓	✓		✓	
400	Seal penetrations, windows, and roof-ceiling-wall intersections. Seal gaps between windows and walls (do not use sealants that contain VOCs).	✓	✓	✓		✓	

401	Convert old steam heating systems to modern hot-water heating systems (preferably passive solar water heating systems).					✓	
402	Reduce after-hour energy consumption.	✓	✓		✓		✓
403	Install efficient HVAC systems as HVAC consumes a large portion of energy.	✓	✓				
404	For HVAC systems, use variable-speed drives to reduce energy used by fans, chillers, and pumps under part-load conditions.	✓	✓				
405	Consider direct-drive equipment options in lieu of belt- or gear-driven HVAC equipment.		✓				
406	Install an indirect evaporative and/or evaporative condensing direct expansion (DX) HVAC system instead of chilled water plant system to reduce energy consumption.		✓				
407	Integrate high-performance chillers with thermal ice storage to reduce electrical demand use and costs during the cooling season.		✓				
408	Establish airside lighting controls and procedures to turn off or reduce the intensity of airside lighting (runway, taxiway and apron lights and navigational aids) when not being used.	✓			✓		✓
409	Use light colored paints and interiors to reflect lighting.		✓			✓	
410	Incorporate larger windows on the northern face of a building.		✓			✓	
411	Shade southern facing windows with overhangs or deciduous vegetation.		✓			✓	
412	Plant coniferous trees to block northwest winds in the winter, reducing heating costs.		✓			✓	
413	Incorporate overhead skylighting to increase natural daylight and reduce heating costs during the winter.		✓			✓	
414	Use infrared imaging during construction to identify issues with thermal leaks from buildings.		✓	✓		✓	
415	Use variable-air-volume systems for cooling to reduce energy use during peak-use conditions.		✓		✓		
416	Use a multiple-chiller system with units of varying size.		✓				
417	Use absorption cooling which employs lower cost fuels such as steam, natural gas, or high-temperature waste heat, to drive the absorption refrigeration process.	✓	✓				
418	Use Variable Frequency Drive (VFD) motors to control the rotational speed of an alternating current (AC) electric motor. VFD motors can be used in building ventilation systems, pumps, conveyor and machine tool drives, and other systems.	✓	✓		✓		
419	Only purchase Energy Star compliant devices (visit www.energystar.gov/).	✓	✓	✓	✓	✓	✓
420	Install gas-fired (versus electric) kitchen equipment, such as ovens, booster heaters, and grills. Equipment should ignite electronically instead of using pilot lights.		✓				
421	Install thermal storage systems to decrease peak energy consumption.	✓	✓		✓		
422	Connect monitors, printers, and other accessories to a power strip/surge protector. When they are not in use for extended periods, turn off the switch on the power strip to prevent them from drawing power even when shut off.				✓		✓
423	Turn off computer monitors if they are not going to be used for more than 20 minutes (a small surge in energy occurs when a monitor starts up; see www.energysavers.gov/your_home/appliances/index.cfm/mytopic=10070).				✓		✓

424	Turn off both the CPU and monitor if the PC is not going to be used for more than 2 hours (a small surge in energy occurs when a computer starts up; see www.energysavers.gov/your_home/appliances/index.cfm/mytopic=10070).					✓			✓
425	Set up/select a power-down or "sleep mode" feature on the CPU and monitor to reduce energy use.					✓			✓
426	Do not use screen savers since they consume more energy than not using one and/or they may disable power-down or "sleep mode" features.					✓			✓
427	Purchase and use printers and fax machines with power management features. Turn off the copier(s) at night or purchase a new copier with a power-down or standby feature (see www.energysavers.gov/your_home/appliances/index.cfm/mytopic=10070).					✓			✓
428	Unplug cell phone chargers, fans, coffeemakers, desktop printers, radios, and other equipment that drains energy when not in use.					✓			✓
CFC, HFC, and HCFC Reduction									
429	Ensure existing and new building HVAC equipment and appliances do not use CFC, HFC, or HCFC refrigerants.	✓	✓	✓	✓	✓	✓	✓	✓
430	For existing HVAC systems, inventory equipment that uses CFC, HFC, and HCFC refrigerants and adopt a fast replacement schedule to eliminate usage of these refrigerants.	✓	✓	✓	✓	✓	✓	✓	✓
431	Use evaporative cooling.		✓						
432	Maintain equipment frequently to detect leaks.							✓	
Renewable and Alternative Energy									
433	Conduct an alternative renewable energy feasibility study (e.g., solar, wind, geothermal) to determine the optimal size, type, location, and cost of installing and operating an alternative renewable energy system.	✓							✓
434	Showcase the airport as a demonstration and commercialization launch pad for alternative energy technologies and products through marketing and press relations.								✓
435	Use collected snow to chill the liquid used in the airport's cooling system in the summer. Cover the snow with insulation materials, which can typically retain about 45 percent of the snow.		✓						✓
436	Investigate the potential for Renewable Energy Certificates (RECs) or carbon credits, which may be sold as a potential revenue source.	✓							✓
437	Purchase "Green Power" from a local energy provider. Payment for "Green Power" funds renewable energy research, development, production, and use. Renewable sources are defined by the Center for Resource Solutions (CRS) Green-e products certification requirements (visit www.green-e.org).	✓							✓
438	Use a discrete photovoltaic power source for outlying equipment, ancillary buildings, and parking and site lighting.	✓	✓	✓	✓	✓			
439	Install solar trash compactors along curbsides and in remote areas. Solar compactors, such as those made by BigBelly Solar (www.bigbellysolar.com/news/15/palm-springs-solar-powered-trash-compactors-raise-awareness), use solar energy to compact daily waste into neat 40-pound bricks.	✓	✓			✓			✓
440	Install solar photovoltaic panels on buildings and/or at ground level.	✓	✓						✓

441	Install solar trees at the airport. Solar trees are mounted on steel poles topped with photovoltaic (PV) arrays that shift and tilt throughout the day to track the sun.	✓	✓				✓
442	Install synthetic photovoltaic cell-based skin on large roof areas.	✓	✓				✓
443	Explore installing Nanosolar Utility Panels™ (solar panels) that carry 5-10 times more current than typical thin-film panels.	✓	✓				✓
444	Install Nanosolar SolarPly™ light-weight solar-electric cell foil which can be cut to any size.	✓	✓				✓
445	Install solar-thermal powered water heaters.	✓	✓				
446	Install solar Trombe walls for passive solar heating.	✓	✓				
447	Install building-integrated photovoltaics.	✓	✓				
448	Strategically mount solar panels near windows to double as canopies for window shading.	✓	✓				
449	Install solar energy roadway signs.	✓	✓				
450	Install an on-site power generation system at the airport to reduce energy costs, increase energy independence, protect against blackouts, and improve energy efficiency.		✓				
451	Install geothermal-powered hot water heaters (heat pumps).	✓	✓				
452	Install geothermal heating and cooling systems.	✓	✓				
453	Utilize wind power (wind turbines) where appropriate.	✓	✓				
454	Utilize available sources of tidal power.	✓	✓				✓
455	Utilize available sources of coal gasification.	✓	✓				✓
456	Investigate energy tax credits, rebates, and grants by local utilities or federal, state, or local agencies. Utilize the Database of State Incentives for Renewables and Incentives (DSIRE) for information on state, local, utility, and federal incentives that promote renewable energy and energy efficiency (www.dsireusa.org).	✓	✓				✓
457	Utilize fuel cells, especially in remote locations, for powering remote weather stations, cars, trucks, and buses, combined heat and power applications, laptops, cell phones, and other applications.	✓	✓		✓		
458	Utilize available sources of biofuels.	✓	✓		✓		
459	Utilize biodiesel in facilities and appropriate vehicles.	✓	✓		✓		
460	Utilize hydroelectric power.	✓	✓				✓
461	Utilize sewer heat recovery systems.	✓	✓				✓
Measurement and Verification							
462	Install continuous metering equipment for the following end-uses: lighting systems and controls; constant and variable motor loads; variable frequency drive (VFD) operation; chiller efficiency at variable loads (kW/ton); cooling load; air and water economizer and heat recovery cycles; air distribution static pressures and ventilation air volumes; boiler efficiencies; building-related process energy systems and equipment; indoor water risers and outdoor irrigation.	✓	✓		✓		✓
463	Conduct comprehensive training of all staff that covers all aspects of building operations and maintenance (O&M).				✓	✓	✓
464	Include O&M staff in the building design meetings to capture their perspective and ideas.		✓	✓	✓	✓	✓
465	Require building staff participation during commissioning and testing and balancing activities.		✓	✓			✓
466	Use energy system monitoring results from the first year of operation to set a goal for more efficient operation and to identify when a system's performance is deteriorating.	✓	✓				✓
Indoor Environmental Quality							
Minimum Indoor Air Quality Performance							

467	Determine potential Indoor Air Quality IAQ problems on-site and locate air intakes away from contaminants such as loading areas, exhaust fans, and cooling towers.	✓	✓		✓		
468	Utilize carbon or electrostatic filters, or other particulate control technologies.		✓		✓		
Environmental Tobacco Smoke Control							
469	Develop and implement an Environmental Tobacco Smoke (ETS) control plan.	✓		✓	✓	✓	✓
470	Prohibit smoking in the public areas of buildings.	✓		✓	✓	✓	✓
471	Locate exterior designated smoking areas away from entries and operable windows.	✓	✓				
472	Require all parts of the construction sites to be non-smoking.	✓		✓			✓
473	Work with unions in privately leased spaces (such as cargo) to designate these areas as non-smoking.	✓			✓	✓	✓
474	If an interior smoking area is necessary, provide a designated smoking room designed to effectively contain, capture, and remove environmental tobacco smoke (ETS) from the building using a separate ventilation system.	✓	✓				✓
475	Establish zero exposure of non-smokers to environmental tobacco smoke (ETS).	✓	✓	✓	✓		
Carbon Dioxide Monitoring							
476	Provide for real-time control of terminal unit (VAX box) flow rates and total outdoor air flow rates based on carbon dioxide levels.	✓			✓	✓	
477	Install a permanent carbon dioxide (CO ₂) monitoring system that provides feedback on space ventilation performance in a form that affords operational adjustments in accordance with ASHRAE 62-2001, Appendix D.	✓			✓	✓	
478	Design HVAC systems for terminal buildings with carbon dioxide monitoring sensors in each space and integrate these sensors with the building automation system (BAS).	✓	✓		✓	✓	
Ventilation Effectiveness							
479	Install air diffusers for all mechanically ventilated spaces, particularly office and terminal spaces, following the recommended design approaches in the ASHRAE 2001 Fundamentals, Chapter 32 <i>Space Air Diffusion</i> .	✓	✓			✓	
480	Design building ventilation systems that result in an air change effectiveness (ϵ_{ac}) greater than or equal to 0.9 as determined by ASHRAE 129-1997.	✓	✓			✓	
481	Increase air change effectiveness using displacement ventilation in terminal areas.	✓	✓			✓	
482	Use low-face velocity coils and filters to reduce energy loss through air delivery system components.	✓	✓			✓	
483	Clean or change furnace filters once a month during the heating season.	✓				✓	
484	Increase air movement in facilities by using ceiling fans.	✓	✓			✓	
485	Install trickle ventilators in cargo facilities (small 'openers' concealed within a window or curtainwall's horizontal members), allowing fresh air to 'trickle' into the building and providing natural ventilation without the need for operating windows or sliding doors.	✓	✓			✓	
486	Design equipment and ductwork with smooth internal surfaces to minimize the collection of dust and microbial growth.	✓	✓			✓	
487	Install relief vents or operable skylights in cargo and other applicable facilities to provide stack effect natural ventilation.	✓	✓			✓	

488	For naturally ventilated spaces, demonstrate a distribution and laminar flow pattern that involves not less than 90% of the room or zone area in the direction of air flow for at least 95% of hours of occupancy.	✓	✓			✓	
489	Install remote monitoring systems to detect Jet A vapors.	✓			✓	✓	
Low-Emitting Materials							
490	Use zero- or low-VOC (volatile organic compound) adhesives and sealants; consider using water-based sealants which contain no VOCs and can be used on porous or nonporous surfaces.	✓	✓	✓	✓	✓	
491	For adhesives and sealants, the VOC content used must be less than the current VOC content limits of South Coast Air Quality Management District (SCAQMD) Rule #1168, AND all sealants used as fillers must meet or exceed the requirements of the Bay Area Air Quality Management District Regulation 8, Rule 51.	✓	✓	✓	✓	✓	
492	Do not use adhesives or sealants that use Mercury (PBT).	✓	✓	✓	✓	✓	
493	Avoid using fluorescent, compact fluorescent, and LED lights that contain mercury (as well as electrical switches and thermostats).	✓	✓	✓	✓	✓	
494	Use zero- or low-VOC field applied paints and coatings.	✓	✓	✓	✓	✓	
495	For interior paints and coatings, VOC emissions must not exceed the VOC and chemical component limits of Green Seal's Standard GS-11 requirements.	✓	✓	✓	✓	✓	
496	Follow standards and prohibitions documented in South Coast Air Quality Management District (SCAQMD) Rule 1113 (paints and coatings) and applicable source-specific SCAQMD standards.	✓	✓	✓	✓	✓	
497	Specify low-VOC carpet systems and/or require that VOC emissions meet or exceed the requirements of the Carpet and Rug Institute's Green Label Indoor Air Quality Test Program.	✓	✓	✓	✓	✓	
498	Require that composite wood and agrifiber carpet systems must contain no added urea-formaldehyde resins.	✓	✓	✓	✓	✓	
499	Ensure that VOC limits are clearly stated where carpet systems are addressed. Be attentive to carpet installation requirements.	✓	✓	✓	✓	✓	
500	Install VOC-free natural linoleum flooring, recycled glass tile, or ceramic tile in lieu of carpet materials that contain VOCs.	✓	✓	✓	✓	✓	
501	Do not install vinyl flooring with high polyvinyl chloride (PVC) content. Carpet containing PVC can release toxic chemicals, including dioxin, into the air; PVC often contains phthalate-based softening agents, which are recognized as reproductive toxins that may contribute to indoor pollution.	✓	✓	✓	✓	✓	
502	To ensure a long life cycle of carpeted areas, clean up carpet spills immediately to prevent stains and fungus.	✓	✓	✓	✓	✓	
503	Vacuum heavily trafficked areas daily using equipment with powerful suction and a high-efficiency particulate air (HEPA) filtration bag to ensure a long life cycle of carpeted areas.	✓	✓	✓	✓	✓	
504	To ensure a long life cycle of carpeted areas, perform extraction cleaning every 6 to 12 months, preferably with hot water or steam.	✓	✓	✓	✓	✓	
505	Ensure that all shop finished material meet the VOC emission requirements. Materials to consider are: primed steel, finished metals including aluminum, finished millwork, and finished steel and wood doors and windows.	✓	✓	✓	✓	✓	
Indoor Chemical and Pollutant Source Control							
506	Install separate exhaust and plumbing systems in spaces that are known to use or contain chemicals and hazardous products.	✓	✓		✓	✓	

507	Only use electric vehicles in indoor facilities.	✓	✓		✓		✓
508	Prohibit the indoor use of combustion engine-based devices without direct exterior exhaust and make-up air.	✓	✓		✓		✓
509	Use non-absorptive flooring and walls.	✓	✓		✓	✓	
510	Use indoor toxic-absorptive vegetation.	✓	✓			✓	
511	Use non-toxic cleaning supplies.	✓	✓			✓	
512	Remove all equipment containing Polychlorinated Biphenyls (PCB) to reduce risks to occupants from exposure to the material, to reduce the environmental risk from leakage due to deterioration or damage of the equipment, and to reduce the risk of exposure to hazardous combustion by-products in the case of fire.	✓	✓			✓	
513	Incorporate vegetated green wall systems in occupied areas.	✓	✓			✓	
514	Design buildings to minimize pollutant cross-contamination of regularly occupied areas.	✓	✓	✓			
515	Where chemical use occurs (including housekeeping areas and copying/printing rooms), provide segregated areas with separate outside exhaust at a rate of at least 0.50 cubic feet per minute per square foot, no air re-circulation, and maintaining a negative pressure.	✓	✓		✓	✓	
516	Provide drains plumbed for appropriate disposal of liquid waste in spaces where water and chemical concentrate mixing occurs.	✓	✓		✓	✓	
517	Select finish materials, assemblies and equipment, including HVAC equipment, that resist mold growth.	✓	✓	✓			
518	Install permanent architectural entryway systems such as grills or grates (preferably over 6 feet long) to prevent occupant-borne contaminants from entering the building.	✓	✓				
519	If installing a grate or grill is not practical, hire a contractor to regularly clean mats that track dirt from occupants entering the building.	✓	✓				
520	Identify all hazardous products or processes.	✓		✓	✓	✓	
521	Install air-tight electrical boxes to minimize air leakage.	✓		✓	✓	✓	
522	Ensure proper ventilations, such as fume hoods, for activities that produce hazardous gasses.	✓		✓	✓	✓	
523	Design central locations in terminal and office buildings for storage of concentrated cleaning chemicals and other pollutant sources.	✓	✓	✓	✓	✓	
524	Provide utility outlets such as water and electricity for cleaning.	✓	✓	✓		✓	
Controllability of Systems							
525	Correlate lighting in public areas of terminals to flight schedules.		✓		✓		✓
526	Design terminal areas with a variety of light and sound levels.		✓		✓		
527	Install operable windows in areas that are not noise-sensitive.		✓				
528	Install task lighting or more light switching zones in offices areas.	✓	✓	✓		✓	
529	Install under floor air distribution systems with individual diffusers in office areas.	✓	✓	✓		✓	
530	Integrate all building electrical systems.		✓	✓		✓	
531	Provide controls for each individual in office spaces for airflow, temperature and lighting of the occupied space, and for the occupants in non-perimeter, regularly occupied areas.	✓	✓	✓		✓	
532	Provide areas with varying indoor conditions in terminals, allowing passengers to choose an area with conditions that best match their needs.	✓	✓	✓		✓	
533	Integrate micro switches of operable windows with HVAC operation.		✓	✓		✓	
534	Integrate occupancy sensors with HVAC operation.		✓	✓		✓	

535	Use direct digital control systems for greater accuracy, flexibility, and operator interface compared to pneumatic systems.		✓			✓	
Thermal Comfort							
536	Require the use of (or provide incentives for) centralized pre-conditioned air (PCA) and ground power systems (400 Hz) for gated aircraft. For all new terminal leases, establish lease provisions that require preconditioned air units at all gates with 400 Hz power.	✓	✓		✓		✓
537	Include a requirement for preconditioned air units in all bid documents for terminal and gate design and renovation projects.	✓	✓				✓
538	Install a permanent temperature and humidity monitoring system configured to provide operators with control over thermal comfort performance and the effectiveness of humidification and/or dehumidification systems.	✓	✓	✓		✓	
539	Install thermally efficient glass on airport buildings.	✓	✓	✓		✓	
540	Fully comply with ASHRAE Standard 55-2004, Thermal Comfort Conditions, including humidity control within established ranges per climate zone.	✓	✓	✓		✓	
541	Incorporate air curtains at entrances to airport buildings. Air curtains act as thermal, bug and dust barriers in doorways, saving energy and increasing comfort.	✓	✓				
Daylight and Views							
542	Install natural skylights (such as a Solatube Daylighting System™) which may reduce daylight lighting requirements, especially in airport administrative offices which are usually located on the top floor of the terminal facilities.	✓	✓			✓	
543	Design the building to maximize the amount of daytime sunlight penetrating through windows. Consider: building orientation, shallow floor plates, increased building perimeter, floor-to-ceiling heights, and ceiling configurations.	✓	✓				
544	Coordinate daylight strategy with building automation system (BAS) and lighting control system.	✓	✓		✓	✓	
545	Provide interior (shades, louvers, blinds) and exterior (overhangs, trees) shading devices/strategies to filter daylight and control glare from sunlight.		✓		✓	✓	
546	Enhance architectural features to maximize daylighting and avoid glare problems.	✓	✓		✓	✓	
547	Install window tinting film to minimize heat and AC loss through windows, increasing energy savings. Window tinting protects carpets, drapes and furniture from fading, cuts back on the sun's damaging UV rays, makes windows safer by preventing injury and damage from broken glass, reduces glare, and improves privacy.		✓		✓	✓	
548	Install photo-integrated light sensors to dim artificial lights when daylight penetrating the building is sufficient.	✓	✓		✓	✓	
549	Use a daylighting model or calculations to assess foot-candle levels and daylight factors achieved.	✓	✓				✓
550	Achieve a minimum Daylight Factor (as defined by LEED 2009) of 25 footcandles (excluding all direct sunlight penetration) in 75% of all regularly occupied areas. (Spaces excluded from these requirements include copy rooms, storage areas, mechanical plant rooms, laundry and other low occupancy support areas).	✓	✓		✓		✓
551	Achieve direct line of sight to vision glazing for building occupants in 90% of all regularly occupied spaces. (Spaces excluded from these requirements include copy rooms, storage areas, mechanical plant rooms, laundry and other low occupancy support areas).	✓	✓				

552	Design partitioned offices in the center of floor plans with windows so that more daylighting and views can be achieved.		✓				
553	Use open workstation cubicles or cubical walls lower than 4 feet.	✓	✓				
554	Avoid HVAC or electrical wiring within 5 feet of outer walls so that ceiling height can be modified to increase outside views.	✓	✓				
555	Use shallow floor plates. A "shallow floor plate" refers to a building footprint that is more rectangular than square. The intent is to align the east-west axis so that the southern sun will penetrate deeper into the building, allowing for more daylight to occupied spaces.	✓	✓				
Noise Transmission							
556	Locate glazing and other noise transmission surfaces away from the most noise-sensitive spaces.		✓				
557	Orient building such that glazed surfaces are not directed toward noise.		✓				
558	Use laminated glazing to reduce noise transmission.		✓			✓	
Facility Operations							
Maintenance Equipment							
559	Prior to installing or purchasing equipment, determine the required maintenance procedures for materials and systems specifically with attention to disposal requirements and impacts to indoor environmental quality.		✓		✓	✓	✓
560	Perform vehicle and equipment maintenance indoors, where possible.					✓	
561	Design floor drains in indoor maintenance areas (including aircraft maintenance) to discharge to the sanitary sewer and not the stormwater system. Floor drains should discharge into an oil/water separator, which captures oil and other contaminants. The separator should be periodically pumped, and the oil processed for recycling.		✓			✓	
562	Perform outdoor maintenance in a designated area paved with impervious concrete. The maintenance area should be a minimum of 50 feet from any storm drain inlet.		✓	✓		✓	
563	Maintain and locate Spill Control Kits in areas readily accessible to all maintenance areas.		✓	✓		✓	
564	Require aircraft and vehicle wash areas that utilize biodegradable soap.				✓	✓	✓
565	Have the building service contractors provide a monthly log that documents the collection, storage and disposal of recyclable materials.				✓	✓	✓
566	Have the building service contractors provide a monthly log of the materials used in low environmental impact cleaning equipment, including Green Label equipment, low noise level and low emissions equipment.				✓	✓	✓
567	Have the building service contractors provide a monthly log of all of the materials used in low environmental impact cleaning policies, including Green Seal compliant products, floor coating products free of zinc, disposal procedures, decreased use of chemicals, and prevention of exposure of workers to concentrated chemicals.				✓	✓	✓
568	Have the building service contractors provide a monthly log of all of the materials used in integrated pest management.				✓	✓	✓
569	Specify environmentally friendly cleaning products and processes for installed systems and products in operation and maintenance manuals.				✓	✓	✓
570	Review maintenance and janitorial programs to eliminate toxic agents in favor of more environmentally friendly choices.				✓	✓	✓

571	Review engineering standards for building systems equipment subject to period maintenance or replacement (air handler motors and belts, pumps and valves, luminaries, switches, etc.) to identify potential durability upgrades that would measurably reduce life cycle maintenance costs.				✓	✓	✓
572	Avoid products that require frequent replacement or regular maintenance to reduce future waste, including landscaping materials.				✓	✓	✓
573	Specify more durable, longer lasting materials and finishes to extend material life and reduce maintenance requirements.				✓	✓	✓
Operation and Maintenance Program							
574	Provide a full set of design and construction documentation so system operators have the information they need to maintain the equipment as the manufacturer recommends.		✓	✓		✓	✓
575	Write and follow a maintenance plan for the facility to increase system efficiency and reduce system downtime. Evaluate each component of each system and incorporate the proper maintenance strategy to minimize unnecessary maintenance while maximizing system up-time.		✓	✓		✓	✓
576	Develop a comprehensive operation and maintenance (O&M) manual, including record logs, for all systems and operations: Central Building Automation System, all HVAC system equipment, lighting controls and sensors, refrigeration systems, vertical transport, building envelope, emergency power generators and automatic transfer switching, uninterruptible power supply systems, life safety systems (fire protection fire alarm, Egress pressurization, lightning protection), domestic and process water pumping and mixing systems, equipment sound control systems, data and communication systems, paging systems, security systems, irrigation systems, plumbing and fixtures.		✓	✓		✓	✓
577	Install HVAC and ductwork products that can be easily cleaned or those that protect against mold/fiber shredding.		✓	✓			
578	Consider ease of maintenance when designing lighting systems.		✓				
Furniture, Fixtures, and Equipment							
579	Purchase and reuse existing/recycled furniture.	✓			✓		✓
580	Purchase and install furniture systems that are Greenguard Certified® (www.greenguard.org/).	✓			✓		✓
581	Purchase reused office furniture from local organizations.	✓			✓		✓
Site Selection and Restoration							
582	Build on a previously developed site, or one close to existing infrastructure.	✓	✓				
583	Minimize the removal of existing trees and vegetation (non-wildlife attracting).	✓	✓	✓			
584	Use clean-cut or trenchless technology when installing utility conduits. This creates minimal surface disruption and can eliminate the need to remove sections of streets, sidewalks and lawns and can avoid tree loss and tree root damage.		✓	✓			
585	Give preference to off-site, prefabricated assemblies, which avoid the need for on-site fabrication equipment.		✓				
586	Limit traffic and staging locations to areas that will be paved.		✓	✓			
587	Plant non-wildlife attracting vegetation on-site to replace disturbed site areas.		✓	✓			
588	Donate healthy plants and trees removed during construction to the community.		✓	✓			
589	Donate money to an organization that plants trees/vegetation to offset impacts to existing vegetation.		✓	✓			

Brownfield and Contaminated Site Prevention/Redevelopment							
590	Develop a Brownfield Prevention Program for the airport to implement strategies that prevent pollution and minimize waste generation.	✓		✓	✓	✓	✓
591	Implement a centralized hazardous substance management system on the airport. Materials could be purchased or checked out through the hazardous material "library" on an as needed basis.			✓	✓	✓	✓
592	Institute solid and fluid waste containment methods and disposal protocols to support minimal or no site contamination.			✓	✓	✓	✓
593	Develop on a site documented as contaminated by an All Appropriate Inquiry (AAI) (or an ASTM E1903-97 Phase II Environmental Site Assessment) OR classified as a Brownfield by a local state and federal government agency OR is listed as a contaminated site by local or state regulatory agencies to reduce pressure on undeveloped land.	✓	✓				✓
594	As most likely required by the state's EPA for any development in a Brownfield, develop and implement a site remediation plan using strategies such as pump-and-treat, bioreactors, land forming and on-site remediation.	✓	✓		✓	✓	✓
595	Enter into the state's voluntary Site Remediation Program (if applicable) that offers a No Further Remediation (NFR) Letter.	✓	✓		✓	✓	✓
596	Pursue tax incentives, government grants, property tax savings, and legal protections for development in a Brownfield (examples include the Expedited Remedial Action Program and Prospective Purchase Agreements).		✓		✓	✓	✓
Exterior Air Quality							
597	Partner with the state carbon fund, such as the Colorado Carbon Fund, where applicable.						✓
598	Participate in a carbon exchange program such as the Chicago Climate Exchange.						✓
599	Participate in the National Climate Registry to calculate, verify, and publicly report GHG in a single registry.						✓
600	Purchase carbon offsets.						✓
601	Install carbon-offset kiosks where passengers can purchase offsets for their flight and discover the environmental impact of their flight (partner with companies such as TerraPass which sells flights offsets or develop a program for the airport).		✓		✓		✓
602	Prepare a VALE program application for Airport Emission Reduction Credits.						✓
603	Install an intra-terminal people-mover system from remote parking lots, rental car facilities, employee parking, etc. to reduce emissions and roadway traffic on terminal roadways.		✓				
604	Prohibit burning of landscape waste; mulch or chip all landscape waste.					✓	✓
605	Where appropriate, locate recycling bins and dumpsters near aircraft gates to reduce emissions associated with transporting cleaning crews.		✓		✓	✓	✓
606	Install fuel vapor recovery systems to limit the escape of gasoline vapors, reducing emissions and conserving liquid gasoline (see www.epa.state.il.us/air/stage-ii-vapor-recovery.html).		✓		✓	✓	
607	Provide fuel hydrant system access at all future aircraft gates to eliminate the use of tanker fuel trucks.		✓			✓	

608	Construct fuel storage facilities, pumping systems, pipelines, and hydrant systems for direct fueling of aircraft.		✓				
609	Provide sophisticated monitoring for underground fuel hydrant systems.		✓				✓
610	Require off-peak fueling.				✓		✓
611	Develop and submit a Fuel and Lubricants Control Plan.		✓			✓	✓
612	Provide a commercial vehicle holding area.		✓		✓		
613	Inspect commercial vehicles that operate at the airport twice a year to insure that the vehicles are properly maintained with minimal vehicle emissions.					✓	✓
614	Develop a vehicle inspection program to ensure pollution control devices are in place.					✓	✓
615	Monitor bus/commercial vehicle performance, routes, and frequencies through an Automatic Vehicle Identification (AVI) system to verify performance and fuel economy.				✓		✓
616	Implement an on-demand system for taxi management.		✓		✓		✓
617	Provide incentives for shared rides in taxis.				✓		✓
618	Improve the fuel efficiency of taxis by requiring lighter/smaller advertisement display boards.				✓		✓
619	Develop an economical parking rate structure for remote, long-term parking.		✓		✓		✓
620	Skew parking area entry fees based on carbon--higher fees for SOV parking/entry, lower fees on HOV commercial transportation and all alternative fuel vehicles.				✓		✓
621	Install additional lanes/booths at parking structures.		✓		✓		
622	Install Pay-by-Foot/Pay and Go machines for parking.		✓		✓		
623	Install a "smart park" system to most efficiently utilize garage capacity and reduce emissions from excessive spot searching.		✓		✓		✓
624	Use GSE tugs for aircraft pushback from gates.				✓		✓
625	Increase aircraft towing where appropriate.				✓		✓
626	Design future airport layout to reduce aircraft delay.		✓				
627	Require taxiing aircraft to use a single engine only.				✓		✓
628	Require aircraft to taxi at idle power or a specified minimum power threshold.				✓		✓
629	Reduce taxiing distances on landing by installing high-speed or rapid exit taxiways.		✓				
630	Use an ARFF training facility to conduct firefighting training exercises.		✓		✓		
631	Use propane fuel for the aircraft rescue and fire-fighting (ARFF) training center simulation burners instead of conventional gasoline (use a mobile aircraft fire fighting training device (MAFTD)).		✓		✓		
Noise and Acoustical Quality							
632	Conduct a noise modeling study.		✓		✓		✓
633	Develop and implement a noise abatement plan.		✓		✓		✓
634	Work with the FAA to enable continuous descent arrivals to reduce emissions and noise.		✓		✓		✓
635	Develop and require the use of area navigation (RNAV) procedures to reduce noise on surrounding land uses.		✓		✓		✓
636	Install a Noise Monitoring System (NMS) for use in managing noise levels.		✓		✓		✓
637	Produce a Fly Quiet Report which scores and awards airport operators.		✓		✓		✓
638	Start a community noise roundtable to help respond to noise issues.		✓		✓		✓
639	Develop and implement a residential sound insulation program if residential units are located in areas exposed to significant aircraft noise.				✓		✓
640	Develop and implement a school sound insulation program if any schools are located within areas exposed to significant aircraft noise.				✓		✓

641	Establish and maintain a community noise resource website to share information about airport operations and noise mitigation efforts.				✓		✓
642	Install acoustical silencers, barriers, and earthen berms.		✓		✓		✓
643	Replace noisier equipment with quieter units, mufflers.				✓		✓
644	Wrap exterior HVAC duct work with sound deadening materials.		✓			✓	
645	Install a ground run-up enclosure.		✓		✓		✓
646	Locate mechanical equipment and other sources of noise away from areas of occupancy.		✓	✓	✓	✓	
647	Install acoustical ceiling tiles, flooring and walls.		✓	✓	✓		
648	Install lighting and HVAC systems that produce minimal noise.		✓	✓	✓		
649	Install double-pane windows to reduce noise.		✓	✓	✓		
650	Set traffic noise requirements (e.g. 100 decibels or less for 5 years) based on speed. Tire-pavement generated noise is not an issue for pavements with speeds of less than 40 mph.		✓		✓		✓
Vegetation and Wildlife Management							
651	Use non-toxic wildlife control methods.				✓	✓	
652	Develop a wildlife hazard control plan that specifies and maintains all vegetated areas of the airport. These areas should be maintained so that they do not provide attractants to wildlife potentially hazardous to airport operations.					✓	✓
653	Contact the local USDA county extension agent for suggestions on plantings to reduce water consumption, lower maintenance costs, enhance aesthetics, etc.	✓	✓		✓	✓	✓
654	Install an avian radar system to improve aviation safety, security surveillance, environmental management, weather detection, and wind measurement (such as a DeTect, Inc. system).		✓		✓		✓
655	Maintain (i.e., mow) airfield sites to prevent use by wildlife that is hazardous to aircraft.					✓	
656	Use electric lawn mowers, such as the Neuton lawn mower, to reduce the level of noise and air pollution generated by traditional gasoline-powered mowers (www.neutonpower.com/).					✓	
657	Compost and/or recycle grass clippings as mulch for particular areas or set the lawn mower to release (rather than bag) clippings.					✓	
658	When planting, choose vegetation that does not attract wildlife.		✓			✓	
659	Avoid using fertilizers and chemicals for landscape maintenance. When landscape treatment is necessary, specify organic or bio-based fertilizers and pesticides.				✓	✓	✓
660	Use non-potable hot water (heated to 210°F) to kill vegetation in pavement cracks instead of herbicides.	✓				✓	
661	Where practical, control invasive species, noxious weeds, and keep vegetation low by using local farm animals such as goats and cattle, or other biological means such as beetles.		✓			✓	✓
662	Avoid the creation of natural open water features on or near airfield sites that attract wildlife.		✓				
663	For stormwater management, use perforated underground drains or dry wells to provide infiltration without attracting hazardous wildlife.		✓				
664	Where rare non-hazardous wildlife habitat is present on an airfield (e.g. butterflies), manage vegetation to maintain its habitat.				✓	✓	✓
665	Establish a non-toxic wildlife control program.				✓	✓	✓

666	Install Kevlar bird deterrent wires or other mechanisms to prevent waterfowl from using area water bodies.		✓		✓		
667	Develop and implement an Integrated Pest Management plan (IPM).		✓		✓	✓	✓
Materials and Resources							
Waste Reduction							
668	Include educational training on waste reduction for the project team as part of the initial sustainability project planning meeting.		✓	✓	✓	✓	✓
669	Participate in a "waste-to-profit" network to identify by-product synergy and material reuse opportunities. The city or state network may (or could) include participants from area companies, institutions, and city or state departments (see www.wastetoprofit.com/).			✓	✓	✓	✓
670	Develop and utilize an off-airport composting facility.		✓		✓	✓	✓
671	Separate food waste from normal waste to utilize for composting (off-site only), biofuels, livestock feed, and other uses.		✓		✓	✓	✓
672	Develop and implement public food waste collection stations.		✓		✓	✓	✓
673	Develop and implement a surplus food program to benefit area food banks by supplying pre-packaged sandwiches, salads, pastries, muffins, cookies, etc.		✓		✓	✓	✓
674	Establish mandates, incentives, and/or inspections to encourage tenants to compost appropriate waste.				✓		✓
675	Design waste management to comply with ASTM E2129-05 and the EPA's Green Purchasing Guidelines.		✓		✓	✓	✓
676	Conduct a waste composition study (an audit of waste streams) to identify the most common types and amount of waste collected.				✓		✓
677	Work with tenants & contractors to provide recycling data and to establish monitoring and reporting techniques.	✓		✓	✓		✓
678	Utilize Insulating Concrete Forms (ICFs) for decreased waste; ICFs also optimize energy performance and reduce impacts from construction.	✓	✓	✓			
679	Design recycling and waste reduction programs to allow for expansion.	✓	✓				
680	For projects or facilities, develop an inventory list of space allocation, infrastructure and equipment that is needed to facilitate waste reduction and recycling.	✓	✓				
681	Encourage the use of local vendors/suppliers.	✓	✓		✓		✓
682	Use naturally raised, hormone-free and or organic ingredients obtained from local sources.				✓		✓
683	Provide incentives to concessionaires to minimize packaging.				✓		✓
684	Provide recycling services to tenants at no charge and/or assists tenants with setting up their own recycling programs.				✓		✓
685	Set up annual or bi-annual clean-up events that allow tenants, airlines, and airport employees to dispose of bulky, non-hazardous items. The materials are then deconstructed for recycling, donated, or disposed.				✓		✓
686	Provide incentives or requirements for airport businesses to use fabric/reusable bags, biodegradable bags, and/or paper bags instead of plastic bags.				✓		✓
687	Recycle used restaurant grease to manufacture biofuel for use on-airport.				✓		✓
688	Recycle coffee grounds as mulch; the grounds create a rich, dark compost that helps replace soil acids needed to keep plants healthy.				✓	✓	✓
689	Use recycled coffee grounds, flower, chili powder, cinnamon, peppermint, and/or black pepper for ant control.				✓	✓	✓

690	Utilize worm boxes in kitchens to reduce leftover food waste (add coffee grounds to increase the efficiency of the worms).				✓	✓	✓
691	Use reusable coffee/tea mugs, glasses, and water bottles instead of paper and Styrofoam cups to reduce waste.				✓		✓
692	Use biodegradable plates and cutlery made from corn and wheat starch.				✓		✓
693	Use infrared grills for cooking food.				✓		✓
694	Implement a shop rag recycling program. Purchase and use an Ozone Laundry System to avoid the disposal of large quantities of wipe rags contaminated with oil & grease or RCRA hazardous wastes (see http://205.153.241.230/P2_Opportunity_Handbook/2_II_9.html).		✓		✓	✓	
695	Change soap dispensers throughout the airport to units that dispense soap foam versus liquid soap. The soap foam reduces the amount of product being dispensed.				✓	✓	
696	Implement a toilet paper roll repurposing (re-rolling) program. Opened, unused toilet paper is often thrown away so that full rolls can be installed to prevent running out of the toilet paper supply prior to the next scheduled cleaning period. The re-rolled toilet paper can be reused at the airport or sent to local homeless shelters.				✓	✓	✓
697	Switch from normal toilet paper rolls to coreless (no cardboard core) toilet paper rolls. The extra space allows for more toilet paper to be held on a single roll, reducing cleaning costs and reducing waste.				✓	✓	✓
698	Work with vendors to develop a list of available environmentally preferable products, including cost differentials, and set up an accounting system to track the annual expenditures on these products and services (for marketing purposes, if desired).					✓	✓
699	Require vendors to eliminate plastic from their service items and packaging. Establish a goal to reduce all packaging (for example, reduce packaging usage by 50% within 12 months).				✓		✓
700	Instead of a traditional propane garbage incinerator, use a SmartAsh incinerator that requires no fuel burn and incinerates garbage efficiently to meet all applicable standards (www.elastec.com/smartash.html).				✓	✓	✓
701	Use reusable oil filters for vehicle motor oil.		✓		✓	✓	✓
702	Use bypass filters for vehicle motor oil.		✓		✓	✓	✓
Office Waste Reduction							
703	Minimize the use of printed materials.				✓		✓
704	Require electronic submittals minimizing or eliminating printed copies of reports and other submittals.	✓	✓				✓
705	Purchase bleach-/chlorine-free paper products.				✓		✓
706	Use high post-consumer recycled content paper.				✓		✓
707	Designate a majority of printers to be designated as general purpose (to be loaded with 20 lb or 22 lb weight paper) with only one or two printers to be loaded with higher quality paper.				✓		✓
708	During meetings use water/beverage pitchers rather than individual plastic bottles.				✓		✓
709	Purchase bottles made of biodegradable materials such as ethanol instead of plastic bottles.				✓		✓
710	Track printing to identify errors so that print jobs are not duplicated.				✓		✓
711	Use "printed on recycled paper" on footers of all documents.				✓		✓
712	State "please consider the environment before printing this email" on the footer of all e-mails (and write a similar message on other electronic documents).				✓		✓

713	Only purchase copiers or printers that offer double-sided printing options. Set all print drivers to default to double-sided printing.				✓		✓
714	Recycle used computer systems. Donate or schedule and implement an auction of used computer systems.				✓		✓
715	Use vegetable-based inks for printing when appropriate.				✓		✓
716	Print documents in "draft mode" to reduce the use of printer ink.				✓		✓
717	Use environmentally friendly and renewable inks and printer cartridges.				✓		✓
718	Place recycling bins for printer/copier cartridges and for batteries in offices and terminals.				✓		✓
719	Implement "Paper-Free Fridays" or similar campaigns to reduce paper and/or materials consumption.				✓		✓
720	Utilize conference calls, web-based conferences, and/or the following programs instead of in-person meetings when possible to reduce printed materials and to reduce emissions from transportation: NetMeetings, LiveMeetings, GoToMeetings, Webinars, and others.				✓		✓
721	Work with waste haulers to negotiate contracts that allow for reduction in waste hauls and increases in recycling hauls in order to leverage cost savings potential that may arise from recycling programs.	✓	✓		✓	✓	✓
722	Strategically locate recycling receptacles and place signs directly adjacent that clearly identifies what can and cannot be recycled.				✓		✓
723	Develop recycling and waste reduction competitions between different departments.				✓		✓
724	Conduct awareness training for the janitorial staff to ensure that recyclables stay segregated from waste.					✓	✓
725	Establish a document management system so that project files can be submitted and archived electronically.				✓		✓
Storage and Collection of Recyclables							
726	Recycle aluminum; glass; plastics, paper, newspapers, magazines; phone books and corrugated cardboard.	✓	✓	✓	✓	✓	✓
727	Recycle gas and oil filters; waste gasoline; motor oil; anti-freeze; scrap metal; tires; electrical wiring; electronics; deicing fluid; grease and sludge; hazardous materials and spent solvents; pallets; and wood.		✓	✓	✓	✓	✓
728	Recycle batteries; light bulbs; toner cartridges; and electronics (including monitors).		✓	✓	✓	✓	✓
729	Increase the number of clearly marked, distinct recycling containers available.	✓	✓	✓	✓	✓	✓
730	Provide liquid collection stations, especially at security checkpoints where full beverage bottles and other liquids are disposed of, to minimize landfill bound waste. The liquid collection station should be designed to be easily rolled to a mop sink or drain.		✓		✓	✓	✓
731	Install hydration stations after security checkpoints so that passengers can refill their beverage containers after dumping out liquids to pass through security.		✓		✓	✓	✓
732	Designate easily accessible areas for recyclable collection and storage that are appropriately sized and located in a convenient area.	✓	✓	✓	✓	✓	✓
733	Use on-site trash compactors instead of roll-offs to reduce the trips needed to remove municipal solid waste.				✓	✓	✓
734	Require onboard recycling programs for airlines and cleaning companies, especially paper products.				✓		
735	Provide waste oil containers to general aviation pilots for collection of waste engine oil. These containers can be collected by an outside contractor for reuse on various construction projects.				✓	✓	

736	Collect oil filters for recycling. The filters can be crushed using a commercial filter crusher. All free-flowing oil is removed and collected during the crushing process.			✓	✓	✓	✓
737	Utilize cardboard balers, aluminum can crushers, recycling chutes, and other technologies to enhance recycling activities.	✓	✓	✓	✓	✓	✓
738	Recycle all used oil cans as scrap metal.			✓	✓	✓	✓
739	Recycle aircraft tires, turbine oil, skydrol (an advanced fire resistant aviation hydraulic fluid), engine oil, carpet, glass and metal from light bulbs, and batteries.		✓	✓	✓	✓	✓
740	Maintain cardboard compactors to assist concessionaires with recycling of cardboard.		✓	✓	✓	✓	✓
741	Donate airplane passenger headphones, blankets and pillows to homeless shelters and/or charity organizations such as the Ronald McDonald House.				✓	✓	✓
Structure and Building Reuse							
742	Re-use existing structures and/or building components.	✓	✓	✓			
743	Re-use existing runway pavement (i.e., for taxiways).	✓	✓	✓			
744	Indicate the strategies for reuse and quantities of reused runway and infrastructure. Reuse refers to existing structures that are left in place, or have been relocated for reuse.	✓	✓	✓			
745	Quantify the extent of structure and building reuse.	✓	✓	✓			
746	Remove elements that pose a contamination risk prior to reusing structures.		✓	✓			
Construction Practices							
Submit a Final Sustainable Construction Project Report							
747	Use standardized tracking forms and guidelines for documenting all sustainable construction activities.			✓			✓
748	Track sustainability progress at several stages throughout the construction process at project start-up, interim milestones, project substantial completion, and close-out.			✓			✓
749	Tie tracking forms, submittals, and documentation of sustainable practices to payments.			✓			✓
750	Provide rewards (certificates of achievement, financial incentives, etc.) for contractors who substantially exceed sustainability goals.			✓			✓
751	Track and report sustainable achievements, quantities, and innovations.			✓			✓
752	Develop a sustainable review panel that includes designers, engineers, construction managers, and contractors to facilitate submittal and review of documentation.			✓			✓
Construction Scheduling and Sequencing							
753	Expedite the completion of the building envelope to minimize moisture exposure to interior surfaces, thus minimizing the potential for mold.		✓	✓			✓
754	Closely coordinate deliveries of construction materials with scheduled installation times.		✓	✓			
755	Use "just in time" delivery of construction materials to reduce staging requirements.		✓	✓			
756	To prevent erosion, minimize the extent and duration of bare ground surface exposure.		✓	✓			
757	Plan the phases or stages of construction to minimize exposure. Before site disturbance occurs, perimeter controls, sediment traps, basins, and diversions should be in place to control runoff and capture sediments.		✓	✓			
Logistics							
758	Purchase precut and prefabricated components when available and order materials to size in order to reduce waste and haul loads.		✓	✓			

759	Ask suppliers to deliver supplies using sturdy returnable pallets and containers. Have suppliers pick up pallets and empty containers.		✓	✓			
760	Limit the number of designated concrete washout areas to avoid the expense of cleaning and maintaining several small washout areas.			✓			
761	Consider easily stackable units such as cladding systems, curtain walls, steel beams, and etc. that can reduce transportation costs to the site.			✓			
762	Order metal decking to the required length and reduce the number of cuts.		✓	✓			
763	Use reusable delivery and storage containers where possible.		✓	✓			
764	Suggest using a raised floor system, which can reduce data and communication installation costs during initial build-out and allow for easier, more economical moves and space reconfiguration.		✓	✓			
765	Adopt a "first-in, first-out" policy to prevent finish materials from becoming out-dated. The first materials delivered to the site are the first ones used on-site.		✓	✓			
Construction Waste Management							
766	Develop and implement a Construction Waste Management Plan.	✓	✓	✓			✓
767	Develop a balanced earthwork plan and keep as much excavated earth on-site as possible to reduce off-site hauling.	✓	✓	✓			✓
768	Develop an inventory of topsoil for potential re-use.	✓	✓	✓			✓
769	Require that all vegetation that has to be removed because of construction be chipped for on-site mulching and composting or used for process fuel (if the full plant or tree cannot be relocated, sold, or donated intact).		✓	✓			✓
770	Track and evaluate the following waste for recycling (at a minimum): land-clearing debris, cardboard, metal, brick, concrete, asphalt, plastic, clean wood, glass, gypsum wallboard, carpet, and insulation.	✓	✓	✓			✓
771	Use portable concrete/asphalt crushers or operate concrete crushing/recycling plants on-site to crush chunks of concrete or asphalt into small pieces. This crushed material may then be recycled for use in other construction applications (see http://205.153.241.230/P2_Opportunity_Handbook/7_III_6.html).	✓	✓	✓			✓
772	Designate a specific site area for recycling construction waste.	✓	✓	✓			
773	Provide on-site locations for storing as much excavated rock, soil, and vegetation as possible for reuse.	✓	✓	✓			✓
774	Designate special construction waste containment areas (medical, industrial, pollution.)	✓	✓	✓			✓
775	Designate a permanent central storage area or secondary containment area for construction.		✓	✓			✓
776	Include in all contract documents the minimum quantities of excess materials that will be accepted for return by the vendor and the required conditions of such material. This can be done separately for each product category or as a general requirement applicable to all categories.		✓	✓			✓
777	If no local markets exist for recycling drywall in the area, recycle non-contaminated drywall by grinding and spreading on open land at the airport at a rate of approx. 5 tons per acre and then tilling into the soil.	✓	✓	✓			✓
778	Designate hazardous waste containment areas.		✓	✓			✓
779	Establish a hazardous waste management plan for all storage and operational use of hazardous materials		✓	✓			✓

780	Donate unused paint to the city's graffiti removal program.		✓	✓			✓
781	Utilize excess asphalt paving to fix surrounding roads, drives, parking lots, etc.		✓	✓			✓
782	Use concrete chunks, old bricks, broken block and other masonry rubble for backfill along foundation walls where permitted.	✓	✓	✓			
783	Utilize excess concrete for parking stops, jersey barriers, etc.		✓	✓			
784	Use pre-assembled rebar cages when possible to reduce on-site rebar waste.		✓	✓			
785	Reduce packaging waste through vendor participation using bulk packaging techniques or choose products with minimal or no packaging.		✓	✓			
786	Use large panel formwork systems to reduce concrete waste generated by losses due to damaged formwork, which usually accounts for 30% of the total concrete waste.		✓	✓			
787	Encourage alternative sustainable packaging techniques (e.g. metal strapping in preference to shrink-wrap, paper packaging as opposed to plastic and shredded paper as opposed to foam).		✓	✓			
788	Have all subcontractors and suppliers propose procedures for waste minimization, including supply, delivery, handling, storage, efficiencies, packaging, protection, pre-cutting and recycling.		✓	✓			
789	Minimize the use of temporary wood structures.		✓	✓			
790	Use ultra screen sight and sound barriers (lightweight panels with no special equipment for installation, maintenance or replacement) instead of traditional sight and sound barriers.		✓	✓			
791	Reuse items such as electrical boxes, breaker equipment, wall outlets and other electrical equipment where possible.	✓	✓	✓		✓	✓
792	Reuse empty wire spools for other purposes and tasks - they make a great stool during break time.	✓		✓			✓
793	Save worn out NiCad batteries from portable power tools for delivery to a specialized battery-recycling site.			✓		✓	
794	Determine the disposal cost, hauling cost, and revenue generated from reusing materials on-site and compare that with the cost of purchasing new items.	✓	✓	✓			✓
795	Ensure that recycling bins are full and packed before moving onto new ones.			✓		✓	
796	Submit updated site waste recycling forms on a monthly basis. The updates shall include the actual amounts of construction or demolition materials recycled during the previous 30-day period. Report quantities of materials recycled or salvaged in tons, based on weight slips, bills of lading, etc.			✓			✓
797	Prior to contract closeout, submit a final site waste recycling form that records the total amount of construction or demolition materials recycled during the duration of the project.			✓			✓
Recycled Content							
798	Establish project goals for recycled content materials and identify material suppliers that can achieve this goal.	✓		✓			✓
799	Purchase concrete materials that consist of recycled content, such as aggregate in cast in place concrete, fly-ash in cast in place concrete, and bituminous concrete pavement.	✓	✓	✓			✓

800	Purchase recycled content materials for the following major building components: unit pavers; steel reinforcement; structural steel; miscellaneous steel; steel fencing and furnishings; unit masonry; ductile iron pipe; aluminum products; site generated broken concrete for gabions; railroad rails; railroad ties; railroad track base material; steel doors and frames; aluminum doors and windows.	✓	✓	✓			✓
801	Purchase recycled content materials for the following internal building components: plaster; terrazzo; acoustical ceilings; drywall; finish flooring including carpet, resilient flooring, and terrazzo; toilet and shower compartments; special furnishes; equipment; sheet metal ductwork; site lighting.	✓	✓	✓			✓
802	Identify the value of both the post-consumer recycled content and the post-industrial content. Recycled content materials shall be defined in accordance with the Federal Trade Commission document, Guides for the Use of Environmental Marketing Claims, 16 CFR 260.7 (e), available at www.ftc.gov/bcp/arnrule/guides980427.htm .	✓	✓	✓			✓
803	For electrical systems, use telecommunications cabling and electrical device wall plates that have a high percentage of recycled plastic.	✓	✓	✓			✓
804	Include contact information in project specifications for reference and search tools such as the Guide to Resource-Efficient Building Elements from the Center for Resourceful Building Technology (www.crbt.org/index.html), the Recycled Content Product Directory from the applicable state integrated waste management board and Oikos (www.oikos.com).	✓	✓	✓			✓
805	Use rubber, glass, agricultural fibers, and plastic for flooring. These materials are from recycled and reused materials, typically last longer, and are easier to maintain than traditional flooring materials.	✓	✓	✓			✓
806	Install carpet tiles from post industrial nylon that are reusable and recyclable.	✓	✓	✓			✓
807	Use ceramic tile containing post-consumer or post-industrial waste.	✓	✓	✓			✓
808	During construction, ensure that the specified recycled content materials are installed and quantify the total percentage of recycled content materials installed.	✓	✓	✓			✓
809	Provide fact sheets to designers that include available recycled content materials and the organization's target for each material.	✓	✓	✓			✓
Local/Regional Materials							
810	Use the following locally/regionally available materials: concrete, asphalt, structural steel, masonry, post-industrial recycled gypsum wallboard, storm system concrete pipes of all sizes, manholes and handholes, electrical ductbanks, cable, gas and water piping, rail tracks, rail ties, rail ballast, landscape material and seed.	✓	✓	✓			✓
811	Establish a goal for the minimum percentage of local/regional materials and products that are manufactured regionally within a radius no greater than 500 miles. Identify the value of local/regional materials so that they can be compared with of the total value of the materials in the task/project.	✓	✓	✓			✓
812	Identify and specify materials and material suppliers that can achieve the regional materials goal.	✓	✓	✓			✓
813	For buildings, specify mechanical, electrical and plumbing equipment and components that meet the regional material goals.	✓	✓	✓			✓

814	During construction, ensure that the specified local materials are installed and quantify the percentage of the local materials installed based on the overall construction cost.	✓		✓			
815	Engage the FAA to discuss the use of regional or local suppliers as part of projects that utilize FAA funding and adhere to FAA rules.	✓	✓	✓			✓
Rapidly Renewable Materials							
816	Use the following rapidly renewable materials for both permanent and temporary construction materials: poplar OSB and straw board or "agriboard" (formwork for temporary construction and underlayment); bamboo flooring; cork; wool carpets and fabrics; cotton-batt insulation; linoleum flooring; sunflower seed board; wheat grass or straw board cabinetry and others.	✓	✓	✓	✓	✓	
817	Install clay roof tiles which are made from abundant raw materials and carry effective heat gain characteristics (for cool climates).	✓	✓	✓			
818	Use paper joint tape in lieu of fiberglass tape.	✓	✓	✓			
819	Establish an appropriate project goal for renewable materials utilization.	✓	✓	✓			
820	Include contact information for the following in project specifications: GreenSpec from Building Green, Inc. (www.buildinggreen.com/menus/index.cfm) and Oikos (www.oikos.com).	✓	✓	✓			
821	During construction, ensure that the specified rapidly renewable materials are installed.	✓		✓			
Certified Wood							
822	Establish a Forest Stewardship Council (FSC) certified wood products goal and identify suitable suppliers. This includes, but is not limited to: structural framing and general dimensional framing, flooring, finishes, furnishings, and non-rented temporary construction applications such as bracing, concrete form work and pedestrian barriers.	✓	✓	✓			✓
823	Use FSC products in construction materials and finished products; meet established FSC goals (www.fscus.org/green_building).	✓		✓			✓
824	Use FSC products in temporary construction materials whenever possible (www.fscus.org/green_building).	✓		✓		✓	✓
825	Ensure that the FSC-certified wood products are installed and quantify the total percentage of FSC-certified wood products installed.	✓		✓			✓
Wood Preservatives							
826	Prohibit the use of creosote-coated lumber.	✓		✓			✓
827	Do not use chromate copper arsenate (CCA) pressure-treated lumber.	✓		✓			✓
828	Do not use extruded polystyrene (XPS) rigid board insulation.	✓		✓			✓
829	Do not use fiberglass insulation that contains phenol-formaldehyde binders.	✓		✓			✓
Salvaged Materials and Resources							
830	Advertise salvage activities prior to demolition activities to encourage salvaged materials re-use.	✓	✓	✓			✓
831	Re-use project waste as a resource to another project or donate it to a cooperating agency. This may include concrete, asphalt, clean soil, and other materials (see http://205.153.241.230/P2_Opportunity_Handbook/7_I_A_8.html).	✓	✓	✓			✓
832	Use a public information website or other means to list salvaged materials to offer for sale or donation.	✓	✓	✓			✓

833	Utilize the "Construction Waste Management Database" provided by the Whole Building Design Guide at <www.wbdg.org/tools/cwm.php> to identify resources for salvaged or surplus materials for reuse.	✓	✓	✓			✓
834	Conduct detailed assessments to better understand materials or equipment that are salvageable vs. recyclable.	✓	✓	✓			✓
Planning for Deconstruction, Disassembly, and Flexible Use of Space							
835	Plan for deconstruction, disassembly, and flexible use of space for systems, components, and structures.		✓	✓			✓
836	Allow adequate time for deconstruction activities.		✓	✓			✓
837	Specify detailed terms of deconstruction in bid documents.		✓	✓			✓
838	Evaluate the potential reuse of deconstructed mechanical, electrical, and plumbing systems.		✓	✓			✓
839	Purchase ceiling tile and carpeting from companies that recycle and/or reuse deconstructed carpet and tiles.		✓	✓			✓
840	Detail electrical/utility connections for disassembly; provide instructions.		✓	✓			✓
841	Ensure that electrical/utility connections are accessible to ease upgrades and disassembly.		✓	✓			
842	Minimize the use of chemical (adhesive) connectors; instead use friction-based connectors.		✓	✓			
843	Specify flexible components of HVAC, electrical and fiber optics, and other wiring.		✓	✓			
844	Design for current needs with the ability to expand into the future. Do not oversize components during the initial design phase to account for future build-out.		✓	✓			✓
845	Design HVAC system in such a way that it is flexible to expand or downsize it depending on the future need of the space.		✓	✓			
846	Design AC roof units so additional units may be placed if necessary in the future.		✓	✓			
847	Design for additional temperature, electrical, sprinklers and communication zones in a large space so that future renovation work will not disrupt services.		✓	✓			
848	Place entrances and corridors to spaces in such a way that future uses may utilize existing egresses.		✓	✓			
849	Evaluate the structure and component life cycle prior to purchasing materials/equipment.		✓	✓		✓	✓
850	Create flexible and diverse workspaces to enable expansion.		✓	✓			
851	Select fittings fasteners, adhesives and sealants that allow for quicker disassembly and facilitate the removal of reusable materials.		✓	✓			
Construction Vehicle Emissions Reduction							
852	Use ultra low sulfur diesel (ULSD) fuel in all construction vehicles.			✓			✓
853	Use biodiesel fuel in construction vehicles.			✓			✓
854	Use alternative fuel/diesel electric hybrid construction vehicles.			✓			✓
855	Replace aging construction equipment with new low emission models when available and technically feasible.			✓			✓
856	Perform routine maintenance and engine rebuilds to maintain original vehicle emission levels.			✓	✓	✓	
857	Install low emission engines into old equipment chassis.			✓	✓	✓	
858	Require that a portion (at least) of the construction vehicle fleet is comprised of clean fuel vehicles and/or incorporate clean air technologies.			✓			✓
859	Install particulate filters on construction vehicles.			✓		✓	✓
860	Install diesel oxidation catalysts (DOC) on construction vehicles.			✓		✓	✓
861	Use the best available retrofit technology as approved by the USEPA and/or CARB for off-road diesel construction equipment to the extent practical and feasible.			✓		✓	✓

862	Develop a Tier compliant and retrofit program for construction vehicles (e.g., retrofit all pre-Tier, Tier 1 and Tier 2 construction vehicles).			✓			✓
863	Provide retrofit allowances for construction equipment.			✓			✓
864	Maintain an inventory of all installed retrofit equipment/emissions reductions to ensure goals/guidelines are achieved and for documentation/marketing purposes.			✓		✓	✓
865	Develop a vehicle inspection program to ensure pollution control devices are in place.			✓	✓	✓	✓
866	Apply Tier 4 emission standards to encourage the use of newer and/or retrofitted non-road diesel equipment.			✓			✓
867	If appropriate, purchase/rent the Caterpillar® D7E bulldozer, a diesel-electric hybrid technology that is designed to burn less fuel and consume fewer parts and fluids over its lifetime.			✓			✓
Reduced Construction Vehicle Idling							
868	Minimize construction vehicle idling.			✓			✓
869	Ensure that no construction vehicle idling occurs within 100 feet of a sensitive receptor area, such as air intakes.	✓		✓			
870	Install idling and emission reduction technologies on construction vehicles.			✓	✓	✓	✓
871	Turn off construction vehicles if they will be left idle for over 3 minutes (or other airport-specified time limit); this could include issuing notices on the negative impacts of excessive vehicle idling or even fines for vehicles that are left idle for long periods.			✓			✓
872	Purchase and install vehicle air fresheners that promote a "no-idling" or "engines off" campaign.			✓	✓	✓	✓
873	Post signage for no idling areas in construction areas.			✓			
874	Install Temp-A-Start (www.tempastart.com) start/stop technology for diesel engines. Temp-A-Start is an automatic engine shut down, that maintains engine oil temperature and which provides for driver comfort and reduced maintenance service while eliminating unnecessary idling.			✓	✓	✓	✓
Alternative Transportation During Construction							
875	Provide a transportation plan to and from the construction site.		✓	✓			✓
876	Provide consolidated construction employee private vehicle parking/staging areas with regular shuttles during construction.	✓	✓	✓			✓
877	Support the use of mass transportation to and from the construction site with use of regular shuttles or other means.	✓	✓	✓			✓
878	Include bike racks at construction staging locations.	✓	✓	✓			✓
879	Provide preferential parking for construction employee car-poolers.	✓	✓	✓			✓
880	Subsidize mass transportation passes for construction workers.	✓		✓			✓
881	Coordinate carpooling to construction sites (set up schedules and incentives based on locations).	✓	✓	✓			✓
882	For on-airfield projects, bus construction employees into the construction site to reduce security checkpoint delays (and reduce emissions from individual riders and vehicle idling).	✓	✓	✓			✓
Construction Materials Conveying							
883	Use an overland conveyor system in construction to transport materials from stockpile areas.		✓	✓			
884	Use biodegradable hydraulic elevator oils for conveyors.			✓			
Construction Noise and Acoustical Quality							
885	Require mufflers on all construction equipment.			✓		✓	✓
886	Establish construction vehicle speed limits to minimize noise and dust.			✓			✓
887	Require contractors to submit sound reduction construction plans to mitigate unwanted construction noise and vibration.			✓			✓

888	Locate mechanical equipment and other sources of noise away from noise-sensitive land uses.		✓	✓	✓	✓	
889	Install portable and permanent noise barriers.		✓	✓	✓	✓	
890	Replace noisier construction equipment with quieter units.			✓	✓	✓	
891	Use rubber tired equipment in lieu of track equipment to reduce noise levels.			✓	✓	✓	
Foundations							
892	Add polyethylene vapor retardant under the floor slab and avoid a layer of sand between the poly and the concrete to reduce the occurrence of mold.		✓	✓			
893	Install a layer of gas-permeable material under the foundation - usually 4 inches of gravel.		✓	✓			
894	Provide capillary break (dampproofing or membrane) between the footing and foundation wall or perimeter foundation for slab on-grade.		✓	✓			
895	Install drainage tile at foundation footings.		✓	✓			
Other Construction Equipment/Materials							
896	Install freight elevators as early as possible and coordinate building enclosure at the elevator shafts to minimize temporary hoisting needs.		✓	✓			
897	Require the use of energy efficient lamps for temporary construction lighting and temporary emergency lighting that can be turned off during non-working hours.		✓	✓			
898	Use metal halide lamps, low-temperature fluorescents and/or solar powered fixtures for exterior lighting on the construction site.		✓	✓			
899	Require Energy Star certified products for temporary and permanent building equipment (visit www.energystar.gov/).		✓	✓			
900	Use localized hot water equipment rather than centralized equipment to reduce transmission loss and improve efficiency.		✓	✓			
901	Use a GPS-based earthmover to enable machines to get to grade with fewer passes, using less fuel, incurring less wear, improving safety, and reducing costs.			✓	✓	✓	
902	Install pipes with acoustic measuring devices to detect vibrations and/or sound waves in pipelines, indicating defects.			✓	✓	✓	
903	Require early installation of permanent electrical systems to minimize the number of temporary circuits needed to handle construction activities.			✓			
904	Use soundless demolition chemical agents (SCDA) as a substitute for explosives			✓		✓	
905	Consider installation of moisture resistant greenboard and mold resistant purpleboard.		✓	✓		✓	
Construction Equipment Maintenance							
906	Use recycled oil, biodiesel-based oils and hydraulic fluid, non-toxic lubricants, and other environmentally friendly maintenance agents during construction.			✓	✓	✓	
907	Require contractors to submit pre-construction plan to recycle oil and use environmentally friendly maintenance agents during construction.			✓	✓	✓	
908	Contain and clean all chemical spills properly and dispose of clean up materials properly.			✓	✓	✓	
909	Conduct maintenance activities under cover from precipitation.			✓	✓	✓	
910	Maintain current Material Safety Data Sheets (MSDS) on-site.			✓	✓	✓	✓
Emission Inventory and Mitigation							
911	Conduct an emissions inventory for all projected construction activities.		✓	✓	✓	✓	✓
912	Identify efficient construction scheduling and operations to mitigate air emissions.		✓	✓			
Construction Indoor Air Quality (IAQ) Management Plan							

913	During construction meet or exceed the recommended Design Approaches of the Sheet Metal and Air Conditioning National Contractors Association (SMACNA) IAQ Guidelines for Occupied Buildings under Construction, 1995, Chapter 3.	✓	✓	✓	✓	✓	✓
914	Protect stored on-site or installed absorptive materials from moisture damage.		✓	✓	✓	✓	
915	After construction ends and prior to occupancy, conduct a two-week building flush out with 100% outside air.	✓		✓			
916	Develop and implement an Indoor Air Quality (IAQ) Management Plan for the construction and pre-occupancy phases of the building.	✓		✓			
917	Sequence the installation of materials to avoid contamination of absorptive materials such as insulation, carpeting, ceiling tile, and gypsum wallboard.	✓	✓	✓			
918	Do not operate (or impose strict limits on the operation of) air-handling equipment during construction.	✓		✓			
919	If air handlers are used during construction, filtration media with a Minimum Efficiency Reporting Value (MERV) of 8 must be used at each return air grill, as determined by ASHRAE 52.2-1999.	✓		✓			
920	Replace all air filter media used during construction at least two weeks prior to building occupancy, subsequent to building flush-out.	✓		✓			
921	Filtration media shall have a Minimum Efficiency Reporting Value (MERV) of 13, as determined by ASHRAE 52.2-1999 for media installed after construction.	✓		✓			
922	Appoint an IAQ manager who will identify problems and methods of mitigation.			✓			✓
923	Use ventilation systems overnight to purge the work area.	✓		✓			
924	Communicate the hazards of IAQ with construction workers during health and safety meetings.			✓			✓
925	Use a desiccant dehumidifier to control moisture levels during installation of interior finishes. This technology employs a desiccant material to remove humidity from the surrounding space.	✓		✓			
Construction Environmental Tobacco Smoke (ETS) Control							
926	Prohibit smoking within structures under construction and restrict smoking on-site during construction (work with unions to ensure acceptance and compliance).	✓		✓			✓
927	Provide a designated exterior smoking area (protected from the elements) that is sufficiently distant from construction activities.	✓		✓			✓
Dust Control							
928	Develop and implement best management practices (BMPs) for dust control based on meteorological conditions and the activity level of disturbed soil.			✓	✓	✓	✓
929	For soil stockpiles or areas under active construction, cover soil during rainfall, high wind, and at night with plastic sheets or other cover that can be easily removed.			✓	✓		
930	Require haulers to cover truck beds for dust suppression.			✓	✓		
931	Water down loose materials and exposed earth during construction.			✓	✓		
932	Utilize non-potable water for dust control.	✓		✓	✓		
933	Prohibit the use of chemical soil stabilizers during construction.			✓	✓		✓
934	Require truck beds to maintain at least two feet of freeboard for dust suppression.			✓	✓		
935	Spray down truck wheel wells and use rumble strips before exiting the construction site.			✓	✓		
936	Perform regular street sweeping during construction.			✓	✓		

937	Develop and implement a 'construction dust control plan'. Minimize accumulation of dust and other contaminants by using integral dust collection systems on drywall sanders, cut off saws and routers.			✓	✓		✓
938	Use wet rags, damp mops and vacuum cleaners with HEPA filters to clean dust.			✓	✓		
939				✓	✓		
Construction Lighting							
940	Establish a schedule for when construction lighting is required and develop a policy to reduce lighting when not needed.			✓			✓
941	Reduce construction at night time to minimize lighting impacts and improve safety.	✓		✓			
942	Focus construction lighting toward the earth to minimize night-sky pollution.			✓			
943	Limit lighting in protected ecological areas to mitigate lighting impacts on wildlife.			✓	✓	✓	
Minimize Site Disturbance During Construction							
944	Emphasize environmentally and socially sensitive areas to construction workers.			✓			✓
945	Install slurry walls during construction to prevent commingling of aquifers.	✓		✓			
946	Make sure that all contractors and sub-contractors have been briefed on access road and staging area locations.			✓			✓
947	Install temporary fencing during construction.			✓			
948	During construction activities require dust palliatives or penetration asphalt on haul roads.			✓			
949	During construction activities: require hydroseed or fast-growing vegetation on disturbed areas.			✓			
950	Flag or otherwise mark all areas not to be disturbed by construction.			✓			
951	Construct stabilized construction entrances on level ground where possible. Grade the entrance to prevent runoff from leaving the construction site and provide ample turning radii.			✓			
952	If a wash rack is provided at the construction vehicle entrance, ensure washing is on paved or crushed stone pad that drains into a properly constructed sediment trap or basin.			✓			
953	Access roads, subdivision roads, parking areas, and other on-site vehicle transportation routes should be stabilized immediately after grading and frequently maintained to prevent erosion and control dust.			✓		✓	
Construction Traffic Control							
954	Implement an unrestricted flow of traffic control information between the contractor(s), the Construction Coordination Office, and the public.			✓			✓
955	Coordinate with the appropriate state/local transportation services to evaluate potentially vulnerable roadway areas and avoid damage from construction.			✓			✓
956	Immediately repair any construction related roadway damage.			✓			✓
Reduce Potable Water Use During Construction							
957	Use non-potable water or graywater for concrete mixing and aggregate wash down.	✓		✓			
958	Use non-potable water or graywater for irrigation of landscaping on construction sites.	✓		✓			
959	Designate truck and vehicle cleaning areas to manage or collect wastewater.	✓		✓			
960	Limit steam cleaning and high pressure washing of vehicles and equipment to reduce water use and the creation of wastewater.	✓		✓			
Tree and Plant Protection							

961	Require the contractor(s) to develop a plan to protect existing vegetation during all construction activities. Attempt to maintain existing topography, terrain, and tree and vegetation population.			✓			✓
962	Provide temporary fencing, barricades, and guards to protect trees from damage above and below grade.			✓			
963	Protect vegetation from damage due to run-off or spillage during mixing and placement of construction materials.			✓			
964	Where trenching for utilities is required within drip lines, tunnel under or around roots by hand digging or boring. Do not cut main lateral roots or tap roots.			✓			
Construction Health and Safety							
965	Appoint a health and safety manager for the construction site.			✓			✓
966	Develop a site-specific health and safety plan that identifies all potential hazards and steps taken to mitigate accidents. Include a reference to the OSHA General Duty Clause (29 CFR 1903.1) in all project bid specifications. Eye protection should be worn at all times, a hazard assessment must be performed and, if required, an industrial hygiene monitoring review should be performed, and documented, for all construction work.	✓		✓	✓	✓	✓
967	Require that all construction workers have proper safety certifications for operating in an active airport environment.			✓			✓
968	Require one or more member(s) of the construction field team to have CPR/First Aid certification.			✓			✓
969	Provide signs reminding workers of long term health risks due to exposure to particulates and the unknown toxics attached to particulates.			✓	✓	✓	✓
970	Use personal air monitoring systems to inform workers of hazardous environments. This technology can improve occupational safety and health in the construction workplace.			✓			✓
971	Provide and/or require employees to wear respirators and masks for worker comfort and health (or during certain dust/hazardous conditions).			✓			✓
972							