

Construction Documents - Client Printable Survey with Scores



White City - Building 201B

Client: Department of Veteran's Affairs

Report Generated: Feb 16, 2016

This document provides a preliminary Green Globes score based upon the answers selected in the corresponding online survey. The final Green Globes score and rating will be based upon third-party verification and provided within the assessor's Stage II report.

OVERALL SCORE - 59% **872 515.5**

Items highlighted in green are part of the Federal Government Guiding Principles

PROJECT MANAGEMENT - 81% **50 40.5**

INTEGRATED DESIGN PROCESS (IDP) **9 6.5**

Pre-Design Meetings **3 3**

3.1.1.1.1 Was an integrated design process (IDP) employed, which included a minimum of five of the following key design disciplines involved in the project: <i>(check as many key disciplines below as apply)</i>	<input checked="" type="radio"/> Yes <input type="radio"/> No	3	3
3.1.1.1.1.1 • Architect?	<input checked="" type="radio"/> Yes <input type="radio"/> No		
3.1.1.1.1.2 • Building Science or Building Forensics Expert?	<input type="radio"/> Yes <input checked="" type="radio"/> No		
3.1.1.1.1.3 • Civil Engineer?	<input type="radio"/> Yes <input checked="" type="radio"/> No		
3.1.1.1.1.4 • Commissioning Agent?	<input type="radio"/> Yes <input type="radio"/> No		
3.1.1.1.1.5 • Community Representative(s)?	<input type="radio"/> Yes <input checked="" type="radio"/> No		
3.1.1.1.1.6 • Contractor?	<input type="radio"/> Yes <input checked="" type="radio"/> No		
3.1.1.1.1.7	<input checked="" type="radio"/> Yes <input type="radio"/> No		

• Electrical Engineer?			
3.1.1.1.1.8 • Energy Engineer?	<input checked="" type="radio"/> Yes <input type="radio"/> No		
3.1.1.1.1.9 • Facilities Manager?	<input checked="" type="radio"/> Yes <input type="radio"/> No		
3.1.1.1.1.10 • Interior Designer?	<input checked="" type="radio"/> Yes <input type="radio"/> No		
3.1.1.1.1.11 • Landscape Architect?	<input checked="" type="radio"/> Yes <input type="radio"/> No		
3.1.1.1.1.12 • Lighting Designer/Illuminating Engineer?	<input checked="" type="radio"/> Yes <input type="radio"/> No		
3.1.1.1.1.13 • Mechanical Engineer - HVAC?	<input checked="" type="radio"/> Yes <input type="radio"/> No		
3.1.1.1.1.14 • Mechanical Engineer - Plumbing?	<input checked="" type="radio"/> Yes <input type="radio"/> No		
3.1.1.1.1.15 • Owner's representative?	<input checked="" type="radio"/> Yes <input type="radio"/> No		
3.1.1.1.1.16 • Structural Engineer?	<input checked="" type="radio"/> Yes <input type="radio"/> No		
3.1.1.1.1.17 • Sustainable Design Coordinator?	<input checked="" type="radio"/> Yes <input type="radio"/> No		
3.1.1.1.1.18 • User Group Representative?	<input checked="" type="radio"/> Yes <input type="radio"/> No		
3.1.1.1.1.19 • Acoustical Consultant or Acoustician?	<input checked="" type="radio"/> Yes <input type="radio"/> No		
3.1.1.1.1.20 • Other Key Professional?	<input type="radio"/> Yes <input checked="" type="radio"/> No		
3.1.1.1.1.20.1 Describe:	<input type="text"/>		

IDP Performance Goals

3

3

3.1.1.2.1 Were (qualitative) green design goals established at the pre-design phase for the following:		1	1
3.1.1.2.1.1	<input checked="" type="radio"/> Yes <input type="radio"/> No		

• Site design?			
3.1.1.2.1.2 • Envelope?	<input checked="" type="radio"/> Yes <input type="radio"/> No		
3.1.1.2.1.3 • Material efficiency?	<input checked="" type="radio"/> Yes <input type="radio"/> No		
3.1.1.2.1.4 • Indoor environment?	<input checked="" type="radio"/> Yes <input type="radio"/> No		
3.1.1.2.2 Were performance objectives (metrics) established at the pre-design phase for the following:		2	2
3.1.1.2.2.1 • Energy efficiency?	<input checked="" type="radio"/> Yes <input type="radio"/> No		
3.1.1.2.2.2 • Renewable energy (percentage of total energy)?	<input checked="" type="radio"/> Yes <input type="radio"/> No		
3.1.1.2.2.3 • Greenhouse gas emissions?	<input checked="" type="radio"/> Yes <input type="radio"/> No		
3.1.1.2.2.4 • Water conservation, efficiency, and reuse?	<input checked="" type="radio"/> Yes <input type="radio"/> No		
3.1.1.2.2.5 • Life cycle impact?	<input checked="" type="radio"/> Yes <input type="radio"/> No		
3.1.1.2.2.6 • Construction waste diversion?	<input checked="" type="radio"/> Yes <input type="radio"/> No		

IDP Progress Meetings for Design

3 0.5

3.1.1.3.1 Did the integrated design process (IDP) team hold progress meetings prior to the completion of the following project phases:			
3.1.1.3.1.1 • At the Concept Design Phase?	<input type="radio"/> Yes <input checked="" type="radio"/> No	0.5	0
3.1.1.3.1.2 • At the Design Development Phase?	<input type="radio"/> Yes <input checked="" type="radio"/> No	0.5	0
3.1.1.3.1.3 • At the Construction Documents Phase?	<input checked="" type="radio"/> Yes <input type="radio"/> No	0.5	0.5
3.1.1.3.2 Is there a requirement that the integrated design process (IDP) team hold progress meetings prior to the completion of the following project milestones:		1.5	0
3.1.1.3.2.1	<input type="radio"/> Yes <input checked="" type="radio"/> No		

• Pre-Construction?			
3.1.1.3.2.2 • 25% Completion of budget or schedule?	<input type="radio"/> Yes <input checked="" type="radio"/> No		
3.1.1.3.2.3 • 50% Completion of budget or schedule?	<input type="radio"/> Yes <input checked="" type="radio"/> No		
3.1.1.3.2.4 • Substantial Completion?	<input type="radio"/> Yes <input checked="" type="radio"/> No		

Capital Asset Plan & Business Case Summary

0 0

3.1.1.4.1 For Federal building projects, did the integrated design process integrate the use of OMB's A-11, Section 7, Exhibit 300: Capital Asset Plan and Business Case Summary?	<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> NA		
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ENVIRONMENTAL MANAGEMENT DURING CONSTRUCTION

12 7

Environmental Management Systems (EMS)

3 3

3.1.2.1.1 Is there a requirement that the General Contractor must document the following elements as part of their Environmental Management System (EMS):		3	3
3.1.2.1.1.1 • General Contractor's Environmental Policy?	<input checked="" type="radio"/> Yes <input type="radio"/> No		
3.1.2.1.1.2 • Regulatory Compliance and Training?	<input checked="" type="radio"/> Yes <input type="radio"/> No		
3.1.2.1.1.3 • Environmental Risk Assessment that shows sensitive environmental areas and ranks potential risks that may arise from the construction?	<input checked="" type="radio"/> Yes <input type="radio"/> No		
3.1.2.1.1.4 • Environmental Risk Management Strategies?	<input checked="" type="radio"/> Yes <input type="radio"/> No		
3.1.2.1.1.5 • Environmental Management Roles, Responsibilities and Reporting Structure for the construction phase?	<input checked="" type="radio"/> Yes <input type="radio"/> No		
3.1.2.1.1.6 • Site and Work Instructions for site personnel outlining environmental procedures during construction?	<input checked="" type="radio"/> Yes <input type="radio"/> No		
3.1.2.1.1.7 • Environmental Inspection Checklists?	<input checked="" type="radio"/> Yes <input type="radio"/> No		
3.1.2.1.1.8	<input type="radio"/> Yes <input type="radio"/> No		

• Records of Compliance?			
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Clean Diesel Practices

2 0

3.1.2.2.1 <u>Is there a requirement that the General Contractor must supplement mandatory regulatory requirements by implementing one or more of the following "clean diesel" strategies:</u>			
3.1.2.2.1.1	• A vehicle "idling-reduction" directive? <input type="radio"/> Yes <input checked="" type="radio"/> No	0.5	0
3.1.2.2.1.2	• Use of clean fuels? <input type="radio"/> Yes <input checked="" type="radio"/> No	0.5	0
3.1.2.2.1.3	• Engine upgrades that reduce emissions? <input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> NA	0.5	0
3.1.2.2.1.4	• Engine maintenance records? <input type="radio"/> Yes <input checked="" type="radio"/> No	0.5	0

Building Materials and Building Envelope

2 2

3.1.2.3.1 <u>Is there a requirement for the following construction best-practices to protect building materials and control mold:</u>			
3.1.2.3.1.1	• Building materials made of organic material or those that could absorb moisture are protected in transit and at the construction site from contact with moisture and from collecting organic matter such as leaves, soil or insects? <input checked="" type="radio"/> Yes <input type="radio"/> No	1	1
3.1.2.3.1.2	• The building envelope will be weather-tight and permitted to dry before installation of interior walls, wood floors, ceilings or HVAC systems? <input checked="" type="radio"/> Yes <input type="radio"/> No	1	1

IAQ during Construction

5 2

3.1.2.4.1 <u>Is there a requirement for either one of the following best-practices to maintain good indoor air quality?</u>			
• The area under construction is to be flushed with 100% outdoor air for 14 consecutive days prior to occupancy, and filters changed after flush out but before it is occupied? or • Baseline Indoor Air Quality testing gives acceptable results as per U.S. EPA's <i>Testing for Indoor Air Quality, Section 01 81 09, (December 2007)?</i>	<input checked="" type="radio"/> Building flushed 14 days + filters changed <input type="radio"/> IAQ test yields acceptable results <input type="radio"/> No	2	2
3.1.2.4.2 <u>Where parts of the building will be occupied during construction, are one or more of the following five basic strategies specified per SMACNA's IAQ Guidelines for Occupied Buildings Under Construction to control dust, odors or irritants:</u>		3	0
3.1.2.4.2.1	<input type="radio"/> Yes <input type="radio"/> No <input checked="" type="radio"/> NA		

	• HVAC protection?			
3.1.2.4.2.2	• Source Control?	<input type="radio"/> Yes <input type="radio"/> No <input checked="" type="radio"/> NA		
3.1.2.4.2.3	• Pathway Interruption?	<input type="radio"/> Yes <input type="radio"/> No <input checked="" type="radio"/> NA		
3.1.2.4.2.4	• Housekeeping?	<input type="radio"/> Yes <input type="radio"/> No <input checked="" type="radio"/> NA		
3.1.2.4.2.5	• Scheduling?	<input type="radio"/> Yes <input type="radio"/> No <input checked="" type="radio"/> NA		

COMMISSIONING

29 27

Pre-Commissioning

3 3

3.1.3.1.1	Is there a requirement for the Commissioning Agent to document the "Owner's Project Requirements" for building systems as per <i>ASHRAE Guideline 0-2005: The Commissioning Process, Annexes I and J (or more recent version)</i> ?	<input checked="" type="radio"/> Yes <input type="radio"/> No	1	1
3.1.3.1.2	Is there a requirement to document the building's "Basis of Design" for building systems as per <i>ASHRAE Guideline 0-2005 Annex K (or more recent version)</i> ?	<input checked="" type="radio"/> Yes <input type="radio"/> No	1	1
3.1.3.1.3	Is there requirement for a Commissioning Authority with technical credentials as per <i>ASHRAE Guideline 0-2005: The Commissioning Process</i> (or more recent version), to lead the commissioning team, coordinate the commissioning process, and report directly to the owner?	<input checked="" type="radio"/> Yes <input type="radio"/> No	1	1

Whole Building Commissioning

19 17

3.1.3.2.1	Is there a requirement that commissioning will be conducted in accordance with <i>ASHRAE Guideline 0-2005: The Commissioning Process, Article 5, 6 and 7</i> (or more recent version), for the following:			
3.1.3.2.1.1	• HVAC&R systems and their controls?	<input checked="" type="radio"/> Yes <input type="radio"/> No	4	4
3.1.3.2.1.2	• Building envelope?	<input checked="" type="radio"/> Yes <input type="radio"/> No	3	3
3.1.3.2.1.3	• Structural systems?	<input checked="" type="radio"/> Yes <input type="radio"/> No	2	2
3.1.3.2.1.4	• Fire protection system?	<input checked="" type="radio"/> Yes <input type="radio"/> No	2	2
3.1.3.2.1.5		<input checked="" type="radio"/> Yes <input type="radio"/> No	1	1

• Plumbing system?			
3.1.3.2.1.6 • Electrical systems?	<input checked="" type="radio"/> Yes <input type="radio"/> No	1	1
3.1.3.2.1.7 • Lighting systems and their controls?	<input checked="" type="radio"/> Yes <input type="radio"/> No	1	1
3.1.3.2.1.8 • Building automation systems?	<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> NA	1	1
3.1.3.2.1.9 • Elevating and conveying systems?	<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> NA	1	1
3.1.3.2.1.10 • Communication systems?	<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> NA	1	1
3.1.3.2.2 <u>Is there a requirement to field-test partitions for noise isolation ?</u>	<input type="radio"/> Yes <input checked="" type="radio"/> No	1	0
3.1.3.2.3 <u>Is there a requirement that the building system commissioning will be conducted in accordance with ASHRAE Guideline 0-2005: The Commissioning Process, Annex L (or more recent version)?</u>	<input type="radio"/> Yes <input checked="" type="radio"/> No	1	0

Training

1 1

3.1.3.3.1 <u>Is there a requirement that there will be training for the building operators on the systems listed above in accordance with ASHRAE Guideline 0-2005: The Commissioning Process, Article 7.2.14 (or more recent version)?</u>	<input checked="" type="radio"/> Yes <input type="radio"/> No	1	1
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Operations and Maintenance Manual

6 6

3.1.3.4.1 <u>Is there a requirement to develop an Operations and Maintenance (O&M) Manual and/or CMMS that contains descriptions and information on the continuous tasks related to the systems and to each piece of equipment, which are necessary to operate the building efficiently?</u>	<input checked="" type="radio"/> There is/will be a complete, user-friendly O&M Manual <input type="radio"/> O&M Manual meets some, but not all requirements <input type="radio"/> There is/will be a complete CMMS <input type="radio"/> CMMS meets some, but not all requirements <input type="radio"/> No	6	6
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SITE - 58%

111 64

DEVELOPMENT AREA

30 20

Urban Infill and Urban Sprawl

10 10

3.2.1.1.1 <u>Is the project located within 0.5 mile (0.8 km) of a commercial zone?</u>	<input checked="" type="radio"/> Yes <input type="radio"/> No	5	5
	<input checked="" type="radio"/> Yes <input type="radio"/> No	5	5

3.2.1.1.2 Is the building being constructed on a previously developed site, served with existing utilities for at least a full year before construction?			
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Greenfields, Brownfields and Floodplains

20

10

3.2.1.2.1 Is the building being constructed on a remediated brownfield or remediated Superfund site?	<input type="radio"/> Yes <input checked="" type="radio"/> No	10	0
3.2.1.2.2 Does the project location avoid sensitive sites i.e. land that was farmland, a public park, a wooded area, prairie, wetland, wildlife corridor or recreational area for at least 3 years prior to time of purchase or from the beginning of the project?	<input checked="" type="radio"/> Yes <input type="radio"/> No	6	6
3.2.1.2.3 Is all habitable space located higher than the 100-year flood plain?	<input checked="" type="radio"/> Yes <input type="radio"/> No	4	4

ECOLOGICAL IMPACTS

28

23

Site Disturbance and Erosion

8

8

<p>Green Globes provides two paths for assessing site disturbance and erosion:</p> <ul style="list-style-type: none"> • Path A: Erosion and Sedimentation Control Plan - 5 points • Path B: Erosion and Sedimentation Control Specifications - 5 points <p>Points cannot be combined between paths. Please review and select one of the two pathways below.</p>			
<input checked="" type="radio"/> Path A: Erosion and Sedimentation Control Plan			
3.2.2.1.1.1 Is there an Erosion and Sedimentation Control Plan, signed and stamped by a Professional Engineer?	<input checked="" type="radio"/> Yes <input type="radio"/> No	5	5
<input type="radio"/> Path B: Erosion and Sedimentation Control Specifications			
3.2.2.1.2.1 In the absence of an Erosion and Sedimentation Control Plan by a Professional Engineer, do the specifications require that the General Contractor will implement the following best practices for erosion and sediment control during construction:			
3.2.2.1.2.1.1	<ul style="list-style-type: none"> • Silt fences will be installed or fiber socks filled with compost/wood chips around the construction site and maintained throughout construction? <input type="radio"/> Yes <input checked="" type="radio"/> No		
3.2.2.1.2.1.2	<ul style="list-style-type: none"> • Gravel pads will be placed at all site entries and cleaned throughout construction? <input type="radio"/> Yes <input checked="" type="radio"/> No		
3.2.2.1.2.1.3	<ul style="list-style-type: none"> • Riprap will be placed around all storm sewer outlets and silt and debris removed after each 24-hour rainfall of 0.2 in. (5.08 mm) or more? <input type="radio"/> Yes <input checked="" type="radio"/> No		
3.2.2.1.2.1.4	<input type="radio"/> Yes <input checked="" type="radio"/> No		

<ul style="list-style-type: none"> Disturbed soils will be corrected using erosion control mats, or mulched and seeded within 90 days of being disturbed? 			
<p>3.2.2.1.2.1.5</p> <ul style="list-style-type: none"> During dry days, dust will be controlled by wetting the soil each day for 15 to 30 minutes before construction activities begin, and again after construction activities are done for the day? 	<input type="radio"/> Yes <input checked="" type="radio"/> No		
<p>Answer the following question regardless of the Path chosen above.</p>			
<p>3.2.2.1.3 Is there a requirement that construction activities will be located in such a way to limit disturbance to the site?</p>	<input checked="" type="radio"/> Yes <input type="radio"/> No	3	3

Tree Integration

1 1

<p>3.2.2.2.1 Are the following integrated into the landscape plan:</p>			
<p>3.2.2.2.1.1</p> <ul style="list-style-type: none"> Large trees? 	<input type="radio"/> Yes <input type="radio"/> No <input checked="" type="radio"/> NA	0	0
<p>3.2.2.2.1.2</p> <ul style="list-style-type: none"> Clusters of trees? 	<input type="radio"/> Yes <input type="radio"/> No <input checked="" type="radio"/> NA	0	0
<p>3.2.2.2.1.3</p> <ul style="list-style-type: none"> Undergrowth? 	<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> NA	1	1

Tree Preservation

4 4

<p>Green Globes provides two paths for assessing tree preservation:</p> <ul style="list-style-type: none"> Path A: Tree Preservation Plan - 4 points Path B: Tree Protection Specifications - 4 points <p>Points cannot be combined between paths. Please review and select one of the two pathways below.</p>			
<p><input type="radio"/> Path A: Tree Preservation Plan</p>			
<p>3.2.2.3.1.1 Is there a Tree Preservation Plan by a certified Arborist?</p>	<input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> NA		
<p><input checked="" type="radio"/> Path B: Tree Protection Specifications</p>			
<p>3.2.2.3.2.1 In the absence of Tree Preservation Plan by a certified Arborist, do the specifications require that the General Contractor will implement the following best practices for tree protection during construction:</p>			
<p>3.2.2.3.2.1.1</p> <ul style="list-style-type: none"> Tree protection barriers will enclose a minimum Tree Protection Zone (TPZ) around the trees and shrubs that are to be retained on the site? 	<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> NA	2	2
<p>3.2.2.3.2.1.2</p> <ul style="list-style-type: none"> Root protection will be installed to protect tree roots from compaction during construction? 	<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> NA	1	1

3.2.2.3.2.1.3	<ul style="list-style-type: none"> Sediment control barriers will be provided where some fill or excavate will be temporarily located near a TPZ? 	<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> NA	1	1
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Heat Island Effect

13 10

3.2.2.4.1	What percentage (by area) of the roof is vegetated, and/or has a high Solar Reflectance Index (SRI) as prescribed based on the slope of the roof?	<input checked="" type="radio"/> > 70% <input type="radio"/> 56 - 70% <input type="radio"/> 40 - 55% <input type="radio"/> < 40% <input type="radio"/> NA	6	6
3.2.2.4.2	What percentage (by area) of paved surfaces have a high SRI?	<input type="radio"/> > 49% <input type="radio"/> 25 - 49% <input checked="" type="radio"/> < 25% <input type="radio"/> NA (more than 70% of the site is unpaved) <input type="radio"/> NA (climate zone)	2	0
3.2.2.4.3	What percentage (by area) of paved surfaces outside of the building footprint will be shaded by trees within 15 years?	<input type="radio"/> > 49% <input checked="" type="radio"/> 25 - 49% <input type="radio"/> < 25% <input type="radio"/> NA	3	2
3.2.2.4.4	Do at least 75% of opaque wall surfaces (by area) on the east and west have an SRI of 29 or greater?	<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> NA	2	2

Bird Collisions

2 0

3.2.2.5.1	Are the following measures required to help ensure that birds perceive windows as being a solid object:			
3.2.2.5.1.1	<ul style="list-style-type: none"> Visual markers? 	<input type="radio"/> Yes <input checked="" type="radio"/> No	1	0
3.2.2.5.1.2	<ul style="list-style-type: none"> Avoidance of reflections? 	<input type="radio"/> Yes <input checked="" type="radio"/> No	1	0

STORMWATER MANAGEMENT

18 0

3.2.3.1	Is there a Stormwater Management Report by a Civil Engineer that shows that:			
3.2.3.1.1	<ul style="list-style-type: none"> The project meets municipal and/or local watershed flood and erosion control targets (i.e. post to pre control)? 	<input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> NA	5	0
3.2.3.1.2	<ul style="list-style-type: none"> The project meets municipal and/or local Watershed water quality control targets (80% TSS removal)? 	<input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> NA	5	0
3.2.3.1.3		<input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> NA	5	0

<ul style="list-style-type: none"> The site will retain at least 50% of the total average annual rainfall volume as per a Site Water Balance Assessment, to be included in the Stormwater Management Report? 			
<p>3.2.3.2 Is the site boundary farther than 100 ft. (30.5 m) from a natural body of water?</p>	<input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> NA	3	0

LANDSCAPING

28 21

<p>3.2.4.1 Is there a Landscape and Irrigation Plan developed by a Landscape Architect, certified horticulturalist, or certified irrigation professional?</p>	<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> NA	6	6
<p>3.2.4.2 Does the Landscape and Irrigation Plan include the following:</p>			
<p>3.2.4.2.1</p> <ul style="list-style-type: none"> Soil type, drainage, and light conditions? 	<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> NA	2	2
<p>3.2.4.2.2</p> <ul style="list-style-type: none"> Structural limitations (e.g. shading, utilities, overhangs, lights) that would impact the location and growth of plants? 	<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> NA	1	1
<p>3.2.4.3 Does the plant palette include the following:</p>			
<p>3.2.4.3.1</p> <ul style="list-style-type: none"> Minimum of 50% of the vegetated area covered with plants that are drought-tolerant? 	<input checked="" type="radio"/> Yes, by > 75% <input type="radio"/> Yes, by 50 - 74% <input type="radio"/> No <input type="radio"/> NA	3	3
<p>3.2.4.3.2</p> <ul style="list-style-type: none"> Minimum of 50% of vegetated area covered with plants (new or salvaged plantings) that are native and non-invasive? 	<input type="radio"/> Yes, by > 75% <input checked="" type="radio"/> Yes, by 50 - 74% <input type="radio"/> No <input type="radio"/> NA	4	2
<p>3.2.4.3.3</p> <ul style="list-style-type: none"> Minimal turf grass? 	<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> NA	3	3
<p>3.2.4.4 Is there a requirement that landscaped areas will be installed with the following:</p>			
<p>3.2.4.4.1</p> <ul style="list-style-type: none"> At least 6 in. (15.2 cm) of soil; aerated, tilled and/or broken up? 	<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> NA	1	1
<p>3.2.4.4.2</p> <ul style="list-style-type: none"> Organic mulch as per best practices? 	<input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> NA	1	0
<p>3.2.4.5 Does the Landscape Design show that plants are located on the site as follows:</p>			
<p>3.2.4.5.1</p>	<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> NA	2	2

<ul style="list-style-type: none"> Plants with similar water requirements are grouped together? 			
<p>3.2.4.5.2</p> <ul style="list-style-type: none"> Plants are spaced to allow for maturation at a 5-year growth rate? 	<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> NA	1	1
<p>3.2.4.6</p> <p>Is there a requirement that 15% of planned impervious walkways, patios, and driveways will be installed with pervious materials?</p>	<input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> NA	4	0

EXTERIOR LIGHT POLLUTION

7 0

<p>Green Globes provides two paths for assessing exterior light pollution:</p> <ul style="list-style-type: none"> Path A: Lighting Design Performance - 7 points Path B: Prescriptive Lighting Requirements - 7 points <p>Points cannot be combined between paths. Please review and select one of the two pathways below.</p>			
<p><input checked="" type="radio"/> Path A: Lighting Design Performance</p>			
<p>3.2.5.1.1</p> <p>Is there a lighting design by an Engineer or Lighting Professional that meets all the performance requirements of the <i>IDA - IES Model Lighting Ordinance (MLO)</i>?</p>	<input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> NA	7	0
<p><input type="radio"/> Path B: Prescriptive Lighting Requirements</p>			
<p>3.2.5.2.1</p> <p>Is there a requirement that the exterior lighting will not exceed prescribed values for the amount of light per unit of area?</p>	<input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> NA		
<p>3.2.5.2.2</p> <p>Is there a requirement that exterior lighting trespass will not exceed prescribed BUG ratings as per <i>IDA - IES Model Lighting Ordinance (MLO), Table C</i> for the following:</p>			
<p>3.2.5.2.2.1</p> <ul style="list-style-type: none"> Backlight trespass? 	<input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> NA		
<p>3.2.5.2.2.2</p> <ul style="list-style-type: none"> Uplight trespass? 	<input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> NA		
<p>3.2.5.2.2.3</p> <ul style="list-style-type: none"> Glare? 	<input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> NA		
<p>3.2.5.2.3</p> <p>Will parking lot lighting have no light emitted above 90 degrees?</p>	<input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> NA		

ENERGY - 66%

347 230.5

ENERGY PERFORMANCE

100 84

Assessing Energy Performance

100 84

<p>Green Globes provides four paths for assessing energy performance:</p> <ul style="list-style-type: none"> Path A: ENERGY STAR Target Finder - 100 points 			
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<ul style="list-style-type: none"> • Path B: ANSI/ASHRAE/IESNA Standard 90.1-2010, Appendix G - 100 points • Path C: Building Carbon Dioxide Equivalent (CO₂e) Emissions (ANSI/GBI Standard 01-2010) - 100 points • Path D: ASHRAE Building Energy Quotient (bEQ) - 100 points 			
Points cannot be combined between Paths. Please review and select one of the four pathways below.			
Input the energy performance by responding to ONE of the following:			
<input type="radio"/> Path A: ENERGY STAR Target Finder			
3.3.1.1.1 Input the energy performance as the ENERGY STAR percentile score derived from the Target Finder program.	<input type="text"/> %		
<input checked="" type="radio"/> Path B: ASHRAE 90.1-2010, Appendix G			
3.3.1.2.1 Input the energy performance as the percentage value compared to the reference base building, per ANSI/ASHRAE/IESNA Standard 90.1-2010, Appendix G.	<input type="text" value="42"/> %	100	84
<input type="radio"/> Path C: Building Carbon Dioxide Equivalent (CO ₂ e) Emissions (ANSI/GBI 01-2010)			
3.3.1.3.1 Input the energy performance as a reduction of Carbon Dioxide Equivalent (CO ₂ e) Emissions based on the ANSI/GBI Standard 01-2010 Energy Performance Building Carbon Dioxide Equivalent (CO ₂ e) Emissions protocol.	<input type="text"/>		
<input type="radio"/> Path D: ASHRAE Building Energy Quotient (bEQ)			
3.3.1.4.1 Input the energy performance as per the ASHRAE Building Energy Quotient (bEQ) rating program for an "As Designed" assessment.	<input type="radio"/> Zero Net Energy: A+ <input type="radio"/> High Performance: A <input type="radio"/> Very Good: A- <input type="radio"/> Efficient: B		
Benchmarking Energy Performance		0	0
3.3.1.2.1 Is there a program or policy in place to compare actual performance data from the first year of operation with the energy design target?	<input checked="" type="radio"/> Yes <input type="radio"/> No		
ENERGY DEMAND		27	0
Passive Demand Reduction		19	0
3.3.2.1.1 Does a minimum of 20% of the building envelope gross wall area have either of the following: <ul style="list-style-type: none"> • A minimum heat capacity of 7 Btu/ft.² °F (143 kJ/m²K)? • A minimum heat capacity of 5 Btu/ft.² °F (102 kJ/m²K), provided the walls have a material unit weight equal to or less than 120 lb./ft.³ (1920 kg/m³)? 	<input type="radio"/> Min. capacity of 7 Btu/ft ² °F <input type="radio"/> Min. capacity of 5 Btu/ft ² °F <input checked="" type="radio"/> No <input type="radio"/> NA	3	0
3.3.2.1.2 Do mass walls that are used as interior partitions, and constituting 20% of the building envelope gross area, have either of the following:	<input type="radio"/> Min. capacity of 7 Btu/ft ² °F <input type="radio"/> Min. capacity of 5 Btu/ft ² °F <input checked="" type="radio"/> No <input type="radio"/> NA	3	0

<ul style="list-style-type: none"> • A minimum heat capacity of 7 Btu/ft.² °F (143 kJ/m²K)? • A minimum heat capacity of 5 Btu/ft.² °F (102 kJ/m²K), provided the walls have a material unit weight not greater than 120 lb./ft.³ (1900 kg/m³) with the portion of the wall with the greatest heat capacity exposed to conditioned air? 			
<p>3.3.2.1.3 Are 50% of return air plenums located directly in contact with a floor or wall having either of the following:</p> <ul style="list-style-type: none"> • A heat capacity of at least 7 Btu/ft.² °F (143 kJ/m²K)? • A heat capacity of at least 5 Btu/ft.² °F (102 kJ/m²K), provided the wall or floor has a material unit weight equal to or less than 120 lb./ft.³ (1920 kg/m³)? 	<input type="radio"/> Min. capacity of 7 Btu/ft ² °F <input type="radio"/> Min. capacity of 5 Btu/ft ² °F <input checked="" type="radio"/> No <input type="radio"/> NA	3	0
<p>3.3.2.1.4 Is there a thermal energy storage system that is capable of offsetting the peak cooling demand by more than 30%?</p>	<input type="radio"/> > 50% <input type="radio"/> 41 - 50% <input type="radio"/> 31 - 40% <input checked="" type="radio"/> No <input type="radio"/> NA	10	0

Power Demand Reduction

8 0

<p>3.3.2.2.1 What is the modeled building's monthly power demand factor (lowest monthly kW demand ÷ peak monthly kW demand)?</p>	<input type="radio"/> > 85% <input type="radio"/> 80 - 85% <input type="radio"/> 75 - 79% <input type="radio"/> < 75% <input checked="" type="radio"/> NA	0	0
<p>3.3.2.2.2 Is there an Energy Management System designed to reduce power demand below the non-reduced peak?</p> <p>or</p> <p>Will power demand be controlled by the electric utility as per a load shedding agreement between the building owner and the utility?</p>	<input type="radio"/> > 30% reduction below non-reduced peak <input type="radio"/> 25 - 30% <input type="radio"/> 20 - 24% <input type="radio"/> 15 - 19% <input type="radio"/> < 15% <input checked="" type="radio"/> No	8	0

METERING, MEASUREMENT AND VERIFICATION

9 1

Metering

5 1

<p>3.3.3.1.1 Is there metering (at the building level) for the following:</p>			
<p>3.3.3.1.1.1</p> <ul style="list-style-type: none"> • Electricity? 	<input checked="" type="radio"/> Yes <input type="radio"/> No	1	1
<p>3.3.3.1.1.2</p> <ul style="list-style-type: none"> • Heating fuels? 	<input type="radio"/> Yes <input type="radio"/> No <input checked="" type="radio"/> NA	0	0
<p>3.3.3.1.1.3</p> <ul style="list-style-type: none"> • Steam? 	<input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> NA	1	0
<p>3.3.3.1.1.4</p> <ul style="list-style-type: none"> • Other? 	<input type="radio"/> Yes <input type="radio"/> No <input checked="" type="radio"/> NA	0	0

3.3.3.1.14.1 Describe:	<input type="text"/>		
3.3.3.1.2 Is there sub-metering installed for the following systems:			
3.3.3.1.2.1	<ul style="list-style-type: none"> Lighting and lighting controls by floor or by zones with floor areas no greater than 20,000 ft.² (1860 m²)? 	<input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> NA	0.5 0
3.3.3.1.2.2	<ul style="list-style-type: none"> Plug loads by floor or by zones no greater than 20,000 ft.² (1860 m²)? 	<input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> NA	0.5 0
3.3.3.1.2.3	<ul style="list-style-type: none"> Major electric HVAC equipment 5 HP or greater? 	<input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> NA	0.5 0
3.3.3.1.2.4	<ul style="list-style-type: none"> Chilled water generation? 	<input type="radio"/> Yes <input type="radio"/> No <input checked="" type="radio"/> NA	0 0
3.3.3.1.2.5	<ul style="list-style-type: none"> On-site renewable energy power generation? 	<input type="radio"/> Yes <input type="radio"/> No <input checked="" type="radio"/> NA	0 0
3.3.3.1.2.6	<ul style="list-style-type: none"> Heating water or steam generation? 	<input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> NA	0.5 0
3.3.3.1.2.7	<ul style="list-style-type: none"> Specialty or process electrical equipment? 	<input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> NA	0.5 0
3.3.3.1.2.8	<ul style="list-style-type: none"> Critical HVAC controls? 	<input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> NA	0.5 0
Measurement and Verification			4 0
3.3.3.2.1 Does the Energy Metering Reporting Plan include the following monitoring protocols (e.g. daily, monthly, seasonal, by floor etc.):			
3.3.3.2.1.1	<ul style="list-style-type: none"> Lighting and lighting controls: daily demand and consumption by floor or by zones with floor areas no greater than 20,000 ft.² (1860 m²)? 	<input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> NA	0.5 0
3.3.3.2.1.2	<ul style="list-style-type: none"> Plug loads: daily demand and consumption by floor or by zones no greater than 20,000 ft.² (1860 m²)? 	<input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> NA	0.5 0
3.3.3.2.1.3	<ul style="list-style-type: none"> Major electric HVAC equipment 5 HP or greater: seasonal peak demand and monthly consumption? 	<input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> NA	0.5 0
3.3.3.2.1.4		<input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> NA	0.5 0

• Chilled water generation: seasonal peak output and monthly consumption?			
3.3.3.2.1.5 • On-site renewable energy power generation: monthly peak output, monthly production, and site specific weather characteristics?	<input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> NA	0.5	0
3.3.3.2.1.6 • Heating water or steam generation: seasonal peak and monthly consumption?	<input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> NA	0.5	0
3.3.3.2.1.7 • Specialty or process electrical equipment: daily demand and consumption?	<input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> NA	0.5	0
3.3.3.2.1.8 • Critical HVAC controls: status monitoring and verification?	<input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> NA	0.5	0

BUILDING OPAQUE ENVELOPE

31 26

Thermal Resistance and Transmittance

10 10

3.3.4.1.1 Do the thermal resistance (R/RSI) or the thermal transmittance (U- /C- /F-factor) values for all the opaque elements of the building envelope meet or exceed the requirements as per the <i>Green Globes for New Construction Technical Reference Manual Table 3.3.4.1.1-A: Insulation Minimum R-values, or meet or do not exceed Table 3.3.4.1.1-B: Maximum Assembly U-factors, C-factors, and F-factors?</i>	<input checked="" type="radio"/> Meets or exceeds R-values <input type="radio"/> Meets or does not exceed U-, C-, or F-factors <input type="radio"/> No	10	10
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Orientation

5 0

3.3.4.2.1 Is the building oriented such that the ratio of the north/south fenestration area to the east/west fenestration area is between 1.25 and 2.00?	<input type="radio"/> 2.00 <input type="radio"/> 1.85 - 1.99 <input type="radio"/> 1.70 - 1.84 <input type="radio"/> 1.55 - 1.69 <input type="radio"/> 1.40 - 1.54 <input type="radio"/> 1.25 - 1.39 <input checked="" type="radio"/> No <input type="radio"/> NA	5	0
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Fenestration Systems

16 16

3.3.4.3.1 Is the thermal transmittance (U-factor) of the building's fenestration system less than or equal to the values in <i>Green Globes for New Construction Technical Reference Manual, Table 3.3.4.3: Building Envelope Requirements: Fenestration?</i>	<input checked="" type="radio"/> Yes <input type="radio"/> No	8	8
3.3.4.3.2 Is the Solar Heat Gain Coefficient (SHGC) of the building's fenestration system less than or equal to the values in <i>Green Globes for New Construction Technical</i>	<input checked="" type="radio"/> Yes <input type="radio"/> No	8	8

<u>Reference Manual, Table 3.3.4.3: Building Envelope Requirements: Fenestration?</u>			
LIGHTING		36	17.5
Lighting Power Density		10	0
3.3.5.1.1 <u>Is the total lighting power density (LPD) of the building at or below the allowed lighting power density in Green Globes for New Construction Technical Reference Manual, Table 3.3.5.1.1-A: Building Area Method, or Table 3.3.5.1.1-B: Space-by-Space Method?</u>	<input type="radio"/> Yes, Building Area Method <input type="radio"/> Yes, Space-by-Space Method <input checked="" type="radio"/> No	10	0
Interior Automatic Light Shut-off Controls		3	3
3.3.5.2.1 <u>How many light fixtures have time-scheduling devices and/or individual occupant-sensing devices?</u>	<input checked="" type="radio"/> More than 50% <input type="radio"/> 30% - 50% <input type="radio"/> 10% - 29% <input type="radio"/> Less than 10% <input type="radio"/> No <input type="radio"/> NA	3	3
Light Reduction Controls		4	4
3.3.5.3.1 <u>How many light fixtures have lighting controls that can reduce the lighting load by at least 50% from full lighting using any of the following technologies:</u>	<ul style="list-style-type: none"> • Dual switching of alternate rows or luminaries? • Switching of individual lamps independently of adjacent lamps within a luminaire? • Switching of each lamp or luminaire? • Occupancy sensors within the space? <input checked="" type="radio"/> More than 50% <input type="radio"/> 30% - 50% <input type="radio"/> 10% - 29% <input type="radio"/> Less than 10% <input type="radio"/> No <input type="radio"/> NA	4	4
Daylighting		8	0.5
3.3.5.4.1 <u>Are the regularly occupied side-lit daylighted areas (vertical fenestration) and the top-lit daylighted areas (skylights) equal to at least 10% of the net building area?</u>	<input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> NA	3	0
3.3.5.4.2 <u>Is the effective aperture for vertical fenestration equal to or greater than:</u>	<input type="radio"/> 0.10 EA _{VF} <input type="radio"/> 0.15 EA _{VF} <input checked="" type="radio"/> No <input type="radio"/> NA	3	0
3.3.5.4.3 <u>What percentage of the roof consists of skylights?</u>	<input type="radio"/> = 5%+ <input type="radio"/> 4 - < 5% <input type="radio"/> 3 - < 4% <input checked="" type="radio"/> 2 - < 3% <input type="radio"/> < 2% <input type="radio"/> NA	2	0.5
Controls for Daylighted Zones		6	6

3.3.5.5.1 Do all small daylit areas have manual or automatic photocell lighting controls?	<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> NA	3	3
3.3.5.5.2 Do all large daylit areas have automatic photocell lighting controls?	<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> NA	3	3

Exterior Luminaires and Controls

5 4

3.3.5.6.1 Do exterior luminaires have lamps with an initial system efficacy of at least 60 lumens per watt?	<input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> NA	1	0
3.3.5.6.2 Are LED lamp sources used for all exterior lighting?	<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> NA	1	1
3.3.5.6.3 Are lamps specified that have low or no mercury content?	<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> NA	1	1
3.3.5.6.4 Will one of the following controls be installed for exterior lighting: <ul style="list-style-type: none"> Lighting designated for dusk-to-dawn controlled by a photo sensor or astronomical time switch with 10-hour backup? Lighting not designated for dusk-to-dawn controlled by a time switch with 10-hour backup? 	<input checked="" type="radio"/> Photo sensor or astronomical time switch <input type="radio"/> Time switch <input type="radio"/> No <input type="radio"/> NA	2	2

HVAC SYSTEMS AND CONTROLS

42 20

Building Automation System

10 10

3.3.6.1.1 Is there a central Building Automation System (BAS) that encompasses all systems that affect building energy performance, lighting, and thermal comfort?	<input checked="" type="radio"/> Yes <input type="radio"/> No	10	10
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Cooling Equipment

13 4

3.3.6.2.1 Does the cooling equipment base efficiency meet ANSI/ASHRAE/IESNA Standard 90.1-2010 efficiency requirements with respect to COP, EER and SEER? <i>(Refer to Green Globes for New Construction Technical Reference Manual, Table 3.3.6.2.1: Cooling Equipment Base Efficiency, to determine the points awarded)</i>	<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> NA		
3.3.6.2.1.1 Input the points awarded per Green Globes for New Construction Technical Reference Manual, Table 3.3.6.2.1: Cooling Equipment Base Efficiency.	<input type="text" value="1"/> points	5	1
3.3.6.2.2 Does the cooling equipment base efficiency exceed ANSI/ASHRAE/IESNA Standard 90.1-2010 or ANSI/ASHRAE/IESNA Standard 90.1-2007 with respect to: <ul style="list-style-type: none"> Seasonal Energy Efficiency Ratio (SEER)? or Integrated Part-Load Value (IPLV)? AND <ul style="list-style-type: none"> The Coefficient Of Performance (COP)? or Energy Efficiency Ratio (EER)? 	<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> NA		

<i>(Refer to Green Globes for New Construction Technical Reference Manual, Table 3.3.6.2.2: Incremental Cooling Equipment Efficiency Improvement, to determine the points awarded)</i>			
3.3.6.2.1 Input the points awarded per <i>Green Globes for New Construction Technical Reference Manual, Table 3.3.6.2.2: Incremental Cooling Equipment Efficiency Improvement.</i>	<input type="text" value="3"/> points	8	3

Cooling Towers

0 0

3.3.6.3.1 Will any of the following measures be used in cooling towers to reduce fan energy consumption: <ul style="list-style-type: none"> Two speed fans? Variable speed fans? Other measures? 	<input type="radio"/> Yes <input type="radio"/> No <input checked="" type="radio"/> NA	0	0
3.3.6.3.2 Is there a waterside economizer system with capacity to use outdoor air for cooling water?	<input type="radio"/> Yes <input type="radio"/> No <input checked="" type="radio"/> NA	0	0

Heat Pumps

6 6

3.3.6.4.1 What percentage does the heating efficiency for heat pump applications exceed <i>ANSI/ASHRAE/IESNA Standard 90.1-2010, ANSI/ASHRAE/IESNA Standard 90.1-2007, or International Energy Conservation Code (IECC) 2009</i> with respect to one of the following: <ul style="list-style-type: none"> Heating Seasonal Performance Factor (HSPF)? Coefficient Of Performance (COP)? 	<input checked="" type="radio"/> >14% <input type="radio"/> 13 - 14% <input type="radio"/> 11 - 12% <input type="radio"/> 9 - 10% <input type="radio"/> 7 - 8% <input type="radio"/> 5 - 6% <input type="radio"/> < 5% <input type="radio"/> No <input type="radio"/> NA	6	6
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Heating Equipment

8 0

3.3.6.5.1 What percentage does the heating equipment exceed <i>ANSI/ASHRAE/IESNA Standard 90.1-2010, ANSI/ASHRAE/IESNA Standard 90.1-2007, or International Energy Conservation Code (IECC) 2009</i> for one of the following: <ul style="list-style-type: none"> Annual Fuel Utilization Efficiency (AFUE)? Thermal Efficiency (E_t)? Combustion Efficiency (E_c)? 	<input type="radio"/> >14% <input type="radio"/> 13 - 14% <input type="radio"/> 11 - 12% <input type="radio"/> 9 - 10% <input type="radio"/> 7 - 8% <input type="radio"/> 5 - 6% <input type="radio"/> 3 - 4% <input type="radio"/> 1 - 2% <input checked="" type="radio"/> No <input type="radio"/> NA	8	0
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Condensate Recovery

3 0

3.3.6.6.1 Are steam heating systems (including district systems) equipped to recover and return condensate (excluding trap losses)?	<input type="radio"/> > 80% condensate return <input type="radio"/> 65 - 79% <input type="radio"/> 50 - 64% <input type="radio"/> < 50% <input checked="" type="radio"/> No <input type="radio"/> (3	0
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	NA		
Steam Traps		2	0
3.3.6.7.1 Are all steam trap designs sealed/stamped by a Professional Engineer?	<input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> NA	1	0
3.3.6.7.2 Are there isolation valves to allow all steam traps to be isolated for repairs?	<input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> NA	1	0
Domestic Hot Water Heaters		0	0
3.3.6.8.1 Do all domestic hot water heaters meet the efficiency requirements of ANSI/ASHRAE/IESNA Standard 90.1-2010, ANSI/ASHRAE/IESNA Standard 90.1-2007, or International Energy Conservation Code (IECC) 2009?	<input type="radio"/> Yes <input type="radio"/> No <input checked="" type="radio"/> NA	0	0
3.3.6.8.2 Are all domestic hot water heaters equipped with intermittent electrical igniters and low NO _x burners?	<input type="radio"/> Yes <input type="radio"/> No <input checked="" type="radio"/> NA	0	0
Variable Speed Control of Pumps		0	0
3.3.6.9.1 What percentage of the connected hydronic pumping power is provisioned with variable speed control?	<input type="radio"/> > 75% <input type="radio"/> 74 - 75% <input type="radio"/> 55 - 73% <input type="radio"/> 35 - 54% <input type="radio"/> 15 - 34% <input type="radio"/> < 15% <input type="radio"/> No <input checked="" type="radio"/> NA	0	0
OTHER HVAC SYSTEMS AND CONTROLS		21	18
Minimizing Re-heat and Re-cool		6	3
3.3.7.1.1 Does the HVAC design minimize or eliminate re-heat and re-cool?	<input type="radio"/> Eliminates re-heat and re-cool <input checked="" type="radio"/> Minimizes re-heat and re-cool <input type="radio"/> No <input type="radio"/> NA	6	3
3.3.7.1.1.1 Describe the HVAC design utilized.	<input style="width: 100%;" type="text"/>		
Air Economizers		3	3
3.3.7.2.1 Are there air economizers with a mode that uses outdoor air for cooling in place of mechanical cooling?	<input checked="" type="radio"/> Yes <input type="radio"/> No	1	1
3.3.7.2.2 Are there controls to shut outdoor air and exhaust air dampers during periods when the system is not operating?	<input checked="" type="radio"/> Yes <input type="radio"/> No	1	1
3.3.7.2.3 Are the dampers in the air handling system "low leakage"?	<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> NA	1	1

Fans and Ductwork		7	7
3.3.7.3.1 Does the duct distribution system comprise the following:			
3.3.7.3.1.1	<ul style="list-style-type: none"> Diffusers and registers sized with a full flow pressure drop no greater than 0.01 in (0.03 cm) of water column? 	<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> NA	0.5 0.5
3.3.7.3.1.2	<ul style="list-style-type: none"> Noise criteria (NC) of 35 or less? 	<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> NA	0.5 0.5
3.3.7.3.1.3	<ul style="list-style-type: none"> Supply and return ductwork sized with a pressure drop no greater than 0.1 in (0.3 cm) of water column per 100 lineal feet (30.5 lineal meters)? 	<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> NA	0.5 0.5
3.3.7.3.2 Are there the following requirements for flexible ductwork:			
3.3.7.3.2.1	<ul style="list-style-type: none"> Flexible ductwork is no longer than 5 ft. (1.5 m) when fully stretched? 	<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> NA	0.5 0.5
3.3.7.3.2.2	<ul style="list-style-type: none"> The use of flexible ductwork is limited to only connections between duct branches and diffusers, and connections between duct branches and variable air volume terminal units? 	<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> NA	0.5 0.5
3.3.7.3.2.3	<ul style="list-style-type: none"> Durable elbow support is provided when flexible ductwork is used as an elbow? 	<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> NA	0.5 0.5
3.3.7.3.3	Are the duct joints sealed and have the seams been leak-tested and found to have an overall leak rate that does not exceed 5%?	<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> NA	1 1
3.3.7.3.4	Do motors for fans meet NEMA's Premium® Energy Efficiency Motor Program?	<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> NA	1 1
3.3.7.3.5	Are variable speed fans controlled by a duct pressure set-point or an energy management control system?	<input checked="" type="radio"/> Yes <input type="radio"/> No	2 2

Demand Controlled Ventilation

5 5

3.3.7.4.1	Are there occupancy and/or CO ₂ sensors to control ventilation rates in regularly occupied spaces that may experience frequent variations in the number of occupants?	<input type="radio"/> Yes <input type="radio"/> No <input checked="" type="radio"/> NA	0 0
3.3.7.4.2	Are the CO ₂ sensors capable of maintaining calibration within 2% for a one year period of operation?	<input type="radio"/> Yes <input type="radio"/> No <input checked="" type="radio"/> NA	0 0

3.3.7.4.3 Do the ventilation heat recovery systems include the following:			
3.3.7.4.3.1	• Pressure-drop impact on fan power?	<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> NA	1 1
3.3.7.4.3.2	• Bypass for economizer operation, if applicable?	<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> NA	2 2
3.3.7.4.3.3	• MERV 13 Filtration?	<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> NA	2 2

Variable Refrigerant Flow Systems

0 0

3.3.7.5.1	Does the HVAC design utilize Variable Refrigerant Flow (VRF) system technology?	<input type="radio"/> Yes <input type="radio"/> No <input checked="" type="radio"/> NA	0 0
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OTHER ENERGY EFFICIENT EQUIPMENT AND MEASURES

7 4

Elevators and Escalators

3 0

3.3.8.1.1	Are there regenerative braking elevators?	<input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> NA	3 0
3.3.8.1.2	Are escalators and moving walkways equipped with the capability to slow down or stop when detectors indicate no traffic?	<input type="radio"/> Yes <input type="radio"/> No <input checked="" type="radio"/> NA	0 0

Other Energy Efficient Equipment

4 4

3.3.8.2.1 Is the building's energy efficiency increased through the use of one or more of the following energy efficient equipment:			
3.3.8.2.1.1	• Energy efficient lighting fixtures, lamps, and ballasts?	<input checked="" type="radio"/> Yes <input type="radio"/> No	2 2
3.3.8.2.1.2	• Energy efficient motors?	<input type="radio"/> Yes <input type="radio"/> No <input checked="" type="radio"/> NA	0 0
3.3.8.2.1.3	• Others?	<input checked="" type="radio"/> Yes <input type="radio"/> No	2 2
3.3.8.2.1.3.1	Describe other energy efficient products (if any):	Refrigerator and dishwasher	

RENEWABLE ENERGY

50 50

On-site Renewable Energy

32 32

3.3.9.1.1	Has a Study been conducted to determine the technical feasibility and life-cycle cost effectiveness of on-site renewable energy? <i>(For Federal building projects, see ToolTip for special Guiding Principles solar hot water requirement.)</i>	<input checked="" type="radio"/> Yes <input type="radio"/> No	9 9
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3.3.9.1.2 Were the recommendations of the Feasibility Study implemented?	<input checked="" type="radio"/> Yes <input type="radio"/> Partially <input type="radio"/> Feasibility Study completed & not lifecycle cost effective <input type="radio"/> No	23	23
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Off-site Renewable Energy

18

18

3.3.9.2.1 Has the building owner committed to sign a contract to purchase either certified "green" power or certified renewable energy certificates (RECs) with a minimum three-year commitment; and if so, for what percentage of total electrical consumption of the building?	<input checked="" type="radio"/> >39% <input type="radio"/> 20 - 39% <input type="radio"/> 10 - 19% <input type="radio"/> < 10% <input type="radio"/> No	18	18
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ENERGY EFFICIENT TRANSPORTATION

24

10

3.3.10.1 Is the site located within 0.25 mi (0.4 km) of a public transportation facility such as a public bus stop or train-stop?	<input checked="" type="radio"/> Yes <input type="radio"/> No	10	10
3.3.10.2 Will there be designated preferred parking for car/van pooling, and shelter from weather for persons waiting for a lift?	<input type="radio"/> Yes <input checked="" type="radio"/> No	2	0
3.3.10.3 Are there alternative fuel re-fueling facilities or electric charging stations on site or in the general vicinity?	<input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> NA	5	0
3.3.10.4 Is the site located within 0.25 mi (0.4 km) of a public bicycle path, multi-user path, or on a road with an existing dedicated bicycle lane?	<input type="radio"/> Yes <input checked="" type="radio"/> No	3	0
3.3.10.5 Is there sheltered bicycle parking for: • At least 5% of the maximum number of office building occupants? or • At least 50% of units in a multi-family residential building?	<input type="radio"/> Yes <input checked="" type="radio"/> No	3	0
3.3.10.6 Is the building's walkability index greater than 75%?	<input type="radio"/> Yes <input checked="" type="radio"/> No	1	0

WATER - 29%

73

21

WATER CONSUMPTION

32

8

3.4.1.1 Using the Green Globes Water Consumption Calculator, is the projected water consumption of the building less than the given baseline?	<input type="radio"/> >39% <input type="radio"/> 35 - 39% <input type="radio"/> 30 - 34% <input type="radio"/> 25 - 29% <input checked="" type="radio"/> < 25%	24	0
3.4.1.2 Are the following plumbing fixtures and fittings certified as being compliant with the requirements of the U.S. EPA's WaterSense Program:			

3.4.1.2.1	<input checked="" type="radio"/> Yes <input type="radio"/> No • Toilets (Maximum effective flush 1.28 gallons)?	2	2
3.4.1.2.2	<input type="radio"/> Yes <input type="radio"/> No <input checked="" type="radio"/> NA • Urinals (Maximum effective flush volume 0.5 gallons)?	0	0
3.4.1.2.3	<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> NA • Showerheads (Maximum effective flow rate 2.0 gallons per minute)?	2	2
3.4.1.2.4	<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> NA • Residential lavatory faucets (Maximum flow rate 1.5 gallons per minute)?	2	2
3.4.1.2.5	<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> NA • Residential kitchen faucets (Maximum flow rate 2.2 gallons per minute)?	2	2
3.4.1.2.6	<input type="radio"/> Yes <input type="radio"/> No <input checked="" type="radio"/> NA • Non-residential lavatory faucets (Maximum flow rate 0.5 gallons per minute)?	0	0
3.4.1.3	If any water fixtures not addressed by the WaterSense program requirements were used in the project design, were projected consumption rates for these fixtures determined and entered into the Green Globes Water Consumption Calculator?	0	0
3.4.1.3.1	Describe other water-saving measures: <div style="border: 1px solid black; height: 20px; width: 100%; margin-top: 5px;"></div>		
3.4.1.4	<input type="radio"/> Yes <input type="radio"/> No <input checked="" type="radio"/> NA Are residential clothes washers ENERGY STAR labeled with a maximum water factor of 6.0 gal/ft. ³ (23 L/m ³) per full cycle?	0	0
3.4.1.5	<input type="radio"/> Yes <input type="radio"/> No <input checked="" type="radio"/> NA Are residential dishwashers ENERGY STAR labeled with a maximum water factor of 5.8 gal/ft. ³ (22 L/m ³) per full cycle?	0	0

COOLING TOWERS

0 0

3.4.2.1	Do cooling towers minimize the amount of make-up water by achieving one of the following: <ul style="list-style-type: none"> • A minimum of 5 cycles of concentration for makeup water have less than or equal to 200 ppm (200 mg/L) total hardness as calcium carbonate or 3.5 cycles for makeup water with > 200 ppm (200 mg/L) total hardness as calcium carbonate? or • A minimum discharge conductivity of 1500 micromhos/cm or maximum of 150 ppm (150 mg/L) of silica measured as silicon dioxide? 	<input type="radio"/> Meets minimum cycles of concentration <input type="radio"/> Meets minimum discharge conductivity <input type="radio"/> No <input checked="" type="radio"/> NA	0	0
	<input type="radio"/> Yes <input type="radio"/> No <input checked="" type="radio"/> NA	0	0	

3.4.2.2 Do cooling towers exceed the minimum water quality criteria above by 20% or more?			
3.4.2.3 Are there flow meters on the make-up and blowdown lines, and conductivity controllers?	<input type="radio"/> Yes <input type="radio"/> No <input checked="" type="radio"/> NA	0	0
3.4.2.4 What percentage of cooling consists of dry cooling?	<input type="radio"/> 75 - 100% dry cooling <input type="radio"/> 51 - 74% dry cooling <input type="radio"/> 21 - 50% dry cooling <input type="radio"/> < 21% dry cooling <input checked="" type="radio"/> NA	0	0
3.4.2.5 Are cooling tower(s) equipped with drift eliminators that achieve an efficiency of 0.001% or less for counterflow systems? or 0.005% or less for crossflow systems?	<input type="radio"/> Yes (counterflow) <input type="radio"/> Yes (crossflow) <input type="radio"/> No <input checked="" type="radio"/> NA	0	0

BOILERS AND WATER HEATERS

0 0

3.4.3.1 Do boilers and/or water heaters have the following features:			
3.4.3.1.1 • Boilers and water heating systems of 50 bhp and above have a boiler feed makeup meter?	<input type="radio"/> Yes <input type="radio"/> No <input checked="" type="radio"/> NA	0	0
3.4.3.1.2 • Boiler systems with over 50 bhp have condensate return systems?	<input type="radio"/> Yes <input type="radio"/> No <input checked="" type="radio"/> NA	0	0
3.4.3.1.3 • Boilers have conductivity controllers?	<input type="radio"/> Yes <input type="radio"/> No <input checked="" type="radio"/> NA	0	0
3.4.3.1.4 • Steam boilers have conductivity meters?	<input type="radio"/> Yes <input type="radio"/> No <input checked="" type="radio"/> NA	0	0

WATER INTENSIVE APPLICATIONS

4 3

Commercial Food Service Equipment

0 0

3.4.4.1.1 Do food services avoid water intensive equipment as follows:			
3.4.4.1.1.1 • There is no once-through water-cooled equipment?	<input type="radio"/> Yes <input type="radio"/> No <input checked="" type="radio"/> NA	0	0
3.4.4.1.1.2 • There is no water-fed garbage disposal?	<input type="radio"/> Yes <input type="radio"/> No <input checked="" type="radio"/> NA	0	0
3.4.4.1.2 Do the following appliances meet the prescribed limits for water usage:			
3.4.4.1.2.1	<input type="radio"/> Yes <input type="radio"/> No <input checked="" type="radio"/> NA	0	0

<ul style="list-style-type: none"> Combination ovens consuming 10 gal/hr. (39 L/hr.) or less? 			
<p>3.4.4.1.2.2</p> <ul style="list-style-type: none"> Pre-rinse spray valves for dish-rinsing consuming 1.5 gal/min (5.7 L/min) or less? 	<input type="radio"/> Yes <input type="radio"/> No <input checked="" type="radio"/> NA	0	0
<p>3.4.4.1.2.3</p> <ul style="list-style-type: none"> Boilerless/connectionless food steamers consuming less than 2 gal/hr. (7.5 L/hr.) or less? 	<input type="radio"/> Yes <input type="radio"/> No <input checked="" type="radio"/> NA	0	0
<p>3.4.4.1.2.4</p> <ul style="list-style-type: none"> Dishwashers consuming 5.8 gal/cycle (22 L/cycle) or less? 	<input type="radio"/> Yes <input type="radio"/> No <input checked="" type="radio"/> NA	0	0

Laboratory and Medical Equipment

1 1

<p>3.4.4.2.1 Are sterilizers equipped with the following:</p>			
<p>3.4.4.2.1.1</p> <ul style="list-style-type: none"> Mechanical vacuum systems? 	<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> NA	0.5	0.5
<p>3.4.4.2.1.2</p> <ul style="list-style-type: none"> Water tempering devices that only allow water to flow when the discharge of condensate or hot water from the sterilizer exceeds 140°F (60°C)? 	<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> NA	0.5	0.5
<p>3.4.4.2.2 Does laboratory or medical equipment use non-potable water for once-through cooling?</p>	<input type="radio"/> Yes <input type="radio"/> No <input checked="" type="radio"/> NA	0	0
<p>3.4.4.2.3 Are dry vacuum systems specified for medical/dental purposes?</p>	<input type="radio"/> Yes <input type="radio"/> No <input checked="" type="radio"/> NA	0	0
<p>3.4.4.2.4 Do X-rays, MRIs, CT scans, and other imaging equipment employ digital technologies;</p> <p><i>and/or</i></p> <p>Do large X-ray film systems (capable of processing X-ray films of more than 5.9 in (150 mm) in length or width) employ recycling technology to reduce water waste?</p>	<input type="radio"/> Yes <input type="radio"/> No <input checked="" type="radio"/> NA	0	0
<p>3.4.4.2.5 Are wet scrubbers equipped with water recirculation systems?</p>	<input type="radio"/> Yes <input type="radio"/> No <input checked="" type="radio"/> NA	0	0

Laundry Equipment

0 0

<p>3.4.4.3.1 Do coin or card-operated laundromat machines meet the prescribed water factor (WF) performance as follows (if applicable):</p> <ul style="list-style-type: none"> Single-load, soft- or hard-mount laundromat washing machines with a WF of 8 gal/ft.³ or less? <i>and/or</i> Multi-load washing machines with a WF of 9.5 gal/ft.³ or less? 	<input type="radio"/> Yes <input type="radio"/> No <input checked="" type="radio"/> NA	0	0
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<p>3.4.4.3.2 If an institutional/industrial laundry, are there the following types of washing machines:</p> <ul style="list-style-type: none"> Tunnel washing machine that is programmable to use a specific amount of water depending on the soiling of the material to be washed? That has a water consumption of 0.96 gal/lb. (8 L/kg); or less than 1.44 gal/lb. (12 L/kg)? That has a water recycling system? 	<p><input type="radio"/> Yes <input type="radio"/> No <input checked="" type="radio"/> NA</p>	0	0
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Special Water Features

3 2

<p>3.4.4.4.1 Do special water features (e.g. swimming pools, spas, ornamental fountains, water playscapes) filter and re-circulate water for reuse within the system?</p>	<p><input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> NA</p>	2	2
<p>3.4.4.4.2 Do special water features use alternate sources of water for makeup water?</p>	<p><input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> NA</p>	1	0

WATER TREATMENT

3 0

<p>3.4.5.1 Are filtration systems equipped with pressure drop gauges that allow backwash to be based on pressure drop and not on timers?</p>	<p><input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> NA</p>	1	0
<p>3.4.5.2 Is reverse osmosis provided that achieves one of the following:</p> <ul style="list-style-type: none"> Rejects less than 70% of feedwater volume for a system that produces less than 100 gal. (380 L) per day? or That rejects less than 60% of feedwater for a system that produces more than 100 gal. (380 L) per day? 	<p><input type="radio"/> Rejects < 70%, and less than 100 gal. per day are produced</p> <p><input type="radio"/> Rejects < 60%, and more than 100 gal. per day are produced</p> <p><input checked="" type="radio"/> No</p> <p><input type="radio"/> NA</p>	1	0
<p>3.4.5.3 Are water softeners equipped with recharge controls based on volume of water treated or hardness, and not on timers?</p>	<p><input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> NA</p>	1	0

ALTERNATE SOURCES OF WATER

5 0

<p>3.4.6.1 What percentage of water for non-potable uses will be harvested on-site or reclaimed?</p>	<p><input type="radio"/> > 50%</p> <p><input type="radio"/> 25 - 50%</p> <p><input type="radio"/> 10 - 24%</p> <p><input checked="" type="radio"/> < 10%</p>	5	0
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METERING

11 8

<p>3.4.7.1 Is there sub-metering for all water-intensive indoor applications such as commercial kitchens, commercial laundry, labs, pools, spas etc.?</p>	<p><input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> NA</p>	3	3
<p>3.4.7.2 Is the potable water that is used for irrigation sub-metered?</p>	<p><input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> NA</p>	3	3
	<p><input type="radio"/> Yes <input checked="" type="radio"/> No</p>	3	0

3.4.7.3 Are all water meters and sub-meters linked to a Meter Data Management System to store and report water consumption data?			
3.4.7.4 Are chilled or hot water loops equipped with makeup meters?	<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> NA	2	2

IRRIGATION

18 2

3.4.8.1 What percentage of exterior vegetated space does not require irrigation?	<input type="radio"/> >74% <input type="radio"/> 50 - 74% <input type="radio"/> 25 - 49% <input checked="" type="radio"/> < 25% <input type="radio"/> NA	14	0
3.4.8.2 Does the irrigation system include any of the following features:			
3.4.8.2.1	<ul style="list-style-type: none"> Gutter downspouts directed into planted areas or other landscape features? or Onsite cistern and/or rainwater harvesting system, or reclaimed water system? <input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> NA	1	0
3.4.8.2.2	<ul style="list-style-type: none"> Drip or low-volume irrigation? <input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> NA	1	1
3.4.8.2.3	<ul style="list-style-type: none"> EPA WaterSense/Smart Water Application Technology (SWAT), smart controllers (ET, rain sensors, or soil moisture sensors), and automatic rain shut off devices? <input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> NA	1	1
3.4.8.2.4	<ul style="list-style-type: none"> Capability to regulate precipitation rates on sprinkler heads for differing hydrozones? <input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> NA	0.5	0
3.4.8.2.5	<ul style="list-style-type: none"> Swing joints or flex pipes used on all in-ground irrigation heads? <input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> NA	0.5	0

MATERIALS & RESOURCES - 32%

102 33

BUILDING CORE AND SHELL

33 0

<p>Green Globes provides two paths for assessing building core and shell:</p> <ul style="list-style-type: none"> Path A: Performance Path for Building Core and Shell - 33 points Path B: Prescriptive Path for Building Core and Shell - 20 (out of 33) points <p>Points cannot be combined between paths. Please review and select one of the two pathways below.</p>			
<input type="radio"/> Path A: Performance Path for Building Core and Shell			
	<input type="radio"/>	33	0

<p>3.5.1.1.1 Was the Athena Impact Estimator for Buildings (Version 4.2 or later) used during design to evaluate a minimum of two different core and shell designs, based on life cycle assessment (LCA) in compliance with the assessment guidance and resulting in selection of the most environmentally favorable building core and shell?</p>	<p>Yes - LCA comparison with the Athena Impact Estimator <input type="radio"/> Yes - LCA comparison with an alternate tool <input type="radio"/> No</p>		
<p><i>or</i> Was another LCA tool used during design to evaluate a minimum of two building projects, based on life cycle assessment (LCA) in compliance with the assessment guidance and resulting in selection of the most environmentally favorable building core and shell?</p>			

<p><input type="radio"/> Path B: Prescriptive Path for Building Core and Shell</p>			
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<p>3.5.1.2.1 Based upon the appropriate application and specification of comparable materials and products, what percentage of the products selected for the building core and shell (based upon cost) have:</p>			
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<p>3.5.1.2.1.1</p> <ul style="list-style-type: none"> • Environmental Product Declarations (EPDs) that utilize recognized Product Category Rules, conform to ISO standards, and minimally includes cradle-to-gate scope: <ul style="list-style-type: none"> ◦ Industry Wide (Generic) EPD: Products specified for the building core and shell shall include Type III Environmental Product Declarations (EPD)? <i>and/or</i> ◦ Brand Specific EPD: Products specified for the building core and shell shall include Type III Environmental Product Declaration (EPD), where the EPDs are specific to particular products from identified manufacturers? <i>and/or</i> • Third-party certifications that are based upon a multiple attribute standard(s) developed by a consensus based process from an approved standard development organization? Examples include NSF sustainability assessment standards, UL Environment sustainability standards, Sustainable Minds Transparency Report™ Framework, and other consensus-based assessment standards that are multiple attribute-based. <i>and/or</i> • Third-party verified product life cycle assessment based upon <i>ISO 14040</i> and <i>14044</i>, and minimally covers cradle-to-gate scope? <i>and/or</i> • Third-party sustainable forestry certifications? 	<p><input type="radio"/> > 39% <input type="radio"/> 25 - 39% <input type="radio"/> 10 - 24% <input type="radio"/> 1 - 9% <input type="radio"/> No</p>		
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<p>INTERIOR FIT-OUT (INCLUDING FINISHES AND FURNISHINGS)</p>	<p>16</p>	<p>0</p>
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<p>Green Globes provides two paths for assessing interior fit-outs (including finishes and furnishings):</p> <ul style="list-style-type: none"> • Path A: Performance Path for Interior Fit-outs - 16 points • Path B: Prescriptive Path for Interior Fit-outs - 10 (out of 16) points <p>Points cannot be combined between paths. Please review and select one of the two pathways below.</p>			
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<p><input type="radio"/> Path A: Performance Path for Interior Fit-outs</p>			
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<p>3.5.2.1.1 Was life cycle assessment and relative comparison of a minimum of two alternative interior fit-outs (based on a complete unit, including finishes and furnishings) performed during design, which resulted in the selection of an interior fit-out that is the most environmentally favorable based upon comparable applications?</p>	<p><input type="radio"/> Yes <input type="radio"/> No</p>	<p>16</p>	<p>0</p>
<p><input type="radio"/> Path B: Prescriptive Path for Interior Fit-outs</p>			
<p>3.5.2.2.1 Based upon the appropriate application and specification of comparable products, what percentage of the interior fit-out materials and products (including finishes and furnishings) selected (based upon cost) have:</p>			
<p>3.5.2.2.1.1</p> <ul style="list-style-type: none"> • Environmental Product Declarations (EPDs) that utilize recognized Product Category Rules, conform to ISO standards, and minimally includes cradle-to-gate scope: <ul style="list-style-type: none"> ◦ Industry Wide (Generic) EPD: Products specified for the interior fit-out shall include Type III Environmental Product Declaration (EPD)? <i>and/or</i> ◦ Brand Specific EPD: Products specified for the interior fit-out shall include Type III Environmental Product Declaration (EPD), where the EPDs are specific to particular products from identified manufacturers? <i>and/or</i> • Third-party certifications that are based upon a multiple attribute standard(s) developed by a consensus based process from an approved standard development organization? Examples include NSF sustainability assessment standards, UL Environment sustainability standards, Sustainable Minds Transparency Report™ Framework, and other consensus-based assessment standards that are multiple attribute-based. <i>and/or</i> • Third-party verified product life cycle assessment based upon <i>ISO 14040</i> and <i>14044</i>, and minimally covers cradle-to-gate scope? <i>and/or</i> • Third-party sustainable forestry certifications? 	<p><input type="radio"/> > 39% <input type="radio"/> 25 - 39% <input type="radio"/> 10 - 24% <input type="radio"/> 1 - 9% <input type="radio"/> No</p>		
<p>RE-USE OF EXISTING STRUCTURES</p>		<p>4</p>	<p>0</p>
<p>Façades</p>		<p>0</p>	<p>0</p>
<p>3.5.3.1.1 What percentage of the façade from an existing building on the site is retained and incorporated in the new design?</p>	<p><input type="radio"/> > 60% <input type="radio"/> 51 - 60% <input type="radio"/> 41 - 50% <input type="radio"/> 31 - 40% <input type="radio"/> 21 - 30% <input type="radio"/> 10 - 20% <input type="radio"/> < 10% <input checked="" type="radio"/> NA</p>	<p>0</p>	<p>0</p>

Structural Systems		0	0
<p>3.5.3.2.1 <u>What percentage of structural systems (e.g. interior walls) from an existing building on the site is retained and incorporated in the new design?</u></p>	<p> <input type="radio"/> > 95% <input type="radio"/> 81 - 95% <input type="radio"/> 66 - 80% <input type="radio"/> 41 - 65% <input type="radio"/> 26 - 40% <input type="radio"/> 10 - 25% <input type="radio"/> < 10% <input checked="" type="radio"/> NA </p>	0	0

Non-structural Elements		4	0
<p>3.5.3.3.1 <u>What percentage of the existing interior ceilings, interior partitions, and/or demountable walls will be reused within the renovation project?</u></p>	<p> <input type="radio"/> > 95% <input type="radio"/> 81 - 95% <input type="radio"/> 66 - 80% <input type="radio"/> 41 - 65% <input type="radio"/> 26 - 40% <input type="radio"/> 10 - 25% <input type="radio"/> < 10% <input checked="" type="radio"/> NA </p>	0	0
<p>3.5.3.3.2 <u>What percentage of the existing furnishings (including systems furniture) will be re-used and/or refurbished for reuse within the renovation project?</u></p>	<p> <input type="radio"/> > 65% <input type="radio"/> 41 - 65% <input type="radio"/> 26 - 40% <input type="radio"/> 10 - 25% <input type="radio"/> < 10% <input checked="" type="radio"/> NA </p>	0	0
<p>3.5.3.3.3 <u>Is there a requirement that the project will incorporate reused and off-site salvaged materials?</u></p>	<p> <input type="radio"/> Yes <input checked="" type="radio"/> No </p>	4	0

WASTE **8** **6**

Construction Waste		6	4
<p>3.5.4.1.1 <u>What percentage of the construction waste, including building demolition waste, will be diverted from the landfill?</u></p>	<p> <input type="radio"/> >74% <input checked="" type="radio"/> 50 - 74% <input type="radio"/> 25 - 49% <input type="radio"/> < 25% </p>	6	4
<p>3.5.4.1.2 <u>Is there a requirement to reuse existing on-site materials for site development or landscaping (e.g. crushing concrete for aggregate base or drain rock, shredding vegetative materials for mulch, etc.)?</u></p>	<p> <input type="radio"/> Yes <input type="radio"/> No <input checked="" type="radio"/> NA </p>	0	0

Operational Waste		2	2
<p>3.5.4.2.1 Does the building design address operations-related recycling programs through one or more of the following:</p>			
<p>3.5.4.2.1.1</p> <ul style="list-style-type: none"> • Operational flow for waste handling and storage facilities for recycling? 	<p> <input checked="" type="radio"/> Yes <input type="radio"/> No </p>	0.5	0.5

3.5.4.2.1.2	<ul style="list-style-type: none"> Storage areas for recyclable waste at points of service? 	<input checked="" type="radio"/> Yes <input type="radio"/> No	0.5	0.5
3.5.4.2.1.3	<ul style="list-style-type: none"> Storage areas for recyclable waste at pick-up areas? 	<input checked="" type="radio"/> Yes <input type="radio"/> No	0.5	0.5
3.5.4.2.1.4	<ul style="list-style-type: none"> Operational flow for handling and storage facilities for composting? 	<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> NA	0.5	0.5
3.5.4.2.2	Indicate total storage area (in ft. ²) for recyclable waste at points of service and pick-up areas:	<input type="text"/> ft ²		

BUILDING SERVICE LIFE PLAN

7 0

3.5.5.1 <u>Is there a preliminary Building Service Life Plan that includes the expected service life estimates for the following:</u>			
3.5.5.1.1	<ul style="list-style-type: none"> The building? 	<input type="radio"/> Yes <input checked="" type="radio"/> No	2 0
3.5.5.1.2	<ul style="list-style-type: none"> The structural systems, building envelope, and hardscape materials that will need to be replaced during the life of the building? 	<input type="radio"/> Yes <input checked="" type="radio"/> No	2 0
3.5.5.1.3	<ul style="list-style-type: none"> The mechanical, electrical, plumbing, and energy generation systems that will require inspection and/or replacement during the service life of the building? 	<input type="radio"/> Yes <input checked="" type="radio"/> No	2 0
3.5.5.2 <u>Is there a schedule for maintenance, repair, and replacement for each building element, including the building fit-out (as applicable), for the duration of the building design life?</u>		<input type="radio"/> Yes <input checked="" type="radio"/> No	1 0

RESOURCE CONSERVATION

6 2

Minimized Use of Raw Materials

3 1

3.5.6.1.1	<u>Does the design specify the use of prefabricated, preassembled, and/or modular products?</u>	<input type="radio"/> Yes <input checked="" type="radio"/> No	2	0
3.5.6.1.2	<u>Does the building design use materials efficiently and/or minimize the use of raw materials as compared with typical construction practices?</u>	<input checked="" type="radio"/> Yes <input type="radio"/> No	1	1
3.5.6.1.3	Give examples of products used that will result in minimal use of raw materials compared to typical construction practices:	<input type="text"/>		

Multi-Functional Assemblies

1 1

			1	1
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3.5.6.2.1 Does the design incorporate assemblies that perform multiple functions?	<input checked="" type="radio"/> Yes <input type="radio"/> No		
3.5.6.2.2 Give examples of incorporated assemblies that perform multiple functions:	<input type="text"/>		

Deconstruction and Disassembly

2 0

3.5.6.3.1 Does the building design facilitate future deconstruction, demounting and disassembly; and re-configuration?	<input type="radio"/> Yes <input checked="" type="radio"/> No	2	0
3.5.6.3.2 Give examples of incorporated building systems that are easily disassembled:	<input type="text"/>		

ENVELOPE – ROOFING / OPENINGS

10 10

Roofing Membrane Assemblies and Systems

3 3

3.5.7.1.1 Is there a requirement that roofing membrane assemblies and systems are to be:			
3.5.7.1.1.1	<ul style="list-style-type: none"> Installed as per manufacturers' instructions and recommendations? <input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> NA	1.5	1.5
3.5.7.1.1.2	<ul style="list-style-type: none"> Field-inspected by a roofing system manufacturer's technical personnel or RCI-certified third-party roofing inspector as per the prescribed industry protocol? <input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> NA	1.5	1.5

Flashings

3 3

3.5.7.2.1 Is there a requirement that building envelope flashings and sheet metal assemblies are to be:			
3.5.7.2.1.1	<ul style="list-style-type: none"> Installed as per prescribed industry best practice? <input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> NA	1.5	1.5
3.5.7.2.1.2	<ul style="list-style-type: none"> Inspected as per prescribed industry protocol? <input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> NA	1.5	1.5

Roof and Wall Openings

4 4

3.5.7.3.1 Is there a requirement that all products for roof and wall openings (doors, windows, skylights etc.) are to:			
3.5.7.3.1.1	<ul style="list-style-type: none"> Comprise moisture management design that meets industry prescribed performance requirements? <input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> NA	1	1
3.5.7.3.1.2	<ul style="list-style-type: none"> Be installed as per prescribed industry best practice? <input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> NA	1	1
3.5.7.3.1.3	<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> NA	2	2

<ul style="list-style-type: none"> • Be inspected as per the prescribed industry protocol, including field testing with respect to water penetration? 			
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ENVELOPE – FOUNDATION, WATERPROOFING

6 5.5

Foundation Systems

4 3.5

<p>3.5.8.1.1 <u>Is there a requirement that newly installed foundation systems for conditioned spaces are to:</u></p>			
<p>3.5.8.1.1.1</p> <ul style="list-style-type: none"> • Be constructed with slab-on-ground vapor retarders conforming to prescribed industry best practices? 	<p><input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> NA</p>	0.5	0.5
<p>3.5.8.1.1.2</p> <ul style="list-style-type: none"> • Be constructed such that all slabs on grade will be positioned directly over vapor retarders and capillary-break base courses? 	<p><input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> NA</p>	0.5	0.5
<p>3.5.8.1.1.3</p> <ul style="list-style-type: none"> • Undergo field-inspection of all vapor retarder and waterproofing assemblies as per prescribed industry protocol? 	<p><input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> NA</p>	1	1
<p>3.5.8.1.2 <u>Is there a requirement for the following damp-proofing measures to be applied to all newly installed foundation walls in contact with grade:</u></p>			
<p>3.5.8.1.2.1</p> <ul style="list-style-type: none"> • 5% slope grade away indicated from the building for at least 10 ft. (3.05 m)? 	<p><input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> NA</p>	0.5	0
<p>3.5.8.1.2.2</p> <ul style="list-style-type: none"> • Roof drainage to be directed at least 3 ft. (0.9 m) beyond the building overhang? 	<p><input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> NA</p>	0.5	0.5
<p>3.5.8.1.2.3</p> <ul style="list-style-type: none"> • A foundation drainage system? 	<p><input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> NA</p>	1	1

Below Grade Wall Slabs and Above Grade Horizontal Assemblies

2 2

<p>3.5.8.2.1 <u>Is there a requirement that waterproofing membrane assemblies are to:</u></p>			
<p>3.5.8.2.1.1</p> <ul style="list-style-type: none"> • Be provided at all below grade slabs and foundation/basement walls that are subject to hydrostatic pressures? 	<p><input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> NA</p>	1	1
<p>3.5.8.2.1.2</p> <ul style="list-style-type: none"> • Be installed as per the manufacturer's requirements, and field-inspected as per prescribed industry protocol? 	<p><input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> NA</p>	1	1

ENVELOPE – CLADDING

5 4.5

Exterior Wall Cladding Systems

3 3

<p>3.5.9.1.1 Is there a requirement to install cladding systems as per industry best practices for one of the following:</p> <ul style="list-style-type: none"> • Exterior Insulation Finishing Systems (EIFS) installed as water-managed systems in accordance with the manufacturer's requirements? or • Aluminum framed glazing systems installed in accordance with the manufacturer's requirements and warranted by the manufacturer for the intended purpose? or • Masonry veneer cladding installed in accordance with industry technical notes and bulletins? or • Architectural precast concrete cladding systems that incorporate pressure equalized two stage joints between precast concrete panels and adjacent cladding assemblies? 	<p> <input type="radio"/> Yes, EIFS cladding <input type="radio"/> Yes, aluminum framed glazing <input checked="" type="radio"/> Yes, masonry veneer cladding <input type="radio"/> Yes, precast concrete cladding <input type="radio"/> No <input type="radio"/> NA </p>	<p>1</p>	<p>1</p>
<p>3.5.9.1.2 Is there a requirement to inspect the cladding installation as per the appropriate prescribed industry protocols for one of the following:</p> <ul style="list-style-type: none"> • EIS cladding systems? or • Aluminum framed glazing systems? or • Masonry veneer cladding? 	<p> <input type="radio"/> Yes, EIFS cladding <input type="radio"/> Yes, aluminum framed glazing <input checked="" type="radio"/> Yes, masonry veneer cladding <input type="radio"/> No <input type="radio"/> NA </p>	<p>1</p>	<p>1</p>
<p>3.5.9.1.3 Are joint sealers to be installed as per prescribed industry best practice, and field-inspected as per prescribed industry protocol?</p>	<p> <input checked="" type="radio"/> Yes <input type="radio"/> No </p>	<p>1</p>	<p>1</p>

Rainscreen Wall Cladding

2 1.5

<p>3.5.9.2.1 Do the construction documents indicate that exterior rainscreen wall cladding systems specified over framed walls are to be installed with the following:</p>			
<p>3.5.9.2.1.1</p> <ul style="list-style-type: none"> • A primary and secondary line of defense? 	<p> <input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> NA </p>	<p>0.5</p>	<p>0.5</p>
<p>3.5.9.2.1.2</p> <ul style="list-style-type: none"> • An air barrier? 	<p> <input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> NA </p>	<p>0.5</p>	<p>0.5</p>
<p>3.5.9.2.1.3</p> <ul style="list-style-type: none"> • A means for incidental bulk water intrusion to escape the cladding system assembly? 	<p> <input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> NA </p>	<p>0.5</p>	<p>0.5</p>
<p>3.5.9.2.2 Are rainscreen cladding assemblies required to pass requirements of AAMA 508-07 laboratory-testing?</p>	<p> <input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> NA </p>	<p>0.5</p>	<p>0</p>

ENVELOPE – BARRIERS

7 5

Air Barriers

4 2

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<p>3.5.10.1.1 Do the construction documents indicate that a continuous air barrier will be installed according to the following practices:</p>				
<p>3.5.10.1.1.1</p> <ul style="list-style-type: none"> The air barrier material of each assembly detail shows an airtight and flexible joint between the air barrier material and adjacent assemblies? 	<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> NA	0.5	0.5	
<p>3.5.10.1.1.2</p> <ul style="list-style-type: none"> The air barrier is designed to withstand positive and negative combined design wind, fan, and stack pressures on the air barrier without damage or displacement? 	<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> NA	0.5	0.5	
<p>3.5.10.1.1.3</p> <ul style="list-style-type: none"> The air barrier is designed to withstand movement in the structure and not displace materials under full load? 	<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> NA	0.5	0.5	
<p>3.5.10.1.1.4</p> <ul style="list-style-type: none"> Air barrier connection details are shown between: foundation and walls; walls and windows or doors; different wall systems; wall and roof; wall and roof over conditioned space or wall and ceiling under unconditioned space; walls, floors and roof across construction, control, and expansion joints; walls, floors, and roof to utility, pipe, and duct penetrations. 	<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> NA	0.5	0.5	
<p>3.5.10.1.2 Do the construction documents indicate compliance of the continuous air barrier for the opaque building envelope was demonstrated using one of the following strategies:</p> <ul style="list-style-type: none"> Materials tested in accordance with <i>ASTM E2178-11 Standard Test Method for Air Permeance of Building Materials</i> and determined that the air permeability of individual materials did not exceed 0.02 L/s·m² under a pressure differential of 75 Pa (0.004 cfm/ft.² @ 0.3 in. w.g. (1.6 psf)). When all joints are sealed, materials meet this requirement? or Assemblies tested in accordance with <i>ASTM E2357-11 Standard Test Method for Determining Air Leakage of Air Barrier Assemblies</i>, or <i>ASTM E1677-11 Standard Specification for Air Barrier (AB) Material or System for Low-Rise Framed Building Walls</i>, and determined that the average air leakage did not exceed 0.2 L/s·m² under a pressure differential of 75 Pa (0.04 cfm/ft.² @ 0.3 in. w.g. (1.6 psf)). Concrete masonry walls that are sealed and painted do not have to be tested. When all joints are sealed, assemblies meet this requirement? or Building tested with <i>ASTM E779-03</i> or an equivalent approved method and determined that the air leakage rate of the building envelope did not exceed 2.0 L/s·m² under a pressure differential of 75 Pa (0.4 cfm/ft.² under a pressure differential of 0.3 in. w.g. (1.6 psf))? 		<input type="radio"/> Yes, materials testing <input type="radio"/> Yes, assemblies testing <input type="radio"/> Yes, building testing <input checked="" type="radio"/> No <input type="radio"/> NA	2	0
<p>Vapor Retarders</p>		<p>3</p>	<p>3</p>	

<p>3.5.10.2.1 Do the construction documents indicate that the interior side of framed walls in Climate Zones 5, 6, 7, 8 and Marine 4 are installed with a Class I or II vapor retarder that is in accordance with the <i>International Energy Conservation Code (IECC) 2012, International Energy Conservation Code (IECC) 2007 Supplement, or International Building Code (IBC) 2009 Section 1405.3?</i></p>	<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> NA	1	1
<p>3.5.10.2.2 Do the construction documents indicate that the walls of unvented crawl spaces must have insulation that is permanently fastened to the wall and extends downward from the floor to the finished grade level, and then vertically and/or horizontally for at least an additional 24 inches (60.9 cm)?</p>	<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> NA	1	1
<p>3.5.10.2.3 Do the construction documents indicate that exposed earth in unvented crawl space foundations must be covered with a continuous Class I vapor retarder, and installed with the following strategies:</p> <ul style="list-style-type: none"> • All joints of the vapor retarder are overlapped by 6 in (15.2 cm) and are sealed or taped? <i>and</i> • The edges of the vapor retarder extend at least 6 in (15.2 cm) up the stem wall and are attached to the stem wall? 	<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> NA	1	1

EMISSIONS - 48%

44 21

HEATING

18 18

<p>Green Globes provides two paths for assessing heating:</p> <ul style="list-style-type: none"> • Path A: District Heating - 18 points • Path B: Low Emission Boilers and Furnaces - 18 points <p>Points cannot be combined between Paths. Please review and select one of the two pathways below.</p>			
<p><input checked="" type="radio"/> Path A: District Heating</p>			
<p>3.6.1.1.1 Is district heating being used?</p>	<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> NA	18	18
<p>3.6.1.1.1 Describe the type of district heating being used:</p>	<p>Campus steam is used to heat this facility via a shell-and-tube heat exchanger, and the steam</p>		
<p><input type="radio"/> Path B: Low Emission Boilers and Furnaces</p>			
<p>3.6.1.2.1 Are there low or ultra-low NO_x emission boilers and furnaces?</p>	<input type="radio"/> Ultra-low NO _x emission boilers & furnaces <input type="radio"/> Low NO _x emission boilers & furnaces <input type="radio"/> No <input checked="" type="radio"/> NA		
<p>3.6.1.2.2 Are there low or ultra-low CO emission boilers and furnaces?</p>	<input type="radio"/> Ultra-low CO emission boilers & furnaces <input type="radio"/> Low CO emission boilers & furnaces <input type="radio"/> No <input checked="" type="radio"/> NA		

COOLING

23 0

<input type="radio"/>			
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3.6.2.1 In the case of a retrofit, is the cooling equipment new or existing?	New <input type="radio"/> Existing <input type="radio"/> No mechanical cooling <input checked="" type="radio"/> NA		
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Ozone-depleting Potential 10 0

3.6.2.2.1 Does the cooling equipment (not including portable equipment) use refrigerants that have zero or "near-zero" ozone depletion potential (ODP)? or Are there no refrigerants?	<input type="radio"/> No refrigerants <input type="radio"/> ODP less than or equal to 0.005 <input type="radio"/> ODP less than or equal to 0.01 <input type="radio"/> ODP less than or equal to 0.015 <input type="radio"/> ODP less than or equal to 0.02 <input type="radio"/> ODP less than or equal to 0.025 <input type="radio"/> ODP less than or equal to 0.03 <input type="radio"/> ODP greater than 0.03	10	0
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Global Warming Potential 10 0

3.6.2.3.1 Does cooling equipment (not including portable equipment) use refrigerants that have a low global warming potential (GWP ₁₀₀)? or Are there no refrigerants?	<input type="radio"/> No refrigerants <input type="radio"/> GWP ₁₀₀ less than or equal to 100 <input type="radio"/> GWP ₁₀₀ less than or equal to 300 <input type="radio"/> GWP ₁₀₀ less than or equal to 500 <input type="radio"/> GWP ₁₀₀ less than or equal to 700 <input type="radio"/> GWP ₁₀₀ less than or equal to 900 <input type="radio"/> GWP ₁₀₀ less than or equal to 1100 <input type="radio"/> GWP ₁₀₀ less than or equal to 1300 <input type="radio"/> GWP ₁₀₀ less than or equal to 1500 <input type="radio"/> GWP ₁₀₀ greater than 1500	10	0
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Leak Detection 3 0

3.6.2.4.1 Is there a requirement that equipment installer(s) test remote commercial systems (e.g. supermarket refrigeration) as per <i>GreenChill Best Practices Guideline Ensuring Leak-Tight Installations of Commercial Refrigeration Equipment</i> ?	<input type="radio"/> Yes <input type="radio"/> No <input checked="" type="radio"/> NA	0	0
3.6.2.4.2 Are there refrigerant leak detectors capable of detecting leakage rates down to 2.0% per year for each refrigerant?	<input type="radio"/> Yes <input type="radio"/> No <input checked="" type="radio"/> NA	0	0
3.6.2.4.3 Is there an alarm system capable of alerting the building operator to leakage thresholds?	<input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> NA	3	0

JANITORIAL EQUIPMENT 3 3

3.6.3.1 Are there designated storage areas for hazardous materials / janitorial supplies with full height, floor-to-floor walls and mechanical ventilation?	<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> NA	3	3
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INDOOR ENVIRONMENT - 73% 145 105.5

VENTILATION 37 22

Ventilation Air Quantity		11	4
<p>3.7.1.1.1 Is the quantity of ventilation air for the building compliant with ANSI/ASHRAE 62.1-2007, ANSI/ASHRAE 62.1-2010, the International Code Council International Mechanical Code (ICC IMC) 2009, IAPMO UMC (2009): Uniform Mechanical Code, ASHRAE 170-2008 (for hospitals or healthcare occupancies), or local codes or standards (if more stringent)?</p>	<input type="radio"/> ASHRAE 62.1-2010 <input type="radio"/> ICC 2009 <input type="radio"/> IAPMO 2009 <input type="radio"/> ASHRAE 170-2008 <input type="radio"/> ASHRAE 62.1-2007 <input type="radio"/> No <input type="radio"/> More stringent local code or standard	7	0
<p>3.7.1.1.2 Do the construction documents indicate the ventilation schedule for all occupied spaces?</p>	<input checked="" type="radio"/> Yes <input type="radio"/> No	4	4

Air Exchange

8 0

<p>Green Globes provides three paths for assessing air exchange:</p> <ul style="list-style-type: none"> • Path A: Mechanical Ventilation Only - 8 points • Path B: Natural Ventilation Only - 8 points • Path C: Combination of Mechanical & Natural Ventilation - 8 points <p>Points cannot be combined between paths. Please review and select one of the three pathways below, as appropriate to your project.</p>			
<p><input checked="" type="radio"/> Path A: Mechanical Ventilation Only</p>			
<p>3.7.1.2.1.1 Is the zone air distribution effectiveness E_z value greater than or equal to 0.9 in all regularly occupied spaces, excluding circulation and transitional spaces?</p>	<input type="radio"/> Yes <input checked="" type="radio"/> No	8	0
<p><input type="radio"/> Path B: Natural Ventilation Only</p>			
<p>3.7.1.2.2.1 Are the following conditions met as per ANSI/ASHRAE 62.1-2010, Section 5.1:</p>			
<p>3.7.1.2.2.1.1</p> <ul style="list-style-type: none"> • All points within habitable spaces considered to be naturally ventilated are within 25 ft. (7.6 m) of a permanent or operable wall, window or roof opening to the outdoors? 	<input type="radio"/> Yes <input type="radio"/> No		
<p>3.7.1.2.2.1.2</p> <ul style="list-style-type: none"> • The unobstructed area of the opening measures at least 4% of the net floor area that is being naturally ventilated? 	<input type="radio"/> Yes <input type="radio"/> No		
<p>3.7.1.2.2.1.3</p> <ul style="list-style-type: none"> • Where interior spaces are naturally ventilated through adjoining (perimeter) rooms, the openings between the spaces were designed to have a minimum area of 8% of the net floor area of the interior room and were at least 25 ft.² (2.3 m²)? 	<input type="radio"/> Yes <input type="radio"/> No		
<p>3.7.1.2.2.1.4</p> <ul style="list-style-type: none"> • All operable openings are readily accessible to building occupants? 	<input type="radio"/> Yes <input type="radio"/> No		
<p><input type="radio"/></p>			

Path C: Combination of Mechanical & Natural Ventilation			
3.7.1.2.3.1	Where mechanical ventilation is employed, is the zone air distribution effectiveness E_z value greater than or equal to 0.9 in all regularly occupied spaces, excluding circulation and transitional spaces?	<input type="radio"/> Yes <input type="radio"/> No	
3.7.1.2.3.2	Where natural ventilation is employed, are the following conditions met as per ANSI/ASHRAE 62.1-2010, Section 5.1:		
3.7.1.2.3.2.1	<ul style="list-style-type: none"> All points within habitable spaces considered to be naturally ventilated are within 25 ft. (7.6 m) of a permanent or operable wall, window or roof opening to the outdoors? 	<input type="radio"/> Yes <input type="radio"/> No	
3.7.1.2.3.2.2	<ul style="list-style-type: none"> The unobstructed area of the opening measures at least 4% of the net floor area that is being naturally ventilated? 	<input type="radio"/> Yes <input type="radio"/> No	
3.7.1.2.3.2.3	<ul style="list-style-type: none"> Where interior spaces are naturally ventilated through adjoining (perimeter) rooms, the openings between the spaces were designed to have a minimum area of 8% of the net floor area of the interior room and were at least 25 ft.² (2.3 m²)? 	<input type="radio"/> Yes <input type="radio"/> No	
3.7.1.2.3.2.4	<ul style="list-style-type: none"> All operable openings are readily accessible to building occupants? 	<input type="radio"/> Yes <input type="radio"/> No	

Ventilation Intakes and Exhausts

8

8

3.7.1.3.1	Are ventilation systems equipped with the following features:		
3.7.1.3.1.1	<ul style="list-style-type: none"> Exhaust outlets and plumbing vent stacks are located at least 20 ft. (6.1 m) away from outdoor air intakes? 	<input checked="" type="radio"/> Yes <input type="radio"/> No	1 1
3.7.1.3.1.2	<ul style="list-style-type: none"> Outdoor air intakes are located at least 30 ft. (9.1 m) away from sources of pollution? 	<input checked="" type="radio"/> Yes <input type="radio"/> No	1 1
3.7.1.3.1.3	<ul style="list-style-type: none"> Outdoor air intakes are protected with 0.3 in (6.4 mm) or smaller mesh screens? 	<input checked="" type="radio"/> Yes <input type="radio"/> No	1 1
3.7.1.3.1.4	<ul style="list-style-type: none"> For each air handling system in single or multiple arrangements, filters are compliant with ANSI/ASHRAE 62.1-2010? 	<input checked="" type="radio"/> Yes <input type="radio"/> No	2 2
3.7.1.3.1.5		<input checked="" type="radio"/> Yes <input type="radio"/> No	1 1

<ul style="list-style-type: none"> Outdoor air inlets and outlets, including louvers and rain hoods, are sized appropriately as per <i>ANSI/ASHRAE 62.1-2010</i>? 			
<p>3.7.1.3.1.6</p> <ul style="list-style-type: none"> Except in transfer air ducts, all outdoor air, return air, and supply air ductwork avoids interior liner that could harbor microbial growth and/or erode in the air stream? 	<input checked="" type="radio"/> Yes <input type="radio"/> No	1	1
<p>3.7.1.3.1.7</p> <ul style="list-style-type: none"> Roof drainage slopes away from outdoor air intakes? 	<input checked="" type="radio"/> Yes <input type="radio"/> No	1	1

CO₂ Sensing and Ventilation Control Equipment

5 5

<p>3.7.1.4.1 Do rooms that are occupied by several people (e.g. open offices) and those that have variable occupancy (e.g. meeting rooms, assembly areas) have CO₂ sensing and ventilation control equipment?</p>	<input checked="" type="radio"/> Yes <input type="radio"/> No	5	5
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Air Handling Equipment

5 5

<p>3.7.1.5.1 Are air handling equipment equipped with MERV 13 filtration?</p> <p>or</p> <p>Does terminal equipment have the highest filtration level available for the specific equipment under consideration, and main air handlers in terminal systems equipped with MERV 13 filtration?</p>	<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> NA	5	5
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SOURCE CONTROL AND MEASUREMENT OF INDOOR POLLUTANTS

40 29

Volatile Organic Compounds

10 10

<p>3.7.2.1.1 Is there a requirement that adhesives and sealants (not including carpet adhesives) will comply with prescribed limits of VOCs and/or be certified?</p>	<input checked="" type="radio"/> Yes <input type="radio"/> No	2.5	2.5
<p>3.7.2.1.2 Is there a requirement that carpet, carpet pad, and under-carpet adhesives will comply with the <i>Carpet and Rug Institute's (CRI) Green Label Plus</i> program?</p>	<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> NA	2	2
<p>3.7.2.1.3 Is there a requirement that paints will comply with prescribed limits of VOCs and/or be certified?</p>	<input checked="" type="radio"/> Yes <input type="radio"/> No	3	3
<p>3.7.2.1.4 Is there a requirement that floors, floor coverings, and other interior products will comply with prescribed limits of VOCs and/or be certified?</p>	<input checked="" type="radio"/> Yes <input type="radio"/> No	2.5	2.5

Moisture and Vapor Control Methods

8 8

<p>3.7.2.2.1 Are there the following measures to avoid fungus, mold, and bacteria:</p>			
<p>3.7.2.2.1.1</p> <ul style="list-style-type: none"> HVAC is able to monitor and control dew point? 	<input checked="" type="radio"/> Yes <input type="radio"/> No	4	4

3.7.2.2.1.2	<input checked="" type="radio"/> Yes <input type="radio"/> No <ul style="list-style-type: none"> Materials, panels, and finishes are resistant to mold growth in spaces that generate high humidity (e.g. kitchens, toilet rooms, pools, laundry facilities, shower areas, etc.)? 	2	2
3.7.2.2.1.3	<input checked="" type="radio"/> Yes <input type="radio"/> No <ul style="list-style-type: none"> There are floor drains located in all areas where equipment failures may cause plumbing leaks or where certain operations may cause spills or overflows (e.g. spa rooms)? 	2	2

Access for HVAC Maintenance

4 4

3.7.2.3.1 <u>Are there the following measures to facilitate maintenance of HVAC equipment that require routine and periodic maintenance:</u>			
3.7.2.3.1.1	<input checked="" type="radio"/> Yes <input type="radio"/> No <ul style="list-style-type: none"> Access to equipment complies with the 2009 International Code Council International Mechanical Code (ICC IMC), 2009 Uniform Mechanical Code (IAPMO/ANSI UMC 1-2009, and the manufacturer published and/or suggested recommendations? 	1	1
3.7.2.3.1.2	<input checked="" type="radio"/> Yes <input type="radio"/> No <ul style="list-style-type: none"> Distribution systems are installed in accordance with ANSI/ASHRAE 62.1-2010, and SMACNA's HVAC Duct Construction Standards: Metal and Flexible 3rd Edition 2005? 	1	1
3.7.2.3.1.3	<input checked="" type="radio"/> Yes <input type="radio"/> No <ul style="list-style-type: none"> Architectural features related to access are specified to be installed in accordance with the International Building Code®? 	1	1
3.7.2.3.1.4	<input checked="" type="radio"/> Yes <input type="radio"/> No <ul style="list-style-type: none"> Access doors to HVAC are removable or have full degree swing? 	1	1

Carbon Monoxide Monitoring

0 0

3.7.2.4.1 <u>Are there carbon monoxide monitoring devices and alarms in enclosed areas where there are sources of combustion?</u>	<input type="radio"/> Yes <input type="radio"/> No <input checked="" type="radio"/> NA	0	0
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Wet Cooling Towers

2 0

3.7.2.5.1 <u>Do wet cooling towers have drift eliminators and inlet air louvers?</u> <u>or</u> <u>Are there no wet cooling towers?</u>	<input type="radio"/> There are no wet cooling towers <input type="radio"/> Cooling towers have drift eliminators and inlet air louvers <input checked="" type="radio"/> No	2	0
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Domestic Hot Water Systems

2 0

<input type="radio"/> Hot water storage at or above 131° F	2	0
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3.7.2.6.1 Is the domestic hot water system designed to maintain hot water storage at or above 131° F (55° C)?	<input type="radio"/> Tankless system <input checked="" type="radio"/> No		
or Is there a tankless system?			

Humidification and Dehumidification Systems

3 3

3.7.2.7.1 Are drain pans for dehumidifying cooling coils designed to properly capture and drain the condensate in the air handler in terms of the following:			
<ul style="list-style-type: none"> • Drain pans have a 1/8 inch slope per foot (10 mm slope per meter) in two directions toward the drain outlet? • The drain opening is located at the lowest point of the drain pan? • The drain pan is sufficiently wide to span the cooling coils and is sized to prevent overflow under peak dew point conditions? • A P-trap or other seal prevents ingestion of air while allowing complete drainage? 	<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> NA	3	3

Pest and Contamination Control

3 1

3.7.2.8.1 Are the following integrated pest management strategies used:			
3.7.2.8.1.1			
<ul style="list-style-type: none"> • Outdoor air inlets have insect screens of 18x14 mesh for plenum systems feeding multiple air handlers? 	<input checked="" type="radio"/> Yes <input type="radio"/> No	0.5	0.5
3.7.2.8.1.2			
<ul style="list-style-type: none"> • Structural and mechanical openings are fitted with permanent protection (e.g. screens, sealants, etc.)? 	<input checked="" type="radio"/> Yes <input type="radio"/> No	0.5	0.5
3.7.2.8.1.3			
<ul style="list-style-type: none"> • Advertising signs and other assemblies affixed to the building façade are designed and constructed in a way that reduces bird habitation, and penetrations in the façade are sealed to prevent entry? 	<input type="radio"/> Yes <input checked="" type="radio"/> No	0.5	0
3.7.2.8.1.4			
<ul style="list-style-type: none"> • Mullions and ledges are less than 1 in (2.5 cm) deep to discourage bird roosting? 	<input type="radio"/> Yes <input checked="" type="radio"/> No	0.5	0
3.7.2.8.2 Is there a sealed storage area for food/kitchen solid waste and recycling?	<input type="radio"/> Yes <input checked="" type="radio"/> No	1	0

Other Indoor Pollutants (Tobacco, Radon)

8 3

3.7.2.9.1 Is there a construction management policy to prohibit smoking in the building and a provision to require that smoking be a minimum of 25 feet from the building with posted signage?	<input checked="" type="radio"/> Yes <input type="radio"/> No	1	1
	<input checked="" type="radio"/> Yes <input type="radio"/> No	1	1

3.7.2.9.2	Is there a requirement to post "No Smoking" signage in the building and near all building entrances and air intakes?		
3.7.2.9.3	Have the following measures been met in order to address radon: <ul style="list-style-type: none"> A site-specific assessment of radon potential has been conducted? Radon mitigation measures are specified? 	<input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> NA	5 0
3.7.2.9.4	Is there a requirement that the removal or abatement of asbestos and asbestos-containing materials meet all applicable state and local regulations?	<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> NA	1 1

Ventilation and Physical Isolation for Specialized Activities

0 0

3.7.2.10.1	Is there separate ventilation and/or physical isolation for specialized activities that generate pollutants?	<input type="radio"/> Yes <input type="radio"/> No <input checked="" type="radio"/> NA	0 0
3.7.2.10.2	Are the separate ventilation systems for specialized activities capable of maintaining on average, a negative pressure at least 5.0 Pascals (0.02 in of water gauge) on average?	<input type="radio"/> Yes <input type="radio"/> No <input checked="" type="radio"/> NA	0 0

LIGHTING DESIGN AND SYSTEMS

30 23

Daylighting

17 10

3.7.3.1.1	What percent of floor area occupied for critical visual tasks achieves a minimum daylight factor (DF) of 2 (excluding all direct sunlight penetration)?	<input type="radio"/> >74% <input type="radio"/> 50 - 74% <input checked="" type="radio"/> 25 - 49% <input type="radio"/> < 25%	7 3
3.7.3.1.2	What percentage of task areas were designed to have views to the exterior or atria within 25 ft. (7.6 m) from a window?	<input type="radio"/> > 60% of occupied space <input checked="" type="radio"/> 31 - 59% <input type="radio"/> 10 - 30% <input type="radio"/> < 10%	5 3
3.7.3.1.3	Are there shading devices on southern, western, and eastern exposures?	<input checked="" type="radio"/> Yes <input type="radio"/> Partially <input type="radio"/> No	1 1
3.7.3.1.4	Are there shading devices to eliminate direct sunlight from reaching task areas?	<input type="radio"/> Yes <input checked="" type="radio"/> No	1 0
3.7.3.1.5	What percentage of daylit areas are there photosensors to maintain consistent lighting levels throughout the day using both daylighting and artificial lighting?	<input checked="" type="radio"/> > 75% of spaces <input type="radio"/> 50 - 75% of spaces <input type="radio"/> 25 - 49% of spaces <input type="radio"/> < 25% of spaces	3 3

Lighting Design

13 13

		<input checked="" type="radio"/> Yes <input type="radio"/> No	7 7
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<p>3.7.3.2.1 Do primary occupied spaces have the prescribed lighting levels for the types of tasks anticipated in the various building spaces?</p>			
<p>3.7.3.2.2 Has a lighting designer signed off on calculations that show that luminance ratios do not exceed the following as per IESNA for tasks:</p> <ul style="list-style-type: none"> • 3:1 between the task and adjacent surroundings? • 10:1 between the task and remote (non-adjacent) surfaces? • 20:1 between the brightest and darkest surface in the field of view? • 8:1 between rows of luminaires where there is indirect lighting and where ceiling luminance exceeds 425 cd/m² (124.1 fL)? 	<p><input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> NA</p>	<p>3</p>	<p>3</p>
<p>3.7.3.2.3 Has a lighting designer signed off on the design showing that where there is direct lighting, the average luminance does not exceed the following values for given luminaire angles:</p> <ul style="list-style-type: none"> • 850 cd/m² (248.1 fL) at 65° from the vertical? • 350 cd/m² (102.2 fL) at 75° from the vertical? • 175 cd/m² (51.1 fL) at 85° from the vertical? 	<p><input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> NA</p>	<p>3</p>	<p>3</p>

THERMAL COMFORT

9 6

Thermal Comfort Strategies

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<p>3.7.4.1.1 Do very large functional areas such as big box stores have thermal control zones that are 5,000 ft.² (465 m²) or less?</p>	<p><input type="radio"/> 2,000 ft² (186 m²) or less <input type="radio"/> 5,000 ft² (465 m²) or less <input type="radio"/> More than 5,000 ft² (465 m²) <input checked="" type="radio"/> NA</p>	<p>0</p>	<p>0</p>
<p>3.7.4.1.2 Do large functional areas such as large classrooms and auditoria have thermal control zones of 1,500 ft.² (140 m²) or less?</p>	<p><input type="radio"/> 1,500 ft² (140 m²) or less <input type="radio"/> More than 1,500 ft² (140 m²) <input checked="" type="radio"/> NA</p>	<p>0</p>	<p>0</p>
<p>3.7.4.1.3 Do open circulation areas such as open offices and healthcare general patient areas have thermal control zones that are 1,000 ft.² (93 m²) or less?</p>	<p><input type="radio"/> 500 ft² (46 m²) or less <input type="radio"/> 1,000 ft² (93 m²) or less <input type="radio"/> More than 1,000 ft² (93 m²) <input type="radio"/> NA</p>	<p>3</p>	<p>0</p>
<p>3.7.4.1.4 Do smaller functional areas such as offices, meeting rooms, and hospital/hotel rooms have thermal control zones that are 1,200 ft.² (111 m²) or less?</p>	<p><input type="radio"/> 750 ft² (70 m²) or less <input type="radio"/> 1,200 ft² (111 m²) or less <input type="radio"/> More than 1,200 ft² (111 m²) <input checked="" type="radio"/> NA</p>	<p>0</p>	<p>0</p>

Thermal Comfort Design

6 6

<p>3.7.4.2.1 Has an Engineer signed off on the design that shows the building conforms to ANSI/ASHRAE 55-2010 or ANSI/ASHRAE 55-2004?</p>	<p><input checked="" type="radio"/> Yes (ASHRAE 55-2010) <input type="radio"/> Yes (ASHRAE 55-2004) <input type="radio"/> No</p>	<p>6</p>	<p>6</p>
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ACOUSTIC COMFORT

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25.5

Acoustic Comfort Design

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14.5

3.7.5.1.1 <u>Does the building design include the following acoustic design strategies:</u>			
3.7.5.1.1.1 • Toilets are located remotely from acoustically separated areas?	<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> NA	0.5	0.5
3.7.5.1.1.2 • Acoustically separated areas are located away from noise producing areas such as dance studios, music rooms, cafeterias, indoor swimming pools, mechanical rooms, and gymnasia?	<input checked="" type="radio"/> Yes <input type="radio"/> No	1	1
3.7.5.1.1.3 • Entry doors to rooms opposite each other on the same corridor are staggered?	<input type="radio"/> Yes <input checked="" type="radio"/> No	0.5	0
3.7.5.1.1.4 • Through-wall penetrations comply with Annex B of <i>ANSI/ASA S12.60-2010/Part 1</i> ?	<input checked="" type="radio"/> Yes <input type="radio"/> No	0.5	0.5
3.7.5.1.1.5 • Walls separating acoustically separated areas from other areas are constructed full height to underside of the next floor above or the roof deck?	<input checked="" type="radio"/> Yes <input type="radio"/> No	1	1
3.7.5.1.1.6 • Walls separating quiet areas from other areas have all joints and penetrations sealed with acoustical sealant?	<input checked="" type="radio"/> Yes <input type="radio"/> No	0.5	0.5
3.7.5.1.1.7 • Areas with high floor impact activities (dance studios, shops, gymnasia, etc.) are not located above acoustically separated areas?	<input checked="" type="radio"/> Yes <input type="radio"/> No	1	1
3.7.5.1.2 <u>Has an acoustic designer signed off on the design that shows that open office areas conform to ASTM E1573-02 with respect to spatial uniformity, temporal uniformity, spectrum shape, and sound level?</u>	<input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> NA	1	0
3.7.5.1.3 <u>Has an Acoustical Consultant or Acoustician signed off on a design that complies with minimum Sound Transmission Class (STC) ratings of floor/ceiling assemblies, walls and doors between acoustically separated areas (e.g. learning spaces), and adjacent spaces as follows and as applicable:</u>			
3.7.5.1.3.1 • STC-45 where the adjacent space is a corridor, stair, office, or conference room?	<input checked="" type="radio"/> Yes <input type="radio"/> No	1	1
3.7.5.1.3.2	<input checked="" type="radio"/> Yes <input type="radio"/> No	1	1

<ul style="list-style-type: none"> • STC-50 where the adjacent space is a quiet area, speech clinic, health clinic, classroom, or an exterior wall? 			
<p>3.7.5.1.3.3</p> <ul style="list-style-type: none"> • STC-50 for doors to quiet areas? 	<input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> NA	1	0
<p>3.7.5.1.3.4</p> <ul style="list-style-type: none"> • STC-40 for doors to music rooms, cafeterias, natatoria (e.g. swimming pool), or gymnasias? 	<input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> NA	1	0
<p>3.7.5.1.3.5</p> <ul style="list-style-type: none"> • STC-35 for exterior windows? 	<input checked="" type="radio"/> Yes <input type="radio"/> No	1	1
<p>3.7.5.1.4</p> <p>Does the Impact Insulation Class (IIC) design of all floor-ceiling assemblies have a minimum rating of IIC-50?</p>	<input checked="" type="radio"/> Yes <input type="radio"/> No	2	2
<p>3.7.5.1.4.1</p> <p>Indicate the Impact Insulation Class (IIC) value:</p>	<input type="text"/>		
<p>3.7.5.1.5</p> <p>Has an Acoustical Consultant or Acoustician signed off on a design that shows Reverberation Time (RT) in quiet areas and all other areas where speech intelligibility is important does not exceed the following values as applicable:</p> <ul style="list-style-type: none"> • 0.6 seconds in spaces less than 10,000 cu. ft. in volume? • 0.7 seconds in spaces 10,000 - 20,000 cu. ft. in volume? • Compliance with Annex C of ANSI/ASA S12.60-2010/Part 1 in spaces larger than 20,000 cu. ft.? 	<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> NA	5	5

Mechanical, Plumbing, and Electrical

11 11

<p>3.7.5.2.1</p> <p>Has an Acoustical Consultant or Acoustician signed off on a design that complies with minimum background sound levels associated with mechanical systems as follows:</p>			
<p>3.7.5.2.1.1</p> <ul style="list-style-type: none"> • Airborne sound power levels from HVAC units do not exceed Room Criteria detailed in <i>ASHRAE Systems Application Handbook 2007, Chapter 47, Table 42</i> for listed spaces when HVAC units are in operation? 	<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> NA	1.5	1.5
<p>3.7.5.2.1.2</p> <ul style="list-style-type: none"> • Spaces are designed such that room background noise using Room Criteria (RC) ratings complies with <i>ASHRAE Systems Application Handbook 2007 Chapter 47, Table 42</i>? 	<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> NA	1	1
<p>3.7.5.2.2</p> <p>Has an Acoustical Consultant or Acoustician signed off on the design such that there are the following measures to minimize airborne noise from the HVAC system:</p>			
<p>3.7.5.2.2.1</p>	<input checked="" type="radio"/> Yes <input type="radio"/> No	0.5	0.5

<ul style="list-style-type: none"> Duct transitions are spread out and graduated to minimize generation of turbulence and air flow separations? 			
<p>3.7.5.2.2.2</p> <ul style="list-style-type: none"> Secondary attenuators are located immediately downstream of duct fittings that would otherwise generate noise? 	<input checked="" type="radio"/> Yes <input type="radio"/> No	0.5	0.5
<p>3.7.5.2.2.3</p> <ul style="list-style-type: none"> Air flow velocities in low pressure ductwork did not exceed the following values? <ul style="list-style-type: none"> For main duct trunk lines: 900 f/m (4.5 m/s) For branch ducts: 700 f/m (3.5 m/s) For final run outs: 400 f/m (2.0 m/s) For main vertical ducts in shafts: 1200 f/m (6 m/s) 	<input checked="" type="radio"/> Yes <input type="radio"/> No	0.5	0.5
<p>3.7.5.2.2.4</p> <ul style="list-style-type: none"> Where significant cross talk paths exist between two habitable spaces, there are sound attenuators and/or silencers, or ducts are designed in a "Z" configuration? 	<input checked="" type="radio"/> Yes <input type="radio"/> No	0.5	0.5
<p>3.7.5.2.2.5</p> <ul style="list-style-type: none"> HVAC grilles and diffusers comply with <i>ANSI/ASA S12.60-2010/Part 1</i>? 	<input checked="" type="radio"/> Yes <input type="radio"/> No	0.5	0.5
<p>3.7.5.2.3 <u>Has an Acoustical Consultant or Acoustician signed off on the design such that it adheres to the following best practices to minimize structure-borne noise from the HVAC system:</u></p>			
<p>3.7.5.2.3.1</p> <ul style="list-style-type: none"> Fans and other powered HVAC equipment are acoustically separated from the structure using vibration isolators? 	<input checked="" type="radio"/> Yes <input type="radio"/> No	1	1
<p>3.7.5.2.3.2</p> <ul style="list-style-type: none"> Ducts are supported on resilient mounts to isolate them from the structural system, and ducts are isolated using resilient material where they pass through walls? 	<input checked="" type="radio"/> Yes <input type="radio"/> No	1	1
<p>3.7.5.2.4 <u>Has an Acoustical Consultant or Acoustician signed off on the design such that it adheres to the following best practices to mitigate noise from the plumbing system:</u></p>			
<p>3.7.5.2.4.1</p> <ul style="list-style-type: none"> Piping was not run above quiet areas and learning spaces with the exception of sprinklers and radiant heating systems? 	<input checked="" type="radio"/> Yes <input type="radio"/> No	1	1
<p>3.7.5.2.4.2</p> <ul style="list-style-type: none"> Waste water piping noise is mitigated using cast iron pipe or with acoustic insulation above quiet areas and learning spaces, and a water hammer arrester was used? 	<input checked="" type="radio"/> Yes <input type="radio"/> No	1	1

3.7.5.2.5 Has an acoustic designer signed off on the design such that it complies with the following best practices to minimize noise from the electrical system:			
3.7.5.2.5.1 • Low-noise ballasts are installed in quiet areas and all other areas where speech intelligibility is important?	<input checked="" type="radio"/> Yes <input type="radio"/> No	1	1
3.7.5.2.5.2 • Noise from light fixtures and other electrical fixtures does not exceed values indicated in ANSI/ASA S12.60-2010/Part 1?	<input checked="" type="radio"/> Yes <input type="radio"/> No	1	1

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