LEED v4 Building Design and Construction

**ANSWERS**

Quiz #4

SS

1. Which of these must all projects complete in order to certify a project using the rating system LEED BD+C? [Choose two]
2. Construction and Demolition Waste Management Plan
3. Material Purchasing Plan
4. Erosion and Sedimentation Control Plan
5. Site Assessment Plan
6. Remediation Plan
7. SS Prerequisite Construction Activity Pollution Prevention requires projects to comply with the requirements of which standard?
8. ASTM E1527–05, Phase I Environmental Site Assessment
9. ASTM E1903–11, Phase II Environmental Site Assessment
10. 2012 EPA Construction General Permit (CGP)
11. 2012 EPA Construction General Permit (CGP) or local equivalent, whichever is more stringent
12. Erosion and Sedimentation Control (ESC) measures must address which of these environmental concerns that can occur due to construction activities? [Choose three]
13. Waterway sedimentation
14. Stormwater runoff
15. Airborne dust
16. Soil erosion
17. Air Quality
18. If a LEED BD+C: Schools project is located on a site that is contaminated, to meet the requirements for SS Prerequisite Environmental Site Assessment what standard for remediation must be meet?
19. EPA Region
20. EPA Residential (unrestricted)
21. EPA School (unrestricted)
22. Local Code
23. For SS Credit Site Assessment when should the team plan to complete the assessment?
24. During Construction
25. Before conceptual design starts
26. When construction starts
27. At Certificate of Occupancy
28. What standard provides projects with an approach to hydrology in which watersheds are modeled to calculate storm runoff volume, peak rate of discharge, hydrographs, and storage volumes?
29. National Pollution Discharge Elimination Standard (NPDES)
30. Construction General Permit (CGP)
31. Technical Release (TR) 55
32. Natural Resources Conservation Service (NRCS)
33. What are the requirements for SS Credit Open Space?
34. Provide outdoor space greater than or equal to 25% of the total site area (including building footprint).
35. Provide outdoor space greater than or equal to 25% of the total site area (excluding building footprint).
36. Provide outdoor space greater than or equal to 30% of the total site area (including building footprint).
37. Provide outdoor space greater than or equal to 30% of the total site area (excluding building footprint).
38. A LEED BD+C: New Construction and Major Renovations is locating a project on total site area of 280,000 ft2. The minimum greenfield area on site is 180,000 ft2. The total previously developed area of the site, including the building footprint, is 100,000 ft2. The site plans include a rainwater management area of 20,000 ft2. To earn SS Credit Site Development: Protect or Restore what is the minimum area that must be preserved or restored for the previously developed area and the greenfield area on site?
39. 40,000 ft2 previously developed area and 54,000 ft2 Greenfield area
40. 30,000 ft2 previously developed area and 72,000 ft2 Greenfield area
41. 32,000 ft2 previously developed area and 54,000 ft2 Greenfield area
42. 72,000 ft2 previously developed area and 24,000 ft2 Greenfield area
43. For projects that achieve a density of 1.5 floor-area ratio (FAR), which of these can contribute to the minimum vegetation requirement if they are physically accessible? [Choose two]
44. Bicycle Network
45. Vegetated roof
46. Paving areas
47. Wetlands
48. Swimming pools
49. Which of these environmental issues contributes to disrupting natural hydrology systems?
50. Soil compaction
51. Pervious surfaces
52. Drainage patterns
53. Vegetation
54. Heat Island
55. For SS Credit Rainwater Management the volume of runoff to be managed is calculated how?
56. Compare the runoff volume for predevelopment conditions with the runoff volume under the postdeveloped conditions.
57. Compare the runoff volume under natural land cover conditions with the runoff volume under the postdeveloped conditions.
58. Compare the runoff volume for the 100 year storm with the runoff volume under the postdeveloped conditions.
59. Compare the runoff volume for the 95th percentile storm with the runoff volume under the postdeveloped conditions.
60. Which of these development strategies help to integrate the site with the surrounding watershed and could help projects to earn SS Credit Rainwater Management? [Choose three]
61. Mimicking natural hydrologic cycle processes
62. Green infrastructure
63. Low-impact development
64. Locate the project in a LEED ND Neighborhood
65. To supplement the capacity of a sites pervious landscaped areas, which of these are GI and LID measures that could help to capture rainwater? [Choose five]
66. Rain gardens
67. Bioretention areas
68. Native and adapted vegetation
69. Vegetated swales
70. Permeable pavement
71. Rainwater harvesting
72. What is the best strategy for managing rainwater?
73. Infiltrate on site
74. Capture on site
75. Infiltrate on site to help recharge the local groundwater and aquifers
76. Capture on site to reuse for landscape irrigation
77. What is the minimum solar reflectance (SR) value that nonroof materials used to provide shade with architectural devices or structures can have to comply with SS Credit Heat Island Reduction?
78. Three-year aged solar reflectance (SR) value of at least 0.28
79. Three-year aged solar reflectance (SR) value of at least 0.33
80. Three-year aged solar reflectance (SR) value of at least 28
81. Three-year aged solar reflectance (SR) value of at least 33
82. A LEED BD+C: Core and Shell project has 400 parking spaces. What is the minimum number of parking spaces that must be under cover in order to meet the requirements for SS Credit Heat island Reduction?
83. 100
84. 200
85. 300
86. 400
87. For SS Credit Heat Island Reduction the applicable roof area can exclude which of these areas? [Choose three]
88. Skylights
89. Vegetated roof systems
90. High-reflectance roofing materials
91. Solar energy panels
92. Mechanical equipment
93. What is the lighting zone for a high-intensity suburban commercial area?
94. Lighting Zone 0
95. Lighting Zone 1
96. Lighting Zone 2
97. Lighting Zone 3
98. Lighting Zone 4
99. To meet the uplight requirements for SS Credit Light Pollution Reduction projects can use which of these methods? [Choose two]
100. BUG Rating
101. LID Rating
102. MLO Rating
103. Calculation
104. A LEED BD+C: Retail projects property boundary abuts to a public roadway. For SS Credit Light Pollution Reduction, which of these modifications to the lighting boundary can the project use?
105. The lighting boundary may be moved to 5 feet beyond the property line
106. The lighting boundary may be moved to 15 feet beyond the property line
107. The lighting boundary may be moved to the center line of the roadway
108. The lighting boundary may not be modified
109. A project team has determined that their site falls within MLO Lighting Zone 2 and is pursuing SS Credit Light Pollution Reduction Option 2 Calculation Method for uplight. The maximum allowable percentage of total luminaire lumens emitted above horizontal is 1.5%. The team calculates the total lumens above 90° from horizontal to be 600 lumens. What is the maximum total luminaire lumens the project can have and still achieve compliance?
110. 400 lumens
111. 4,000 lumens
112. 40,000 lumens
113. 400,000 lumens
114. For SS Credit Site master Plan what must be included in the master plan?
115. Current construction activity that affects the site
116. Future construction activity (within the building’s lifespan) that affects the site
117. Current construction activity plus future construction (within the building’s lifespan) that affects the building design
118. Current construction activity plus future construction (within the building’s lifespan) that affects the site
119. What is required for SS Credit Tenant Design and Construction Guidelines?
120. The team must design the building so that tenants can earn LEED v4 for interior Design and Construction
121. The team must provide an illustrated guideline highlighting the sustainable performance features of the building and the project’s sustainability goals at the time the lease is signed.
122. The team must provide an illustrated guideline highlighting the sustainable performance features of the building and the project’s sustainability goals before the lease is signed.
123. After occupancy the tenant(s) must pursue LEED v4 Interior Design and Construction
124. To qualify as an area of respite for SS Credit Places of Respite what requirements must all areas meet? [Choose three]
125. The area is not within 25 feet of a smoking area
126. No medical intervention or direct medical care is delivered
127. The area is located within 100 feet of a building entrance
128. The area is accessible by a private shuttle provided by the owner
129. The area is accessible from within the building
130. What is the required outdoor area for SS Credit Direct Exterior Access if the total peak inpatients is 300 and the total peak qualifying outpatients is 500?
131. 625 ft2
132. 1,250 ft2
133. 1,875 ft2
134. 2,500 ft2
135. Which of these spaces would qualify as a shared space usable by the general public for SS Credit Joint Use of Facilities? [Choose four]
136. Police office
137. Cafeteria
138. Swimming Pool
139. Gymnasium
140. Auditorium
141. Classroom
142. Library
143. A LEED BD+C: Schools project has contracted with community organizations to provide a health clinic and police office on their campus. The health clinic and police office will operate during normal schools hours. What else must the project do to earn the credit?
144. Provide direct pedestrian access to these spaces
145. Provide access to toilets
146. Obtain permission to use another organizations cafeteria
147. Obtain written confirmation from the school authorities
148. Collaborate with school authorities to determine which spaces in the project will be shared