LEED Certification

Materials & Resources

Material Choices

- Extraction
- Processing
- Transportation

Background

- Construction & demolition constitutes 40% of the total solid waste stream in the US
Possible Material & Resource Sustainability

- Maintaining occupancy rates in existing buildings
- Reuse of building components
- Use of local products
- Use of rapidly renewable materials
- Using 3rd party certified wood

Storage & Collection of Recyclables
MR Prerequisite 1

- Facilitate the reduction of waste generated by building occupants that is hauled to and disposed of in landfills
- Provide an easily accessible area for entire building dedicated to collection & storage of non-hazardous materials for recycling
Recyclables

- Paper
- Corrugated cardboard
- Glass
- Plastics
- Metals

Recycling Area Required

<table>
<thead>
<tr>
<th>Commercial Blg, SF</th>
<th>Min Recycling Area, SF</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 - 5,000</td>
<td>82</td>
</tr>
<tr>
<td>5,001 – 15,000</td>
<td>125</td>
</tr>
<tr>
<td>15,001 – 50,000</td>
<td>175</td>
</tr>
<tr>
<td>50,001 – 100,000</td>
<td>225</td>
</tr>
<tr>
<td>100,001 – 200,000</td>
<td>275</td>
</tr>
<tr>
<td>200,001 &amp; greater</td>
<td>500</td>
</tr>
<tr>
<td>Buildings Reuse-Maintain 75% of existing walls, floors &amp; roofs</td>
<td>MR credit 1.1</td>
</tr>
<tr>
<td>---------------------------------------------------------------</td>
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<tr>
<td>• Extend the life cycle of existing building stock, conserve resources, retain cultural resources, reduce waste and reduce environmental impacts of new buildings as they relate to materials manufacturing and transport</td>
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<tr>
<td>• Maintain 75% of existing structure and envelope</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Buildings Reuse-Maintain 95% of existing walls, floors &amp; roofs</th>
<th>MR credit 1.2</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Maintain an additional 20% of existing building and envelope</td>
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<tr>
<td>• Same criteria as MR credit 1.1</td>
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<table>
<thead>
<tr>
<th>Buildings Reuse-Maintain 50% of Interior non-structural elements</th>
<th>MR Credit 1.3</th>
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<tbody>
<tr>
<td>• Use existing interior non-structural elements in at least 50% of the completed building</td>
<td></td>
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</tbody>
</table>
Construction Waste Management – Divert 50% from disposal
MR credit 2.1
• Divert construction and demolition debris from disposal in landfills and incinerators
• Calculated by weight of volume
• Excavated soil and land clearing debris is not included

Construction Waste Management – Divert 75% from disposal
MR credit 2.2
• Recycle and/or salvage an additional 25%
• Same criteria as MR credit 2.1

Materials Reuse – 5%
MR credit 3.1
• Reuse building materials and products in order to reduce demand for virgin materials and to reduce waste
• Use salvaged, refurbished or reused materials such that the sum of these materials constitute at least 5% based on cost of total value of materials of project
Materials Reuse – 10%
MR credit 3.2
• Use salvaged, refurbished or reused materials such that the sum of these materials constitute at least 10% based on cost of total value of materials of project
• Same criteria as 3.1

Recycled Content-10%
MR Credit 4.1
• Increase demand for building products that incorporate recycled content materials
• Sum of ½ pre-consumer + post-consumer
• Based on cost

Recycled Content-20%
MR Credit 4.2
• Same criteria as 4.1
Possible Recycled Materials

- Drywall
- Steel
- Composite wood panels
- Supplementary cementitious materials (SCMs)

Regional Materials – 10%
MR Credit 5.1

- Increase demand for building materials and products that are extracted and manufactured within the region
- Within 500 miles
- 10% based on cost
Regional Materials – 20%
MR Credit 5.2
• 20% based on cost
• Same criteria as 5.1

Rapidly Renewable Materials
MR Credit 6
• Reduce the use & depletion of finite raw materials and long-cycled renewable materials by replacing them with rapidly renewable materials
• 2.5% of total value of all building materials

Rapid Renewable Products
• Bamboo
• Wool
• Cotton insulation
• Agrifiber
• Linoleum
• Wheatboard
• Strawboard
• Cork
Certified Wood
MR Credit 7

- Encourage environmentally responsible forest management
- 50% of wood based materials certified by FSC

FSC®