



The term **built environment** is defined as “the human-made space in which people live, work, and recreate on a day-to-day basis”. It encompasses places and spaces created or modified by people including buildings, parks, lakes, dams, and transportation systems.

While buildings and development provide countless benefits to society, they also have significant environmental and health impacts. This summary presents some basic facts about those impacts.

ISSUE	Impacting Activities Associated With Construction
<b>Planning, Land-Use &amp; Conservation</b>	<ul style="list-style-type: none"><li>• Biodiversity</li><li>• Re-use of existing buildings</li><li>• Flooding</li></ul>
<b>Energy Use, Global Warming &amp; Climate Change</b>	<ul style="list-style-type: none"><li>• Carbon dioxide emissions &amp; greenhouse gases</li><li>• Passive heating/cooling</li><li>• Energy Use in production, transport, construction &amp; operation</li></ul>
<b>Pollution &amp; Hazardous Substances</b>	<ul style="list-style-type: none"><li>• Waste production</li><li>• Pollution during manufacturing of materials &amp; products</li><li>• Recycling contaminated land</li></ul>
<b>Resources, Waste &amp; Recycling</b>	<ul style="list-style-type: none"><li>• Mineral extraction</li><li>• Waste Disposal</li><li>• Water Use</li></ul>



**QUESTION** What other impacts does built environment have on society and our standard of living?

**Sustainable construction**, also known as **green building**, aims at reducing the environmental impact of a building over its entire lifetime, while optimizing its economic possibility and the comfort and safety of its occupants.

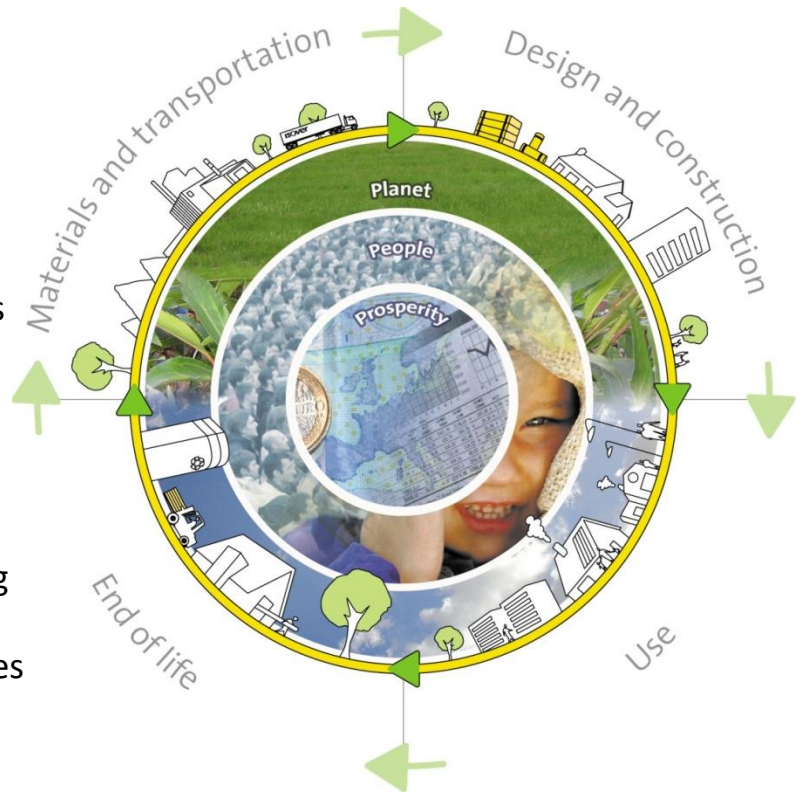
While standard building practices are guided by short term economic considerations, sustainable construction is based on best practices which emphasize long term affordability, quality and efficiency. At each stage of the life cycle of the building, it increases comfort and quality of life, while decreasing negative environmental impacts and increasing the economic sustainability of the project. A building designed and constructed in a sustainable way minimizes the use of water, raw materials, energy, and land over the whole life cycle of the building.



**Leadership in Energy and Environmental Design (LEED)** consists of rating systems for the design, construction and operation of high performance buildings, homes and neighborhoods.

### LEED-certified buildings are designed to:

- Lower operating costs and increase asset value
- Reduce waste sent to landfills
- Conserve energy and water
- Be healthier and safer for occupants
- Reduce harmful greenhouse gas emissions
- Qualify for tax rebates, zoning allowances and other incentives in hundreds of cities



Developed by the **U.S. Green Building Council (USGBC)**, LEED is intended to provide building owners and operators a concise framework for identifying and implementing practical and measurable green building design, construction, operations and maintenance solutions. Since its inception in 1998, the U.S. Green Building Council has grown to encompass more than 7,000 projects in the United States and 30 countries, covering over 1.5 billion square feet of development area. The hallmark of LEED is that it is an open and transparent process where the technical criteria proposed by USGBC members are publicly reviewed for approval by the almost 20,000 member organizations that currently constitute the USGBC.

The **Green Building Certification Institute (GBCI)** was established by USGBC to provide a series of exams to allow individuals to become accredited for their knowledge of the LEED rating system. This is recognized through either the LEED Accredited Professional (LEED AP) or LEED Green Associate designation. GBCI also provides third-party certification for projects pursuing LEED.