Existing Credits for Green Roof Projects in Austin

Carefully designed and maintained green roofs can provide multiple public benefits, including urban heat island mitigation, improved energy efficiency, improved air quality, green space for social and recreational use, wildlife habitat, local food production, sound insulation, and stormwater attenuation.

In acknowledgement of these many benefits and to encourage the use of green roofs in Austin, the City of Austin offers a number of incentives for projects incorporating green roofs. These are listed below. For more details about these potential options, please confer with the One Stop Shop staff and/or Land Use Review staff.

Planned Unit Development (PUD)

- Tier 1 Open Space Requirements (§2.3.1.C)
 - 10-20% of the total project area must be open space. The definition of open space includes roofs, allowing accessible green roofs to count as open space.
- Tier 1 Green Building Requirements (§2.3.1.D)
 - Projects must achieve a PUD 2-Star Green Building Rating. Green roofs can help achieve one basic requirement and up to four additional points on the rating scale (see Green Building below).
- Tier 1 Landscaping Requirements (§2.3.1.H)
 - Projects must exceed the minimum landscaping requirements of the City Code. The "over and above" landscaping can be met using a green roof.
- Tier 2 Options (§2.4)
 - Green roofs can qualify as "other creative or innovative [environmental] measures."

Impervious Cover

• Impervious Cover Measurement (§25-1-23)

Subsurface parking structures are not considered impervious if the average soil depth above the structure is at least 4 feet, with a minimum depth of 2 feet. The soil and landscaping above a subsurface garage is a form of green roof.

Open Space

• Commercial Design Standards (§25-2, Subchapter E, Section 2.7)

Private common open space or pedestrian amenities are required for a minimum of 5% of the site for all commercial projects over 2 acres and all multifamily and condominium uses with more than 10 dwelling units. The definition of open space includes roofs, allowing accessible green roofs to count as open space. Up to 50 percent of required open space may be located above ground level if at least 50 percent of the open space above ground level is designed as a green roof.

Building Design

• Commercial Design Standards (§25-2, Subchapter E, Section 3.3)

Under the commercial design standards, buildings must earn one base point and may be required to earn additional points if certain design features are present. Buildings can earn two points by providing a sustainable roof – which includes an option where a minimum of 50 percent of the total roof surface is vegetated (or "green").

Parkland Dedication

Standards for Dedicated Parkland (§25-1-603)

The Director of the Parks and Recreation Department determines whether land offered for parkland dedication complies with the standards for dedication. Green roofs can potentially qualify for this credit if they are publicly accessible, provide proper signage, and provide three traditional park amenities. A green roof park would require private ownership and maintenance and such private facilities can receive no more than 50% dedication credit.

Reflective Roofing

Austin Energy Code (§25-12-263, 502.5)

The Energy Code requires a high reflectivity for flat roofs. However, there is an exception to this requirement for vegetated (or "green") roofs.

Green Building

Austin Energy Green Building Rating System

Green roofs can help achieve one basic requirement and up to four additional points under the Green Building rating system, including:

- Roofing to Reduce Heat Island (BR3);
- Site Development Protect or Restore Open Areas (S6a);
- Site Development Maximize Vegetated Open Area (S6b);
- Additional Heat Island reduction -Roof (S7b); and
- Innovation -Extra credit points possible for demonstrated innovations.

Stormwater Management

Parking Lot Detention (DCM 8.3.4.J)

Flood detention requirements may be met on a site using "parking lot detention." This method of engineered shallow ponding could be employed on a green roof.

• <u>Innovative Water Quality (ECM 1.6.7)</u>
Biofiltration, rainwater harvesting, or other adopted water quality controls could be integrated into green roof design.

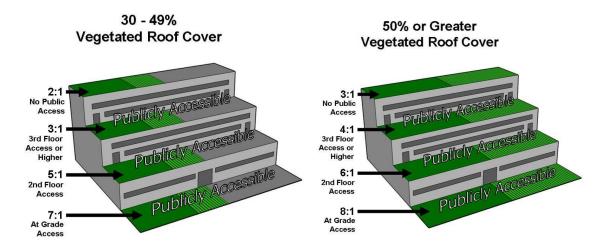
Density Bonus

• Downtown Density Bonus Program Proposed -Pending Adoption

Square feet of bonused floor area is earned for each one square foot of planted bed provided on a vegetated roof. The percent vegetated roof cover is a function of square feet of planted bed provided on a vegetated roof divided by total roof area. Total roof area excludes parapets, ancillary installations (e.g., HVAC equipment, water heaters, photovoltaic and solar thermal panels), and integrated photovoltaic systems.

Percent Vegetated Roof Cover	Square Feet of Bonused Floor Area : Square Feet of Vegetated Roof Cover			
	No Public Access	3rd Floor Public Access or Higher	2nd Floor Public Access	"On-Site Publicly Accessible Open Space"*
30 - 49%	2:1	3:1	5:1	7:1
50% or greater	3:1	4:1	6:1	8:1

^{*}This is the only case where both Green Roof and Open Space bonuses apply to a single area.



For more information on green roofs, visit: www.austintexas.gov/department/green-roof