

**Manifesto:**

Greenroofing is an innovative technology, consistent with many ideals that Carnegie Mellon seeks to encourage and represent. Carnegie Mellon must embrace this development wholeheartedly in order to defend our position and remain at the forefront of groundbreaking progress. With the expansion and development of Carnegie Mellon's campus, green areas continue to disappear. It is necessary to make sure that new and existing buildings incorporate green areas in their construction plans. These plans must also have a positive impact on the environment.

We must spread green roof knowledge to everyone, everywhere! This practice can take the form of art exhibits, roof tours, colorful signage in the space, etc. By taking this leadership position, the Pittsburgh community will eventually follow suit with the Carnegie Mellon campus and then will eventually spread to the rest of the country. By taking this active stance and aggressive leadership role, we will gain national attention for Carnegie Mellon. This translates into gaining national dollars for Carnegie Mellon. This will then increase enrollment (or at least application for enrollment) and attract better and brighter minds to study and collaborate here.

Our goal as green citizens is to extend our thriving gardens and lush greenery to the highest heights of blank concrete spaces on the Carnegie Mellon University campus. We seek to attract major support for our cause through our cross-disciplinary pursuit of knowledge of green roofs. Green roofs provide data and inspiration for numerous psychology, engineering, chemistry, biology, architecture, design, art studies (not to mention inspiration for creative writers, poets, painters, photographers.) The University can cut costs of installing future green roofs by employing CMU student work-studies and volunteers, they can participate in organizing, developing, planting, and maintaining future green roofs at half the cost of hired union workers. When any roof needs to be replaced on campus due to aging or excessive leaking, we must seriously consider replacement with a green roof, it should be the first option on the table, despite if funding is readily available or not. It is always best to consider long-term benefits over short-term benefits, and green roofs equal significant long-term savings. Plus green roofs can be designed for relatively low maintenance, only requiring care up to 2 – 4 times a year.

Greenroofs give back to the land what humans have taken away: with each building we construct, green space is cleared away. This space can be easily replaced by simply lifting it up to the roof as we live underneath it. This is also known as Land Displacement Theory. Furthermore, when one designs any building enclosure, it should not simply act as the major structural element or a means of sealing off the indoor from the outdoor. Building facades should be working to improve the quality of interior spaces by working with the mechanical systems of the building. A green roof is an opportunity to do this. They help reduce air conditioning loads in the summer due to their insulation value, help minimize stormwater runoff overloads into sewage systems, and when viewed by occupants, improve worker productivity, health, and emotion.

Greenroofs also encourage urban biodiversity and natural co-existence as the green spaces attract animals and plants that once thrived in the region. We need green

roofs that are diverse in their plant selections so as to provide continual interest and stability throughout the seasons. This means that all green roofs are not created equal, and therefore should not be identical. We need to make our greenroofs more than just a roof with dirt and grass seed thrown onto it. Every roof should have a clear concept or theme for planting and use that is associated with its placement on the campus, not just a monocultural blanket of green lawn. Also, we should not forget how our green roofs will look during the winter season since this is a time when many students will be viewing the roofs.

Indeed, we have a duty to respect the campus identity, however, we also have a greater duty to the environment in which we live. Green roofs are good, our campus architecture is good too, and there is no reason why they cannot happily coexist.