



## MARCH 2020

### Green Features on the Shady Grove Campus

Green features are an integral part of NIH campuses. Since humans spend approximately 90% of their time indoors, green features add an element of nature to our buildings, along with having various environmental benefits.<sup>1</sup> One of the green features to become popular in recent years is the “living wall.” The Shady Grove campus is home to two living walls, located on the East and West sides of the main lobby of 9609 Medical Center Drive. In these projects, a huge variety of living plants are attached to a growing medium on the surface of a wall. This creates a visually-stunning floral display featuring real, living plants.

Green features, like a living wall, often [create a pleasing aesthetic and promote a relaxed atmosphere](#). Research has even shown the incorporation of nature into the built environment to have many psychological benefits.<sup>4</sup> This phenomenon is explained by “biophilia,” the tendency of humans to affiliate with nature. Studies show that increasing our daily exposure to nature can increase our productivity, allow us to heal faster and improve our mood.<sup>1</sup> These findings have led to an increase of healthy buildings that incorporate green features.

Living walls have additional benefits beyond their pleasing look and biophilia-related affects. The living plants provide extra oxygen for the building while also removing air pollutants. If placed on an exterior building wall, a living wall can provide some additional insulation to reduce energy use. These walls are also fairly low-maintenance, requiring only biweekly service to ensure the plants remain trimmed and the watering system is functional. A few plant species commonly used in living walls are:

- [Anthurium](#) (White Hearts)
- [Chlorophytum](#) (Spider plants)
- [Various Fern species](#)
- [Calathea](#) (Zebra or Rattlesnake plant)
- [Aglaonema](#) (Silver Queen)
- [Various Philodendron species](#)
- [Rhoeo](#) (Oyster plant)



The Shady Grove campus is also home to multiple green roofs. There are green roofs located at 9609 Medical Center Drive, above the third floor in between the East and West towers. There are also smaller green roofs along the exterior of the West tower on the first floor and on the North side of the East tower. The basic anatomy of a green roof is very complex and requires many layers ([see a diagram here](#)). Yet, once the roofs are installed, they provide many benefits over a normal roof. The added insulation from the green roof reduces energy consumption and decreases the urban heat island effect. Additionally, the presence of living plants improves air quality and has a better aesthetic appearance than a typical roof. Lastly, and often most importantly, the plants will absorb rainfall, which reduces stormwater runoff and allows the water that falls on the roof to be collected and used on-site. Stormwater collected from the green roofs on the Shady Grove campus is stored in the stormwater management pond on the North side of the property. The water is filtered and cleaned, then reused for on-campus irrigation to reduce water consumption.

These green roofs and living walls represent great accomplishments on the Shady Grove campus. The green features provide benefits to the environment, to the NIH and to the many staff on the Shady Grove campus.

## TAKE ACTION

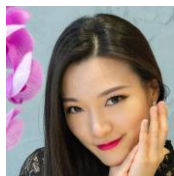


### Increase Your Connection to Nature!

Humans can benefit from adding elements of nature into their daily lives. Whether that means taking regular walks or adopting an office plant, we have quite a few suggestions to get you started!

[LEARN MORE](#)

## STAFF SPOTLIGHT



### Meet Ka Lai Lou, the “Orchid Whisperer”!

We would like to introduce Ms. Ka Lai Lou, who has gone to great lengths to increase the greenery in her office. She has accomplished this with her own special flair by raising many species of colorful orchids!

[LEARN MORE](#)

## NEMS TRAINING

**Did you know?** Green features often provide benefits beyond their visual appeal, such as improving indoor air quality or reducing stormwater runoff. To learn more about green features at the NIH, please visit the [NEMS Training webpage](#) to view a short (20 minute) NIH environmental awareness training video.