

GREEN WALLS

FACT SHEET



 Planteca

Green walls have been around for some twenty years and are now trendier than ever. There are many types of green walls adapted to constraints of every kind.



There are many factors to consider when adding a green wall to your space including lighting, maintenance, assembly and installation, properties, choice of plants, costs, architectural planning and more.

At Planteca, we want to give you the tools you need to consider including a plant or preserved moss wall in your design plans.

To choose the location and types of materials, and to discover the many advantages that green walls have to offer, browse through our different headings.

ADVANTAGES

WELL BEING

- Help reduce stress in occupants of the space;
- Foster calmness and tranquility and promote concentration, creativity and productivity;
- Help a project obtain WELL certification by ensuring the quality of life of building occupants.



AESTHETICS

- Become a key architectural and sculptural design element within any space;
- Great substitute for large-scale artwork;
- Transform an unsightly wall into an invigorating oasis;
- Add greenery without cluttering up floor space; it's the perfect solution for small spaces.

ADVANTAGES

ACOUSTICS

- Absorb and reduce undesired ambient noise from refrigerators, dishwashers, lights, heating appliances and other distractions of open offices;
- Reduce the echo in a minimalist space.



ECOLOGY

- Help obtain LEED credits;
- Increase relative humidity without raising it too high;
- Depending on the design, a green wall can purify the air. Ventilation must pass through the green wall and come into contact with the roots, where the absorption of volatile organic compound (VOC) occurs;
- Promote energy savings in buildings by keeping the interior atmosphere fresh.

TYPES OF WALLS

NATURAL PLANT WALLS

- Plants with closed hydroponics or automated irrigation;
- Plants in traditional substrate with manual watering;
- Wide range of looks available based on plants chosen.



STABILIZED MOSS WALLS

- Moss is preserved without the use of toxic substances; Inflammable;
- 12 colours available;
- Hypoallergenic;
- Variety of preserved materials including reindeer moss (species native to Canada), leafy moss and foliage;
- This material must not be directly exposed to the sun. It requires no sunlight and is therefore ideal for windowless spaces;
- For preserved moss walls, a 50% rate of humidity is ideal. Moss can also be misted occasion

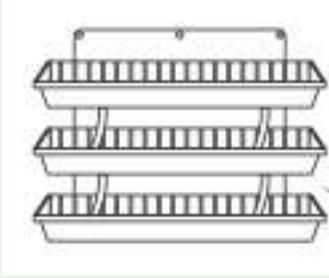


PLANT FRAMES

Hydroponic plants or plants in traditional substrate;
Preserved moss.



ASSEMBLY



Depending on the type of wall selected, assembly can be partly or entirely done on site.

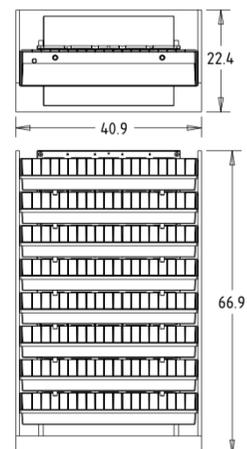
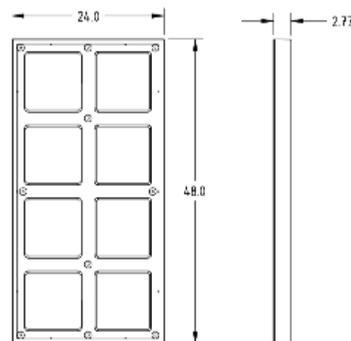
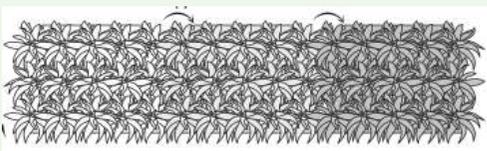
A timeframe of 14 days is typically required between the order and the installation of a wall. However, depending on the types of plants selected, project planning can require more time to ensure that plants are lush and full at the time of assembly.

The irrigation method selected can require the expertise of a plumber. Our installation team can handle the rest of the assembly or outsource certain steps to trusted partners. The wall must be sealed and rot-proof to prevent mould from forming.

Some walls must be planned early in the project design phase. The designer or architect will create an imbedded space 8 inches deep to accommodate the structure. Depending on your selection, plants will surpass the structure by approximately 6 inches.

We also offer free-standing structures for existing spaces. For your natural plant walls, we recommend choosing a wall 14 inches deep.

Preserved moss walls are typically 50 mm thick. They can be integrated into a design project long after the space has been built. Logos and designs can also be integrated using different colours of moss.



LIGHT EXPOSURE

The choice of plants dictates the type of light exposure required. LED horticultural lighting can help compensate for low natural lighting.

For spaces without a natural or synthetic light source, opt for preserved moss walls or frames.



Plan a visit with one of our design advisors to determine your project's luminosity requirements.

CHOICE OF PLANTS

Wall plants must be selected based on the existing ambient microclimatic conditions, as well as the following factors:

- Watering needs and robustness;
- Type of lighting required;
- Growth speed;
- Compact plant structure and size at maturity.



Trust us to choose your plants, and we will create a wall that's both durable and beautiful!

GROWING TYPE

HYDROPONICS

Plants grown using hydroponics are installed on a base made of felt, peat moss (most common), rock wool or coconut fibre. These materials are chosen for their water absorption attributes and their nutritive elements.



SOIL

Plants grown in soil can be placed in low-absorbency pockets or in pots. Wicks are inserted into potted plants. It is important to choose a light potting soil that properly absorbs water in order to space out watering and avoid weighing the plant structure down. Eventually, compost or substrate must also be added.



DURABILITY

A properly maintained wall can last between 10 and 15 years, after which limp plants must be replaced. That's where horticultural expertise makes all the difference!
At Planteca, we offer free plant replacement as needed, which guarantees that your plant wall will last.

To ensure your wall's durability, it is important to choose the right combination of plants and select about 15 plant varieties ahead of time.



To keep it looking lush and magnificent, your wall requires daily care. Our maintenance services include watering, cleaning the irrigation system, pruning plants, clearing dead leaves, replacing wilted plants, adding fertilizer when needed and testing the water's pH.

WATERING

CLOSED LOOP IRRIGATION

Some walls are equipped with a closed watering system, where plants grow on a membrane irrigated by a pump system. Collector basins are installed under the structure and watering is done either from above through soaker hoses or through a drip system fed by a pump at the structure's base. We recommend installing a programmable timer or planning frequent visits to ensure proper plant maintenance.

This system encourages water savings (since the water not absorbed by plants is reused) and, if the structure is made from recycled or recyclable materials, helps obtain LEED accreditation. The base must be filled with water at all times and regular maintenance is required in order to prevent the spread of bacteria. This option includes additional fees during installation, as both a water reservoir and water quality analysis system are required.



WATERING

AUTOMATIC WATERING

This watering system is connected to an existing water outlet and requires the expertise of a plumber. The system can be equipped with a preprogrammed timer or be activated manually. Sprinkler heads are installed in each pot and are typically preferred for their ability to detect the water needs of plants. In this case, the system is permanently powered.

This system can require more frequent plant replacement since the water pressure is stronger at the beginning of the system (at the top) and weaker at the end (bottom). The proper choice of plants and their location makes all the difference! Sensors are also available, which allow your technician to constantly and conveniently monitor the state of your wall.

Automatic irrigation can be very practical, as it requires little professional intervention. Experts can therefore focus their energy on ensuring the health of plants. Horticultural technicians can instead prioritize plant inspection, to prevent the appearance and spread of insects, and the pruning and maintenance of plants. This can also reduce plant maintenance costs.



MANUAL WATERING

Smaller plant walls can be watered manually. In this case, plants are often in traditional substrate, meaning they are planted in soil. The advantage of potted plants is that as opposed to hydroponic plants, they can be full and lush from the moment of installation, which guarantees the best possible results.

Each pot is fitted with a wick connecting it to the installation bin, which is often detachable and makes capillary watering possible. By filling the basin with water, all plants get watered and any imperfect plants can easily be changed or replaced. This system feeds plants evenly, allowing the user the freedom to choose from a greater variety of plants.

COSTS

Costs vary greatly depending on the plants chosen, lighting, finishes, structure, configuration, and the floor level on which the wall is located.

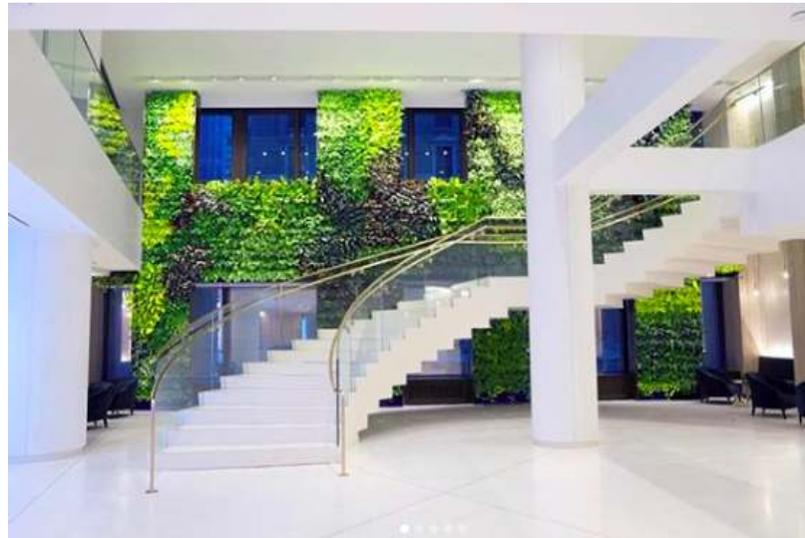
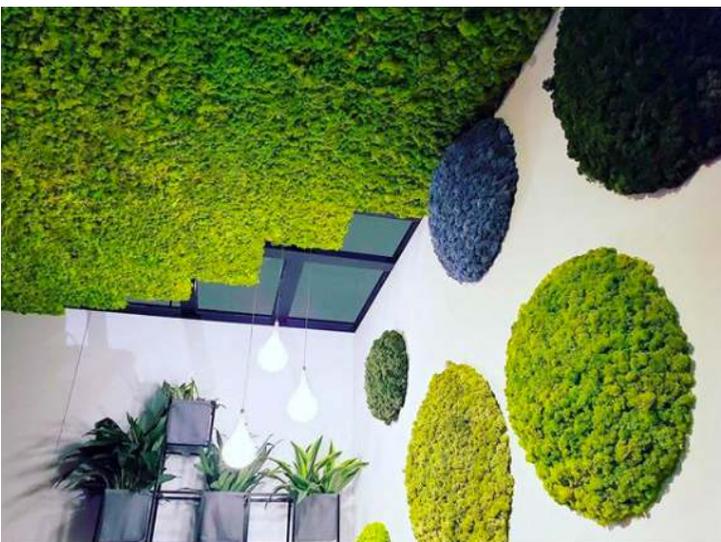
The following expenses can be expected depending on the type of wall selected:

INSTALLATION

- Uniform preserved moss wall \$80/ft²
- Preserved moss wall with design \$125/ft²
- Natural plant wall \$160/ft²

MAINTENANCE

- From \$125 per month, depending on the number of plants



THE 3 KEYS TO A SUCCESSFUL PLANT WALL



1 Proper lighting (ensures the health of plants and gets you the most out of your investment)

2 An informed plant selection



3 Planned pruning



PRODUCTS OFFERED BY PLANTECA

Modulogreen® Living Walls

These units are made from reinforced polypropylene and fibreglass, which makes them especially resistant to the pressure caused by roots.

C+P Green Walls

Steel construction of mobile units with patented levels for greater flexibility in plant accommodation.

Versa Wall®

The Versa Wall operates on a closed loop irrigation system. The structure's frame is available in many different finishes.



PRODUCTS OFFERED BY PLANTECA

ASI Living Walls

This system is made up of bins filled with plant pots, which are equipped with wicks. This system requires no pumps or electricity, and watering is done manually.

NextGen Living Walls

These walls are incredibly easy to install and are delivered quickly. They are made specifically for hydroponic or potted plants. They operate on a four-week watering cycle. NextGen walls are available as double or single-sided units.

