



VERSA WALL®



Planterra.ca

GREEN WALLS

Living Green Walls have been around for centuries, but the modern version has been built to be attached to both interior and exterior walls and has been around only for about 25 years.

BENEFITS OF Green Walls are being extensively studied today and include cleaning interior air space; deadening sound; reducing airborne dust; reducing carbon dioxide levels; and, removing VOC's and other harmful toxins from the air. Additionally, employee morale and productivity is positively affected; people are naturally drawn to "nature"; and, physiological and psychological health is improved.

Green Walls are being used to make a green design statement for branding purposes, to add value to commercial space, to enhance our connection with nature, and to create and enjoy art.

Finally, Green Walls can contribute to LEED credits.



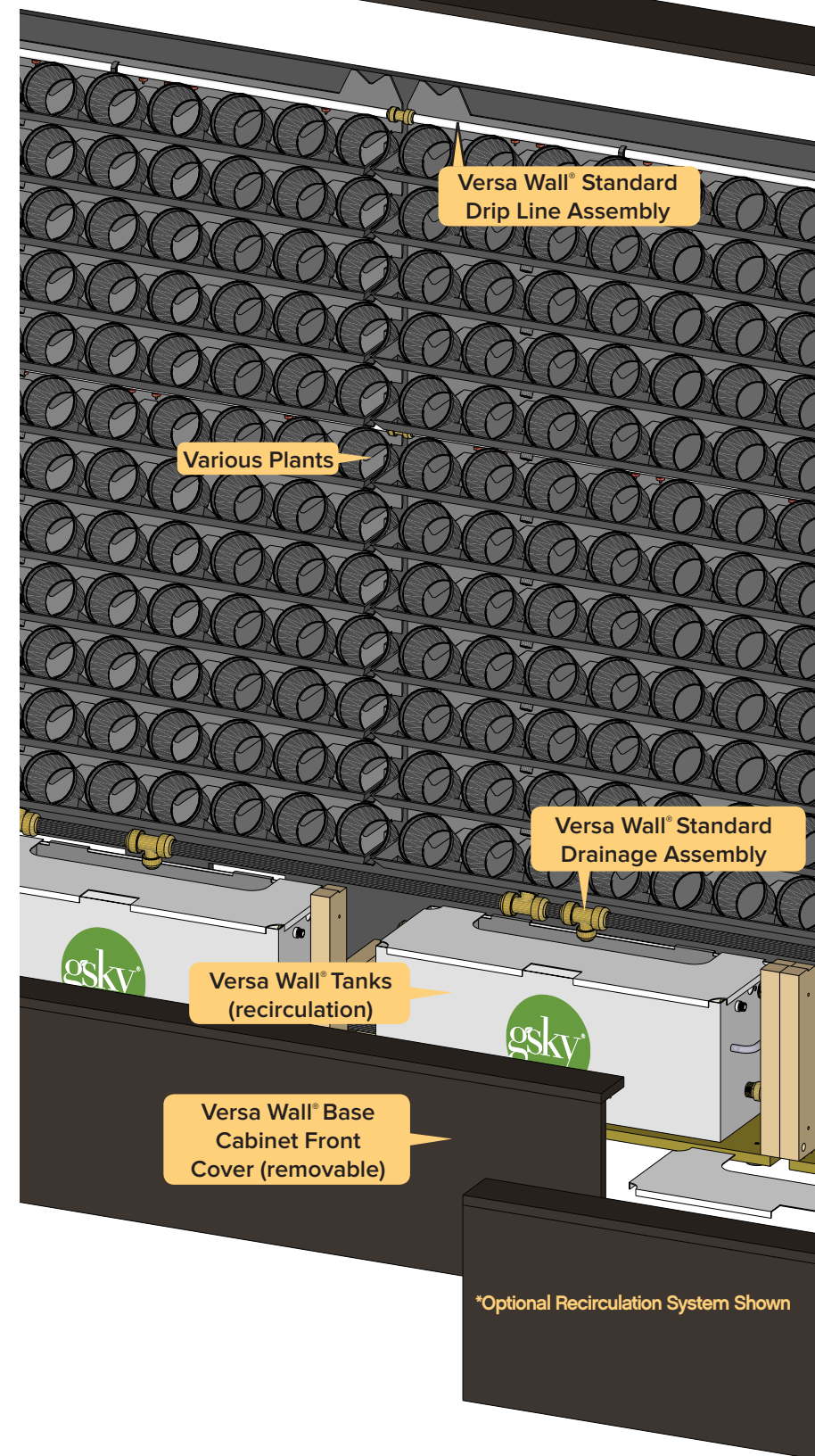


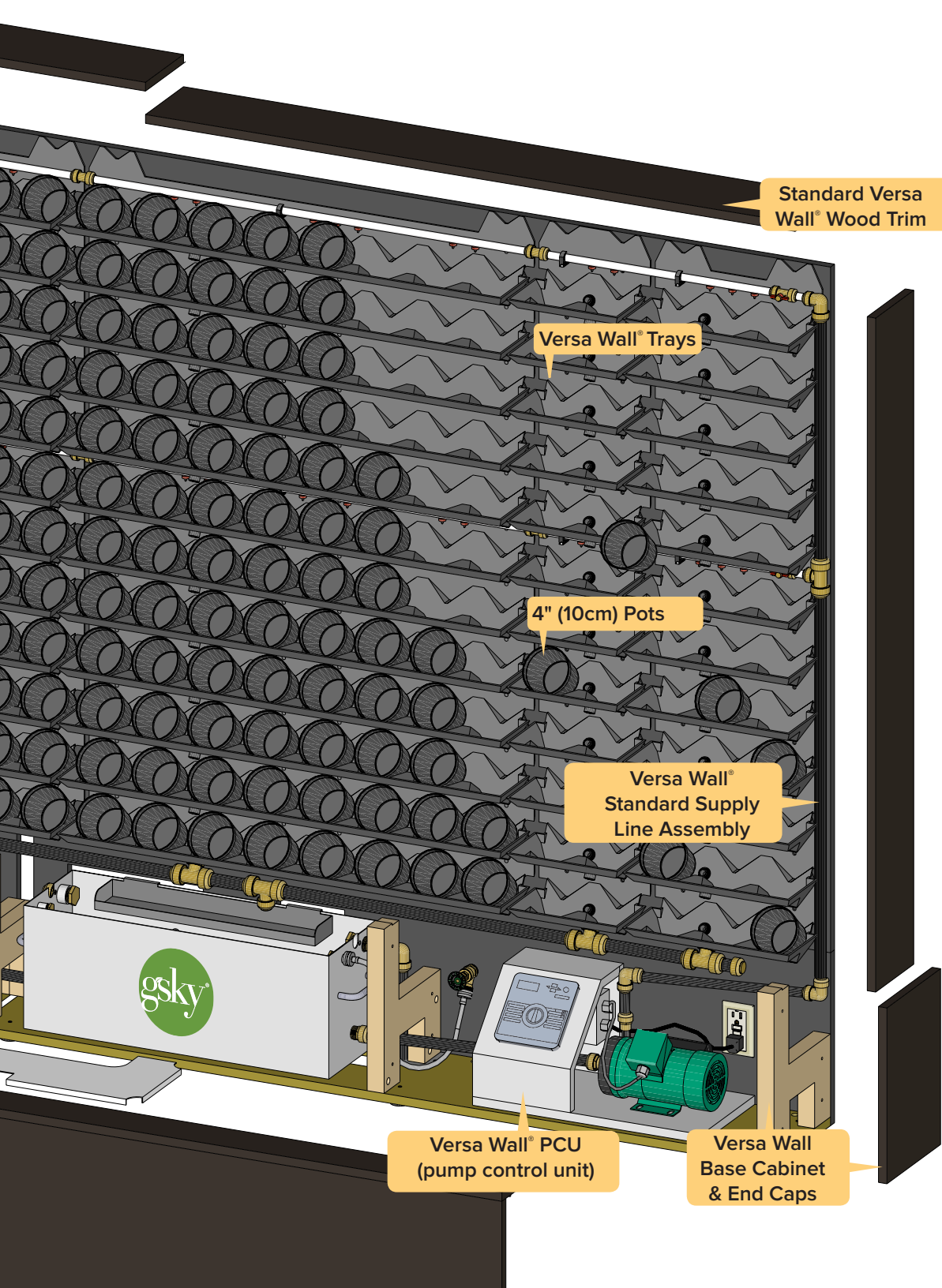
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VERSATILE INTERIOR OPTIONS

Versa Wall® can be built to virtually any size, and has a wide range of design capability. Water can be tied directly into the wall; tied into tank(s) that recirculate the water; or, tank(s) can be manually filled. Tank(s) can be placed below the wall, behind the wall, or in another room. Standard trim is available and can be custom made of wood or metal.





FUNCTIONALITY-DRIVEN



Trays are proprietary

and provide each plant its own water.



Water is managed

to specific automated intervals for a limited time and does not run 24/7.



Plants can be easily replaced

and cleaned to maintain their fullness.



Seasonal and accent plants

can be added inexpensively.

TRAY SYSTEM ADVANTAGE

VS. PRE-PLANTED PRO WALL® PANEL SYSTEM



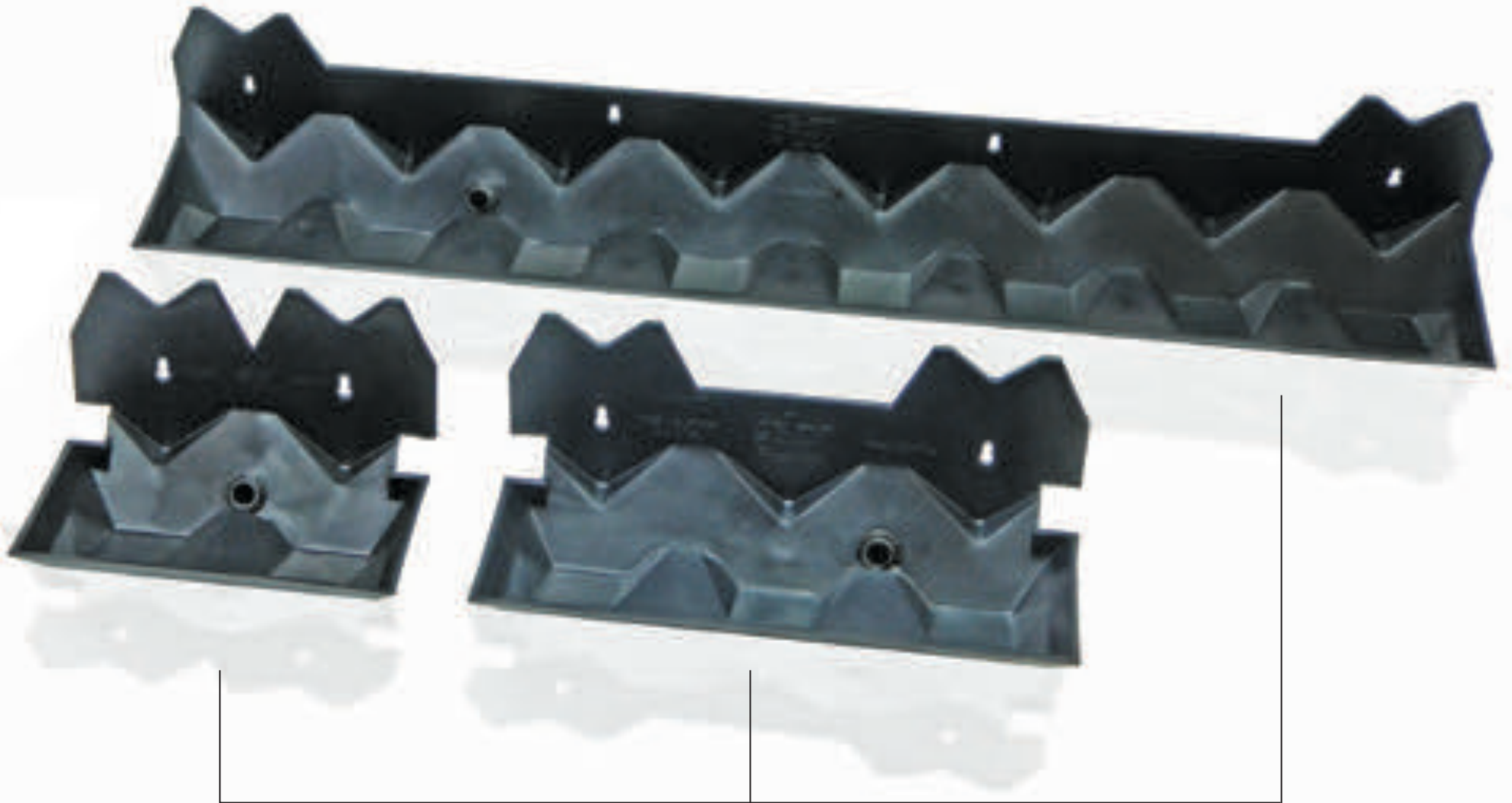
Uses 4" (10cm) Potted Plants

- 1** Cleanliness when maintaining or changing plants.
- 2** All things being equal, replacement rate for pots is less.
- 3** Overall simplicity of system and easy access to components.
- 4** Plants are more available for replacements if needed.
- 5** No water escapes on the leaves or from the system.
- 6** Immediate and short term fullness of wall.

One or more product shown in this brochure may be protected by one or more U.S. and international patents, additional patents pending.



Corner Trays for creating wall around corners or around columns



Straight Trays to accommodate any dimension of wall

DESIGN INTENT



ARTISTIC FEATURE PIECE

Soft curves suggest movement and flow. Some contemporary designs are more rectilinear with clean lines.





ORGANIC BACKGROUND

Incorporating plants in an environment for organic reasons only.



INCORPORATED ELEMENTS

Usefulness, attractiveness and interest of living Green Walls can be enhanced with the introduction of additional elements within or around the system.

BRANDING



LOGOS

TWITTER SAN FRAN HQ
SAN FRANCISCO, CALIFORNIA



SIGNAGE

BRIDGESTONE ARENA
NASHVILLE, TENNESSEE



SEATING

DES MOINES BOTANICAL CENTER
DES MOINES, IOWA



INFO DISPLAY

TWITTER BOSTON HQ
CAMBRIDGE, MASSACHUSETTS



LOCAL FLAVOR - STONE

WESTIN GASLAMP
SAN DIEGO, CALIFORNIA



WATERFALL ADDED

AWEBER HQ
CHALFONT, PENNSYLVANIA



TILES ADDED

LEADING TECH COMPANY
MOUNTAIN VIEW, CALIFORNIA



BOARD ROOM

FIRST VIRTUAL GROUP
REDWOOD CITY, CALIFORNIA

PLANTS

STANDARD PLANTS

Long term plants that are proven to work well vertically for interior environments. They are able to handle the lower lighting conditions while still being durable and attractive.



Philodendron
Cordatum



Neon Pothos



White Butterfly
Nephthytis



Schefflera
'Luseane'



Golden Pothos

ACCENT PLANTS

These are used in smaller quantities to add intricacy through color and texture. They may need to be replaced sooner than the core plants which is why they are used in smaller amounts and are covered under warranty.



Ficus Elastica
Burgundy



Pink Syngonium



Silver Satin
Pothos



Austral Gem
Fern



Anthurium



COLOR PROGRAM

With an adjusted maintenance fee colorful plants can be integrated into the design with probable change out every 4–6 weeks depending on the plant.



Poinsettias



Bromeliads



Kalanchoe

SEASONAL / EVENT ADD-ONS



Plants can be added for use at holidays (Poinsettias here) or special occasion without major change or effect to the wall.



CHECKLIST FOR A HEALTHY GREEN WALL

- ✔ ADEQUATE LIGHT FOR HEALTHY PLANT GROWTH
- ✔ PLANT AVAILABILITY
- ✔ GROWTH HABIT OF THE PLANTS
- ✔ PLANT WATERING NEEDS
- ✔ AVOID VENTS & EXTERIOR DOORS
- ✔ MAINTENANCE PROTOCOL SET UP

LIGHTING

GOOD EXAMPLE

Even light distribution flooded from top to bottom and side to side of the wall. This leads to healthy, vigorous plants with uniform growth habits and minimal replacements.



BAD EXAMPLE

Obvious spot effect, not the appropriate wall wash/ even distribution. Spots of intense light and heat burn foliage, create uneven plant growth, bleach out leaf color and eventually lead to plant death and higher plant replacements.



GOOD EXAMPLE

Interior plants need an even flood of lux of light provided across the entire surface of the wall for approximately 10 to 12 hours per day with a color temp. of 4000 to 4500° K.

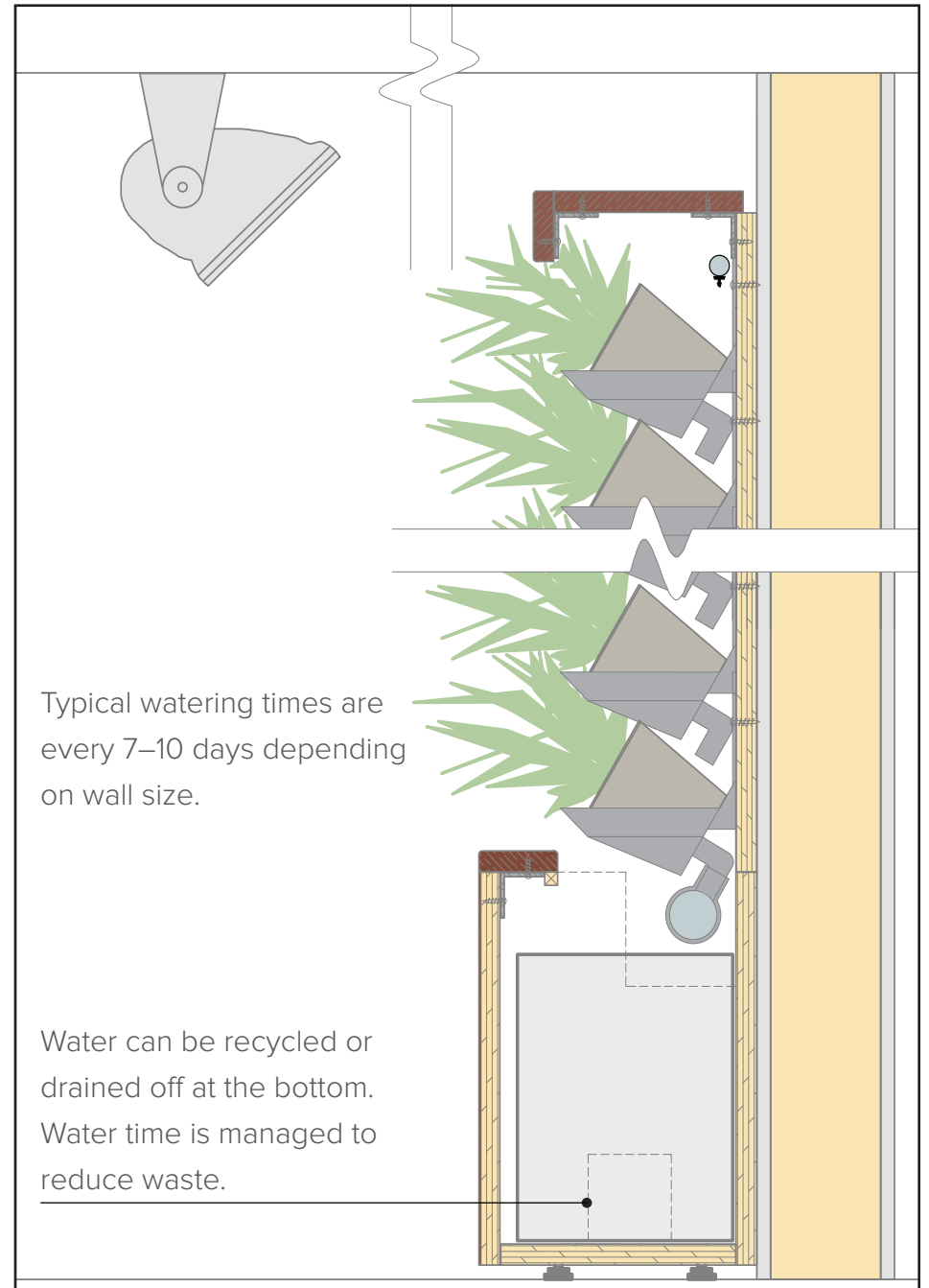
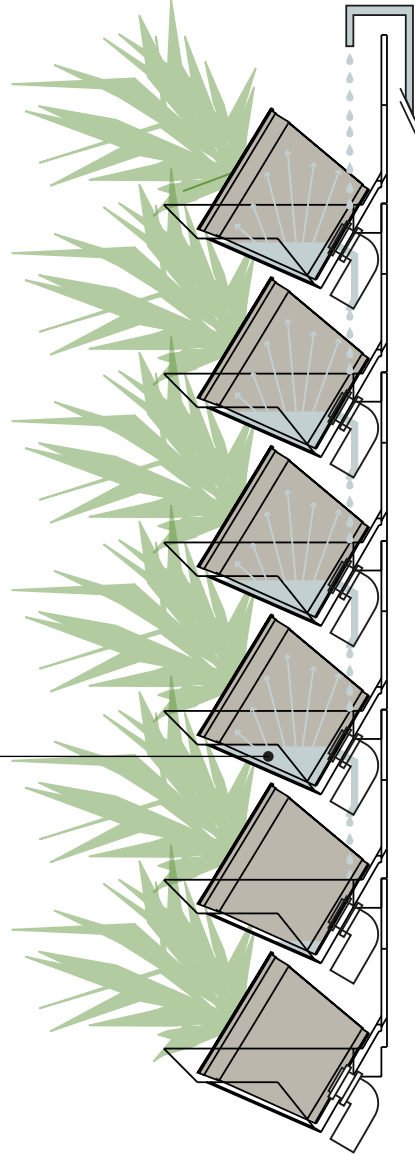
We recommend that either Metal Halide or LED's be used on a dedicated timer.

WATER

Versa Wall® System distributes water throughout the wall in a closed system so no water escapes forward or behind the wall. Water is pumped to the top and flows from tray to tray to the bottom.

Trays are designed to hold a measured amount of water for each individual plant. Plants do not compete for water.

This means no soil spills out of the wall and no water spills forward. This assures that the Green Wall will be neat and spotless.



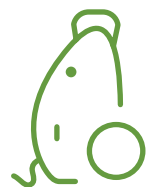
Typical watering times are every 7–10 days depending on wall size.

Water can be recycled or drained off at the bottom. Water time is managed to reduce waste.

IRRIGATION OPTIONS

MANUAL

Water Caddy



Services Required



Not Required



Not Required



Not Required

Features

Small Walls
Low Install Cost

Hose Connection



Services Required



In Building



Not Required

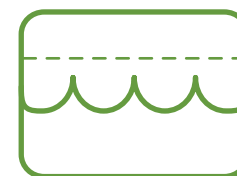


Optional

Features

Small to Large Walls
Low Install Cost

Tank Watering with Manual Refill



Services Required



Optional



Required



Optional

Features

Small to Medium Walls

AUTOMATIC

Direct Water/ Direct Drain Irrigation



Services Required



Required



Required

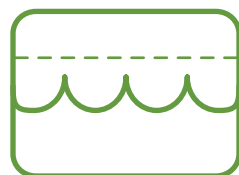


Required

Features

Medium to Large Walls

Tank Watering with Automated Valve Refill



Services Required



Required



Required



Required

Features

Medium to Large Walls

* Bottom trim options are dictated by type of irrigation system employed.

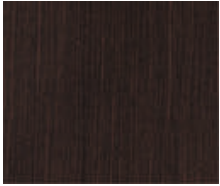
* All services required for all Automated Irrigation Options.

TRIM

N/A

The Versa Wall® System offers standard wood trim across the top and down the sides with a removable base across the bottom, behind which the irrigation components are contained. Side and top trim may not be necessary in recessed framed wall conditions.

Standard Wood Trim

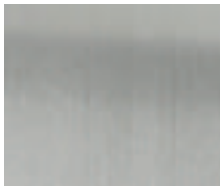


Cordova Pine



Unfinished Wood

Available custom options are stainless steel, aluminum or custom finish wood.



Stainless Steel



Aluminum



Standard Wood Trim



Custom Metal Trim Options



Custom Wood Trim

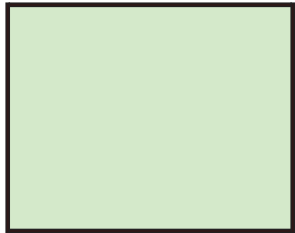


Recessed

TRIM OPTIONS

¾" / 2cm edge trim shown in all examples below, side / top trim can have a 2" / 5cm return edge as well.

WALL MOUNTED

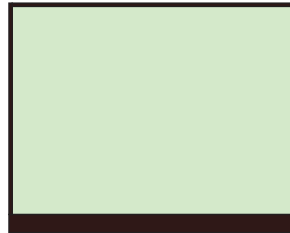


¾" / 2cm

Irrigation Options



Water Caddy



4" / 10cm

Irrigation Options



Water Caddy



Hose Connection



Remote Tanks



Direct Water*

*Irrigation equipment located remote from the wall



7¼" / 18.5cm

Irrigation Options



Direct Water*

*Irrigation equipment can be inside bottom trim or remote from the wall

FLOOR



7¼" / 18.5cm

Irrigation Options



Water Caddy



Hose Connection



Remote Tanks



Direct Water*

*Irrigation equipment can be inside bottom trim or remote from the wall



15" / 38cm

Irrigation Options



Tanks below the wall

MAINTENANCE

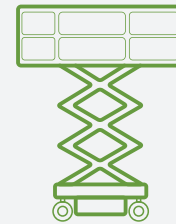


Depending on the type of lift or ladder to use to access the wall, there must be an access point from which you can set up the lift and access the entire wall. A pathway 'traffic plan' must be established to transport the lift to and from the wall.

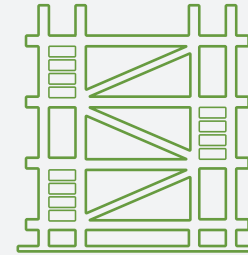
Lastly, a storage location for the lift needs to be considered if it's being kept on site as opposed to being rented.

TYPES OF ACCESS

Wall Height of 13' / 4m and Above



Scissors Lift



Large Scaffold

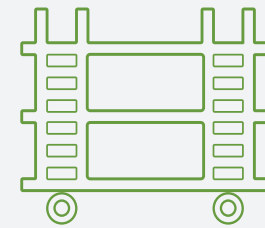


Boom Lift

Wall Height of 13' / 4m or Below



Step or Extension Ladder



Painters' Scaffold

Wall Height of 8' / 2.5m or Below



Small Ladder



Foot Stool Ladder

REGULAR CHECKS

Prune & Clean Your Plants

Clean & prune plants properly, keeping plants compact in order to maintain design intent.



Check Soil Moisture Level

Check moisture levels, manage and adjust the watering schedule accordingly.



Inspect for Pests & Disease

Inspect plants for pests and diseases, and treat accordingly.



Feed Your Plants

Fertilize plants to maintain proper levels of color and nutrition.



PERIODIC CHECKS

Wall Component Inspection

Inspect, clean and maintain wall components, such as: tank, filters, trays and fasteners.



Irrigation & Timer Check

Inspect irrigation, water flow as well as the recirculation and drainage systems.



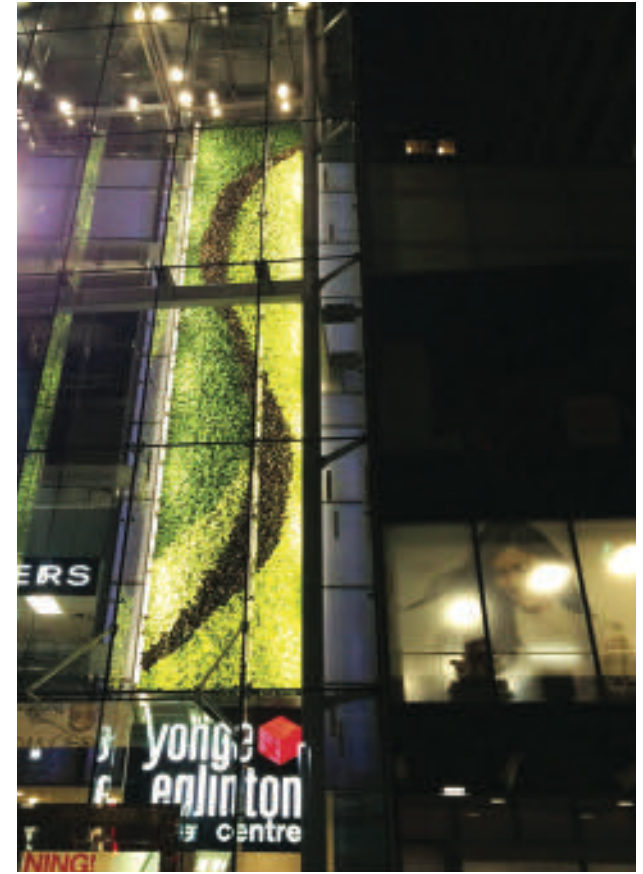
Lighting Review

Adjust timers and fixtures, where applicable, so the plants receive the best light levels possible.



RELIABILITY

The Versa Wall® System was first introduced in 2011. As of early 2016 there have been over 300 Versa Walls installed. After five years, not one of the walls has failed and not one has been replaced. Client satisfaction has resulted in repeat business: one client has 40 of the walls, another has 18 and still another has 5. All plan on additional walls.



Q+A

Q How long should one expect a 4” (10cm) potted plant to last in the wall?

A If lighting conditions and maintenance practices are done as recommended, the plant will be viable for years. While there will be some small attrition, due to the plant species we recommend and the controlled growing conditions, root-bound plants rarely if ever occur in the Versa Wall® System.

Q Will water spill off the plants or leak into the wall structure?

A Since the plants wick water from the base of the pot, no water runs through the growth material or from the leaves to the floor. Furthermore, the trays interlock and only take a measured amount of water before the excess water drains into a tank or overflow drain so no water leaves the system.

Q Can larger plants be put into the Versa Wall® System?

A The system is designed for 4” (10cm) potted plants to allow maximum design flexibility and ease of replacement and/or seasonal addition of plants. Larger plants will not work in the system.

Q My wall is adjacent to a window, do I still need supplemental lighting?

A Interior plants need an even flood of 150 fc / 1500 lux of light provided across the entire surface of the wall for approximately 10 to 12 hours per day with a color temp. of 4000 to 4500° K. We recommend that either Metal Halide or LED's be used on a dedicated timer.

Q Can the system be installed outside?

A No, unless installed under an overhang or some kind of protection from wind and rain, at which time lighting may become a consideration.

Q I don't have access to a drain or supply line, can I still put in a Versa Wall® System?

A Yes. While water supply and drain are preferred recirculation tanks can be utilized on smaller walls. Water caddies on hoses can be used to fill the tanks.

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