

Provided By:



CAN YOU PLACE VEGETATION ON TOP OF SEGMENTAL RETAINING WALLS?

Yes. Segmental Retaining Walls (SRWs) are commonly combined with vegetation above the wall to reduce erosion and for aesthetic reasons. The trees and shrubs placed above the SRW have to be selected and placed to not affect the wall alignment or the wall performance, and survive on the wall. When selecting the trees and shrubs, and deciding their placement on the wall, keep the following guidelines in mind. These guidelines are based on industry recommendations (see **FIGURES 1 AND 2**):

- The tree and shrub size, type, and location should be selected based on the size of the mature plant so it does not impact the wall negatively.
- The spacing between trees and shrubs should be the larger of the minimum recommended spacing for the plant variety 4 times the diameter of the root ball or 5 ft (1.5 m), measured from center to center in all directions.
- Trees and shrubs should be staggered behind the SRW face.
- There are no limitations for the type/number of shrubs or the height of the tree to use.
- The plants are recommended to be placed away from the wall face so the dripline of the mature trees or shrubs (edge of the foliage) is not hanging passed the wall face.
- Maintain a minimum distance of 5 ft (1.5 m) between the edge of the root ball and the face of the wall.
- Use temporary irrigation to establish the vegetation (this doesn't apply to vegetated SRW faces).
- If permanent irrigation is installed consult with the design engineer.
- Between terrace walls, restrict the vegetation to shrubs unless there is enough space to follow the recommendation for trees.

- Vegetation in the front of the wall must also be planned to not undermine the SRW or affect the stability of the wall.

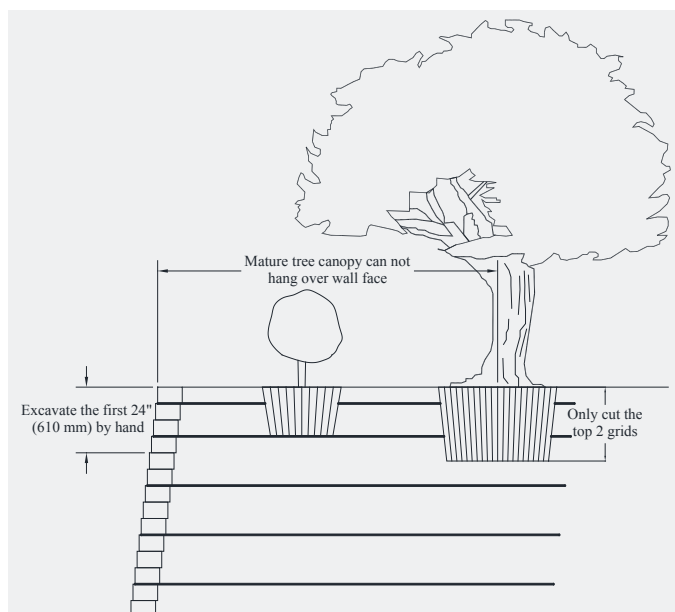


Figure 1—Vegetation Placement Suggestions and Excavation Guidelines

With proper planning and scheduling sonotubes or concrete rings can be placed during construction as placeholders for the trees. The size and placement have to follow the recommendations above.

Revised January 2024

If trees are planted after the construction of the wall, it is advisable to only cut the top two (2) layers of geogrid, manually excavate the first 24 in. (610 mm) of soil, and use augers only if needed, after hand excavation of the top 24 in. (610 mm).

If trees are placed closely together and cutting of geogrid becomes excessive, consult with your wall design engineer.

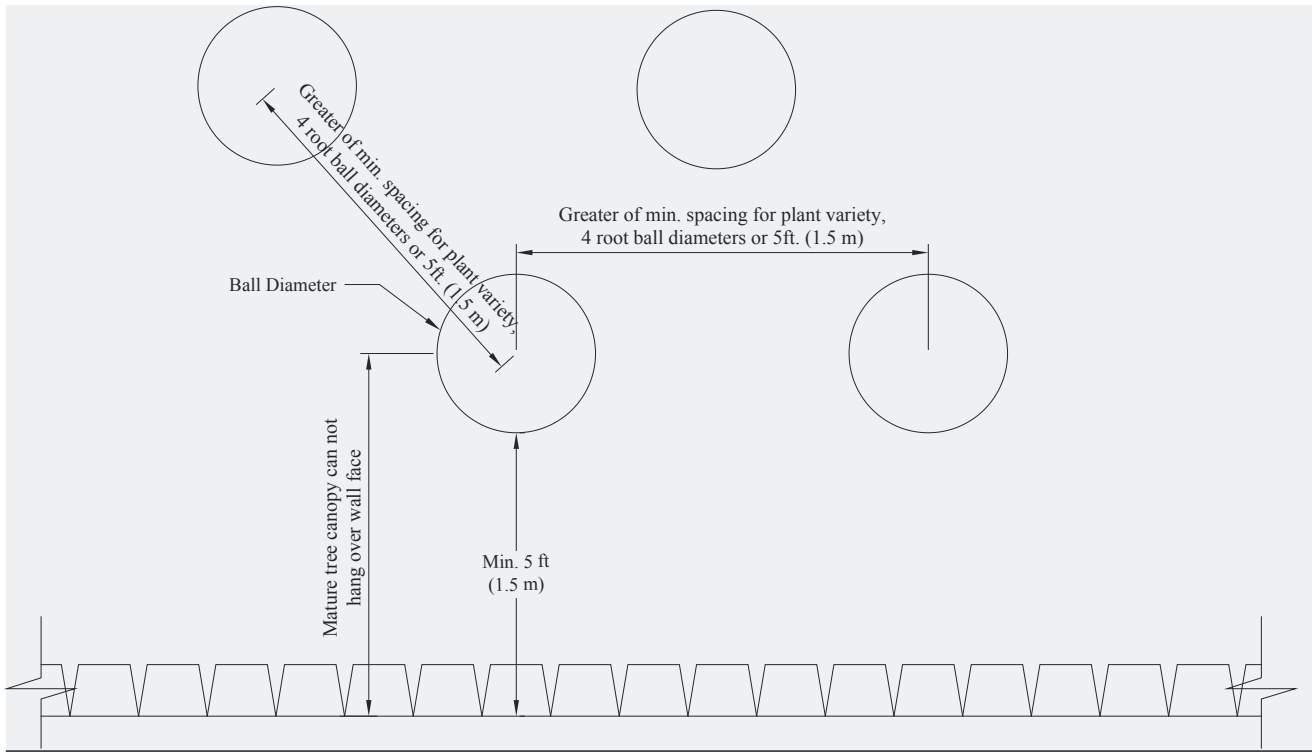


Figure 2— Vegetation Spacing and Placement Guidelines on Top of the SRW Wall

ABOUT CMHA

The Concrete Masonry & Hardscapes Association (CMHA) represents a unification of the Interlocking Concrete Pavement Institute (ICPI) and National Concrete Masonry Association (NCMA). CMHA is a trade association representing US and Canadian producers and suppliers in the concrete masonry and hardscape industry, as well as contractors of interlocking concrete pavement and segmental retaining walls. CMHA is the authority for segmental concrete products and systems, which are the best value and preferred choice for resilient pavement, structures, and living spaces. CMHA is dedicated to the advancement of these building systems through research, promotion, education, and the development of manufacturing guides, design codes and resources, testing standards, and construction practices.

Disclaimer:

The content of this CMHA FAQ is intended for use only as a guideline and is made available “as is.” It is not intended for use or reliance upon as an industry standard, certification or as a specification. CMHA and those companies disseminating the technical information contained in the FAQ make no promises, representations or warranties of any kind, expressed or implied, as to the accuracy or completeness of content contained in the FAQ and disclaim any liability for damages or injuries resulting from the use or reliance upon the content of FAQ. Professional assistance should be sought with respect to the design, specifications, and construction of each project.