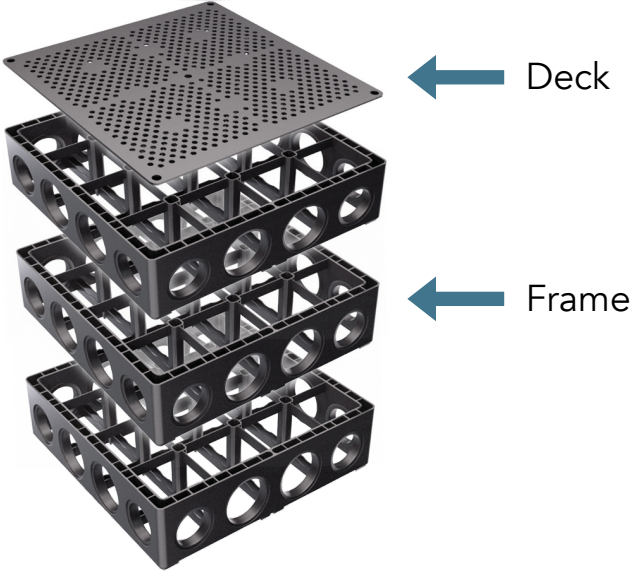




# Marino Cell

## Installation Guide

# Primary Components



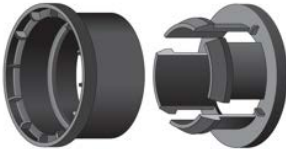
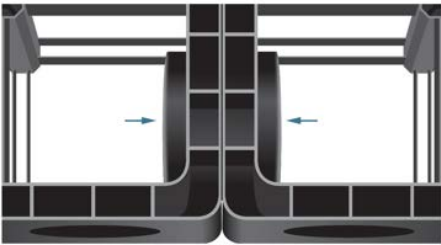
## Accessories

Project-Dependent Use

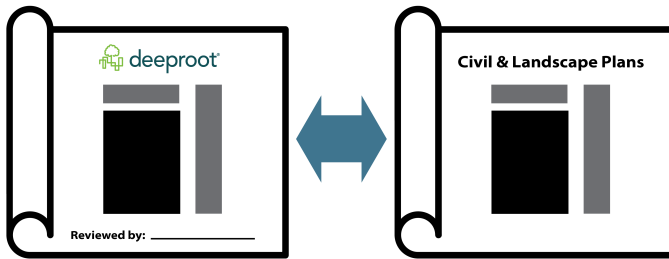
Caps



Connector

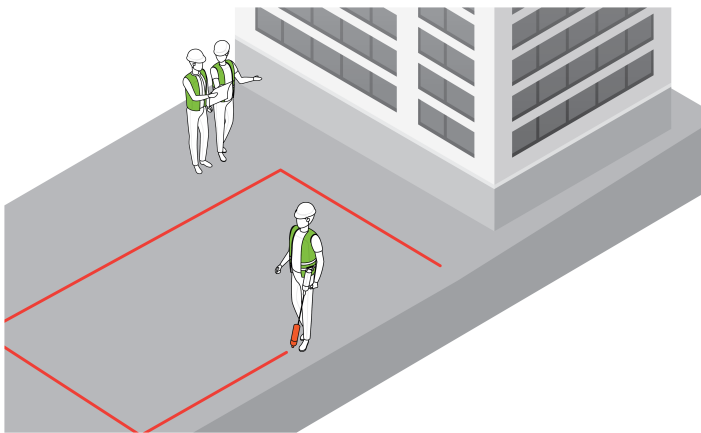


# Step 1



Review DeepRoot Marino Cell shop drawings and the civil and landscape plans to confirm layout dimensions, pipe inlet/outlet locations, and system configuration before beginning installation.

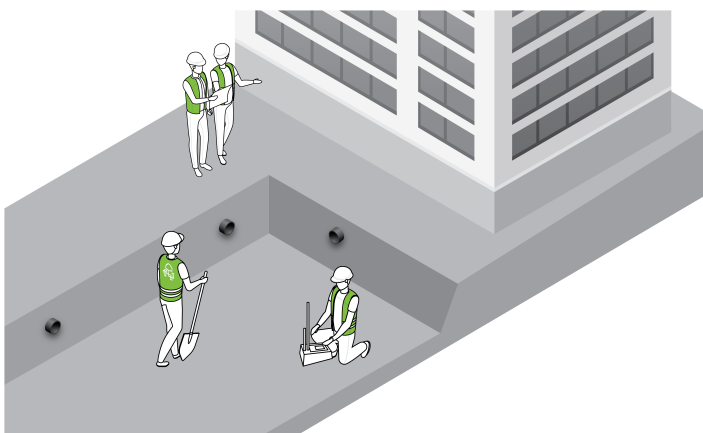
# Step 2



Lay out the Marino Cell system footprint on the ground prior to excavation to ensure all setback requirements are met.

Review for any subsurface conflicts or obstructions.

# Step 3



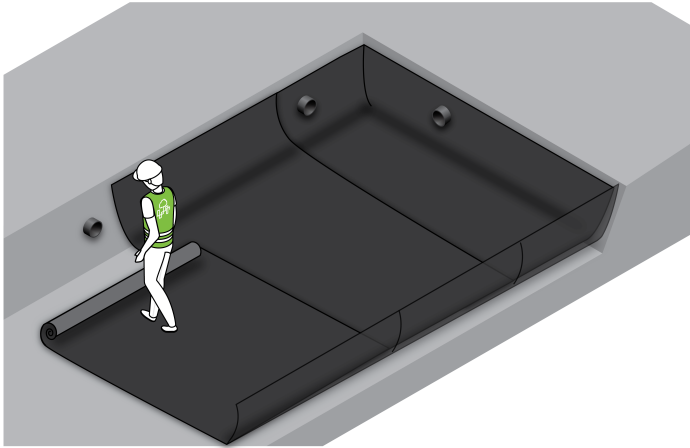
Excavate to the required depth and dimensions.

Consult with a licensed Geotechnical Engineer to ensure the subgrade meets the project's requirements.

Remove any soft spots and replace with material approved by the Geotechnical Engineer.

Ensure the base is stable and level.

## Step 4



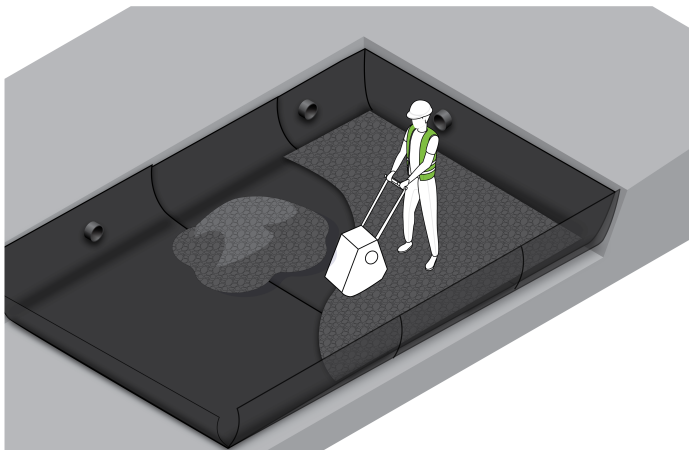
Lay the geotextile on the base of the excavated area and up all sides.

Inspect for damage and ensure all seams are overlapped.

If the project requires an impermeable liner, have a licensed liner installer lay the liner.

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## Step 5

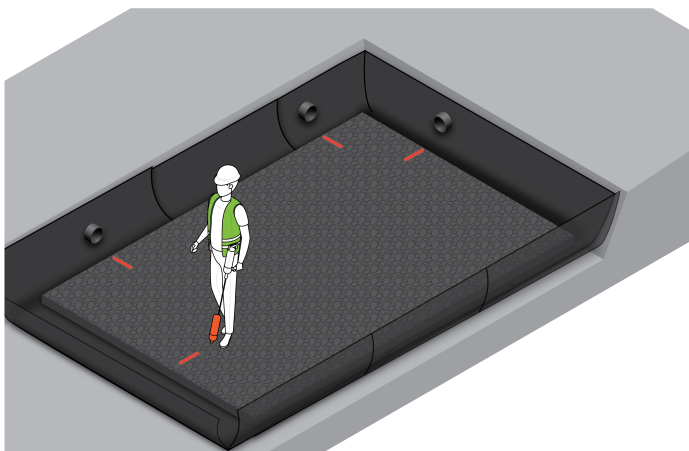


Place the required leveling material per Marino Cell requirements. Compact to achieve a smooth, flat surface.

This step is critical for proper Marino Cell alignment.

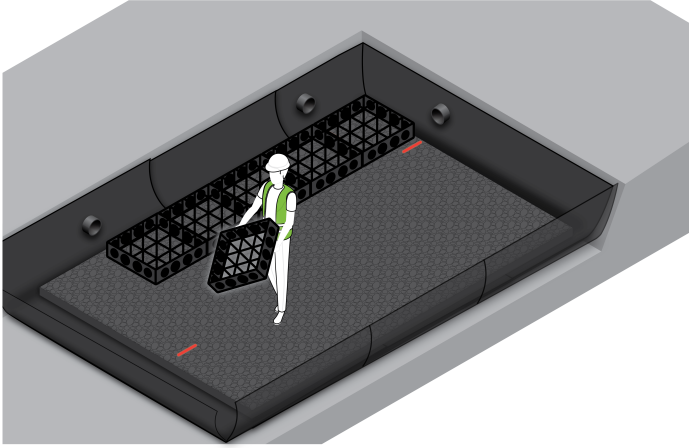
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## Step 6



Mark all inlet/outlet pipe connection locations and install subdrains if required.

## Step 7

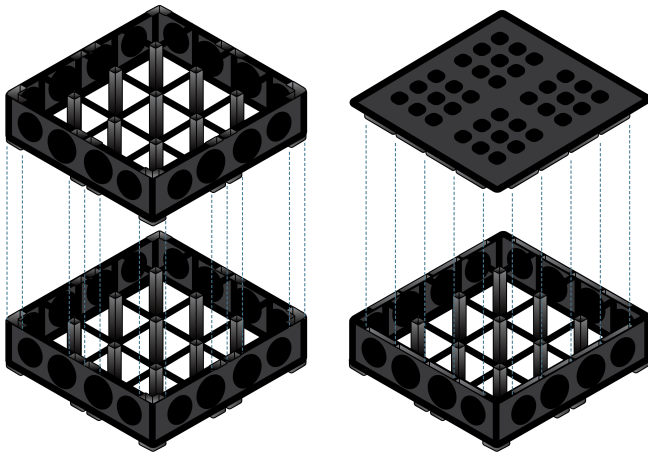


Begin placing Marino Cell units from one corner, following the marked layout.

The Marino Cell has a distinct top and bottom; all four sides are interchangeable.

The bottom has protruding feet, and the top has recessed openings to receive the feet of a stacked layer or the deck.

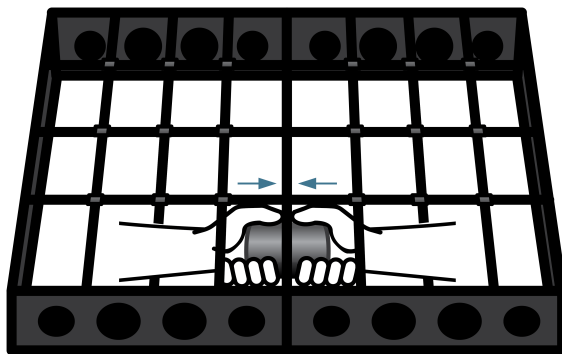
## Step 8



If the design calls for more than one stack, connect the layers vertically by stacking, ensuring the feet are inserted into the receiving opening on the bottom stack.

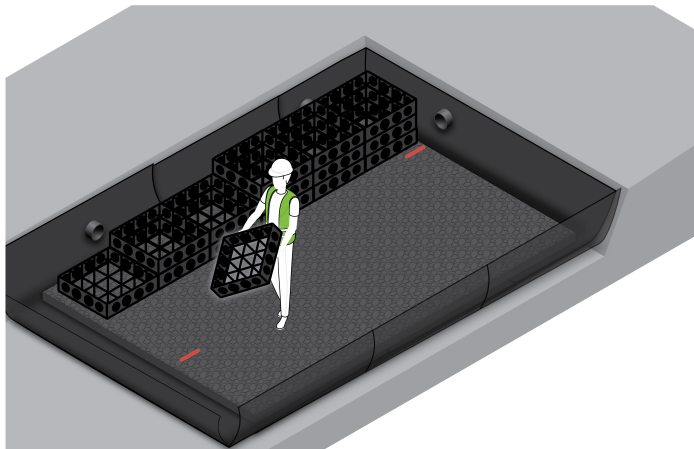
The deck is installed on the uppermost stack only.

## Step 9



If the project requires connectors, place one end of each connector into adjacent Marino Cells and rotate to lock into place.

## Step 10

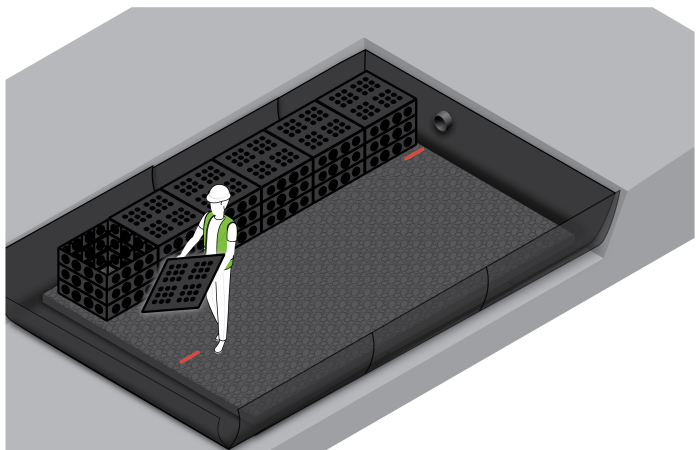


Continue installing cells row by row, building outward from the starting corner.

Connect inlet/outlet pipes to the appropriate openings of the Marino Cell.

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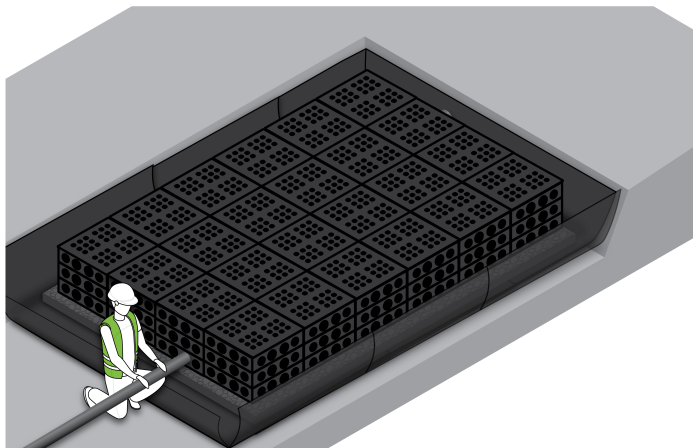
## Step 11



Install the top decks once the desired stack height is reached.

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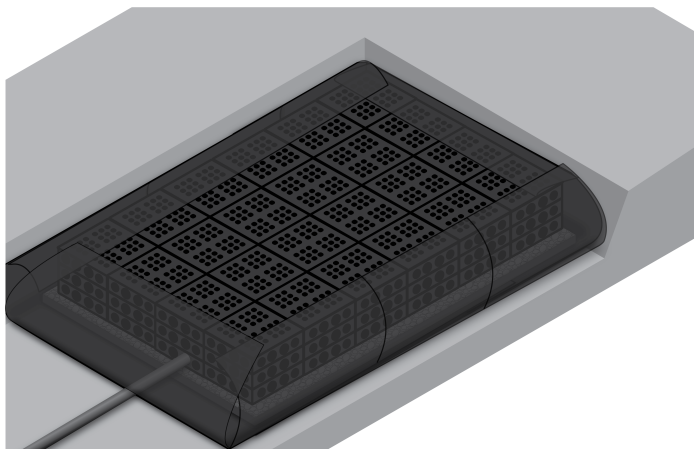
## Step 12



Continue filling the installation area with additional rows until the required footprint is achieved.

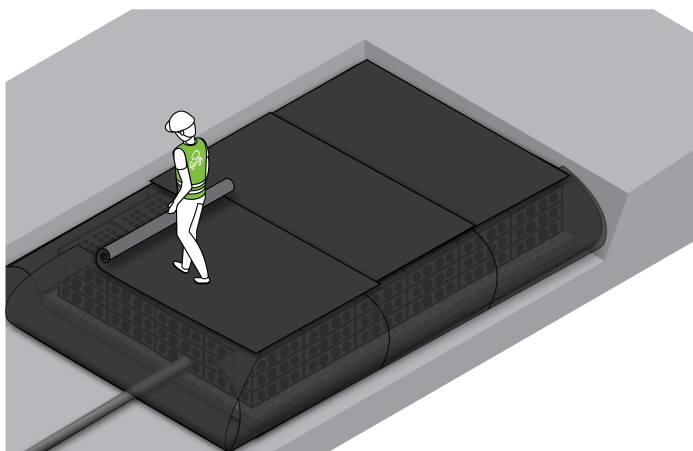
Connect the final outlet pipes required to the system.

## Step 13



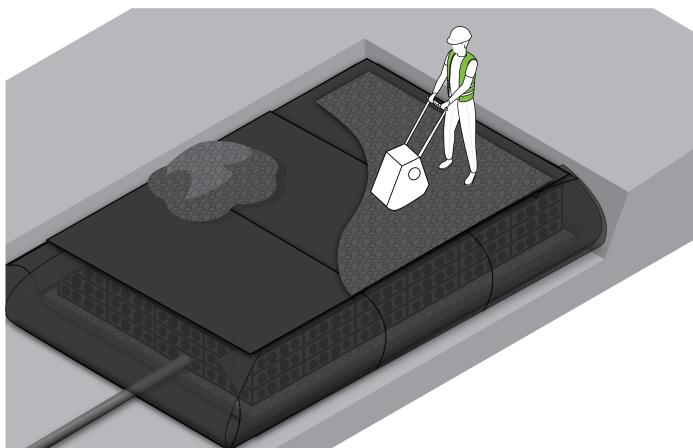
Fold the geotextile up and over the top of the completed Marino Cell system, securing all corners and lapping edges.

## Step 14



Lay a separate geotextile layer over the encapsulated system, ensuring full coverage with specified overlap at joints.

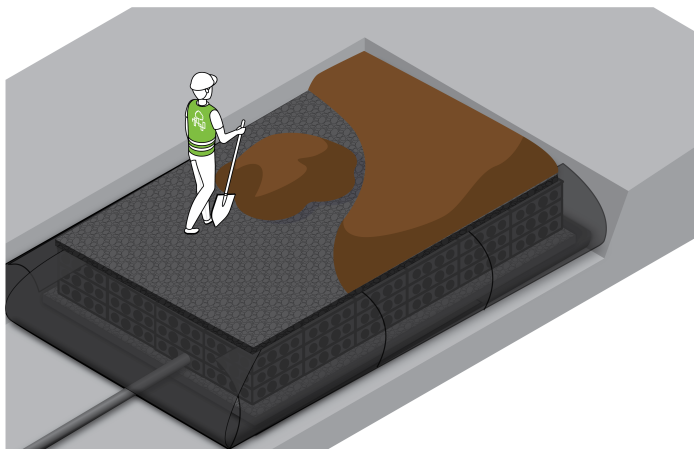
## Step 15



Place and compact the minimum required cover above the Marino Cell system per the technical requirements.

Refer to the Marino Cell cross-sections to determine the minimum requirements for each final cover type.

## Step 16

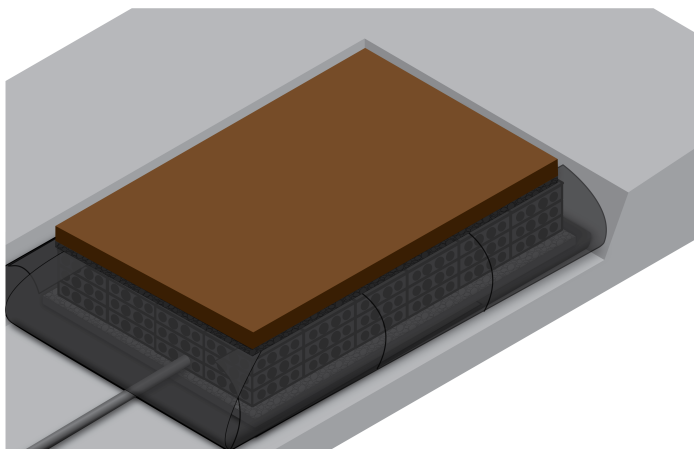


Begin backfilling with approved fill material.

Compact in layers no greater than 12" (300 mm).

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## Step 17



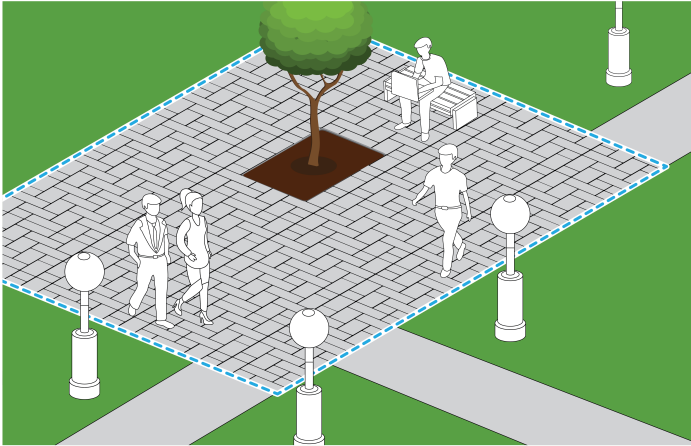
Complete backfilling to the required depth.

Refer to the project cross-sections for minimum cover depth requirements.

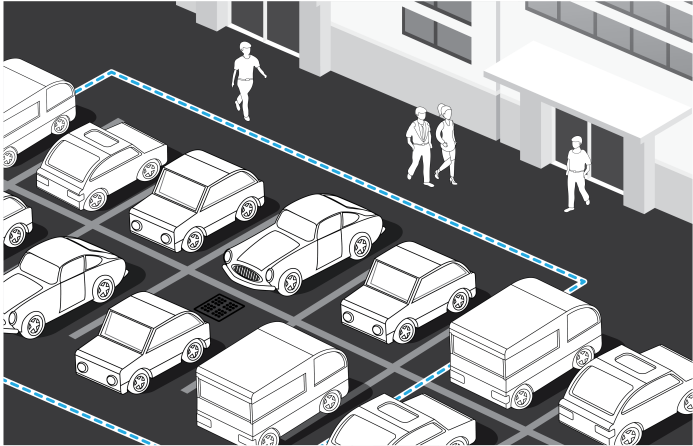
# Step 18

Complete the surface construction per the Civil and Landscape design.

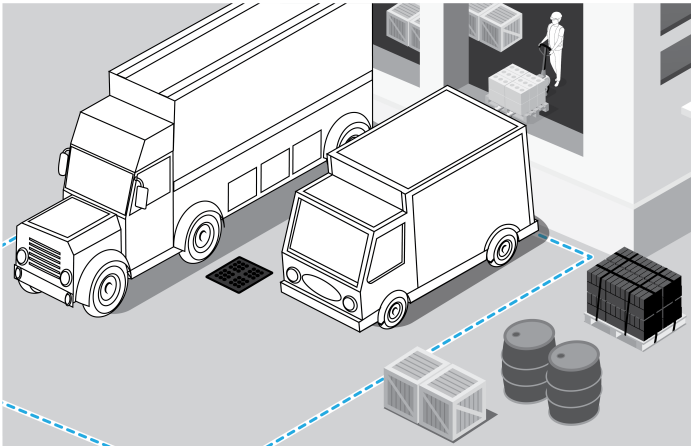
Permeable Pavement



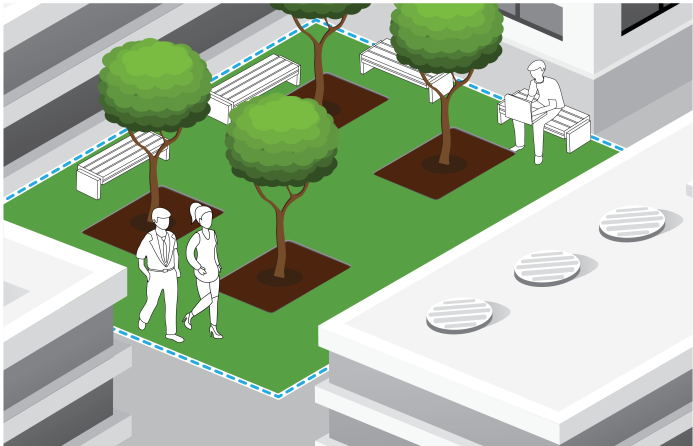
Commercial



Industrial



Courtyard



# Marino Cell Loading

## AASHTO HS-20 Heavy Truck and Commercial Vehicle

Engineered to meet the AASHTO HS-20 to support vehicle loading, including those used for emergency, delivery, and maintenance when used with standard paving profiles below.

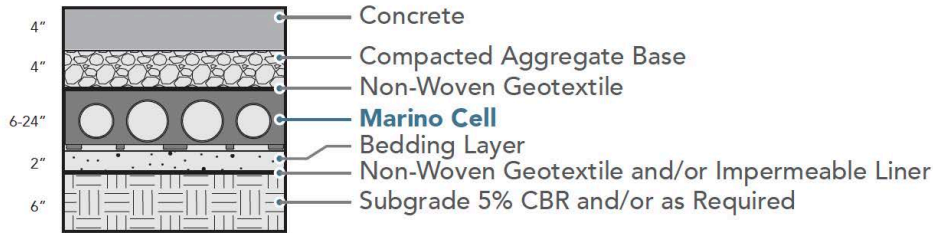
### ASPHALT



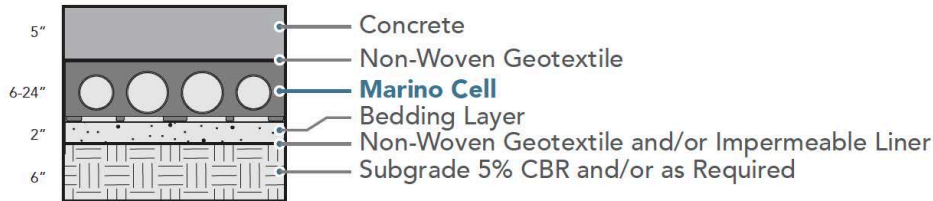
### PAVERS



### CONCRETE



### CONCRETE NO COVER



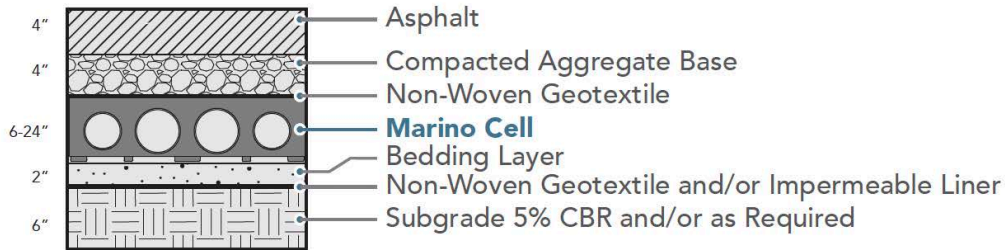
\*for other applications contact DeepRoot for more details

# Marino Cell Loading

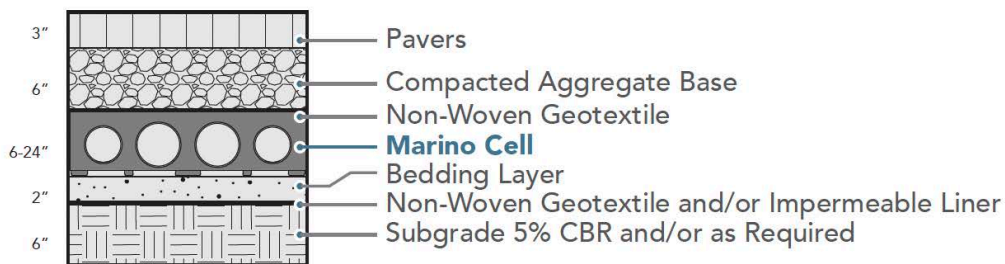
## Pedestrian/Light Truck Usage

Loading standard for supporting lighter vehicle weights and lower traffic volumes typical of driveways, small parking lots, plazas and other areas with no heavy truck access.

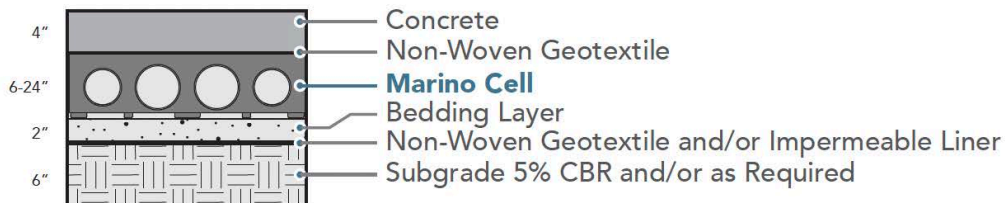
### ASPHALT



### PAVERS



### CONCRETE





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