

Reinforced Walls



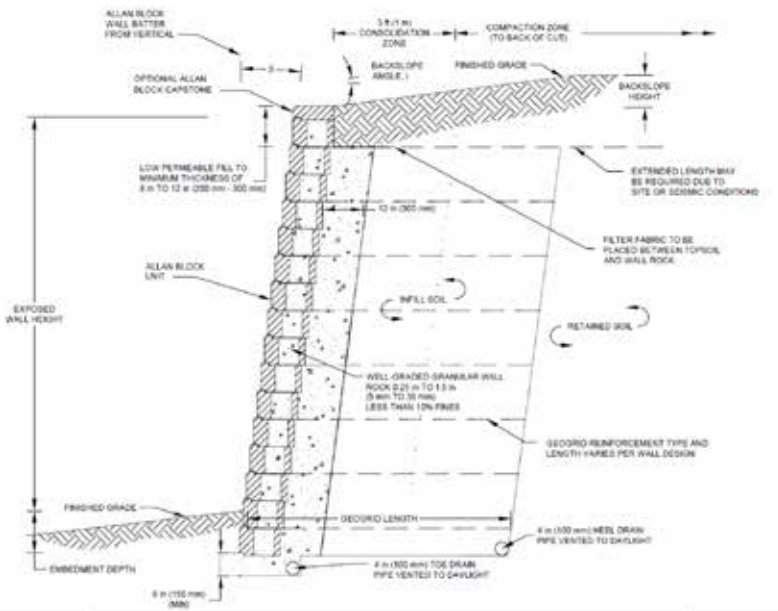
A reinforced retaining wall is needed when the retaining wall height exceeds the ability of a gravity wall. Typically, Geogrid is used to provide the additional strength needed to retain the area needed. Additionally, there are other criteria that must be taken into consideration when designing a reinforced retaining wall and some are listed briefly below.

Design Considerations

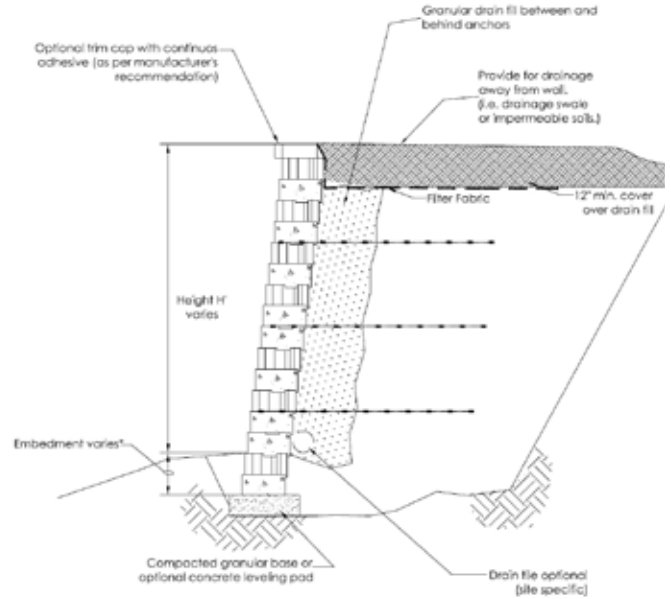
- **Grid strength** Select the right strength grid for the job. Choose LTADS grids from 500 lb/ft to 4000 lb/ft (7.3 kN/m to 58 kN/m)
- **Embedment length** Grid length must extend far enough behind the wall to create a sufficient reinforced gravity mass. Typically a minimum of 60% of total wall height.
- **Number of layers** Install enough layers to adequately increase the internal strength of the soil mass and handle all applied loads.
- **Spacing between layers** Grid layers must be correctly spaced to distribute internal forces. Typically spaced on 16 in (405 mm) centers.
- **Connection strength** Block and geogrid must work together to resist internal forces.
- **Surcharges** Any added weight above the wall is called a “surcharge.” Parking lots, swimming pools and driveways are common surcharges. Surcharges are defined as light or heavier commercial surcharges if there is going to be truck or heavy equipment loads above the wall.



Allan Block - Cross Section



Rockwood Classic 6 - Cross Section



Typical Reinforced Wall Cross Sections

Redi Rock - Cross Section

