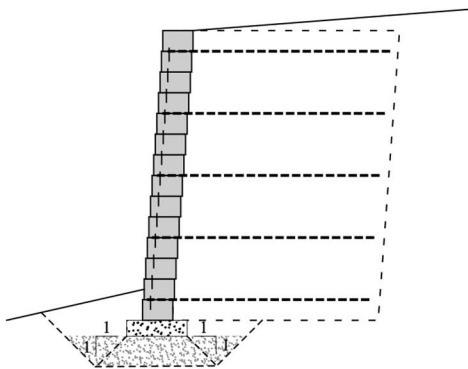


# Foundation Improvements

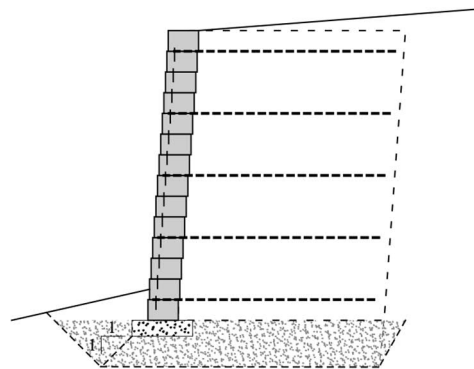
Keystone segmental walls are somewhat flexible and can tolerate movement better than rigid structures thus soil bearing capacity is of lessor concern. However, poor foundation soils can cause excessive wall movement and potential loss of bearing capacity and must be corrected prior to wall construction.

The following diagrams depict typical foundation improvement schemes in increasing complexity. Other methods such as surcharging foundation soils and/or utilizing lightweight backfill and geofom may help reduce pressure and improve foundations. The geotechnical engineer should be consulted for foundation improvement recommendations any time there is a concern.



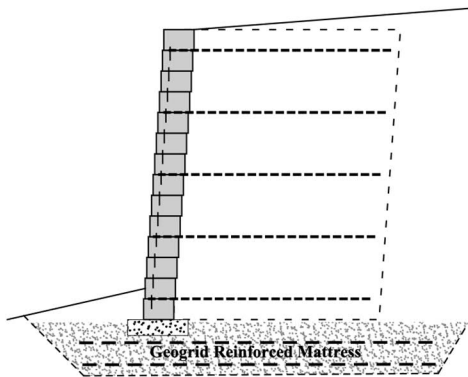
**Local Bearing Capacity**

Remove and replace foundation material as directed by engineer to properly support facing column against local settlement or punching failure similar to a building strip footing



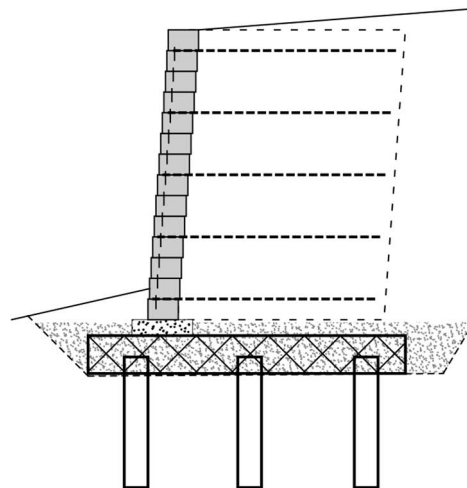
**Gross Bearing Capacity**

Remove and replace foundation material under reinforced zone as directed by engineer to properly support entire reinforced mass and improve overall bearing capacity.



**Gross Bearing or Sloping Toe Instability**

Install reinforced base under wall to increase stiffness of foundation improvement relative to underlying soils and improve global stability.



**Poor Foundation Bearing Capacity**

Install stone columns or geopiers to increase bearing capacity for foundation soils. Install piling and slab to support reinforced wall structure when poor soils or water table does not permit conventional improvements.