

## STRUCTURAL RETAINING WALL

# **KEYSTONE KEYNEX**

Keystone introduces its latest patent pending retaining wall system, called KeyNex. The unique lug connection system is ideal for backyard living projects and smaller commercial retaining walls. Versatile and easy to install, Keystone's landscape wall systems can help you create small to mid-size gravity and reinforced retaining walls.





Keystone® KeyNex - Straight

**Unit Dimensions:** 8"h x 18"w x 10"d

**Unit Weights:** 61 lbs

Pallet Weights: 2,980 lbs

**Units Per Pallet:** 

#### PRODUCT DETAILS

- Made of durable concrete with iron oxide pigments that resist fading in extended UV exposure. Meets or exceeds applicable requirements of ASTM C1372 for compressive strength, absorption and dimensional tolerance.
- Able to build engineered walls up to 12' tall.
- Integral lugs ensure setback and ease of installation.
- Light weight units optimizes shipping

- Unit cores reduce product weight and shipping cost and make it easy to handle.
- Crisp and distinctive, the straight split face effectively showcases contemporary lines and the color within each unit.
- Natural stone texture appearance.
- Cap and corner units available.
- Variety of colors complement any landscape.





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**STEP 1: Layout** - Stake out the wall's placement according to lines and grades on approved plans. Excavate for the leveling pad to the lines and grades shown. Excavate soil to a dimension behind the wall for placement of grid and reinforced soils.

**STEP 2: Leveling Pad** - The leveling pad consists of a crushed aggregate compactible base material. The pad must extend a minimum six (6) inches in front and behind the first course of unit, and be a minimum six (6) inches in depth. Compact the aggregate and check top elevation for level.

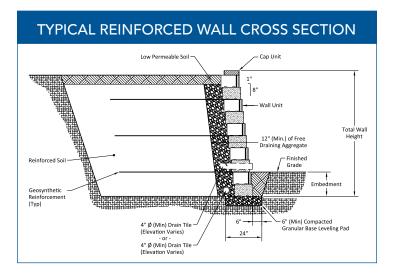
STEP 3: Base Course - Place a string line along the back of the unit to align the wall units. Begin laying unit at the lowest elevation of the wall. Place wall units flat on the leveling pad with facings aligned according to plans. Place the units side-by-side, flush against each other, and in full contact with the leveling pad. Level the unit front-to-back and side-to-side. Check the units for proper horizontal alignment.

STEP 4: Wall Construction - Clean any debris off the top of the units. Place the second course of units on the base course maintaining running bond pattern (do not align vertical joints). Push each unit forward as far as possible to ensure unit-to-unit engagement and the correct setback. Fill all voids between and within concrete wall units with drainage aggregate. Backfill with drainage aggregate directly behind the unit to a depth of 24" from the face of the wall. Fill behind the aggregate with soil meeting design parameters. Place and compact the backfill material before the next course is laid. Hand-operated equipment should be used within three (3) feet of the wall. Avoid driving heavy equipment within three (3) feet of the wall units.

**STEP 5: Drainage** - Place a perforated drain pipe at the base of the drainage aggregate. Daylight or direct the drain to an area lower than the lowest drain elevation in the wall. Additional drainage design may be required.

**STEP 6: Install Fill and Compaction** - Place the drainage aggregate and unit core fill as directed. Place reinforced backfill soil behind the drainage aggregate in maximum 6-8" lifts and compact to a minimum of 95% standard Proctor density with the appropriate compaction equipment.

STEP 7: Geogrid Reinforcement Placement - Check approved wall construction plan for grid placement lengths, elevations and strengths. Measure and cut the reinforcement geogrid to the design length in the plans. The design strength direction of the geogrid shall be laid



perpendicular to the wall. Place the front edge of the geogrid on the designated course a maximum of one (1) inch from the face of the unit. Apply the next course of units to secure it in place. Pull the reinforcement taut and secure in place. A minimum of six (6) inches of backfill over the grid is required prior to vehicular operation.

Repeat steps 4 to 7 as required to reach the top of wall elevation.

**STEP 8: Cap Placement** - Thoroughly clean the top course of wall units. Dry set the caps on the wall units using a string line to obtain the proper horizontal alignment. Cut caps to fit as needed. Adhere the cap units to the wall units with a sufficient amount of an exterior concrete adhesive.

STEP 9: Finish Grade and Surface Drainage - Protect your wall from water damage and erosion with a finished grade to provide positive drainage away from the wall at the top and bottom of the wall structure during construction. To minimize infiltration of water into the top of the backfill area of the wall, place a minimum of eight (8) inches of soil with low permeability (clay or similar materials) over the drainage aggregate and backfill soils.



