Creating beauty, one step at a time...

Proper installation of building stairs requires the same care and thoroughness as the creation of the wall itself. CornerStone’s design features including the hollow core and multi-sized units simplify the process and provide installers with a range of options to create stairs that are striking and unique. This document provides illustrated step-by-step instructions for using StoneLedge to construct stair details.
Step 1: Base leveling pad
- When building steps, exercise the same care used in typical wall construction.
- Prepare the sub-base and base leveling pad by following Gravity CornerStone® Installation Steps 1 to 9.
- Build each step in sequence with each course of the regular wall units for best results of wall to step interlock.

Step 2: Lay first course
- CornerStone® first base units will have the SecureLugs removed before placing on the leveling pad.
- First course of step units will be totally buried.
  - Backfill behind the first course units with gravel, then compact and level flush to the top of the first course.
  - Do not fill the step units' hollow cores with gravel if you plan to use concrete.

Step 3: Lay second course
- Place the second course of units on top of the base units.
  - Place a second row of units back to back behind the second course of units on half bond.
  - Backfill behind the second course of units with gravel, then compact and level flush to the top of the second course.
  - Do not fill the step units' hollow cores with gravel if you plan to use concrete.
>> STEP 4
LAY THIRD COURSE

- Place the third course of units on the lower backward facing units with the SecureLugs placed into the 2 hollow cores of the lower units on half bond.
- Pull the units forward to lock the SecureLugs into the lower backward units.
- The third course units will be in a forward batter approximately 1.5 inch leaving 10.5 inches exposed on the front first step.
- Place a second row of units back to back behind the third course of units on half bond.

>> STEP 5
CONTINUE INSTALLATION

- Continue to install each course of step units following the same steps as above.
- The top and final step does not need backward units.
**Stairs**

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**STEP 6**
**CONCRETE CORE STEPS**

- Concrete filling the cores of all the step units will provide for greater stair stability.
- Concrete core fill flush to the top of the units.
  - Use a steel bar to hand vibrate the cores to insure proper filling.
- Option: Unit cores can be filled with gravel but must be well compacted.

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**STEP 7**
**STAIR TREADS**

- **CornerStone** 12 inch deep cap units can be used as a stair tread.
- Option: Pavers, Patio Slabs or Natural Stone can also be used as a stair tread.

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**Typical Wall Construction**

**Fourth Course**

**Gravel Filled Wall Units**

**Backfill and Compact Behind Units**

**Concrete Core Fill All Step Units**

**Stair Returns Walls Near Vertical**

1.5" Overhang

**Stair Tread Caps**

**Concrete Adhesive**

12" (300mm) Tread

8" (200mm) Riser
## Stairs

### > > > STEP 8
**8” RISER CROSS SECTION**

- The 12 inch cap will overhang the step units by approximately 1.5 inch on each step
- The riser will be a full 8 inches using the above installation
- Properly secure the cap units using a concrete adhesive
- Make sure all units are free of dirt and stones before installing
- Place a bead of adhesive between each joint of the caps

### > > > STEP 9
**LOWER STEP RISERS**

- Lower risers can be made such as 6” or 7” by lowering the buried units 1 to 2 inches below the top of the backward buried unit
- Larger treads can be created by moving the buried units back off the forward step course 3 to 4 inches to create a 15 to 16 inch tread
- A variety of riser heights and tread lengths can be created to suit your project