## — CONVEX RADIUS CURVES —







B1

**B**3

## - CONVEX RADIUS CURVES —

#### Planning the Curve

Straight wall patterns, as shown within, can be maintained through the concave curve, but alteration of these patterns is required when building a convex curve. In planning the convex curve select desired radius and resulting pattern from the chart above. Note that some convex patterns use an unequal number of stones, which may significantly alter block inventory if large or numerous convex curves are built.

#### Building the Convex Radius Curve

Starting near the curve, swith to the appropriate convex pattern as selected above. Convex curves require all wide faces to point frontward; accordingly a convex curve must originate next to a narrow face block in the striaght wall pattern.

#### Building the Concave Radius Curve

To maintain selected straight wall pattern in a concave curve, create gaps between block units at rear of wall when the wide face is oriented frontward and narrow face is oriented toward the soil.

## CORNER INSTALLATION

- **1.** First Course: A1 and B1, shown above, represent the first course of wall. To create a 90 degree corner take the appropriate split corner unit, as shown above, and place it at the beginning of the wall section. Utilize the smooth angled side of the corner unit to snugly fit against the first block of the wall section. The builder is left with a split end block at the beginning of the wall section. Take the other split corner unit and place it against the back of A1, and build section B1 from the corner out.
- 2. Second Course: B2 will stack on top of B1 and overlap the end of A1. The end of A2 will butt against the back of B2. This will begin the "weaving" process of the corner.
- 3. Third Course: A3 will stack on top of A2 and now overlap the end of B2. B3 will butt against the back of A3. The corner is now "weaved".

Repeat the process described above until wall or fence height is reached. For additional corner installation instruction and detail, visit www.westblocksystems.com and click on the Stonewall Sahalee product section.

**Curve Installation:** Utilize the combination shown on the left side of this page to easily produce curves. Deviation from the pattern is acceptable when installing convex curved portions of the wall. It is important to return to your initial pattern when completed with the convex corner.

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Stonewall Sahalee Designer Series product number 97-22-00



# BRINGING BACK THE CLASSIC CHARM OF OLD AMERICAN CRAFTSMANSHIP

n earlier times, talented masons used hammer and chisel to handcraft stones for use in constructing walls and fences. Their L craftsmanship created a unique appearance on every project. Today, we are inspired by the beauty and prestige of these walls, along with the texture, shadow, and light that plays on the various sized and shaped stones. Westblock Systems brings back these earlier times with Stonewall Sahalee, a retaining wall and fence system that allows you to build in the skillful style of Stonemasons, but without the apprenticeship.







WESTBLOCK SYSTEMS®

A Design Series Product from Westblock Systems

Stonewall Sahalee is a building system comprised of three block units, with textured faces, front and back. The stones are traditionally antiqued with a process that highlights and enhances their individual appearance. The units are hand laid and require no specialized tools or skills. Installation is made easy with Stonewall Sahalee's basic construction steps, pre-designed patterns, dry stack construction, and unique pin and trough alignment system. The Stonewall Sahalee system, assembled into a thoughful patterns, make for classic retaining walls, beautiful meandering garden fences and border walls that highlight, seperate and enhance the landscape of your manor.

## INSTALLATION

#### Planning your project

Successful installation begins with proper planning. Site soil, groundwater, horizontal and vertical layout, structural design, wall loadings, observation, testing, and construction assurance are all vital to building a quality wall. If wall is taller than **three feet**, has a steep slope on top or in front, and or will carry vehicle loads **consult an engineer** BEFORE starting your project planning and construction.

### **1.** Leveling Pad

- 1a. *Excavation:* Over excavate footing, fill void with crushed 3/4" minus aggregate. Screed level, then compact aggregate leveling pad to desired grade. Once prepared, add no more than 1" bedding sand to assist leveling first course of stones. In determining the depth of excavation consider the depth of leveling pad and block embedment.
- 1b. Depth of aggregate leveling pad: Walls three feet and under in height require 4" compacted 3/4" minus crushed aggregate. Walls over three feet in height require 6" deep of compacted 3/4" minus crushed aggregate.
- 1c. Block embedment: In addition to the depth of the aggregate leveling pad, a certain depth of block is required to be embedded below the final grade of the soil. Assure a minimum of 4" of block is embedded below final grade, plus an additional 1" of embedment for each foot of wall height above 3 feet.
- 1d. *Drainage:* Select a perforated drainage pipe 4" in diameter and locate it behind first course of block. Channel the collected water to an outlet away from the wall. Wrap the drainage pipe in filter fabric to avoid clogging.

## 2. Stacking the Block

- 2a. Locating your starting point: Once foundation and leveling pad are prepared, place a string line along length of wall face. Start your construction at lowest elevation of wall, and build toward the projects lowest corner, or ideally start in a corner with the projects lowest elevation.
- 2b. Stacking your first course: Select desired wall pattern from enclosed designs. Stack block with troughs down and pin holes up. Start wall construction at the corner by placing front face of Stonewall Sahalee corner unit against string line; build toward the next corner or end of wall. If lowest elevation is not in the corner, build this area up with Stonewall Sahalee units so that the tops of the stones are equal in height with top of corner leveling pad. Verify each block is level side-to-side and front to back. Use a rubber mallet to adjust and set block in the bedding sand. If needed, add additional bedding sand to raise block.
- 2c. Using wall pattern designs: Each Stonewall Sahalee block unit has two usable faces. Make sure that the correct face is placed forward in accordance with the chosen pattern. Miss-located faces will cause discrepancies in pattern style and section length. Stonewall Sahalee patterns are based on 62" lengths. For ease and efficiency in construction, assure that the wall lengths are divisible by 62". When utilizing a corner block add 6" to wall length.

### 2d. Pin placement:

After placing each course of Stonewall Sahalee tap the alignment pins into the appropriate pinholes located on top of units. Stone alignment and wall batter are established when troughs of upper blocks are placed over pins of the lower layer of block. The smaller stone has only one hole, which must receive a pin.

#### 2e. Pin placement guide:

Position 1:Vertical wall, no batter.Position 2:7.3 degree wall batter.

Position 3: Highlighting individual blocks. USE ONLY ON OCCASION to create a forward reveal of a single stone to highlight wall face.

Note: Never build a wall section utilizing a forward batter within the first course or buried courses.

### **3.** Stacking Additional Courses

11.5" D x 6" H x 14" W: Narrow

11.5" D x 6" H x 16" W: Wide

#### **3a.** Placing block:

Ν

W

0

75 Pounds

LARGE

Once first course has been placed, leveled and pinned, stack second course by placing troughs over the pins of the lower course. Follow closely the desired wall pattern. After completing each course, assure the blocks are level side-to-side and front to back.

### **3b.** Backfilling with aggregate and soil:

After stacking two courses of block, backfill behind units with a minimum of 12" of specified aggregate. Creating an aggregate chimney behind the wall allows water to drain to the perforated pipe at base of the wall. Once the aggregate is placed fill behind it with soil, placing the aggregate and soil in 6" vertical lifts.

#### **3c.** Compacting:

After each 6" lift consolidate materials by hand tamping aggregate until firm, and mechanically compacting soil with a vibratory plate or other device. Sweep excess backfill from top of wall and continue to stack additional courses by the guidelines above.

### 3d. Reinforcement:

IF UTILIZING GEOGRID REINFORCEMENT WITH THE STONEWALL SAHALEE BLOCKS FOLLOW THE SPECIFICATIONS AND INSTALLATION STEPS AS OUTLINED BY YOUR ENGINEER. (Walls 3 feet in height or less, typically do not require reenforcement.)

### 4. Finishing the Wall

#### 4a. Capping the wall:

Sweep excess aggregate fill and soil from top course of the Stonewall Sahalee units. Using a concrete adhesive place a front and back line of adhesive on top of units and along length of wall. Assure the units are properly dry before using adhesive. Place cap units vertically aligned, with last course, or with a slight 1" to 2" forward overhang.

#### 4b. Sealing the soil:

It is important to minimize infiltration of water into soil behind wall, especially when geogrid reinforcement is utilized. Soil can be effectively sealed with the use of sod or other continuous groundcover. Properly constructed this process can laminate the soil above and behind the wall, minimizing absorption of water into the soil, and the forces that act against the wall.

11.5" D x 6" H x 10" W: *Narrow* 11.5" D x 6" H x 12" W: *Wide* 

**MEDIUM** 

Ν

55 Pounds

**25 Pounds** 11.5" D x 6" H x 4" W: Narrow 11.5" D x 6" H x 6" W: Wide

**S** SMALL



## WALL PATTERN DESIGNS

*Please refer to installation step 2c for wall pattern description.* The letters N and W, in the diagram below, refer to the Narrow and Wide face of the Stonewall Sahalee unit. For color reference, see chart above.



GARDEN WINDOW



IMPERIAL STAIRCASE



PINWHEEL



MISSION



WESTBLOCK SYSTEMS®