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## **Introduction - How to Use this Guide**

There are 5 distinct products shown in this guide; the Stonewall® II, the 12" Planter Wall, the 16" Planter Wall, the Bastione Wall Stone TM and the Rustic Wall Stone. Using each product will require knowledge of the advantages and limitations of each system.

The Stonewall® II system is designed for use in freestanding walls, bench walls and earth retaining walls. It can be constructed as a gravity wall for heights up to 3 feet tall, assuming level soil at the base of the wall and top of the wall. A qualified professional should be consulted where special loadings or different geometries are used, where heights are greater than 3 feet, or where recommended in this guide.

The 12" and 16" Planter Wall units can be used for low retaining walls, planters, tree rings and lawn edgers. The Planter Wall is limited to 2' high for the 12" Planter Wall and 3' high for the 16" Planter Wall, assuming level soil at the base of the wall and top of the wall.

The Bastione Wall Stone<sup>TM</sup> is remarkably versatile and appealing. It can be used to create columns, seating walls, freestanding walls up to 2', retaining walls up to 2', planters, lawn edgers, bbqs and fire pits.

The Rustic Wall Stone is strictly a decorative unit and not intended for use as a retaining wall. It is used for free standing walls up to 2' and columns up to 3'. It can also be used for barbecues, bar tables, lawn edgers, seating walls, mailboxes and columns.

This manual is an overview of the design and construction methods. The site conditions may vary from the assumptions made in this document. Actual design should always be performed or reviewed by a qualified professional engineer. The design should conform to the local building codes.

## **Before Starting - Tools**

Advance planning, preparation and layout are important to the success of your project. The list below will help in establishing project goals.

- 1. Review all plans and diagrams to confirm the location of property lines, wall locations, wall length and wall height.
- 2. Understand the soils; refer to the soils and engineering reports to verify that the soils used for construction are the same soils required by the engineer designing the wall. Soils with organics, roots, or trash are not suitable backfill materials. Sandy soils or gravelly soils provide good drainage and should be used for wall backfill soils.
- 3. Confirm the location of all underground utilities. You may call Underground Service Alert at 811 or 1-800-422-4133.
- 4. Verify that all necessary and proper building permits are obtained.
- 5. Check all materials delivered to the job site, verifying proper block type and color. If required, confirm that the geosynthetic (geogrid) is from the correct manufacturer, and is the correct strength.
- 6. Be sure to use the correct tools for the job:
  - Hammer-Rubber Mallet
- 4 foot Level
- Torpedo Level
- Shovel
- Vibratory Plate Compactor
- Hand Tamper
- String-Line
- Broom
- Tape Measure
- Caulking Gun
- Layout/Survey Stakes
- Safety Protective Equipment- Ear Plugs, Dust Mask, Protective Boots, Gloves, Glasses/Goggles
  Optional Tools: Circular saw, masonry blade, respirator
- 7. Always wear proper protective equipment and operate the tools as prescribed by the manufacturer.

## **Retaining Wall Basics**

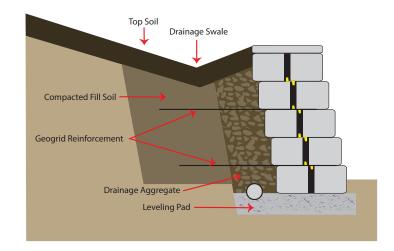
Segmental Retaining Walls are classified in two ways: Conventional or Gravity, and Soil Reinforced.

#### **Conventional or Gravity Walls**

A conventional or gravity wall does not require soil reinforcement; rather it relies on the weight of the block, batter, setback and proper soils to resist the earth pressure applied. The primary advantage of a gravity wall is that the wall structure is narrow, allowing minimal excavation. The maximum height of a gravity wall is generally 2 to 3 times the block depth (length from front to back). Taller walls, should be designed by a qualified professional engineer and will require reinforcement as shown below.

#### Soil Reinforced Walls

A soil reinforced, or mechanically stabilized embankment (MSE) wall is a durable and cost-effective method of constructing taller walls. Soil reinforced walls typically require increased work area behind the wall, have soils capable of performing properly with reinforcement, and are designed by a qualified professional engineer. A soil reinforced wall stabilizes the block face with the soil mass behind the block by integrating layers of geosynthetic reinforcement. The layers of reinforcement connect to the block faces and extend horizontally into the soil; the large stabilized soil mass created is referred to as the reinforced zone. The greater the reinforced soil mass, the larger or taller the soil embankment that can be retained or held back. The minimum length of soil reinforcement is 60% of the wall height, and may be larger with sloping backfills, toe slopes below the wall, or poor soil conditions.





## **StoneWall® II - Features and Benefits**

The StoneWall® II Retaining Wall system provides ease in creating elegant, naturally beautiful, and durable walls reminiscent of handcrafted stone walls. With a product and system capable of a variety of design and build options, it is possible to create a backyard retreat that will be the envy of the neighborhood.

StoneWall® II is shipped in quantities of 17 and 33 square feet of wall face per pallet. The designs shown within were created to efficiently utilize the units in creating planter units, curved and concave retaining walls, freestanding walls, seat walls, fire pits, barbecues and columns. Contact the landscape sales professional at your local Angelus Block distributor to calculate the number of pallets of wall and caps you will need for your project, or visit our website at www.angeluspavingstones.com

#### **Square Sided**

Units are textured on all four sides. They should be stacked adjacent each other and are used separately for corners and columns.



12w x 10.5d x 6h 6 Per Pallet (52 lbs. Per Unit)



9w x 10.5d x 6h 12 Per Pallet (40 lbs. Per Unit)





6w x 10.5d x 6h 12 Per Pallet (27 lbs. Per Unit)



#### Transition

Units are textured on faces only. Stack them between the Trapezoid and Square Sided units.



9/10w x 10.5d x 6h 12 Per Pallet (42 lbs. Per Unit)

D

Caps

#### **Trapezoid**

Units are textured on faces only. They should be stacked adjacent each other and are used as the primary wall units.



4/6w x 10.5d x 6h 12 Per Pallet (30 lbs. Per Unit)





10/12w x 10.5d x 6h 12 Per Pallet (51 lbs. Per Unit)

F



14/16w x 10.5d x 6h 12 Per Pallet (69 lbs. Per Unit)

G



12.5w x 12.5d x 3h 18 Per Pallet (37 lbs. Per Unit)





5/7w x 12.5d x 3h 18 Per Pallet (17 lbs. Per Unit)



Stack caps in sequence, reverse faces and abut sidewalls.



9/10w x 12.5d x 3h 36 Per Pallet (28 lbs. Per Unit)

.1

## **StoneWall® II Installation instructions**

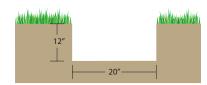
Successful installation begins with proper site evaluation and planning. Site soil, groundwater, horizontal/vertical layout, structural design, wall loadings, observation, testing, and construction assurance are all vital to a successful wall project. If your wall is taller than three feet, has a steep slope on top or in front, will support heavy foot traffic or vehicle loads then consult a professional engineer before installation as part of project planning.

#### 1. Lay out the wall

• Verify placement of the wall with the homeowner or project superintendent and when necessary utilize a qualified surveyor.

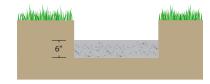
#### 2. Excavation

- Excavate a trench for the leveling pad to the lines and grades shown on the approved plans.
- Ensure trench is at least 12 inches wider than the depth of the block and 6 inches deeper than the height of the block.
- If the grade along the wall changes elevation, then step the trench up in equal block height increments to match the change of grade. Always start at the lowest point and work upwards. (See stonewall stepped footing. Page 11)



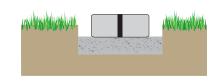
#### 3. Leveling Pad

- Place a 3/4" minus crushed aggregate into the excavated trench; assure the aggregate is at least 6" deep, and extends a minimum of 6" beyond both the front and back of the block.
- After placing the aggregate into the excavated trench, level the material and compact with at least 3 passes of vibratory compaction equipment.



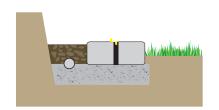
#### 4. Base Course

- The first course is buried below grade and is the most important course in the wall.
- Place a level string line along the length of the wall at the front and back top edge of the desired location of the blocks. Assure that the string is level and at the desired height of the first course of blocks.
- Begin installing the units at the lowest point in the wall. Work upwards by placing the StoneWall® II blocks side by side and in full contact with the leveling pad.
- As the blocks are installed, use a torpedo level to ensure that the blocks are level front to back and side to side. Utilize a 4 foot level to assure that a group of blocks are level side to side.



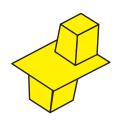
#### 5. Wall Drainage

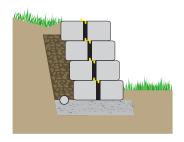
- After stacking the base course, place a 4 inch (or larger) perforated drainpipe directly behind the wall. Place the pipe so it drains to an area outside of the wall that is located at lowest side or face of the wall. Confirm that water in the pipe empties into a storm drain or to a collection area below the base of the wall.
- On long walls ensure that the drainpipe extends through the face of the wall every 50 feet and at both ends of the wall.



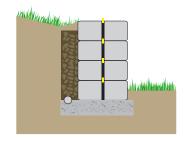
#### 6. Placing the 3 Way Alignment Plug (3WAP)

• After stacking each course of StoneWall® II place a 3WAP into the center core of every block (the 4/6 unit is the only unit that does not receive a 3WAP). Be sure the "Top" label on the plug points up and that the flange of the plug rests within the recess that surrounds the center core of the blocks. Wall batter is established by the orientation of the 3WAP within the center core.

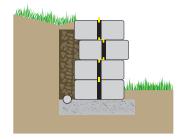




**Set Back 1/2"** per course: Place the upper plug body toward the back of the block



Vertical: Center the upper plug body over the core



**Reveal 1/2":** Place the upper plug body toward the front face of the block. Use Reveal only occasionally to highlight an individual unit

### 7. Stacking the Wall and Compacting Soil

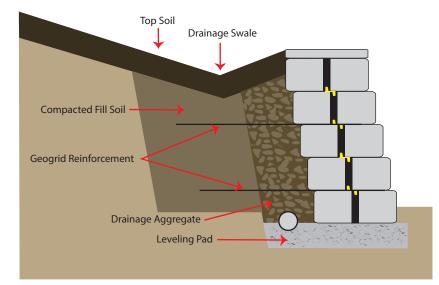
- Once the base course, the 3WAP's and the drainage pipe have been installed, place a clean and angular unit fill (3/4" aggregate) between the blocks and 12 inches behind them.
- Place native soil as backfill behind the unit fill and compact the soil in 6 inch lifts.
- When constructing and compacting the wall, ensure that heavy equipment remains at least 3 feet away from the back of the wall.
- After the soil backfill is compacted sweep all debris from the top of the blocks and place the 3WAP's into the center cores of the block.
- Place the next course of block onto the course below and over the 3WAP's.
- Maintain a running bond pattern; avoid placing blocks in a "stack bond" pattern which will create a structurally weak wall.
- Pull each block forward to engage the 3WAP's and to ensure proper setback, and confirm the blocks are level side to side and front to back.
- Repeat these construction steps up to the top of the wall.

#### 8. Geogrid Reinforcement Installation

If utilizing geogrid reinforcement with the Stonewall® II Blocks follow the specifications and installation steps as outlined by a professional engineer.

Geogrid reinforcement is required when wall heights are greater than what a gravity wall can attain. Consult a qualified professional engineer for an approved design when geogrid reinforcement is required. The final approved design must be followed exactly by the installation contractor; any changes in the installation must be reviewed and authorized by the engineer prior to construction.

- Before starting the project, acquire a set of approved construction plans. Ensure that the plans are complete and the design conforms to the local building codes. Contact the design engineer for any clarification before construction.
- Review the plans, evaluate the placement of geogrid layers, and be sure the lengths and strengths of the geogrid match the specified design.
- Cut the geogrid to length as noted on the plans.
- Ensure that the specified strength direction of the geogrid is oriented correctly and is perpendicular to the wall.
- Sweep the top of the blocks of any debris, set the geogrid 1" from the face of the block, placing it over the 3WAP alignment plugs. Do not overlap the geogrid courses.
- Pull the geogrid towards the back of the reinforced soil zone until it is taut; secure it with stakes, staples, or U-nails.
- Install the next course of blocks, pulling blocks forward to engage the 3WAP and securing the geogrid reinforcement between the two courses of block.
- Place the unit fill between the blocks and 12 inches behind them.
- Place the native soil backfill in 6" vertical lifts, confirming that the material is placed to the end of the reinforced zone.
- $\bullet$  Compact the backfill material to 95% standard proctor.
- Keep heavy equipment 3 feet away from the face of the block; do not drive on the geogrid until a minimum of 6 inches of material has been placed over it.
- Avoid turning vehicles wheels directly upon the geogrid as sudden braking and sharp turns will move and or damage the geogrid. Consult geogrid reinforcement manufacturer recommendations for any additional information.

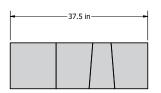


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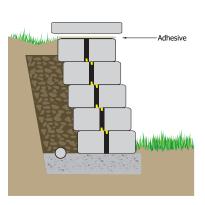
#### 9. Capping the StoneWall® II

There are three Stonewall® II cap shapes - Square, Transition and Trapezoid. The square can be used in conjunction with the trapezoid and transition or separately on columns. The trapezoid and transition are used to form straight walls or can be used on convex and concave walls.





- Always cap a wall by starting from the lowest point.
- Sweep all debris from the top course of the StoneWall® II units.
- Lay out all the caps onto the wall prior to adhering them to the blocks.
- Place the caps either vertically aligned with the wall face, or with a slight 1"-2" overhang, creating a shadow effect.
- Make sure the blocks are completely dry and free of loose dirt. Place a bead of
  concrete construction adhesive onto the top course of block at the front and back of
  the block and along the entire length of the wall.
- Place the caps onto the adhesive and into the desired position



#### 10. Final Grade

- It is important to minimize the infiltration of water into the backfill soil located behind the wall, especially when geogrid reinforcement is utilized.
- The reinforced zone and backfill should be capped with a low permeable material. Properly constructed, this process will minimize the infiltration of water into the wall zone.
- Slope the soil away from the wall face and reinforced zone, directing it towards the end of the wall.

#### 11. Finishing the Project

- Sweep the top of the caps and clean up the construction area of debris.
- Notify the project superintendent or homeowner that the project is ready for final inspection.

#### **Special Applications**

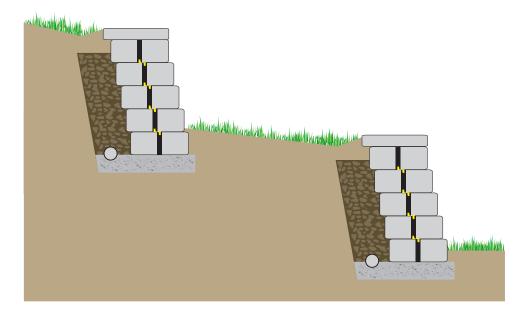
#### **Parapets**

- A Parapet is a wall section rising above grade and stacked upon the retaining wall.
- A Parapet is constructed by continuing the block courses above grade rather than terminating at the top of the retaining wall with a cap block.
- Parapet heights are typically 27", (4 courses plus a cap.)
- Parapets serve as a barrier or bench.
- Once the desired height of the Parapet is reached, place a cap onto the top course.

#### Terraced StoneWall® II Installation

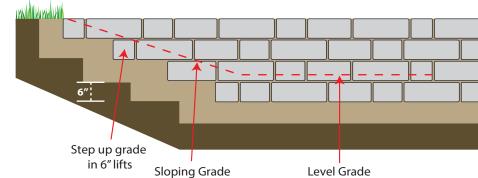
Independent Terraced Walls - When an upper wall does not place a surcharge load onto a lower wall, the walls are considered to be independent terraced walls. For walls to be independent of each other they must be built with a setback to height ratio of 2H:1V or greater. This means the upper wall must be located behind the lower wall by a minimum distance of twice the height of the lower wall. For proper drainage, it is important that the upper wall's drain pipe does not outlet onto the lower wall.

Dependent Terraced Walls - When the upper wall does place a surcharge on the lower wall, the front and back walls are "dependent terraced walls." For walls to be dependent upon each other they must be built with a setback to height ratio less than 2H:1V. This means that the upper wall is located behind the lower wall by a distance less than twice the height of the lower wall. In this case it is important to seek out the help of a qualified professional engineer so that a detailed engineering analysis includes a global stability analysis.



#### StoneWall® II Stepped Footing

To create a stepped footing, begin at the lowest elevation and build steps in the leveling pad matching the 6" height of the Stonewall® II units. Make sure that there is a minimum of one unit of base course buried below grade. Whether you use crushed base material or a concrete base, it is important to make sure that the level of the steps in the footing match the height of the Stonewall® II units



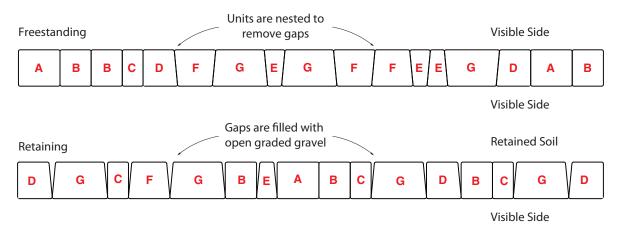
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10 Sioping Grade Level Grade

## StoneWall® II Details and Diagrams

#### StoneWall® II Freestanding vs. Retaining

• Determine if you will be building a freestanding wall (visible on both sides) or a retaining wall (visible on just 1 side). Building a freestanding wall will net in less square footage from the pallet due to units being nested.



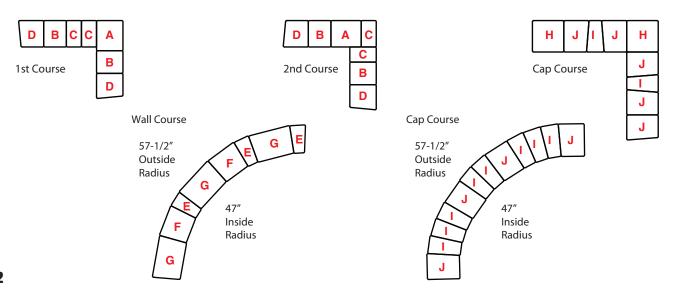
NOTE: Diagram shown is for demonstration of nested units vs. gapped units and is not an exact pattern.

#### StoneWall® II Freestanding vs. Retaining

• Determine if you will be building a square or radius corner. It is best to remove the units required to build your option from the pallet and set them aside until needed.

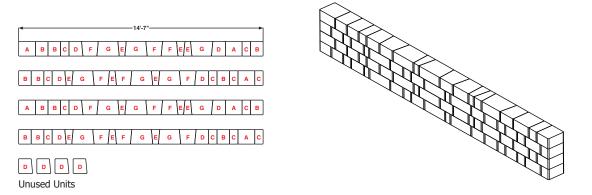
NOTE: Because the Stonewall® II units are shipped mixed on a pallet, utilizing limited shapes may result in leftover/unused units.

- When building a square or radius corner it is best to have the 3WAP in the vertical position. If using the setback position keep in mind each additional course will decrease the corner or radius by 1/2" and may require cutting/grinding of units to accommodate the smaller dimension.
- Building a square corner uses the A, B, & C units. The use of the D unit is necessary when building a freestanding wall to continue nesting units together as the wall continues from the corner.
- Building a radius with the E, F & G units will construct an approximate 47" inside radius, a 57 ½" outside radius and makes a 90 degree turn. This is the best option for a freestanding wall as the units will nest together. Other radii can be achieved but may require cutting/grinding of units or might utilize too many of any one or more units.
- Capping options shown allow for minimal cutting/grinding of units in both the square and radius corner.



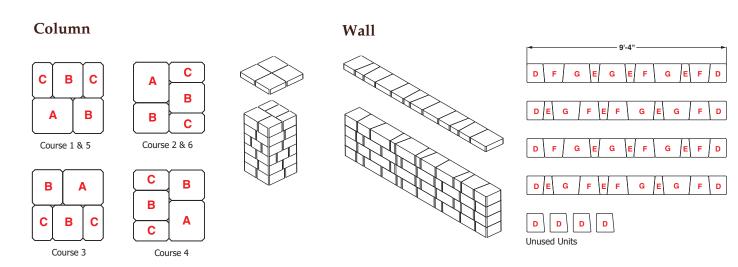
#### StoneWall<sup>®</sup> II Freestanding and Column Walls

• Building a 2' tall freestanding wall panel with 1 pallet of material will result in a 175" long wall and will have leftover/unused units.



- Columns can be built with Stonewall® II units and like the square corner they use the A, B, and C units only to build a 21" square column. A full pallet of Stonewall® II has the correct amount of A, B, and C units to build a 3' tall column.
- Capping the column can be done using four H cap units or can be done with a precast cap or natural stone (Precast and/or Natural stone are not available from Angelus).

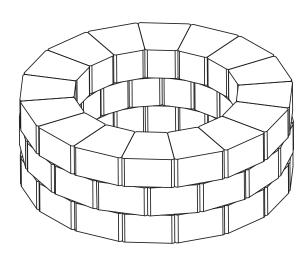
NOTE: The remaining wall units can be used to build a 2′ tall wall that is approximately 108″ long and will have leftover/unused units. Remaining cap units from a ½ pallet will cap this wall with leftover/unused cap units.



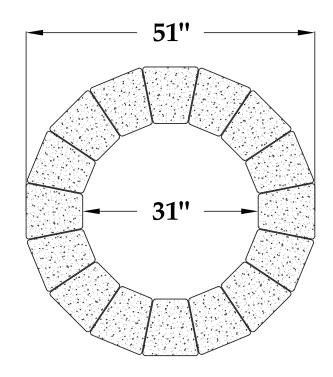


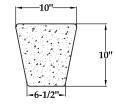
#### StoneWall® II Fire Ring

- Sold as a package of 48 pieces per pallet.
- Fire Ring will be 18" in height which is three courses. 16 units complete one course.
- Fire ring will have approx. 31" inside diameter an approx. 51" outside diameter.



A 31" Diameter Steel Ring is sold separately for use when planning to burn wood.





#### StoneWall® II Standard Barbecue / L-Shaped Barbecue

Stonewall® II can also be used to easily build barbecues. The large block size creates a stable structure for the barbecue and countertop and the textured finish gives it a warm, natural appeal. Combined, those two elements make for a fast, attractive barbecue installation and an outdoor entertainment area that will last for years.

- Create a level surface as shown on page 7. Stonewall® II barbecue islands can also be installed over existing concrete or pavers provided the surface is level.
- The barbecue islands shown in the drawings on pages 16-17, can store a standard sized Propane gas bottle behind the access door. Another option is to install a natural gas line using proper permits and installation methods. A third option is to purchase a charcoal burning barbecue.
- Many barbecue manufacturers recommend vents be provided in barbecue islands for optimum performance. The small spaces that naturally occur between the Stonewall blocks are sufficient for proper airflow, so vents should not be necessary.
- The drawings on pages 16-17 show rough openings to fit a specific model barbecue and door (Fire Magic Aurora model A540i with a side door that fits a rough opening 30" wide by 15" high) without making any cuts of the Stonewall® II blocks. If you select a barbecue model with different dimensions, it will be necessary to use a concrete saw with a masonry blade and proper safety equipment to cut the blocks to the right size at the rough openings. Flanges on the barbecue and door assembly will cover the cut edge.
- Layout the Stonewall® II units precisely as indicated on pages 16-17 (using the letter legend on page 6) to make sure that the right size unit is placed in the exact position shown. Failure to do this will mean having to make cuts to make the units fit together properly. It is recommended that the blocks be dry stacked to make sure the layout is correct and that the barbecue unit and door fit properly, then disassembled and re-installed using concrete adhesive to permanently bond the blocks in place.
- The drawings on pages 16-17 indicate you should use the same countertop material at the base of the barbecue model (just above the fourth course of Stonewall® II) as well as around the working area of the barbecue. The countertop material can be any non-combustible material of your choosing and is not provided by Angelus Paving Stones.





#### StoneWall® II Standard Barbecue

#### Material used:

- 1 1/2 pallets of Stonewall II block
- 4 pieces of Stonewall Cap

Concrete adhesive (approximately eight 10.2oz tubes)

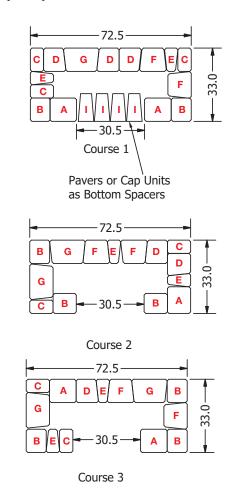
Framing material (steel studs) to support the blocks

over the access door (not provided)

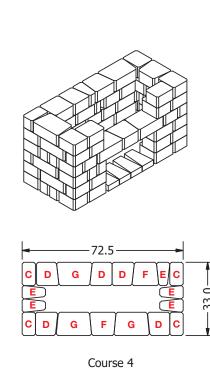
Barbecue unit (not provided)

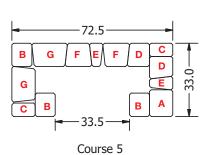
Barbecue door (not provided)

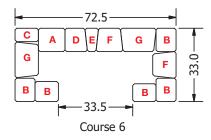
Countertop (not provided)













#### StoneWall® II L-Shaped Barbecue

#### Material used:

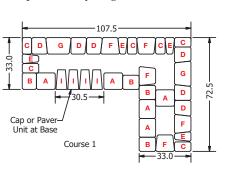
- 3 pallets of Stonewall II block
- 4 pieces of Stonewall Cap

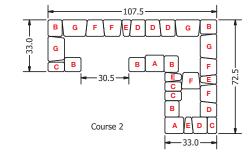
Concrete adhesive (approximately fourteen 10.2oz tubes) Framing material (steel studs) to support the blocks over the access door (not provided)

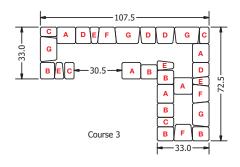
Barbecue unit (not provided by Angelus)

Barbecue door (not provided by Angelus)

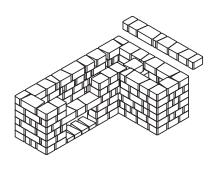
Countertop (not provided by Angelus)

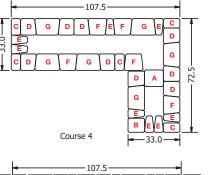


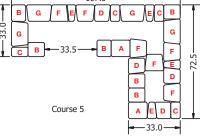


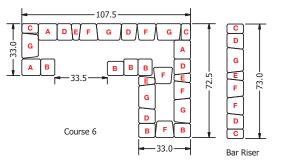














## **Angelus Rustic Wall Stone**



- Unit dimensions: 8" W x 4" H x 12" L
- Each Rustic Wall Stone unit weighs 28 lbs making it fast and easy to install by yourself.
- The unit appears the same from any side. The uniform appearance means that it has many potential applications.

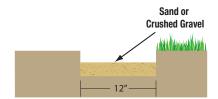
Use this guide for estimating the number of Angelus Rustic Wall Stone required.

	WALL LENGTH					
WALL HEIGHT*	10'	25'	40'	50'	100'	200
1'	40	100	160	200	400	800
2'	70	175	280	350	700	1400

#### **Installation Steps**

#### 1. Prepare the Site

For freestanding walls up to a maximum 2' high, dig a shallow trench 8" deep and 16" wide. Compact and level the soil in the trench. Installing a geotextile fabric between the soil and the base rock can help prevent the soil from migrating into the base. Add 4" of crushed rock for the base. Then compact and level the base.

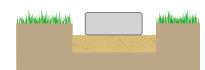


Dase	cou	ise sin	Julu	De	ieve	1	willi	1111	ISII
Using	gas	stringli	ne al	long	the	fr	ont	of the	he
keep	the	units	runr	ning	in	a	strai	ght	lir

2. Set the Base Course

should be level front to back and side to side. The base course should be level with finished grade. units can ine during installation. Check to make sure the base course is straight and level before laying additional courses.

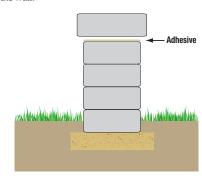
Place and level all units in the base course. Units



#### 3. Additional Courses & Caps

Lay the next course of block in a running bond. Use a concrete adhesive to glue the units together. Lay each course completely before proceeding to the next course. Half block will need to be cut every other course at the ends of the wall to maintain the running bond. Block can be cut with a masonry saw or with a chisel and hammer.

Caps: You can use Rustic Wall Stones laid perpendicular to the wall to finish the wall. Apply concrete adhesive to secure the units to the rest of the wall.



Rustic Wall Stone are decorative units and not meant for structural applications. Maximum height for free standing walls is 2'. Properly constructed columns may go up to 3' from the base. It is the installer's responsibility to determine the suitability of the product for the intended use.

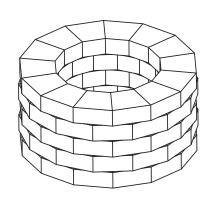


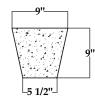
# **Angelus Rustic Wall Stone Details and Diagrams**

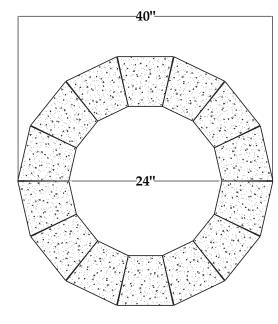
#### **Rustic Wall Stone Fire Ring**

#### Material used:

- 70 Rustic Wall Stone Pieces
- Fire Ring will be 20" high which is five courses. 14 units complete one course.
- Fire ring will have approx. 24" inside diameter and an approx. 40" outside diameter.







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A 24" Diameter Steel Ring is sold separately for use when planning to burn wood.

#### Angelus Rustic Wall Stone Standard Barbecue / L-Shape Barbecue

Rustic Wall Stone can also be used to easily build barbecues. The large block size creates a stable structure for the barbecue and countertop and the textured finish gives it a warm, natural appeal.

- The barbecue islands shown in the drawings on pages 20-21, can store a standard sized Propane gas bottle behind the access door. Another option is to install a natural gas line using proper permits and installation methods. A third option is to purchase a charcoal burning barbecue.
- Many barbecue manufacturers recommend vents be provided in barbecue islands for optimum performance. The small spaces that naturally occur between the Rustic Stone Wall blocks are sufficient for proper airflow, so vents should not be necessary.
- The drawings on pages 20-21 show rough openings to fit a specific model barbecue and door (Fire Magic Aurora model A540i with a side door that fits a rough opening 16" wide by 24" high). If you select a barbecue model with different dimensions, it will be necessary to make adjustments to the rough openings. The drawings show some units that are field cut to the fit the rough openings. Use a concrete saw with a masonry blade and proper safety equipment to cut the blocks to the right size at the rough openings. Flanges on the barbecue and door assembly will cover the cut edge. It will be necessary to use steel studs or a steel bar to support the blocks over the access door.
- It is recommended that the blocks be dry stacked to make sure the layout is correct and that the barbecue unit and door fit properly, then disassembled and re-installed using concrete adhesive to permanently bond the units in place. Two parallel 1/4" beads of adhesive are recommended on every course.
- The drawings indicate that you should use the same countertop material at the base of the barbecue model (just above the 6th course of Rustic Wall Stone) as well as around the working area of the barbecue. The countertop material can be any non-combustible material of your choosing and is not provided by Angelus Paving Stones.

#### Rustic Wall Stone Standard Barbecue

#### Material used:

120 - Rustic Wall Stone

Concrete adhesive (approximately ten tubes using two

1/4" beads of glue per course)

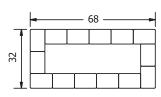
Framing material (steel studs) to support the blocks

over the access door (not provided)

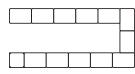
Barbecue unit (not provided)

Barbecue door (not provided)

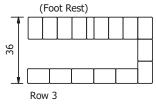
Countertop (not provided)

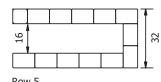


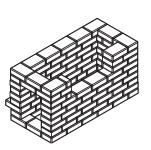
Row 1

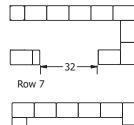


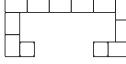
Row 2, 4, 6



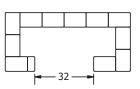




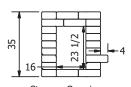




Row 8



Row 9



32 Grill Opening

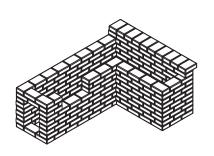


### Rustic Wall Stone L-Shaped Barbecue with Optional Bar Riser

#### Material used:

Countertop (not provided)

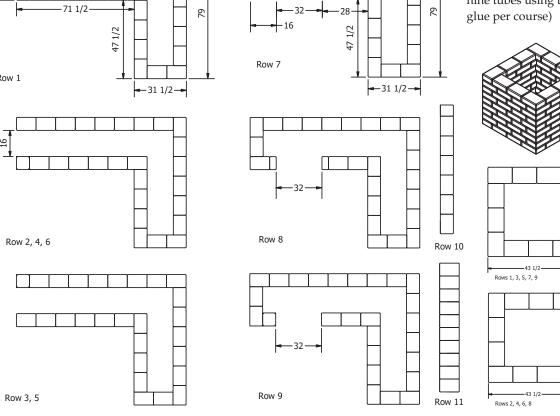
245 - Rustic Wall Stone (260 - for optional bar)
Concrete adhesive (approximately seventeen tubes using two 1/4" beads of glue per course)
Framing material (steel studs) to support the blocks over the access door (not provided)
Barbecue unit (not provided)
Barbecue door (not provided)



#### **Bar Table**

#### Material used:

108 blocks of Rustic Wall Stone Concrete adhesive (Approximately nine tubes using two 1/4" beads of glue per course)







# 12" Angelus Planter Wall for Retaining Walls - 2' High

• Unit dimensions: 9" W x 4" H x 12" L



- Each Angelus 12" Planter Wall unit weighs 28 lbs making it fast and easy to install yourself.
- Each unit has a face area of 1/3 square foot; 3 units equal 1 square foot face area.

Use this guide for estimating the number of Angelus 12" Planter Wall units required.

		WALL LENGTH (measured at wall face including curves)					
WALL HEIGHT*		5'	10'	15'	20'	25'	30'
4"	(1 course)	5	10	15	20	25	30
8"	(2 courses)	10	20	30	40	50	60
12"	(3 courses)	15	30	45	60	75	90
16"	(4 courses)	20	40	60	80	100	120
20"	(5 courses)	25	50	75	100	125	150
24"	(6 courses)	30	60	90	120	150	180

#### **Special Considerations**

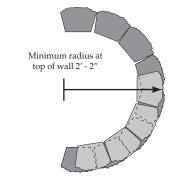
#### **Remove Edges**

To remove outside lugs or edges of retaining lip, hold securely in place and hold at an angle. Strike the lug firmly with a hammer. Always wear safety glasses to protect eyes from chips.



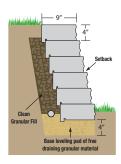
#### **Building Curves**

Curves as small as 2'-2" in radius can be built with Angelus 12" Planter Wall.



#### **Typical Section**

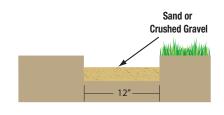
Use clean granular backfill such as gravel or crushed stone for draining and to prevent soil from leaching through the wall. A commercial filter fabric (stocked by most garden supply stores) may be used when more organic or silty site soils are used for backfill.



#### Installation Steps - 12" & 16" Planters

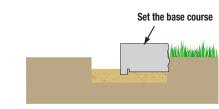
#### 1. Prepare the Site

Start by digging a shallow trench 4" deep by 12" wide. Cut through and remove any sod, roots or large rocks. For organic loam soils, dig 4" deeper. Add a leveling pad of sand or crushed gravel (do not use pea rock). Compact and level the soil of leveling pad to receive the first course of Angelus Planter Wall units.



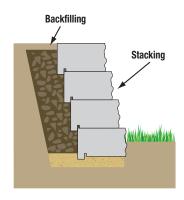
#### 2. Set the Base Course

Place and level the first landscape unit a minimum of 2" below grade. Level each additional unit on the base course as you place it, making sure that the outside edges touch. If your wall contains both straight and curved areas, start with a straight area and build into the curves. Complete the base course before proceeding to the second course.

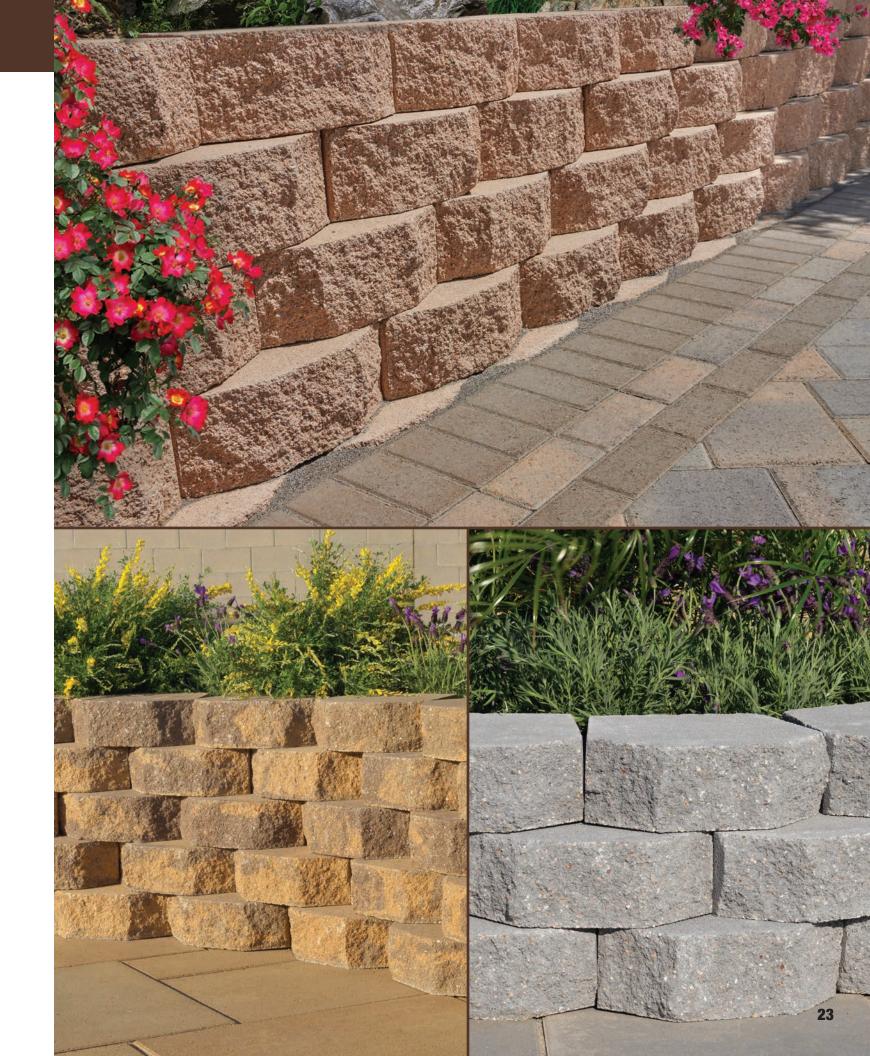


#### 3. Stack and Fill

Starting with straight areas first, begin placing the second course. Center each landscape unit on the seams of the course below in a running bond pattern as shown. Now proceed to the next layer, backfilling as you go. For draining behind the wall, crushed stone is recommended.



<sup>\*</sup>Please note: maximum wall height not to exceed 2'. This chart is based on site conditions which include a level grade, granular soil and no surcharge. Wall height is measured from top of leveling pad. The estimating chart provides for the number of units based on selected height and length of wall. For taller applications, contact your Angelus representative for product options.



# 16" Angelus Planter Wall Planter for Retaining Walls - 3' High



• Unit dimensions: 10" W x 6" H x 16" L

- Each Angelus 16" Planter Wall unit weighs 58 lbs making it fast and easy to install yourself.
- Each unit has a face area of 2/3 sq. ft. 1 1/2 units equal 1 square foot face area.

Use this guide for estimating the number of Angelus 16" Planter Wall units required.

		WALL LENGTH (measured at wall face including curves)					
WALL HEIGHT*		6 <b>'</b>	12'	18 <b>'</b>	24'	30'	36'
6"(15cm)	(1 course)	5	9	14	18	23	27
12"(30cm)	(2 courses)	10	18	28	36	46	54
18"(46cm)	(3 courses)	15	27	42	54	69	81
24"(61cm)	(4 courses)	20	36	56	72	92	108
30"(76cm)	(5 courses)	25	45	70	90	115	135
36"(91cm)	(6 courses)	30	54	84	104	138	162

#### **Special Considerations**

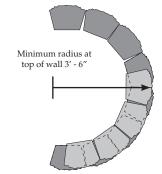
#### **Remove Edges**

To remove outside lugs or edges of retaining lip, hold securely in place and hold at an angle. Strike the lug firmly with a hammer. Always wear safety glasses to protect eyes from chips.



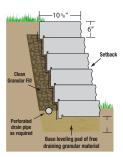
#### **Building Curves**

Curves as small as 3'-6" in radius can be built with Angelus 16" Planter Wall



#### **Typical Section**

Use clean granular backfill such as gravel or crushed stone for draining and to prevent soil from leaching through the wall. A commercial filter fabric (stocked by most garden supply stores) may be used when more organic or silty site soils are used for backfill.



\*Please note: The Angelus 16" Planter Wall units were designed for unreinforced wall heights no greater than 3' high with compacted sand or gravel backfill and level grade above and below wall. Design assumes no surcharge loads. Wall height is measured from top of leveling pad. the estimating chart provides for the number of units based on selected height and length of wall. For taller wall applications, contact your Angelus representative for design, product and reinforcing options.



## Bastione Wall Stone™

The Bastione Wall Stone<sup>TM</sup> family of retaining wall units is a remarkably versatile and appealing product from Angelus Paving Stones. It combines clean, modern lines with a wide range of applications and easy installation. Bastione Wall Stones<sup>TM</sup> can be used for 2' high retaining walls, columns, planter walls, bbqs, fire pits and freestanding walls. Angelus stocks this product in 10 different color blends plus 3 solid colors to create a wide range of design options that are readily available at either the Oxnard or Rialto plants.

Bastione Wall Stone<sup>TM</sup> is available in 3 different configurations plus a cap unit. First, the 24" Linear Bastione unit is an  $8" \times 4" \times 24"$  long, smooth faced unit with a chamfered top and sides. The clean, modern look is perfectly crafted to create a contemporary retaining wall, seating wall or planter. Second, the 3 piece Ashlar Bastione's appearance offers more depth and variation and is also used for low walls, fire pits, columns and planters. Third, the 12" Solid Bastione unit is designed with a solid top that can be used by itself for a uniform look on walls and planters, for columns and as a cap unit to either the 24" Linear or 3 Piece Ashlar Bastione product lines. Finally, there is a  $10" \times 16" \times 60$ mm Bastione Cap unit that is intended to be used either as a cap unit for the Bastione Walls, as a step tread or as a pool coping unit.





## 3 Piece Ashlar Bastione Wall Stone™



#### Dimensions

Unit One: 8" W x 4" H x 20" L Unit Two: 8" W x 4" H x 12" L Unit Three: 8" W x 4" H x 8" L

- •The 3 Piece Ashlar stones are meant to be installed in a visually appealing random ashlar pattern
- All shapes in the Bastione family of wall stones can be used interchangably to create an even wider range of design options.

#### Use this guide for estimating the number of Ashlar Bastione Wall Stone<sup>TM</sup> required.

DIMENSIONS	3 PIECE ASHLAR BASTIONE WALL STONE <sup>TM</sup> UNITS	PALLETS	10" x16" CAPS				
WALL							
2′ X 10′	54	0.5	8				
2′ X 20′	108	1	16				
2′ X 50′	270	2.5	38				
2′ X 100′	540	5	76				
COLUMN							
28" X 28" X 2' + CAP	36	0.5	6				
28" X 28" X 3' + CAP	54	0.5	6				
FIRE RING							
48" X 48" X 16" + CAP	48	0.5	10				
PLANTER WALL							
10′ 8″ X 48″ X 26″ + CAP	96	1	16				
U-SHAPED WALL WITH 2 COI	U-SHAPED WALL WITH 2 COLUMNS AND FIRE PIT						
2 - 2′ X 9′ & 1 - 2′ X 16′8″ WALL	180	1.5	26				
2 COLUMNS 28"X28"X3' + CAP	108	1	12				
FIRE RING	48	0.5	10				
TOTAL	336	3	48				

#### **Installation Steps**

#### 1. Prepare the Site

For freestanding walls up to a maximum 2' high, dig a shallow trench 8'' deep and 16'' wide. Compact and level the soil in the trench. Installing a geotextile fabric between the soil and the base rock can help prevent the soil from migrating into the base. Add 4'' of crushed rock for the base. Then compact and level the base.

# Sand or Crushed Gravel

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2. Set the Base Course

Place and level all units in the base course. Units

should be level front to back and side to side. The

base course should be level with finished grade.

Using a stringline along the front of the units can

keep the units running in a straight line during

installation. Check to make sure the base course is

straight and level before laying additional courses.

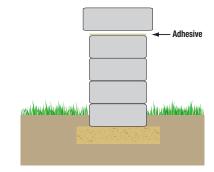
#### \*Please note

Bastione Wall Stone<sup>TM</sup> are decorative units and not meant for structural applications. Maximum height for free standing walls is 2'. Properly constructed columns may go up to 3' from the base. It is the installer's responsibility to determine the suitability of the product for the intended use.

#### 3. Additional Courses & Caps

Lay the next course of block in a running bond. Use a concrete adhesive to glue the units together. Lay each course completely before proceeding to the next course. Half block will need to be cut every other course at the ends of the wall to maintain the running bond. Block can be cut with a masonry saw or with a chisel and hammer.

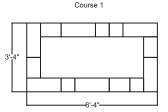
**Caps:** There are multiple options to cap Bastione<sup>TM</sup> walls. One is use our 60mm 10x16 Bastione cap. Another option would be to use our Bastione<sup>TM</sup> 12'' Solid unit as a cap in either a soldier course to hang over the wall by 2'' on each side or to install it in line with the wall for a clean edge. Apply concrete adhesive to secure the cap to the wall units.

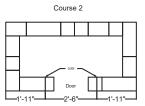


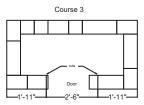
#### 3 Piece Ashlar Bastione Wall Stone™ BBQ

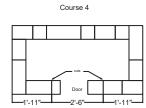
#### Material used:

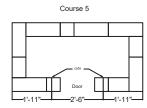
1.5 pallets of 3 Piece Ashlar Bastione Wall Stone
Concrete adhesive (approximately ten tubes using two
1/4" beads of glue per course)
Framing material (steel studs) to support the blocks
over the access door (not provided)
Barbecue unit (not provided)
Barbecue door (not provided)
Countertop (not provided)

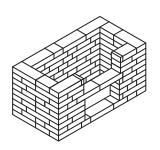




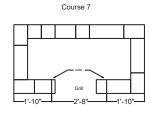


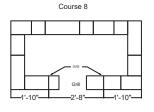


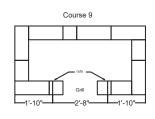










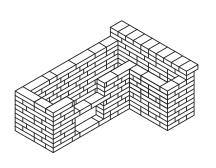




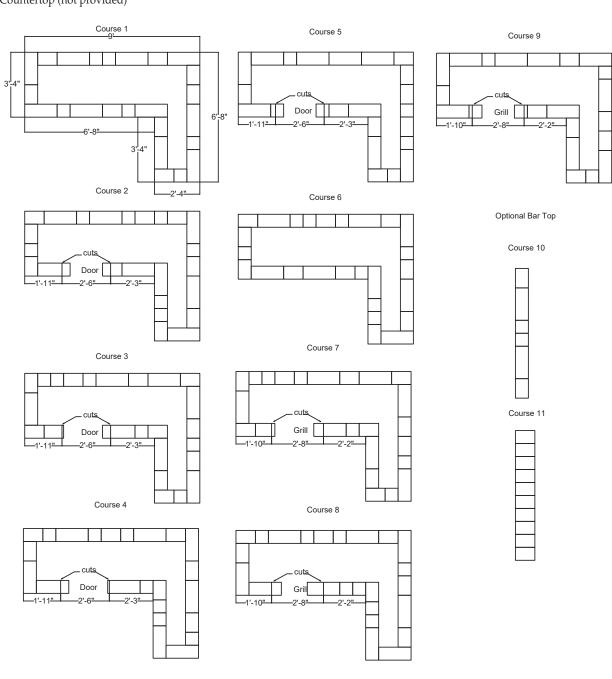
#### 3 Piece Ashlar Bastione Wall Stone™ L-Shaped BBQ

#### Material used:

2.5 pallets of 3 Piece Ashlar Bastione Wall Stone
10 Pieces Bastione 12" Solid
Concrete adhesive (approximately 16 tubes using two
1/4" beads of glue per course)
Framing material (steel studs) to support the blocks
over the access door (not provided)
Barbecue unit (not provided)
Barbecue door (not provided)
Countertop (not provided)



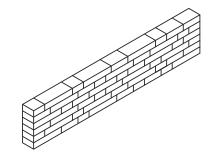
**29** 

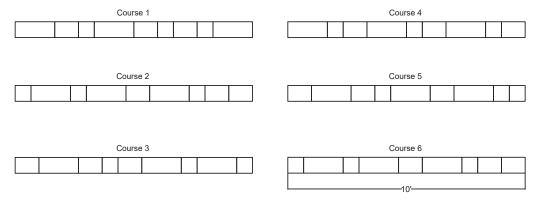


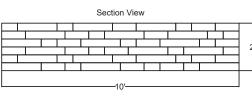
#### 3 Piece Ashlar Bastione Wall Stone™ 10ft. Wall

#### Material used:

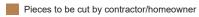
1/2 pallet 3 Piece Ashlar Bastione Wall Stone Cap Option "A" 8 pieces 10x16 Bastione Cap Cap Option "B" 16 pieces Bastione 12" Solid Concrete adhesive (approximately 10 tubes using two 1/4" beads of glue per course)

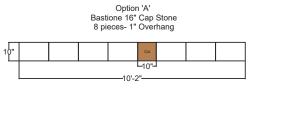


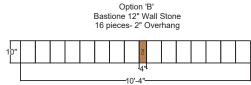


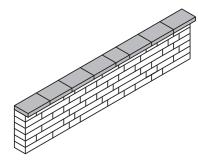


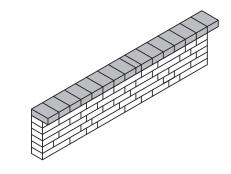
## Capping Course Options







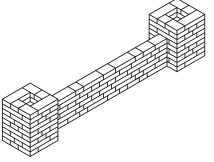




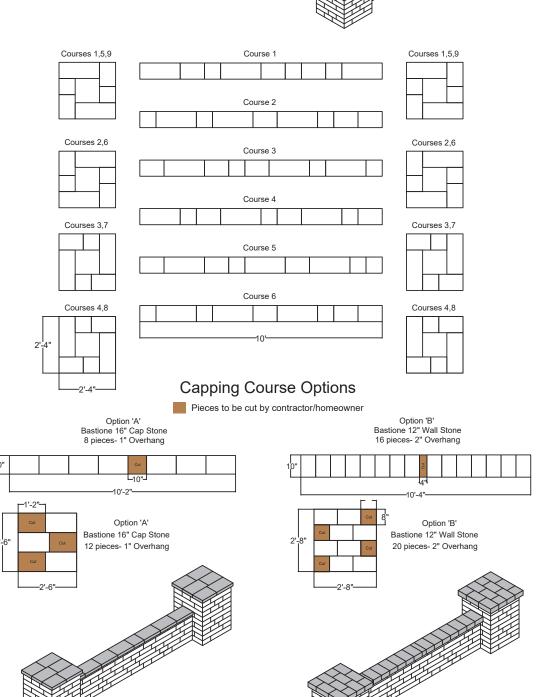
#### 3 Piece Ashlar Bastione Wall Stone™ 10ft. Wall with Pilasters

#### Material used:

1.5 pallet 3 Piece Ashlar Bastione Wall Stone Cap Option "A" 20 pieces 10x16 Bastione Cap Cap Option "B" 41 pieces Bastione 12" Solid Concrete adhesive (approximately 12 tubes using two 1/4" beads of glue per course)



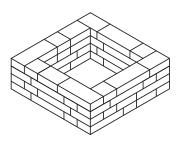
31

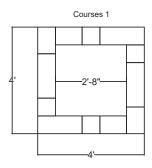


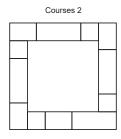
#### 3 Piece Ashlar Bastione Wall Stone™ Fire Pit

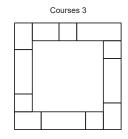
#### Material used:

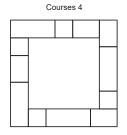
1 pallet 3 Piece Ashlar Bastione Wall Stone Cap Option "A" 12 pieces 10x16 Bastione Cap Cap Option "B" 24 pieces Bastione 12" Solid Concrete adhesive (approximately 6 tubes using two 1/4" beads of glue per course)





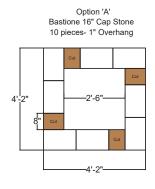


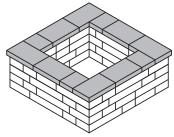


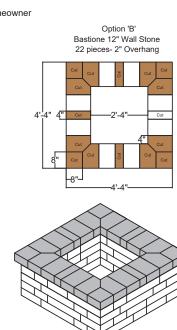




Pieces to be cut by contractor/homeowner



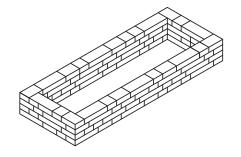


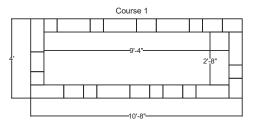


#### 3 Piece Ashlar Bastione Wall Stone™ Planter Box

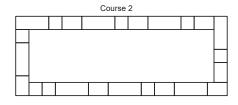
#### Material used:

1 pallet 3 Piece Ashlar Bastione Wall Stone. Cap Option "A" 20 pieces 10x16 Bastione Cap Cap Option "B" 42 pieces Bastione 12" Solid Concrete adhesive (approximately 12 tubes using two 1/4" beads of glue per course)





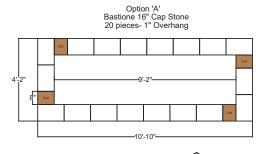


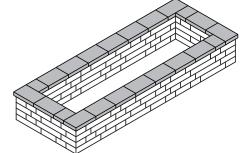


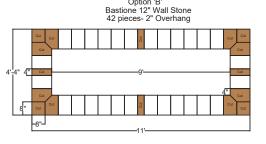


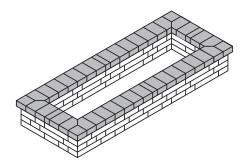
## Capping Course Options

Pieces to be cut by contractor/homeowner









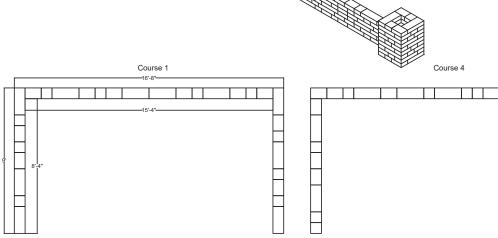
**33** 

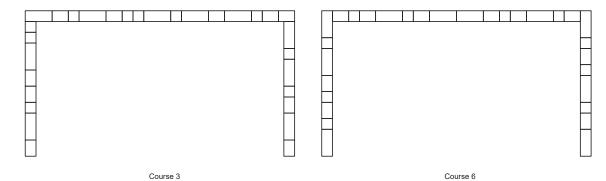
#### 3 Piece Ashlar Bastione Wall Stone™ U-Wall with Pilasters

Course 2

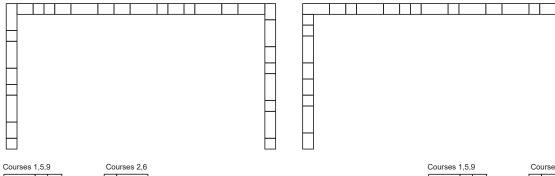
## Material used:

3 pallets 3 Piece Ashlar Bastione Wall Stone Cap Option "A" 38 pieces 10x16 Bastione Cap Cap Option "B" 73 pieces Bastione 12" Solid Concrete adhesive (approximately 40 tubes using two 1/4" beads of glue per course)





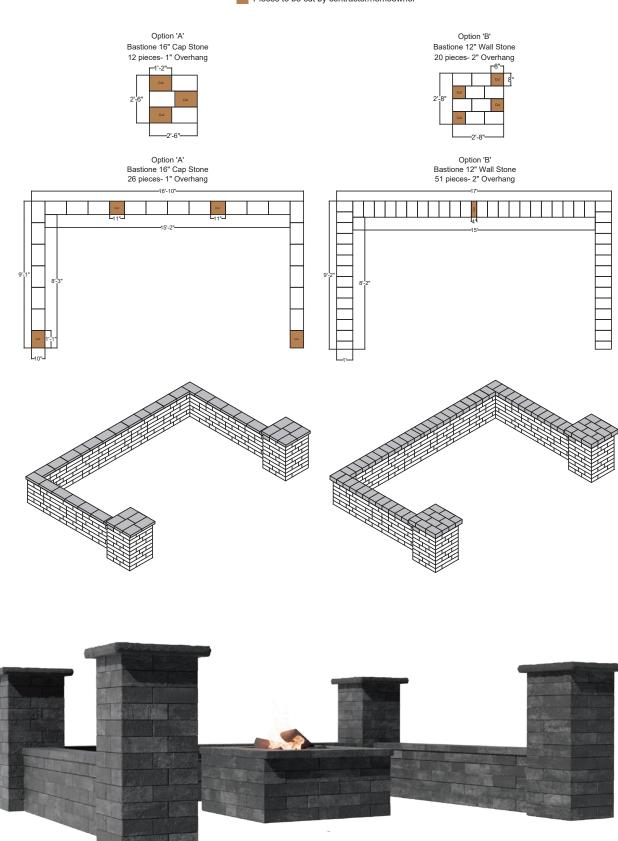
Course 5





#### **Capping Course Options**

Pieces to be cut by contractor/homeowner



 $\mathbf{1}$ 

## 12 Inch Solid Bastione Wall Stone™



- Dimensions: 8"W x 4"H x 12"L • 12 Inch Solid Bastione Wall
  - Stone<sup>TM</sup> unit weighs 28 lbs making it fast and easy to install by yourself.
- The unit appears the same from any side. The uniform appearance means that it has many potential applications.

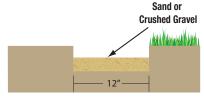
#### Use this guide for estimating the number of 12 Inch Bastione Wall Stone™ required.

DIMENSIONS	12 INCH SOLID BASTIONE WALL STONE <sup>TM</sup> UNITS	PALLETS	10" X 16" CAPS
WALL			
2' X 10'	60	0.5	8
2' X 20'	120	1.5	16
2' X 50'	300	3	38
2' X 100'	600	6	76
COLUMN			
20" X 20" X 2' + CAP	24	0.5	6
20" X 20" X 3' + CAP	36	0.5	6
FIRE RING			
44" X 44" X 16"	48	0.5	0
PLANTER WALL			
10′ 8″ X 48″ X 26″ + CAP	104	1	20
U-SHAPED WALL WITH 2 COLUM	INS AND FIRE PIT		
2' X 16'8" WALL & TWO 2' X 8'4" WALLS	204	2	26
2 COLUMNS 20" X 20" X 3' + CAP	72	1	6
FIRE PIT	48	0.5	0
TOTAL	324	3	34

#### **Installation Steps**

#### 1. Prepare the Site

For freestanding walls up to a maximum 2' high, dig a shallow trench 8" deep and 16" wide. Compact and level the soil in the trench. Installing a geotextile fabric between the soil and the base rock can help prevent the soil from migrating into the base. Add 4" of crushed rock for the base. Then compact and level the base.



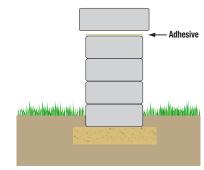


#### 2. Set the Base Course

Lay the next course of block in a running bond. Use a Place and level all units in the base course. Units should be level front to back and side to side. The concrete adhesive to glue the units together. Lay each base course should be level with finished grade. course completely before proceeding to the next course. Using a stringline along the front of the units can Half block will need to be cut every other course at the keep the units running in a straight line during ends of the wall to maintain the running bond. Block installation. Check to make sure the base course is can be cut with a masonry saw or with a chisel and straight and level before laying additional courses.

> Caps: There are multiple options to cap Bastione $^{\text{TM}}$  walls. One is use our 60mm 10x16 Bastione cap. Another option would be to use our Bastione $^{\text{TM}}$  12" Solid unit as a cap in either a soldier course to hang over the wall by 2" on each side or to install it in line with the wall for a clean edge. Apply concrete adhesive to secure the cap to the wall units.

3. Additional Courses & Caps



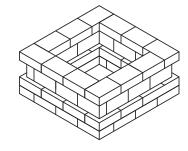
#### \*Please note:

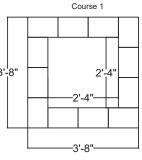
Bastione Wall Stone<sup>TM</sup> are decorative units and not meant for structural applications. Maximum height for free standing walls is 2'. Properly constructed columns may go up to 3' from the base. It is the installer's responsibility to determine the suitability of the product for the intended use.

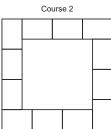
#### 12 Inch Solid Bastione Wall Stone™ Fire Pit

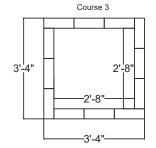
#### Material used:

48 units 12 Inch Solid Bastione Wall Stone<sup>TM</sup> Concrete adhesive( approximately 6 tubes using two 1/4" beads of glue per course).









Course 4





#### 12 Inch Solid Bastione Wall Stone<sup>TM</sup> BBQ

#### Material used:

92 units (1 pallet) Bastione 12" Solid Wall Stone.

Concrete adhesive (approximately 10 tubes using two

1/4" beads of glue per course.

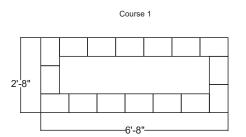
Framing material (steel studs) to support the blocks over

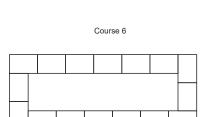
the access door.

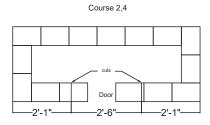
BBQ unit (not provided).

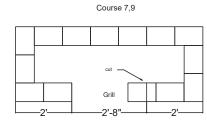
BBQ door (not provided).

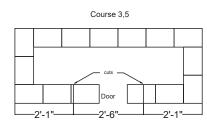
Countertop (not provided).

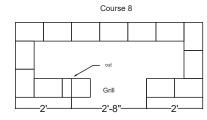












#### 12 Inch Solid Bastione Wall Stone<sup>TM</sup> L-Shaped BBQ

#### Material used:

177 units (2 pallets) Bastione 12" Solid Wall Stone.

Concrete adhesive (approximately 18 tubes using two

1/4" beads of glue per course.

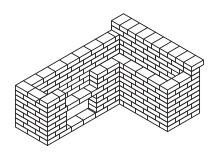
Framing material (steel studs) to support the blocks over

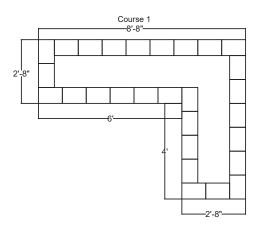
the access door.

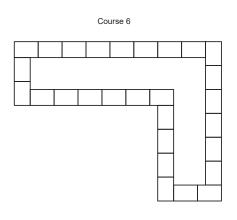
BBQ unit (not provided).

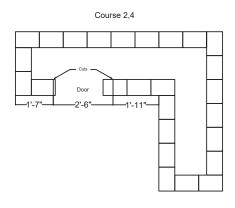
BBQ door (not provided).

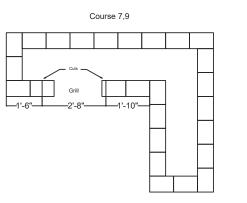
Countertop (not provided).

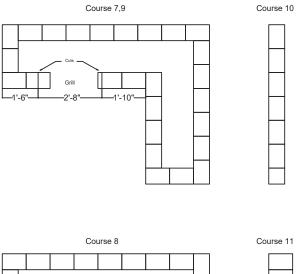


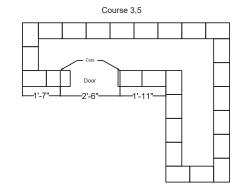


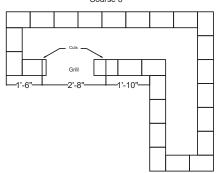










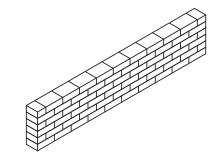


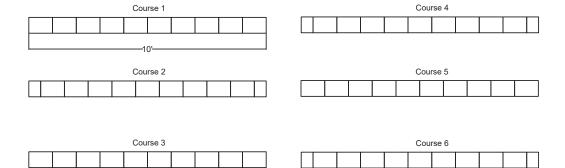
Optional Bar Top

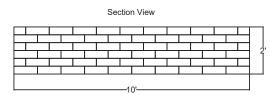
#### 12 Inch Solid Bastione Wall Stone<sup>TM</sup> 10ft. Wall

#### Material used:

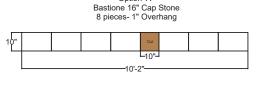
60 units (1 pallet) Bastione 12" Solid Wall Stones. Cap Option A: 8 units 10x16" Bastione Cap. Cap Option B: 16 units Bastione 12" Solid Wall Stones. Concrete adhesive (approximately 10 tubes using two 1/4" beads of glue per course).

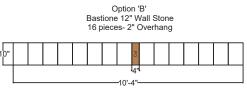


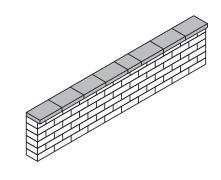


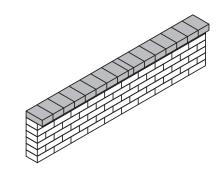








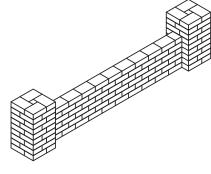




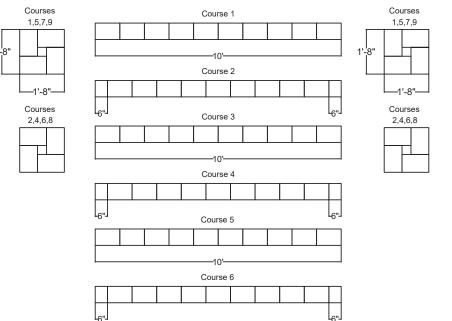
#### 12 Inch Solid Bastione Wall Stone™ 10ft. Wall with Pilasters

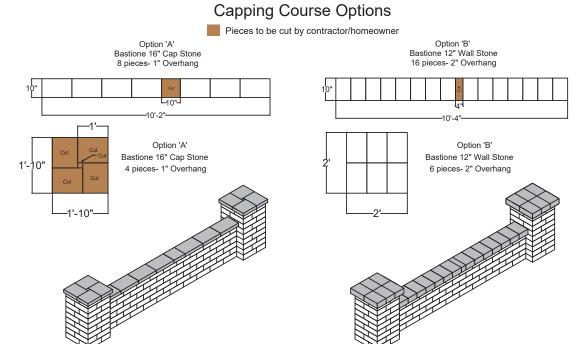
#### Material used:

132 units (1.5 pallets) Bastione 12" Solid Wall Stones. Cap Option A: 16 units 10x16" Bastione Cap. Cap Option B: 28 units Bastione 12" Solid Wall Stones. Concrete adhesive (approximately 12 tubes using two 1/4" beads of glue per course).



41

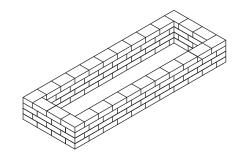


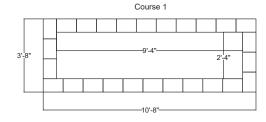


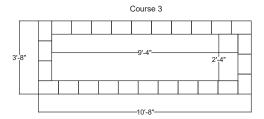
#### 12 Inch Solid Bastione Wall Stone™ Planter Box

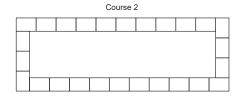
#### Material used:

104 units (1 pallet) 12 Inch Solid Bastione Wall Stone<sup>TM</sup>. Cap Option A: 20 units 10x16'' Bastione Cap. Cap Option B: 41 units Bastione 12" Solid Wall Stones. Concrete adhesive (approximately 10 tubes using two 1/4'' beads of glue per course).



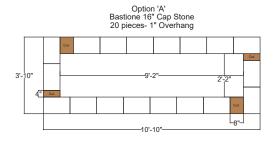


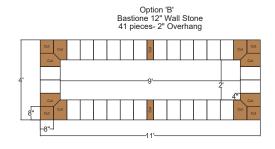


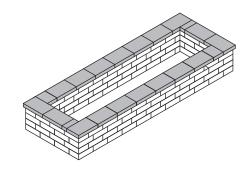


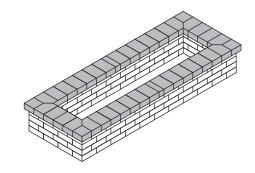


# Capping Course Options Pieces to be cut by contractor/homeowner





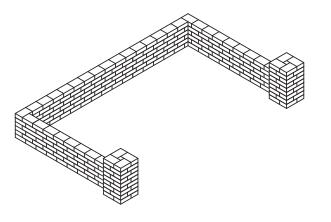


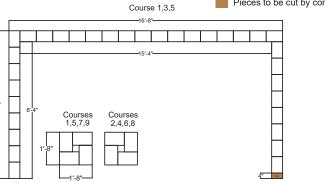


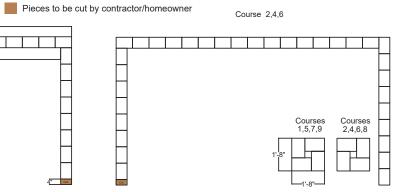
#### 12 Inch Solid Bastione Wall Stone<sup>TM</sup> U-Wall with Pilasters

#### Material used:

276 units (2.5 pallets) 12 Inch Solid Bastione Wall Stone<sup>TM</sup>. Cap Option A: 34 units 10x16'' Bastione Cap. Cap Option B: 51units Bastione 12" Solid Wall Stones. Concrete adhesive (approximately 30 tubes using two 1/4'' beads of glue per course).

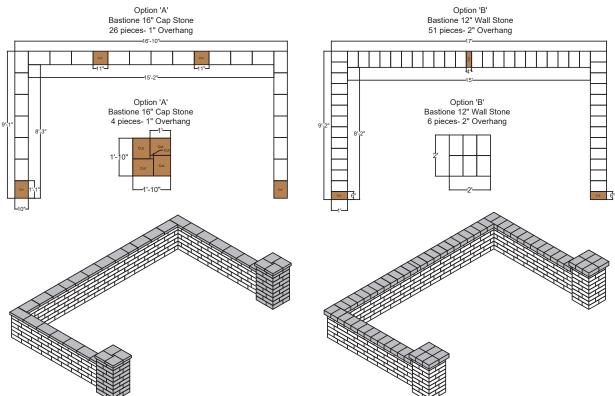






## Capping Course Options

Pieces to be cut by contractor/homeowner



 $oldsymbol{^{\checkmark}}$ 



• Dimensions: 8"W x 4"H x 24"L

- Each 24 Inch Bastione Wall Stone<sup>TM</sup> weighs 44 lbs making it fast and easy to install by yourself.
- The 24 Inch Bastione Wall Stone<sup>TM</sup> has long lines for a clean, modern appearance.

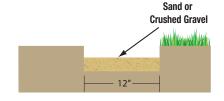
#### Use this guide for estimating the number of 24 Inch Bastione Wall Stone™ required.

DIMENSIONS	24 INCH BASTIONE WALL STONE™ UNITS	PALLETS	10" x 16" CAPS		
WALL					
2′ X 12′	36	1	10		
2' X 24'	72	2	18		
2' X 48'	144	4	36		
2′ X 96′	288	8	72		
COLUMN					
32" X 32" X 2' + CAP	24	1	8		
32" X 32" X 3' + CAP	36	1	8		
FIRE RING SQUARE					
56" X 56" X 16" + CAP	32	1	12		
FIRE RING RECTANGLE					
80" X 32" X 36" + CAP	72	2	12		
PLANTER WALL					
10′ 8″ X 24″ X 20″ + CAP	70	1	20		
U-SHAPED WALL WITH 2 COLUMNS AND FIRE PIT					
2' X 16'8" WALL & TWO 2' X 8'4" WALLS	108	6	27		
2 COLUMNS 32" X 32" X 3' + CAP	72	2	16		
FIRE PIT	32	1	12		
TOTAL	212	9	55		

#### **Installation Steps**

#### 1. Prepare the Site

For freestanding walls up to a maximum 2' high, dig a shallow trench 8" deep and 16" wide. Compact and level the soil in the trench. Installing a geotextile fabric between the soil and the base rock can help prevent the soil from migrating into the base. Add 4" of crushed rock for the base. Then compact and level the base.





#### 2. Set the Base Course

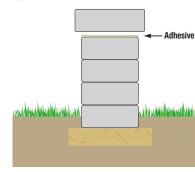
Place and level all units in the base course. Units should be level front to back and side to side. The base course should be level with finished grade. Using a stringline along the front of the units can keep the units running in a straight line during installation. Check to make sure the base course is straight and level before laying additional courses.

Bastione Wall Stone<sup>TM</sup> are decorative units and not meant for structural applications. Maximum height for free standing walls is 2'. Properly constructed columns may go up to 3' from the base. It is the installer's responsibility to determine the suitability of the product for the intended use.

#### 3. Additional Courses & Caps

Lay the next course of block in a running bond. Use a concrete adhesive to glue the units together. Lay each course completely before proceeding to the next course. Half block will need to be cut every other course at the ends of the wall to maintain the running bond. Block can be cut with a masonry saw or with a chisel and

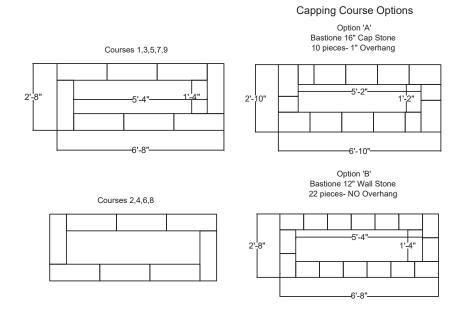
**Caps:** There are multiple options to cap Bastione $^{TM}$  walls. One is use our 60mm 10x16 Bastione cap. Another option would be to use our Bastione<sup>TM</sup> 12" Solid unit as a cap in either a soldier course to hang over the wall by 2" on each side or to install it in line with the wall for a clean edge. Apply concrete adhesive to secure the cap to the wall units.

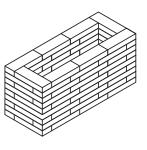


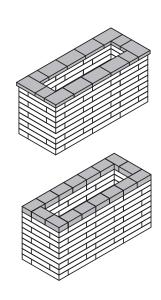
#### 24 Inch Bastione Wall Stone™ Fire Pit (Rectangle)

#### Material used:

72 units (2 pallets) 24 Inch Bastione Wall Stone<sup>TM</sup> Cap Option A: 12 units of 10x16 Cap. Cap Option B: 17 units of 12 Inch Solid Bastione Wall Stone™ Concrete adhesive (approximately 12 tubes using two 1/4" beads of glue per course).



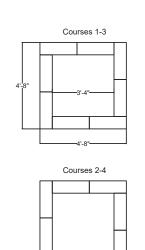


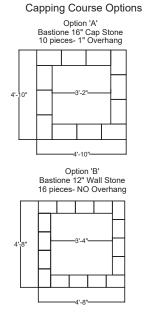


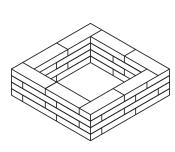
#### 24 Inch Bastione Wall Stone™ Fire Pit (Square)

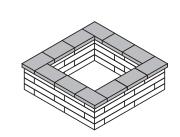
#### Material used:

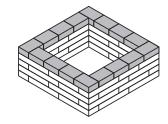
32 units (1 pallet) 24 Inch Bastione Wall Stone™ Cap Option A: 12 units of 10x16 Cap. Cap Option B: 16 units of 12 Inch Solid Bastione Wall Stone<sup>TM</sup> Concrete adhesive (approximately 6 tubes using two 1/4" beads of glue per course).











#### 24 Inch Bastione Wall Stone<sup>TM</sup> BBQ

#### Material used:

56 units (2 pallets) 24 Inch Bastione Wall Stone™

Concrete adhesive (approximately 12 tubes using two

1/4" beads of glue per course.

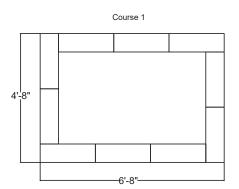
Framing material (steel studs) to support the blocks over

the access door.

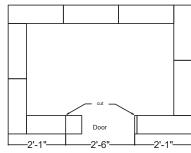
BBQ unit (not provided).

BBQ door (not provided).

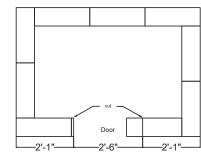
Countertop (not provided).

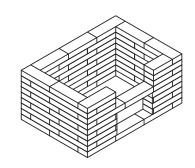




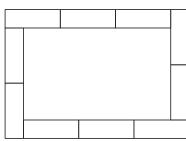


Course 3,5

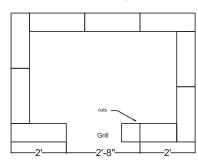




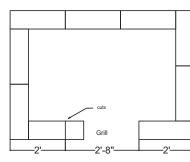
Course 6



Course 7,9



Course 8



#### 24 Inch Bastione Wall Stone<sup>TM</sup> L-Shaped BBQ

#### Material used:

108 units (3 pallets) 24 Inch Bastione Wall Stone<sup>TM</sup>

Concrete adhesive (approximately 24 tubes using two

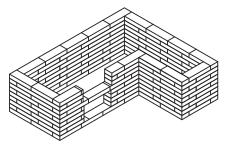
1/4" beads of glue per course.

Framing material (steel studs) to support the blocks over the access door.

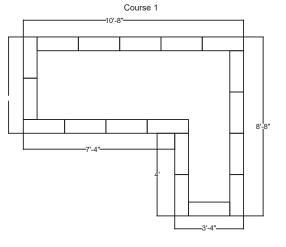
BBQ unit (not provided).

BBQ door (not provided).

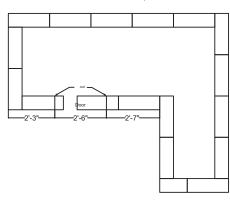
Countertop (not provided)



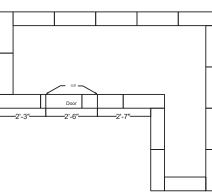
Course 6

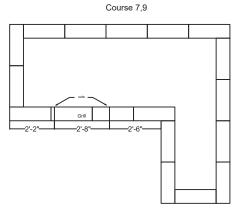


Course 2, 4

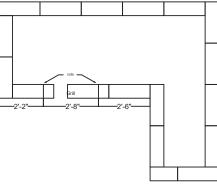


Course 3,5





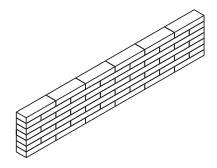
Course 8

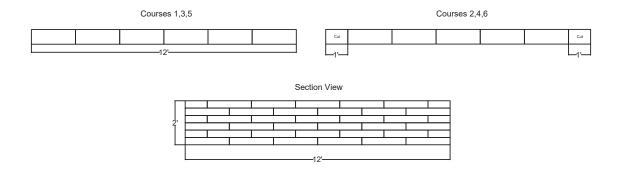


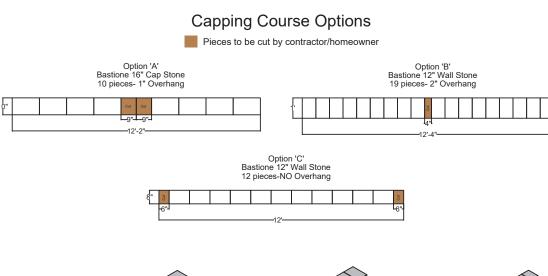
#### 24 inch Bastione Wall Stone™ 10ft. Wall

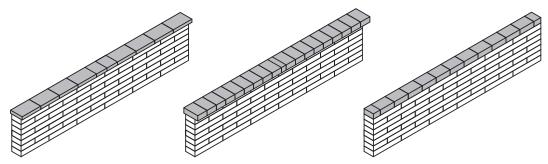
#### Material used:

36 units (1 pallet) 24 Inch Bastione Wall Stone™ Cap Option A: 10 units 10x16″ Bastione Cap.
Cap Option B: 19 units 12 Inch Solid Bastione Wall Stone™ Concrete adhesive (approximately 10 tubes using two 1/4″ beads of glue per course).







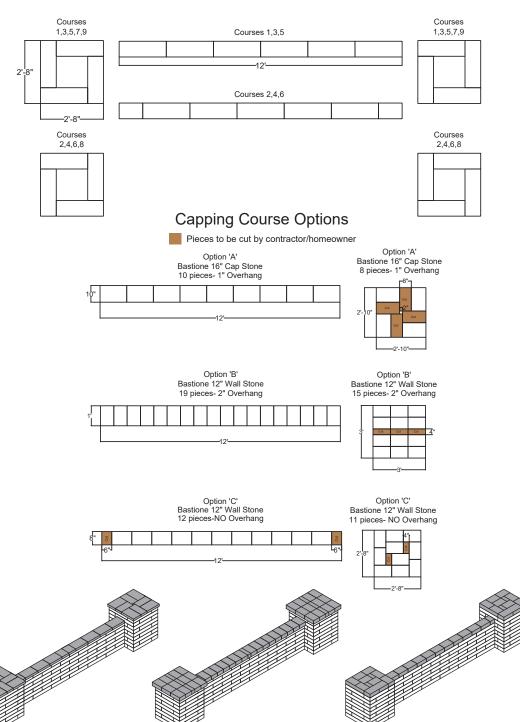


#### 24 Inch Bastione Wall Stone™ 10ft. Wall with Pilasters

#### Material used:

108 units (3 pallets) 24 Inch Bastione Wall Stone™
Cap Option A: 27 units 10x16″ Bastione Cap.
Cap Option B: 48 units 12 Inch Solid Bastione Wall Stone™
Cap Option C: 34 12 Inch Solid Bastione Wall Stone™
Concrete adhesive (approximately 10 tubes using two 1/4″ beads of glue per course).

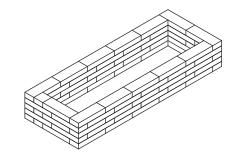


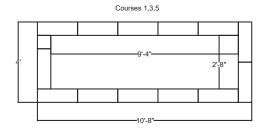


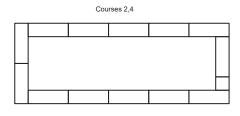
#### **24** Inch Bastione Wall Stone<sup>TM</sup> Planter Box

#### Material used:

70 units (2 pallets) 24 Inch Bastione Wall Stone<sup>TM</sup>
Cap Option A: 20 units 10x16" Bastione Cap.
Cap Option B: 27 units 12 Inch Solid Bastione Wall Stone<sup>TM</sup>
Cap Option C: 42 units 12 Inch Solid Bastione Wall Stone<sup>TM</sup>
Concrete adhesive (approximately 12 tubes using two 1/4" beads of glue per course).

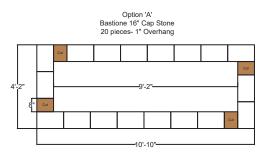


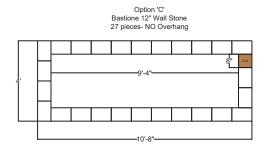


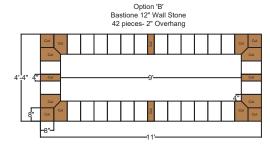


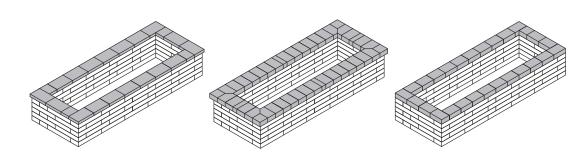
## **Capping Course Options**

Pieces to be cut by contractor/homeowner





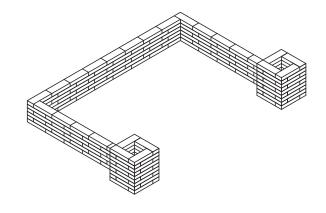


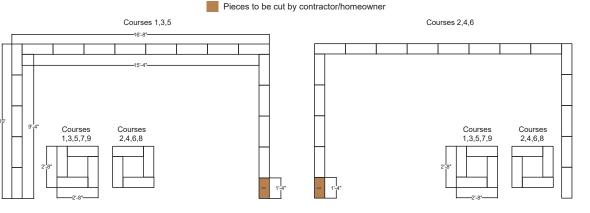


#### 24 Inch Bastione Wall Stone™ U-Wall with Pilasters

#### Material used:

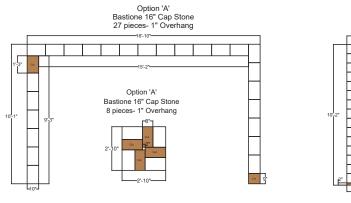
180 units (5 pallets) 24 Inch Bastione Wall Stone™ Cap Option A: 43 units 10x16″ Bastione Cap.
Cap Option B: 86 units 12 Inch Solid Bastione Wall Stone™ Cap Option C: 60 units 12 Inch Solid Bastione Wall Stone™ Concrete adhesive (approximately 48 tubes using two 1/4″ beads of glue per course).

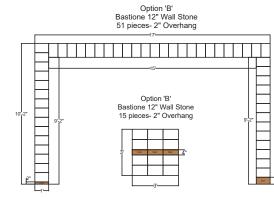


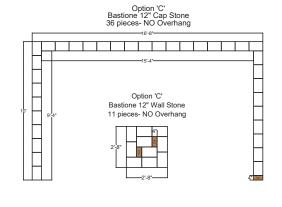


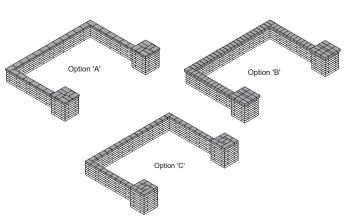
## Capping Course Options

Pieces to be cut by contractor/homeowner









## **Decorative Wall Color Charts**

#### StoneWall® II







Gray-Moss-Charcoal



Sand-Stone-Mocha



Tuscan



Cream-Terracotta-Brown Gray-Charcoal



#### **Rustic Wall Stone**



Cream-Brown-Charcoal



Gray-Moss-Charcoal



Sand-Stone-Mocha



Tuscan



Cream-Terracotta-Brown Gray-Charcoal



#### Bastione Wall Stone™



Cream-Brown-Charcoal



Gray-Moss-Charcoal



Sand-Stone-Mocha



Tuscan



Sand-Copper-Stone



Adobe-Copper-Mocha



Dark Gray-Copper-Charcoal



Dark Gray-Pewter-Charcoal



Cream-Terracotta-Brown Gray-Charcoal





Mocha



Gray



Charcoal

## Angelus 12" & 16" Planter Wall



Gray



Tan



Charcoal



Sand-Stone-Mocha



Tuscan



3435 S. Riverside Ave. Rialto, CA 92316 (951) 328-9115 FAX (951) 321-0115

4575 E. Vineyard Ave. Oxnard, CA 93036 (805) 485-1137 FAX (805) 983-7697



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