



## The Challenge

Building a new home can be exciting and often challenging. This hillside lot was indeed a challenge for the homeowners building in a new development. They needed to reshape the slope in front of their home and gain more usable land for a driveway leading to the front entrance.

#### The Solution

To manage the 8 ft. (2.4 m) change in grade and create a pleasing landscape, Hardscape Construction Inc., suggested a terraced retaining wall rather than one large wall. They advised the homeowners that two terraced walls with a planting area between them would soften the hill and add drama to the driveway entrance.



The homeowners loved the idea of a terraced flower garden, but needed to keep the costs down. They worked with the contractor to create a design that was both economical and distinct. They used AB Stones for constructing the terraced walls and added a "Dash of Ashlar" to create a beautiful accent texture. With 20% of the wall being the Ashlar Blend

pattern, they were able to keep overall costs down while creating a truly unique design.

# **Engineering & Construction**

By keeping the walls under 4 ft. (1.22 m), using AB Stones and laying out the terraces to achieve proper separation, they provided a cost effective solution for developing the site. The contractor describes the construction process, "Because this was a new development with previously excavated soils, we wanted to make sure the walls would not settle over time. So we re-excavated and compacted the base soils before beginning construction. Excavating for the spacing between the walls and compacting the infill soils had to be done carefully. Although difficult, it was necessary to ensure proper long-term performance of the walls."

"I'm pleased with the results. We took a challenging lot and created a beautifully landscaped driveway entrance".

- Hardscape Construction Inc.

#### Conclusion

The homeowners are delighted with the project. "Hardscape Construction did a very professional job from start to finish. Even with the extra effort they made to ensure the walls were built on stable ground, they completed the entire project in less than 10 days. Today, 8 years later, you can tell they did a great job because the wall looks as good as the day it was finished."



# Spice Up Your Wall with a "Dash of Ashlar"

To give your AB Stones and AB Classic walls eye-stopping design and visual interest, try adding a small area of patterned blocks. It's easy. Using the different block shapes in the AB Ashlar Collection, you can easily build random or "Ashlar Blend" patterns into your wall. The above photo shows how simple it is to transition in and out of an Ashlar Blend pattern. For more information on building Ashlar Blend walls, ask your AB Dealer for a copy of the AB Installation Guide or visit allanblock.com.

"We got a beautiful no-maintenance wall at a great value"

- Homeowner

# **Building Terraced Walls**

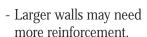
Landscape designs are often more attractive when they include smaller, terraced walls rather than one large wall. Terraced walls can create more usable space, build raised gardens, help prevent erosion and add interest to your landscape.

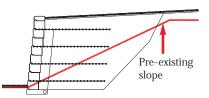
# Plan

## Determine the spacing

The spacing and height of terraces will affect the overall design and engineering of your project. Choose the wall layout that best suits your project requirements.

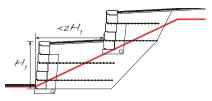
### Plan A: One wall Attain more usable space above or below the wall





#### Plan B: Two walls, spacing less than 2H<sub>1</sub> Soften hillsides, create planters and add more usable space.

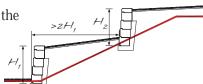
- Tightly spaced walls may need reinforcement as they do not act independently.



#### Plan C: Two independent walls, spacing greater than 2H<sub>1</sub> Create manageable hillsides.

- May reduce or eliminate the need for reinforcement.

- Can design each wall seperately.



# Design

# Design the shape for beauty and function

Consider what will fill the space between terraced walls. Will it be used for plantings, filled with decorative rock or covered with sod? Terraced walls provide built-in edging that minimizes trimming and maintenance. Design the shape of terraced walls to compliment the surrounding architecture and landscape.





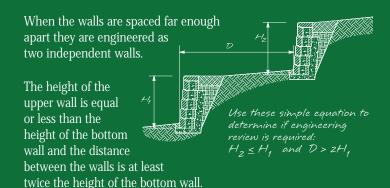
have a more natural feel, provide lots of planting pockets and create a

softer look.

Irrigation is often included when incorporating a planter. Ensure that your plan includes provisions for water management.

#### **Terraces and Structure**

Building a series of walls on a slope requires careful planning for the structure. Follow this simple set of rules:



As the upper wall moves closer to the lower wall, it adds pressure (surcharge) to the lower wall.

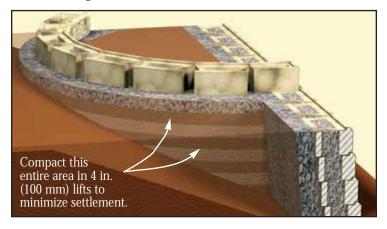
The lower wall will need to be engineered to account for the added weight and pressure, and extra reinforcement may be required.



# **Build**

## Always Build on Solid Ground

- The most important element in building terraces is soil compaction. Building on poor, uncompacted soil will result in settling of the upper walls. Although lower terraced walls are typically built on solid ground, upper walls are often built on soils that have been disturbed in the construction process. To ensure the stability of these soils, they should be removed down to solid ground and carefully reinstalled and compacted.
- To achieve proper compaction there are two different techniques that work well. One way is to remove soft or poor soil and replace them with wall rock and compact in 8 in. (200 mm) lifts. Another way is to compact the onsite soils in shorter lifts. When using onsite soils, we recommend no more than a 4 in. (100 mm) lift. Good compaction is the key to minimizing settlement over time.

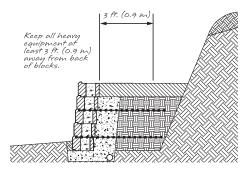




Plan ahead for walls that split into terraces. The area immediately behind the lower wall will require extra attention to ensure proper base preparation for the new wall above.



To prepare for the upper wall, this area will need to be compacted to 95% of Standard Proctor.

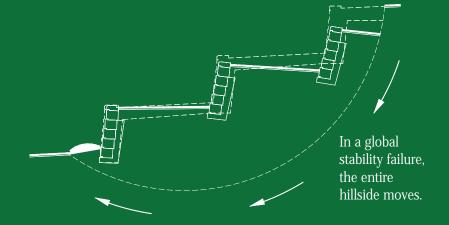


# **Construction Equipment**

Use hand operated plate compaction equipment on the block and within 3 ft (0.9 m) of the back of the wall. All heavier equipment must be kept at least 3 ft (0.9 m) from the back of the wall. Wall designs typically do not account for surcharges from heavy compaction equipment. Even a properly installed and compacted wall will rotate forward when extreme surcharges from heavy equipment are applied to the top of the wall during construction or final grading.

# **Global Stability**

As the size of the slope gets bigger the overall stability of the entire terraced wall structure becomes important. Engineers call this "global stability". If the total height of the terraced slope is greater than 6 ft. (1.8 m) contact your local Allan Block dealer or engineering professional for design assistance.



# AB STONES - Proven Performer and "Everyday Hero"

With the March Madness sporting frenzy behind us and baseball now in full swing, we are all familiar with the difference between "superstars" and "everyday heroes". Did you know that the everyday hero in the Allan Block product lineup is AB Stones? Take a look at the stats and you'll understand why:

**Speed & Efficiency** The multipurpose AB Stones installs quickly and efficiently.

Hard Working Typically you can build AB Stones gravity walls higher than you can with other stackable blocks. Gravity walls rely on the weight and setback of the wall to retain the soil and do not require any geogrid soil reinforcement. The greater setback of the 12° AB Stones is able to hold up more unreinforced soil than the 6° AB Classic. See below for details.





Our signature block is the best choice for basic wall construction. AB Stones are the most efficient, easy-to-stack full size blocks on the market.

**Competitive** - Based on installation speed and setback, AB Stones outperforms all other wall products and its durability and cost-effectiveness far exceeds that of treated timber walls.

**Bang for the Buck**- When considering it's efficiency, strength and simplicity, AB Stones gives you great value.



## **AB STONES**

- 8 in. H x 12 in. D x 18 in. L (200mm H x 300mm D x 455mm L)
- **75 lbs** (34kg)
- 12° Setback

Specifications are approximate. Contact your AB dealer for exact specifications

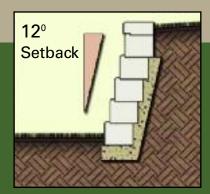
AB Gravity Wall - Maximum Heights			
Soil Type	Friction Angle	6° AB Classic	12° AB Stones
Clay	27°	3.2 ft	3.5 ft
		0.9 m	1 m
Silty Sand	<b>32°</b>	4.6 ft	5.3 ft
		1.4 m	1.6 m

#### AB STONES

Build taller walls without geogrid reinforcement.

#### Table Note

- No surcharge
- Level slope above wall
- Walls that exceed these heights will need reinforcement



12º Setback

Provides better leverage and delivers more stability



# **Great Ideas and Resources for Landscape Professionals**

# New Allan Block TV Commercials Launched on HGTV and DIY Cable Networks

Allan Block is gaining recognition across North America with the launch of our new television commercials. Visit <u>allanblock.com</u> to view the two spots that are running on HGTV (Home & Garden) and DIY (Do-It-Yourself) networks.



# AB Certification and 2005 Rewards Program Build your business, reap the rewards.



The 2005 AB Contractor Rewards Program is in full swing. One of the first companies to get certified and earn their Bronze level reward kit is Creekside Gardens from Warren, OH. For full details on this program and more information on how you can participate, contact your local Allan Block representative or visit allanblock.com.

"I did my Allan Block Certification Training last November at a seminar Reading Rock held in Columbus, Ohio. The training was excellent. I've been installing retaining walls for nearly 20 years and still learned some new things. Plus, the literature and sales tools they provided were an added bonus".

- Bob Meinke, Creekside Gardens

# Sign up to get Landscape Lifestyles by e-mail.

To receive the AB Landscape Lifestyles Newsletter by e-mail each quarter, sign up online at allanblock.com.



# Landscape Design CD, Complete Design & Installation Information

For professional landscape ideas and inspiration, sign up to receive Allan Block's Landscape Design CD at <u>allanblock.com</u>. Packed with information to help you plan, design and build courtyard walls or landscape walls up to 6 ft high (1.8 m), this CD includes product specifications, installation guidelines and a valuable material estimating program.

Allan Block Corporation 5300 Edina Industrial Blvd., Ste 100, Edina, MN 55439 952-835-5309 - phone 952-835-0013 - fax US Pat. #4,909,010, #5,484,236, #6,792,731 & #6,322,742 Canadian Pat. #2,012,286 & #2,133,675 Mexico Pat. #189,846 Europe Pat. #649,714 & #99,308,421.9 Australian Pat. #682,394 & #133,306 Germany Pat. # 69,423,563.6 Taiwan Pat. #NI-090824 Japan Pat. #3,142,107 Int'l & other patents pending Copyright 2005 DOC. #L0305

