

When designing retaining walls and raised patios, a major concern after the construction is complete is ensuring the structure is safe for use. Not only should the area be structurally sound but basic precautions should be taken to prevent injuries for cases such as falls. A parapet is one solution that is implemented to minimize the risk of falls while not obstructing the view like a privacy fence can.

Today, parapets are primarily used as guard rails, but throughout history they have been used in structures to defend from military attack. From the Great Wall of China to the castles of Europe, the image of a battlement parapet on the top of a tower or wall is one of the most recognizable designs in the world. It is no wonder that today we see similar designs replicated in many systems.

When a parapet is above a retaining wall ensure that the design accommodates the additional surcharge of the parapet as well as the effects of the overturning forces. Common factors to consider when determining overturning forces are:

- Pedestrian loads
- Wind loads (tall parapets)
- Vehicle interaction

AB Dogbone Unit



## AB Fieldstone Collection - Parapet

A great benefit of using Allan Block is that our AB Fieldstone Collection is versatile enough to continue a parapet above a retaining wall without requiring mortar or the use of a different type of block. The AB Fieldstone Collection uses a two-piece system comprised of a facing unit and anchoring unit. With the addition of the AB Dogbone unit the construction of a parapet is both fast and efficient. AB Dogbones are half-high connecting units with a minimum of two used per facing unit. When installing, place one AB Dogbone at the bottom and one at the top of the facing unit. The AB Dogbones allow parapets to come in two sizes, standard and wide, providing a variety of possibilities. For more information see the Allan Block Retaining Wall Installation and AB Fieldstone Manuals.

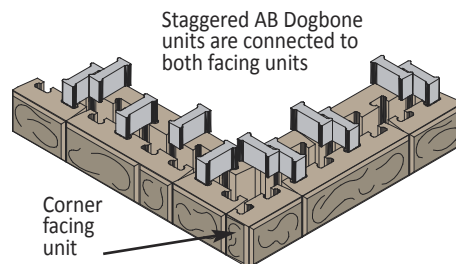
### Parapet Wall Sizes

- Standard - The AB Dogbone units connect the facing units together. This offers the smallest width and are for straight wall use only.
- Wide – The AB Dogbone units act as anchors in the wall rock allowing any size width to be created. This works well for straight and curved walls.

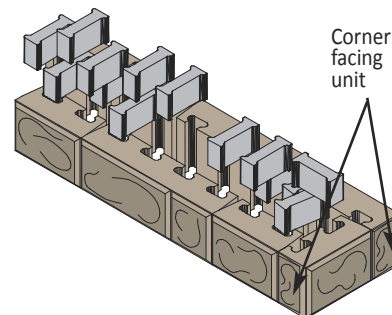
Put more detail into your parapet by adding a post at the corners and throughout the wall. Stand-alone posts are built using four of the corner facing units per course. These blocks have a textured side providing convenient transitions around corners.



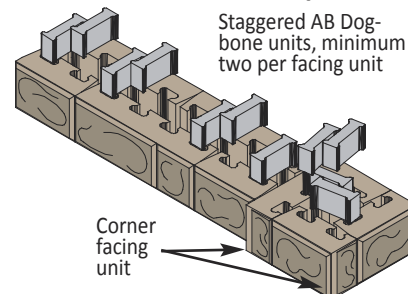
### Standard Parapets



### Wider Parapets - Example 1

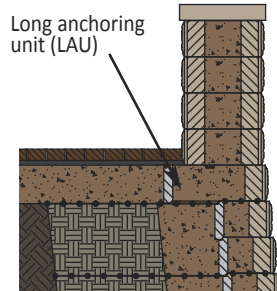


### Posts and Standard Parapets



# Retaining Walls and Parapets

Wider posts can be built by adding cut or full length 812 facing units at the end of the parapet. Fill posts with wall rock in 4 in. (100 mm) lifts to allow for staggered placement of AB Dogbone units. Every facing unit needs to have two AB Dogbone units to secure it in place. For more strength, place a bead of flexible concrete adhesive between units to hold them tight in place during construction (optional).



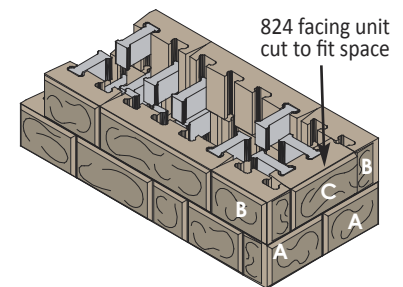
When installing a parapet atop of an AB Fieldstone retaining wall, continue the running bond pattern from the retaining wall through the parapet for flawless transitions. This will also create a stronger overall structure and minimize seams. A long anchoring unit (LAU) on the top course of the retaining wall is required for a level surface for the parapet to be constructed on.

## Creating a Curved Parapet

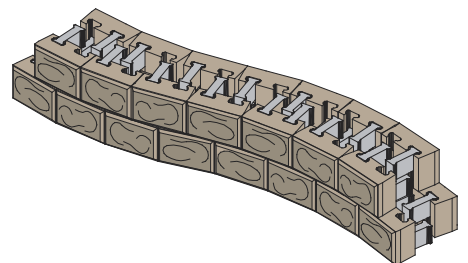
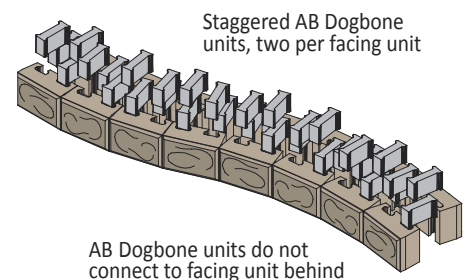
Curved parapets can easily be incorporated using the wider parapet application. For curved parapets to work, the walls need to have a wider spacing between the backs of the facing units to fit the AB Dogbone units and to allow the radius of the curve to form. Curves are not possible in standard parapets as there is limited space. A minimum of two AB Dogbone units are to be used per facing unit.

- To create the curve, start on one side of the parapet and install the 812 facing units in the direction of the curve or serpentine. Keep the front of the facing units tight together. Install entire length of this side of the parapet wall, ensuring all facing units are level.
- Install one Dogbone unit in the first facing unit in the curve to determine placement of back side of parapet. Place the back of an 812 facing unit against the end of the Dogbone unit or spaced away farther to determine width of the parapet. Dogbone units will not connect the facing units together on curves.
- Once the spacing between the facing units is determined, measure between the backs of the two facing units and/or create a jig (piece of wood cut to size) to easily determine spacing of facing units for the rest of the wall.
- Install the remaining facing units to create the back side of the curved parapet wall using the measurement or spacing jig the length of the wall.
- Start placement of the staggered Dogbone units. Place one Dogbone unit per each facing unit the length of the wall. Dogbone units will not connect the facing units together. Adjust and align facing units as needed to fit.
- Carefully install wall rock in a 4 in. lift (10 cm) to the height of the lower Dogbone units the length of the entire wall. External jigs or supports may be required. Rod the wall rock or use a plate compactor (when possible) to ensure proper compaction of the wall rock.
- Place the second Dogbone unit in each facing unit on top of the wall rock and level with or just below the top of the facing unit. Ensure each facing unit has a minimum of two Dogbone units. Finish course by installing wall rock in a 4 in. lift (10 cm) to the top of the facing unit the entire length of the wall. Rod the wall rock to ensure proper compaction of the wall rock.
- If ending a curved parapet at a post or vertical end, cutting facing units to create the transition may be required.
- Install additional courses with the same process, offsetting from the course below. The facing units can be randomly flipped upside down to give different facing appearances.

## Wider Parapet - Example 2



*Parapet graphics are to show facing unit and AB Dogbone placements. All parapet installations need to include wall rock in cores.*



The information shown here is for use with Allan Block products only.