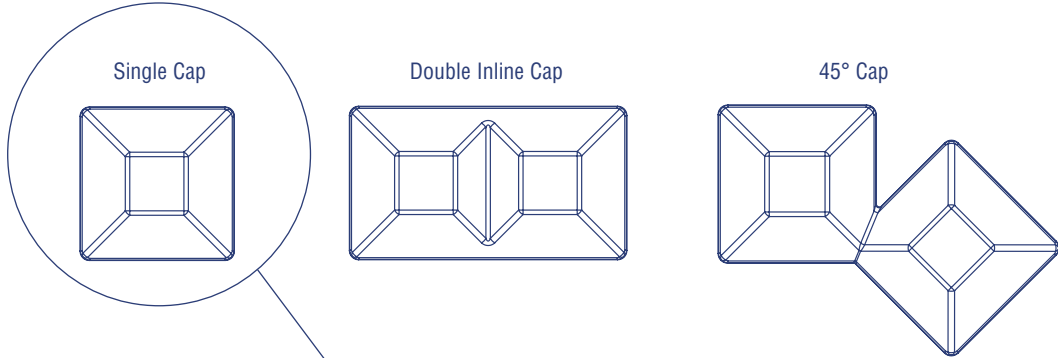


Fence System Components - Molded

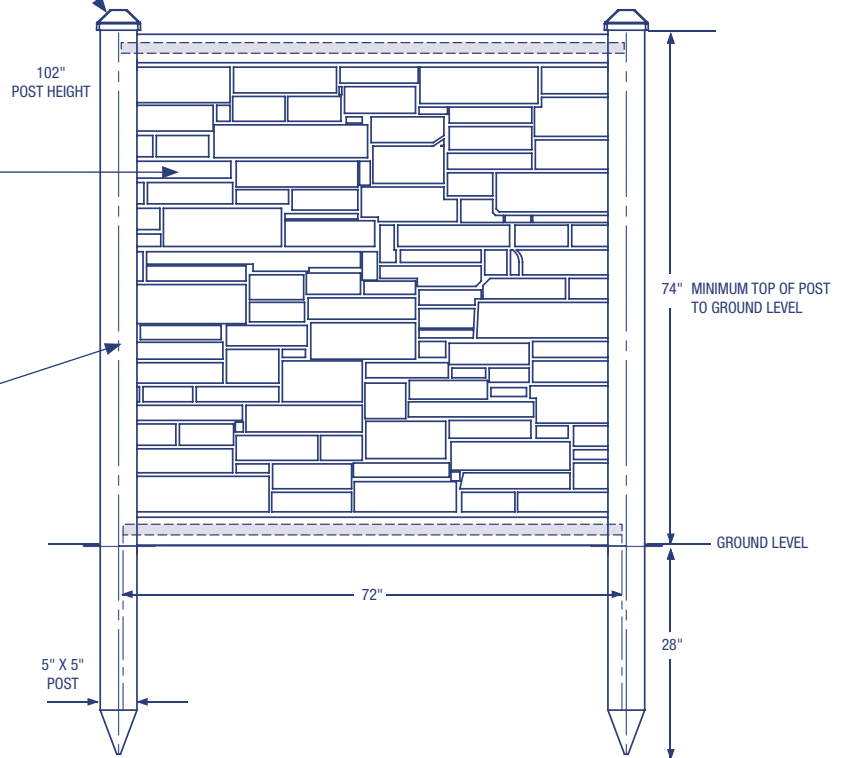
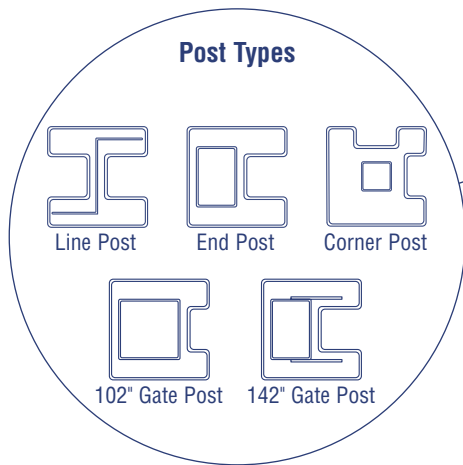
Caps

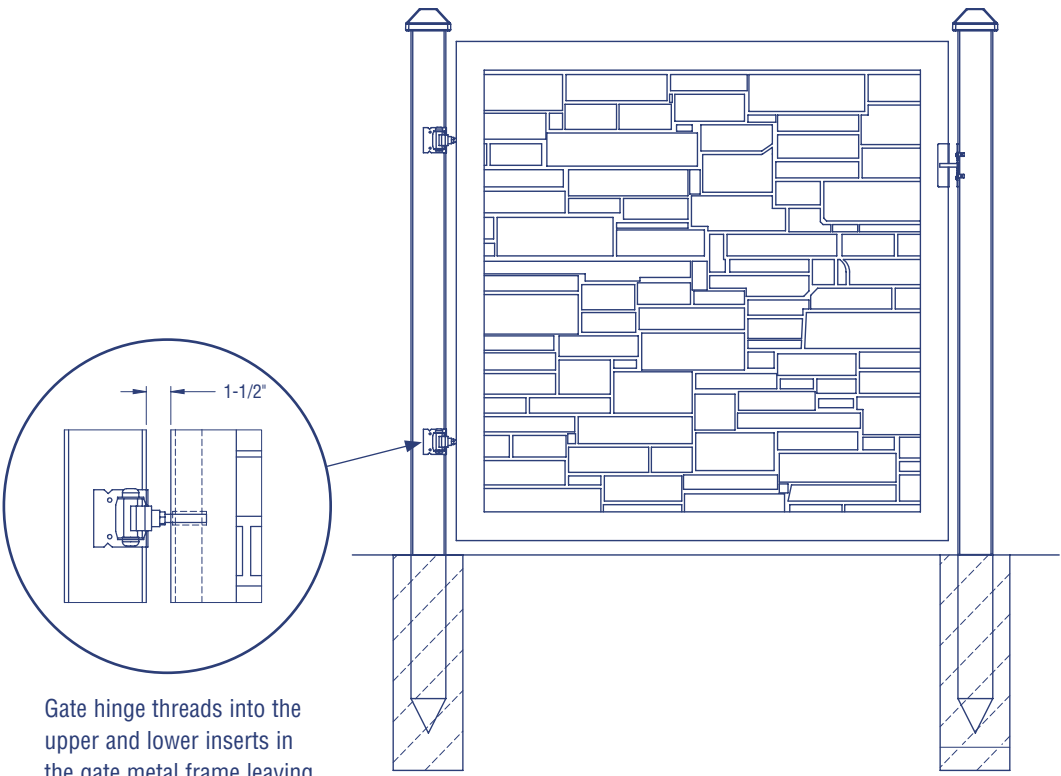


Fence Panel

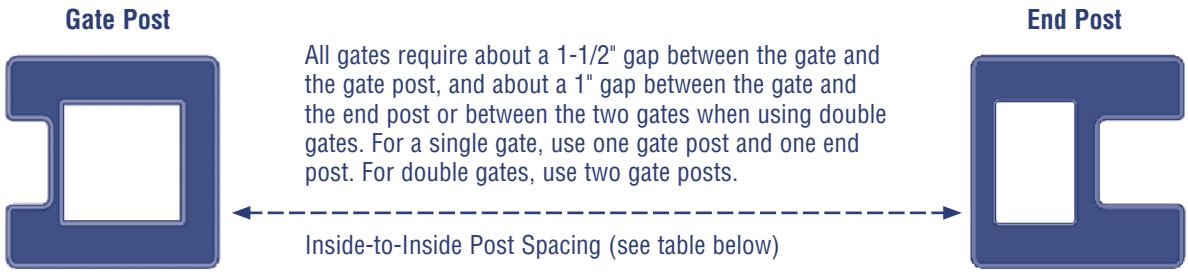
72" x 72"

All size fence panels include steel channel in top and bottom rail





Gate hinge threads into the upper and lower inserts in the gate metal frame leaving about 1.5" from the edge of the gate to the gate post.



Gate Width	Single Opening	Double Drive w/3ft. gate	Double Drive w/4ft. gate	Double Drive w/5ft. gate	Double Drive w/6ft. gate
3ft.	38-1/2"	76"	88"	100"	111"
4ft.	50-1/2"	88"	100"	112"	123"
5ft.	62-1/2"	100"	112"	124"	135"
6ft.	73-1/2"	111"	123"	135"	146"

Tools and Materials

Getting Started

- Site plans and permits
- Measuring tape
- Hammer or mallet
- Wooden stakes
- String line
- Spray paint for hole centers for post and gate spacing
- Wooden spacer bar for post and gate spacing
- Level
- Concrete

Assembling Fence/Gates

- Drop cloth
- Hacksaw, circular saw or chop saw with masonry blade
- Square
- #3 square drive bit
- Phillips #2 screwdriver
- Drill and drill bits
 - 1/8" for #8 screws
 - 1/4" for bullet clips and drain holes
 - 11/64" for gate assembly
 - 5/32" for gate hardware if using aluminum insert
 - 3/8" for lock rings
- 1/2" deep socket (or nut driver) for traditional picket
- 3/8" nut-driver - Molded

Digging Holes

- Post hole digging tools
 - Shovel
 - Post hole digger
 - 10" auger for 4x4 posts
 - 12" auger for 5x5 posts

Installing Post

- Wheelbarrow
- Concrete mixing tools
- Short length of wood, 2x4 for tamping concrete
- Garden hose
- Level

Installing Bottom Rail

- Leveling blocks
- Shim stock
- Duct tape to seal rail ends

Installing Gate(s) Extruded

- Wrench
 - 7/16" for hinge nuts
- Flat screwdriver to activate hinge spring

Installing Gate(s) Molded

- 7/32" Allen wrench
- 3/8" nut-driver

Filling Post with Concrete extruded

- Rubber mallet to tamp post
- Funnel for filling post
- Ladder for high fences

Cleaning Up

- Abrasive-type pad
- Bucket and sponge

Additional Tools - Installing on Concrete

- 1/2" masonry drill
- Core drill

Additional Tools - EZ Set Brackets

- 7/16" wrench
- Post routing - Extruded
- Template kit with router
- Spiral saw

General Information

Be sure to call underground (811) prior to digging.

Installation techniques may vary in different regions; be sure to check local requirements prior to installation.

Concrete Requirements

All posts require concrete to be poured around the post base. All hinge and latch posts require reinforcement using aluminum post inserts high enough to attach gate hardware (or concrete and rebar).

- Avoid “soupy” concrete mix as it will make concrete weak

Concrete Usage for Posts				
Post Size	Fence Height	End Line or Corner Posts	End Posts Filled with Concrete	Gate Posts
4x4	3'	100 lbs	145 lbs	160 lbs
4x4	4'	100 lbs	155 lbs	175 lbs
5x5	5'	140 lbs	235 lbs	270 lbs
5x5	6'	140 lbs	240 lbs	285 lbs
5x5	2 rail	140 lbs	210 lbs	240 lbs
5x5	3 rail	140 lbs	230 lbs	260 lbs
5x5	4 rail	140 lbs	250 lbs	280 lbs

Note: Determine total pounds of concrete required based on number of posts required. Divide by 60 or 80 lb. bag.
Figures based on 4x4 hole=10", 5x5 hole=12", both 30" deep.

- Check local codes for frost line depth and regulations

Solidify Posts - Extruded

Gate hinge and latch posts as well as end posts can be solidified by using an aluminum gate post stiffener inside each post or by filling post with concrete and rebar.*

Rebar Separator Clips (for use with rebar and concrete method)

Use 2 clips for each post. Position clips on the rebar approximately 6" down from top and 6" up from bottom. Clips are located in gate hardware box.

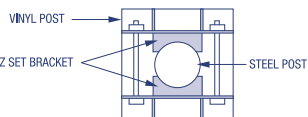
Alternative Fence Installations

For fence systems on concrete, use steel posts. On concrete applications fence may be installed with 1-5/8" (4 x 4 post) or 1-7/8" (5 x 5 post) galvanized steel post set in hydraulic cement. EZ Set bracket bolts to post as a spacer.

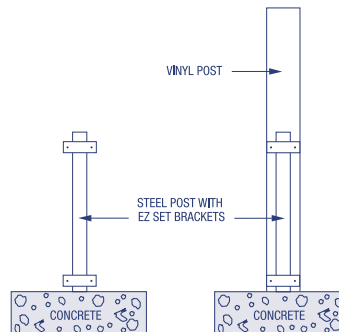
For wall mounting, use wall mount brackets.

EZ Set Bracket Installation Instructions on Concrete

- Core drill hole into concrete
- Minimum 4" deep
- Post centers will remain the same as normal installation
- Rails will have to be cut down to fit between steel post
- Fill hole with hydraulic cement. Insert steel post
 - For 4" vinyl post, set 1 5/8" OD steel post
 - For 5" vinyl post, set 1-7/8" OD steel post



- Steel post should go at least halfway up the vinyl post
- Put EZ Set brackets together and slide over steel post
- Place one bracket on steel post below where the routed hole will be on your vinyl post
- Place other bracket just below the top of your steel post
- Slide vinyl post over steel post with EZ Set brackets



Care of the Product

- Place fence components on a non-abrasive surface, such as a drop cloth, to avoid scratching
- Protect components during transportation to your installation site to avoid damage
- Avoid excessive force when assembling components
- Avoid overtightening fasteners
- Clean fence with mild detergent and a plastic scouring pad. For more stubborn stains, use a cleanser such as Soft Scrub® or cleaning solution listed on warranty
- Concrete is easily washed off when wet, but can also be removed when dry

Gates - Extruded

- Specific gate hardware instructions included with individual components
- Gate(s) must be assembled prior to fence to accurately establish space between hinge and latch posts and height of fence
- Gate requires 2" clearance under bottom rail on level ground
- When building gates in the field, ensure that 1/4" drain holes are drilled in bottom rail
- Determine gate swing direction to assist in ground clearance and positioning
- Steel channel not required in bottom rail of gate

* Caution – In climates that experience freeze-thaw cycles, this installation method could result in post cracking over time. This would not be covered by the warranty.

Privacy Fence – Allegheny® 4', and 6' High

1. Getting Started

- Be sure to call underground (811) prior to digging
- Determine gate location(s)
- Stake out the fence line
- Space and mark post hole locations for gate and sections (spacer bar/template may be useful)
- Start at an end, gate, or corner post and work outward to determine proper fence height relative to ground. If there is a slope it is easier to begin at the top end and work your way downhill

2. Dig Holes

- Dig holes 30" deep or to frost line
 - Hole size for 5 x 5 posts = approximately 12"
- Clean holes and check for straight walls
- Bell bottom of holes

3. Install Panel Brackets (note: brackets come attached to the tip of fence posts)

- Determine height of bracket from top of post
- Attach bracket to post with #14 hex washer head self-tapping screw
NOTE: Put the screw through the hole as close to the top as you are able
- A template can speed attachment for level installations

4. Cutting Down Posts (if required)

- Measure height from top of post
- Cut off bottom of post with metal cutting blade
- Never cut the top of the post

5. Setting Posts

- Insert post in hole
- Determine rough height
- Fill hole around post with concrete mix (sand, gravel and cement) approximately 2" or 4" below grade
- Tamp concrete in hole to eliminate air pockets
- Level and square post

6. Spacing Posts (See page 25 for post centers)

- Use steel stiffener from panel to ensure panels will level
- Place stiffener between posts
- Set post (leave spacer in place for one hour minimum)

ProTip: create your own template/space to ensure post spacing.

6'x 6' = 70-3/4"

4'x 8' = 95"

7. Install Fence Panels

- Check to ensure top and bottom rails have stiffeners. They come installed, however, may have been removed to use as spacers when setting posts
- Lift panel to approximately 4' off ground
- Insert panel into channel on first post
- Flex the next post until the channel will receive panel
- Ease panel down onto panel brackets
- Level panel

8. Secure Fence Panels

- Panels must be attached to end, gate, and corner post with one fastener per panel
- To prevent unauthorized panel removal, you can attach one end of each panel into the post with one fastener
- Never attach both ends of a panel to posts

9. Cutting Panels (if required)

- Remove steel stiffeners from panel
- Determine distance between posts from inside of channel to inside of channel
- Cut stiffeners to that width
- Measure and mark panel 1/2" shorter than stiffeners (this is needed for expansion and contraction of panel)
- Cut panel

10. Gate Openings

- Post spacing is critical. The ideal spacing is 1" on latch post and 1-1/2" between hinge post
- Hinges should be attached to a gate post

11. Gate Installation

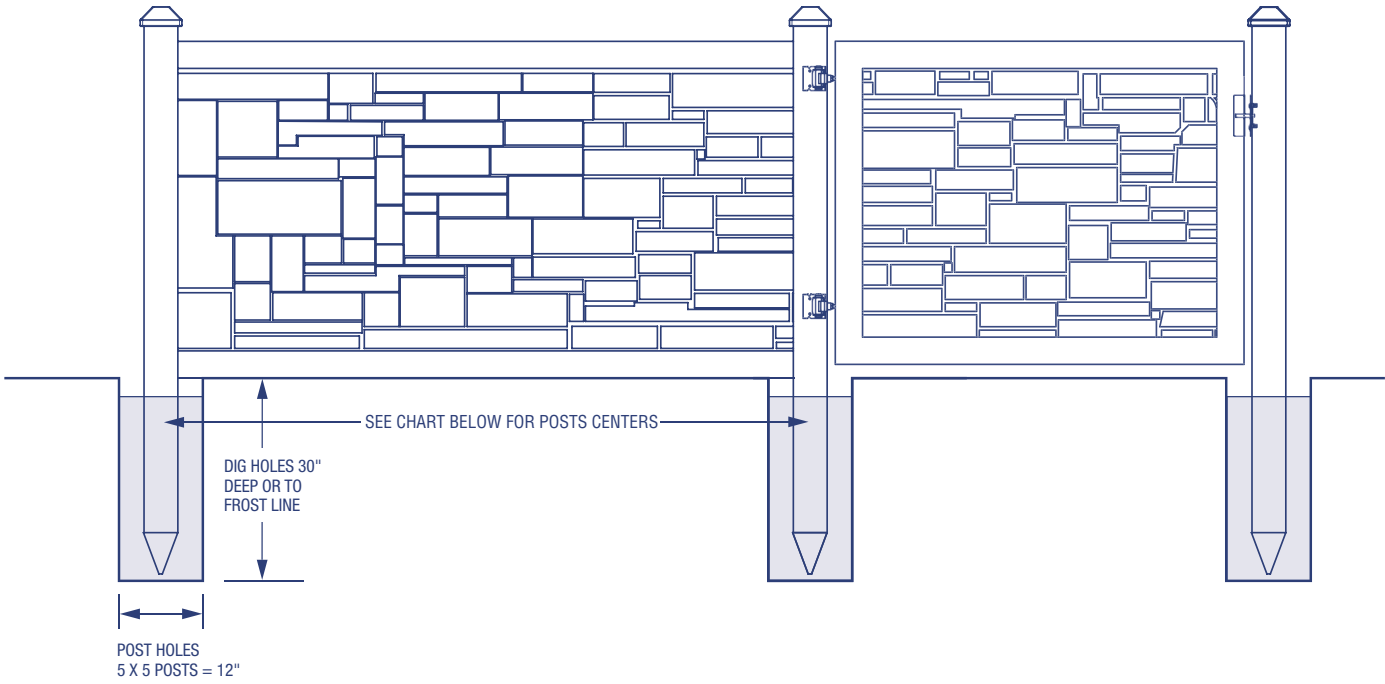
- First, attach striker bar to gate using provided button head screws
- Thread the 1/2" hinge rod into the upper and lower inserts in the metal gate frame leaving approximately 1-1/2" from the edge of the gate to the bracket
- Determine proper height for gate and block up gate square with fence
- Attach hinges to gate post with 2-1/2" self-tapping screws provided (do not over tighten screws as this can crush the internal foam and make an indentation in the post)
- Level the gate
- Align the latch with the striker bar and attach the latch to end post with 2-1/2" self-tapping screws provided

12. Install Caps

- Install post caps (caps are pressure fit, however a 3" deck screw can be driven through the top of the cap into the middle of the post if desired)

Privacy Fence

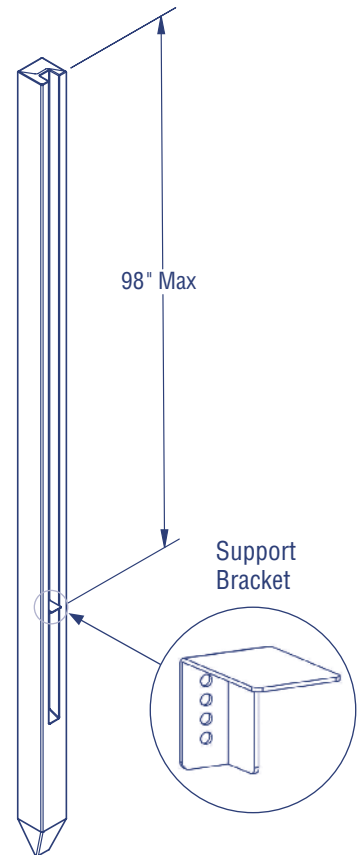
Includes: Allegheny



Panel Size	4'	6'	8'
Bracket Location from top of post	50"	74"	98"

Center to Center Post Dimensions

NEW for 2021		Line	Corner	End	Gate
		6'x6'	Line	72"	73"
	Corner		74"	73"	74"
4'x8'	Line	96"	97"	96"	97"
	Corner		98"	97"	98"



FEATURING
WINDZONE™
PERFORMANCE

Privacy Fence – Allegheny® 8' High

1. Getting Started

- Be sure to call underground (811) prior to digging
- Determine gate location(s)
- Stake out the fence line
- Space and mark post hole locations for gate and sections (spacer bar/template may be useful)
- Start at an end, gate, or corner post and work outward to determine proper fence height relative to ground. If there is a slope it is easier to begin at the top end and work your way downhill

2. Dig Holes

- Dig holes 48" deep
 - Hole size for 5 x 5 posts = approximately 12"
- Clean holes and check for straight walls
- Bell bottom of holes

3. Install fence brackets (note brackets come attached to the tip of fence posts)

- Determine height of bracket from top of post
- Attach bracket to post with #14 hex washer head self-tapping screw
 - NOTE: Put the screw through the hole as close to the top as you are able
- A template can speed attachment for level installations

4. Cutting Down Posts (if required)

- Measure height from top of post
- Cut off bottom of post with metal cutting blade
- Never cut the top of the post

5. Setting Post

- Insert post in hole
- Determine rough height
- Fill hole around post with concrete mix (sand, gravel and cement) approximately 2" or 4" below grade
- Tamp concrete in hole to eliminate air pockets
- Level and square post

6. Spacing Posts

- Use steel stiffener from panel (95" – 8')
- Place stiffener between posts
- Set post (leave spacer in place for one hour minimum)
- Set 3 to 4 posts with stiffeners as spacers, then advance them one at a time starting with the first stiffener

7. Install Bottom Fence Panels

- Check to ensure top and bottom rails have stiffeners. They come installed, however, may have been removed to use as spacers when setting posts
- Lift panel and insert into post channels
- Ease panel down onto fence brackets
- Level panel
 - NOTE: Be certain that the 2" high rail is on top of the bottom panel

8. Install top panel

- Lift panel and insert into post channels
- Ease panel down onto bottom panel

NOTE: Be certain the 2" high rail is on the bottom of the top panel

Tip: When installing panels, insert a short piece of 1-3/8" pipe into both ends of the panel to use as handles. 2x6 wood blocks can be used to support panel while lowering.

9. Secure fence panels

- Panels must be attached to end and gate post with one fastener per panel
- To prevent unauthorized panel removal, you can attach one end of each panel into the post with one fastener
- Never attach both ends of a panel to posts

10. Cutting panels (if required)

- Remove steel stiffeners from panel
- Determine distance between posts from inside of channel to inside of channel
- Cut stiffeners 1/4" shorter than that measurement
- Measure and mark panel 1/4" shorter than stiffeners (this is needed for expansion and contraction of panel)
- Cut panel
- A cut panel bracket is required on top and bottom cut panels.

Tip: Pinning the cut panel bracket in place will help with installation

11. Gate openings

- Post spacing is critical. The ideal spacing is 1" on latch post and 1-1/2" between hinge post.
- Hinges should be attached to a gate post

12. Gate installation

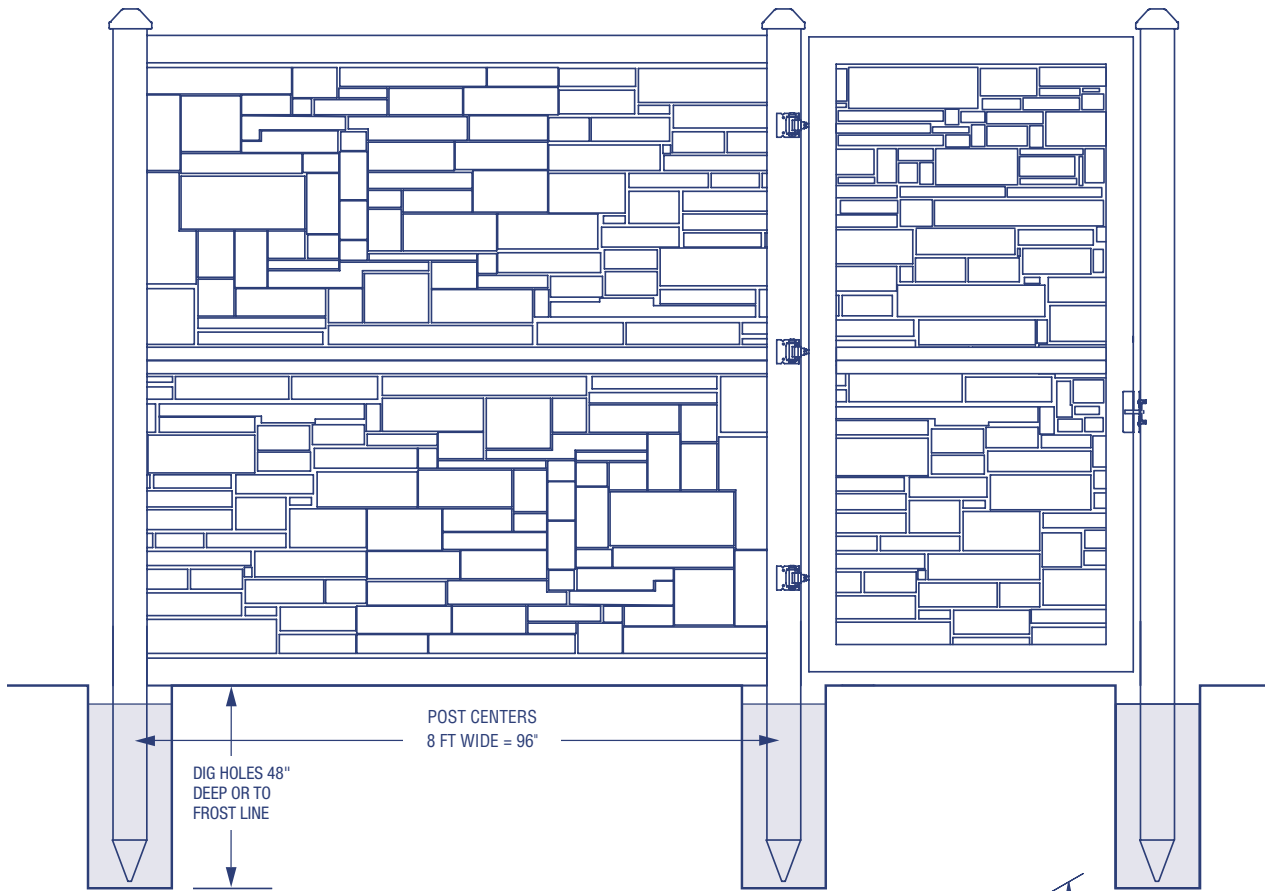
- First, attach striker bar to gate using provide button head screws
- Thread the 1/2" hinge rod into the upper and lower inserts in the metal gate frame leaving approximately 1-1/2" from the edge of the gate to the bracket.
- Determine proper height for gate and block up gate square with fence
- Attach hinges to gate post with 2-1/2" self-tapping screws provided (do not over tighten screws as this can crush the internal foam and make an indentation in the post)
- Level the gate
- Align the latch with the striker bar and attach the latch to end post with 2-1/2" self-tapping screws provided.

13. Install caps

- Install post caps (caps are pressure fit, however a 3" stainless steel deck screw can be driven through the top of the cap into the middle of the post if desired)

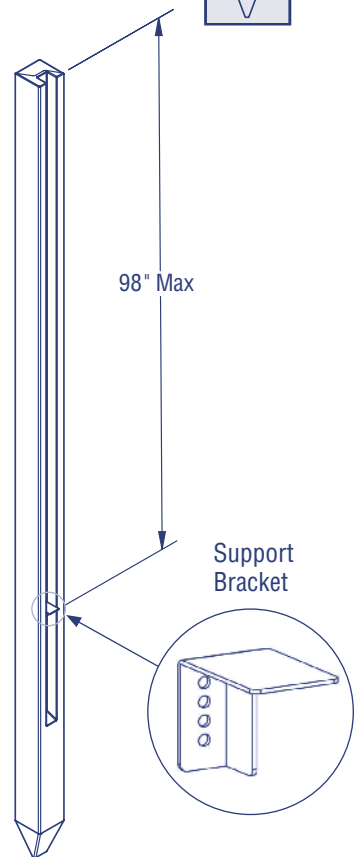
Privacy Fence

Includes: Allegheny



POST HOLES
5 X 5 POSTS = 12"

Panel Size	4'	6'	8'
Bracket Location from top of post	50"	74"	98"



Privacy Fence – Sherwood 4' and 6' High

1. Getting Started

- Be sure to call underground (811) prior to digging
- Determine gate location(s)
- Stake out the fence line
- Space and mark post hole locations for gate and sections (spacer bar/template may be useful)
- Start at an end, gate, or corner post and work outward to determine proper fence height relative to ground. If there is a slope it is easier to begin at the top end and work your way downhill

2. Dig Holes

- Dig holes 48" deep
 - Hole size for 5 x 5 posts = approximately 12"
- Clean holes and check for straight walls
- Bell bottom of holes

3. Install Panel Brackets (note brackets come attached to the tip of fence posts)

- Determine height of bracket from top of post
- Attach bracket to post with #14 hex washer head self-tapping screw
NOTE: Put the screw through the hole as close to the top as you are able
- A template can speed attachment for level installations

4. Cutting Down Posts (if required)

- Measure height from top of post
- Cut off bottom of post with metal cutting blade
- Never cut the top of the post

5. Setting Posts

- Insert post and hole
- Determine rough height
- Fill hole around post with concrete mix (sand, gravel and cement) approximately 2" or 4" below grade
- Tamp concrete in hole to eliminate air pockets
- Level and square post

6. Spacing Posts (See page 29 for post centers)

- Use steel stiffener from panel to ensure panels will level
- Place stiffener between posts.
- Set post (leave spacer in place for one hour minimum)

ProTip: create your own template/space to ensure post spacing.

6'x 6' = 70-3/4"
4'x 8' = 95"

7. Install Fence Panels

- Check to ensure top and bottom rails have stiffeners. They come installed, however may have been removed to use as spacers when setting posts
- Lift panel to approximately 4' off ground
- Insert panel into channel on first post
- Flex the next post until the channel will receive panel
- Ease panel down onto fence brackets
- Level panel

8. Secure Fence Panels

- Panels must be attached to end, gate, and corner post with one fastener per panel
- To prevent unauthorized panel removal, you can attach one end of each panel into the post with one fastener
- Never attach both ends of a panel to posts

9. Cutting Panels (if required)

- Remove steel stiffeners from panel
- Determine distance between posts from inside of channel to inside of channel
- Cut stiffeners to that width
- Measure and mark panel 1/2" shorter than stiffeners (this is needed for expansion and contraction of panel)
- Cut panel
NOTE: 6 ft panel includes vertical steel insert in center of panel.

10. Gate Openings

- Post spacing is critical. The ideal spacing is 1" on latch post and 1-1/2" between hinge post
- Hinges should be attached to a gate post

11. Gate Installation

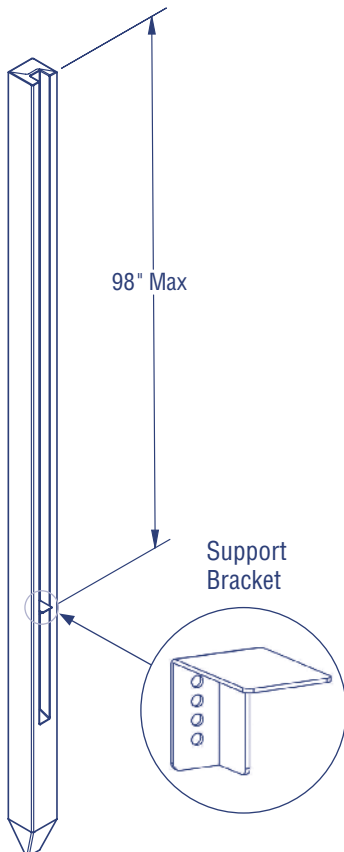
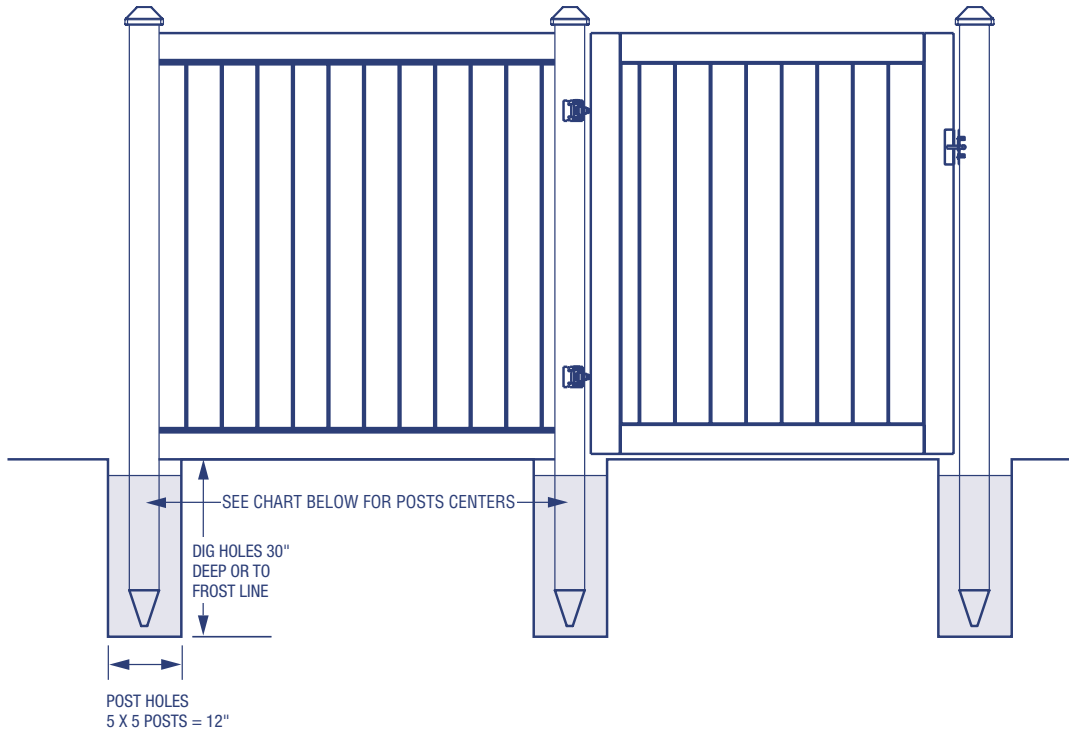
- First, attach striker bar to gate using provide button head screws
- Thread the 1/2" hinge rod into the upper and lower inserts in the metal gate frame leaving approximately 1-1/2" from the edge of the gate to the bracket.
- Determine proper height for gate and block up gate square with fence
- Attach hinges to gate post with 2-1/2" self-tapping screws provided (do not over tighten screws as this can crush the internal foam and make an indentation in the post
- Level the gate
- Align the latch with the striker bar and attach the latch to end post with 2-1/2" self-tapping screws provided.

12. Install Caps

- Install post caps (caps are pressure fit, however a 3" deck screw can be driven through the top of the cap into the middle of the post if desired)

Privacy Fence

Includes: Sherwood



Panel Size	4'	6'	8'
Bracket Location from top of post	50"	74"	98"

Center to Center Post Dimensions for 6ft

NEW for 2021		Line	Corner	End	Gate
		6'x6'	Line	72"	73"
	Corner		74"	73"	74"
4'x8'	Line	96"	97"	96"	97"
	Corner		98"	97"	98"

Variable Terrain Installation – Molded

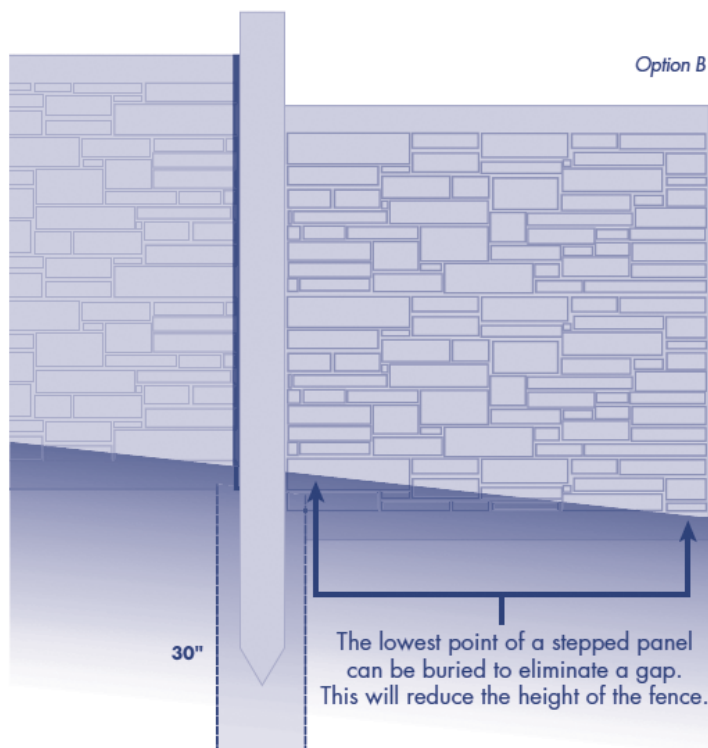
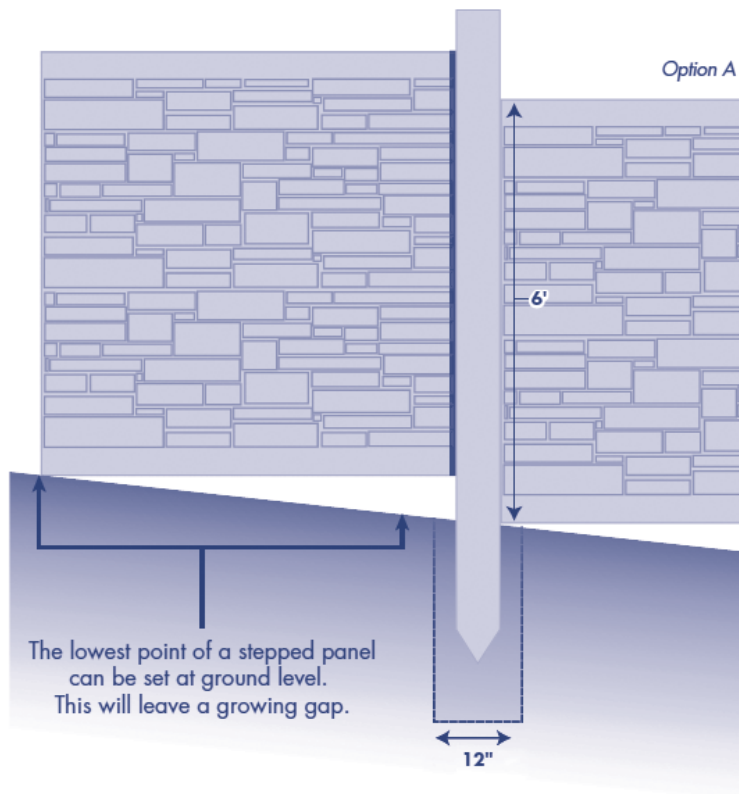
Installation on sloping terrain is similar to that on flat terrain.

Professionals typically use a laser to shoot and obtain a grade.

- Set the first post on the uphill side. Post placement is important! Posts are typically placed at the point where the slope changes, whether in a peak or a valley.
- The panel support brackets should be pre-attached at 50" for 4ft, 74" for 6ft, and can receive the down hill side of the panel at that height. Once the slope and the drop per panel have been determined, the bracket on the uphill side should be adjusted to the proper height. Panels will always be set level even on a slope.
- Set the second post and make any adjustments to bracket position.
- Use steel stiffeners for spacing to set the distance for each succeeding post.
- Use a level on the stiffener to ensure panels will be level when installed.
- For more information see illustration A and B
- Please visit our website for a full installation video www.certainteed.com/fence/simtek-installation-videos/

NOTE: A 6' wide panel can be stepped as much as 12" per panel. For steeper elevations you can use our 142" long post. To reduce the gap under the panel, you can reduce the width of the panel and add additional post.

For more details and instructions call your sales representative.



Stepping Method

With the stepping method, panels remain horizontal and posts are extended to accommodate the variance in terrain. Longer post may be required. (A 6' wide panel can be stepped up to 12" per panel using our 102" post. For steeper elevations our 142" post is required.)

1. Attach panel brackets on one side of post at standard height
2. Determine step and attach panel bracket to other side of post
3. Set first post on the uphill side and work your way down
4. Just as with level installation use panel stiffeners as spacers to set next post
5. Level stiffener and adjust bracket if necessary

CAUTION: Molded fence panels are not engineered for use as a retaining wall. If burying the bottom of a panel the ground level must be the same on both sides.

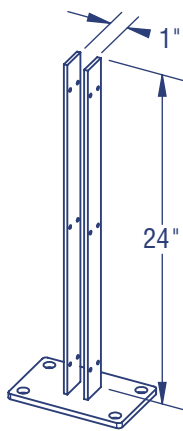
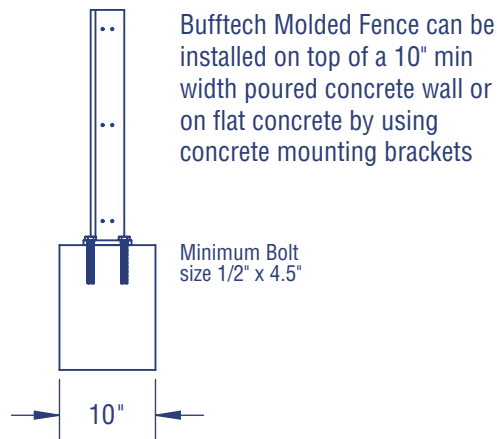
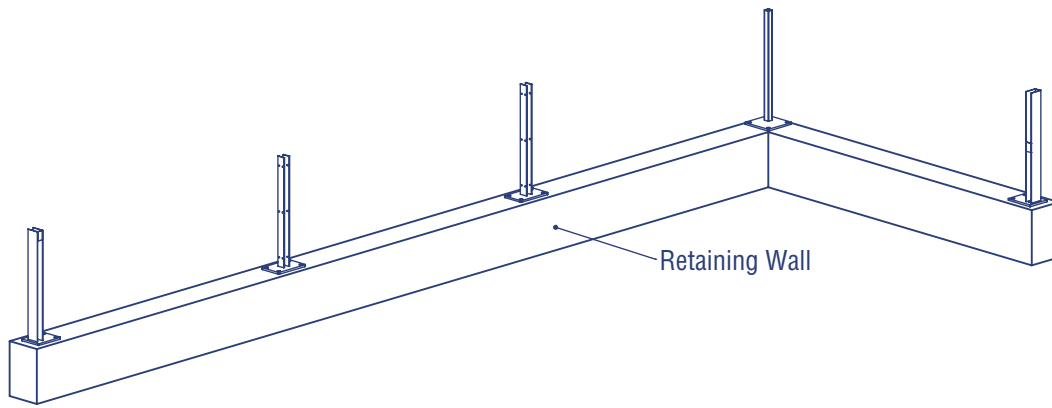
Concrete Installation – Molded

Concrete Install - Molded

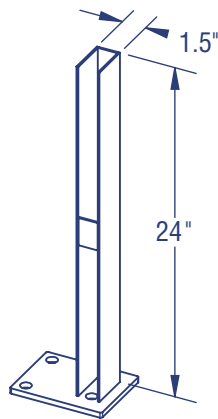
Molded fence panels can be installed on top of a 10" minimum width poured concrete wall or on flat concrete using our concrete mounting brackets. Concrete mounts are available for end, gate, line, and corner posts along with post skirts for a clean look. Be sure concrete is structurally sound for installation of fence.

1. Cutting down post
 - a. Measure height from top of post
 - b. Cut off bottom of post with metal cutting blade
 - c. Never cut the top of the post
2. Install concrete mounting brackets
 - a. Drill all four holes through the pre-drilled holes in the steel plate
 - b. Install concrete mounts to concrete with fasteners with at least 4,000 lbs. shear strength (minimum bolt size is 1/2" x 4-1/2")
 - c. Shim to level if necessary
3. Install post skirts
4. - install post to concrete mounting bracket
 - a. attached to concrete mounting bracket with three screws
(line post - insert three staggered screws on each side of the strap into the pre-drilled holes)
5. - install fence panels and post caps

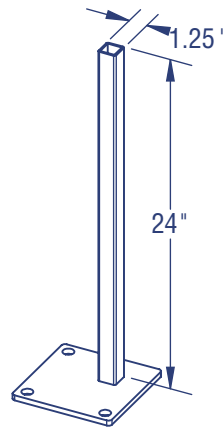
NOTE: Because panels normally sit directly on the wall or concrete surface panel brackets are unnecessary when using concrete mounts.



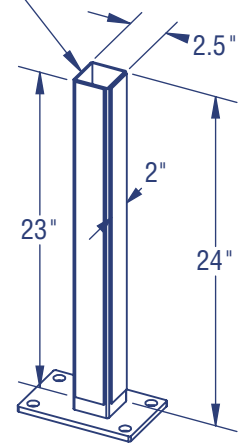
Line Shoe



End Shoe

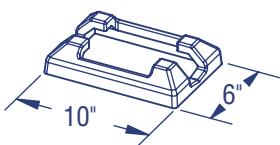


Corner Shoe

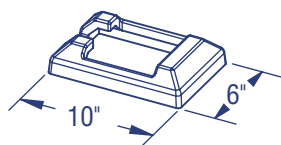


Gate Shoe

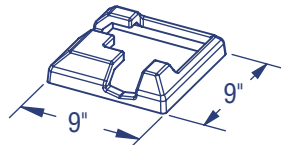
Use epoxy anchors instead of wedge anchors for gate shoe



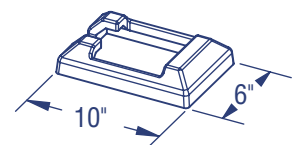
Line Shoe Skirt



End Shoe Skirt



Corner Shoe Skirt



Gate Shoe Skirt

Glossary

Accent Decorative addition to top of fence such as lattice.

Aluminum Channel Aluminum structural support used as a stiffener in rails.

Auger Hand or machine-operated tool with a screw-like shank for boring holes in soil.

Blocking Method for supporting horizontal members, such as fence rails or gates.

Brace Diagonal component of a gate; provides dimensional stability.

Bullet Clip Gravity clip that is used to hold rails in posts.

Caps Vinyl accessory placed on top of fence posts to provide a finished look and prevent water penetration.

Crimp Lock Method for fastening rails inside posts. The rail is notched (crimped) so that it stays within the post once inserted.

EZ Set Bracket Aluminum bracket system that fits over a steel post as an alternative installation method to secure and hold vinyl post in position.

Fence Layout Section-by-section diagram of the proposed fence line.

Frost Line Lowest level in soil that freezes. Frost line depth depends on winter temperatures, soil type and vegetation cover, and varies from 0" in warm regions to 3' or more in cold-winter areas.

Gate Movable framework or solid structure that swings on hinges; controls entrance or exit through an opening in a fence.

Gate Post Stiffener Structural aluminum support used in gate hinge and latch posts to solidify as an alternative to traditional concrete and rebar method.

Gloss Describes amount of reflection or sheen on the surface of vinyl.

Good Neighbor Fence Fence that has the same look on both sides.

Lock Ring Circular-shaped fastener with tabs that insert into rails for holding into posts.

Opposite Gate Used in double-gate situations; complements the primary gate; diagonal brace is secured in the opposite direction for a pleasing, symmetrical look.

On Center (O.C.) Measure from the center of one object (e.g., a post) to the center of the next post.

Picket Vertical member of fence between rails.

Post Vertical support member of fence system.

Picket End Channel U-shaped channel attached to the posts on both ends of a privacy fence section.

PVC Polyvinyl chloride, the plastic resin used to manufacture "vinyl" fence.

Rail Horizontal pieces between fence posts.

Racking Method of installing fence on sloped terrain. Fence posts and pickets are plumb, but the rails are secured at an angle so they parallel the grade.

Rebar Reinforcing bar, placed in end and gate posts to vertically reinforce the fence; No. 4 rebar is 1/2" diameter.

Routing Template A guide used for field routing posts that require hole positions other than standard.

Scalloped Fence style in which the pickets follow a concave pattern high on both ends and low in the middle.

Slope Degree of incline of a hillside; measured in inches of rise per horizontal inches of run (degree of rack).

Snap Cap Decorative plastic cap and washer system used to cover the screw head.

Spacer Bar Wood or like material used to determine infill area between sections or gates (post spacing).

Steel Channel Galvanized steel structural support used as a stiffener in vinyl rails.

Stepping Method of installing fence on sloped terrain. Fence rails remain horizontal, and posts are extended to accommodate the variance in the grade.

Tamp Method of releasing air pockets in concrete by the use of repeated light blows with a mallet on outside of post or piece of lumber in post hole.

Wall Mount Brackets Aluminum bracket system used as an alternative installation method to fasten fence rails directly to walls or other structural surface.

Weep Holes Openings drilled in bottom rails for drainage of water.