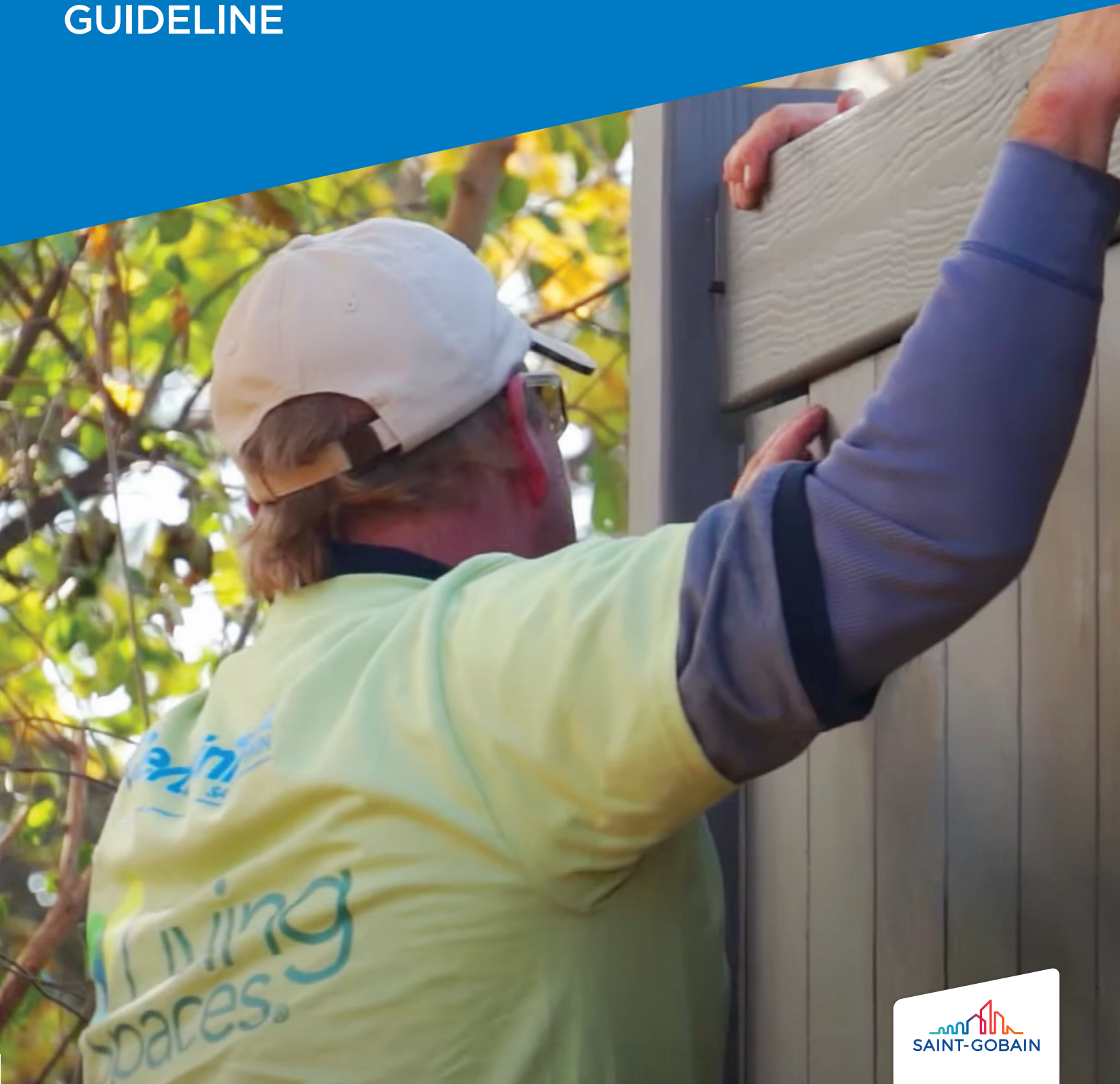# CertainTeed
SAINT-GOBAIN

Bufftech®

MOLDED FENCE INSTALLATION GUIDELINE

SAINT-GOBAIN

Warranties

This information contained in this Installation Guide describes and illustrates the steps required to properly install CertainTeed fence under normal conditions. The Installation Guide provides detailed information and how-to tips that will support a successful installation.

These requirements are provided throughout this Guide. Also, consult local building codes for additional requirements. Should you have questions about installation techniques, you may contact CertainTeed for further information. Any deviations from these requirements described in this Guide must be addressed and approved in writing by CertainTeed. Please be aware that CertainTeed does not accept any liability or responsibility under its written limited warranty for failure caused by an application that does not meet the requirements for proper installation. Improper installation may void coverage under the limited warranty. For a complete list of a limitations please refer to the Bufftech Fence Limited Lifetime Warranty.

In rare instances, intense sunlight reflected from glass or other reflective surfaces may create heat buildup and cause vinyl fence to distort or melt. To help minimize the effects of heat buildup from reflected sunlight, the homeowner may take one or more of the following measures:

• Install a screen in the window causing the reflection.

• Install an awning over the window to break the line of light reflection.

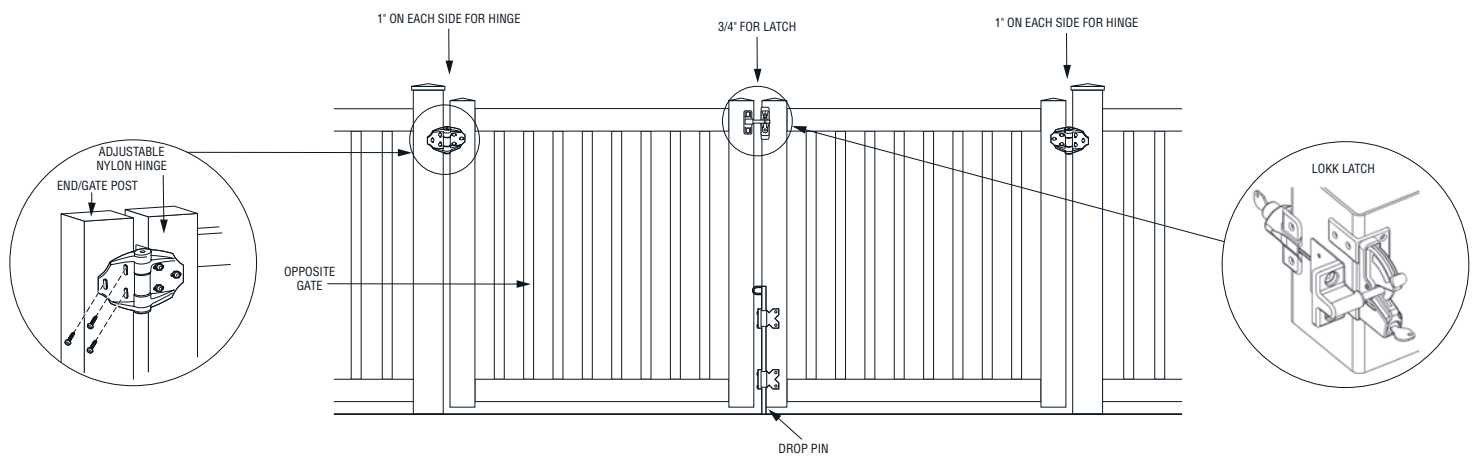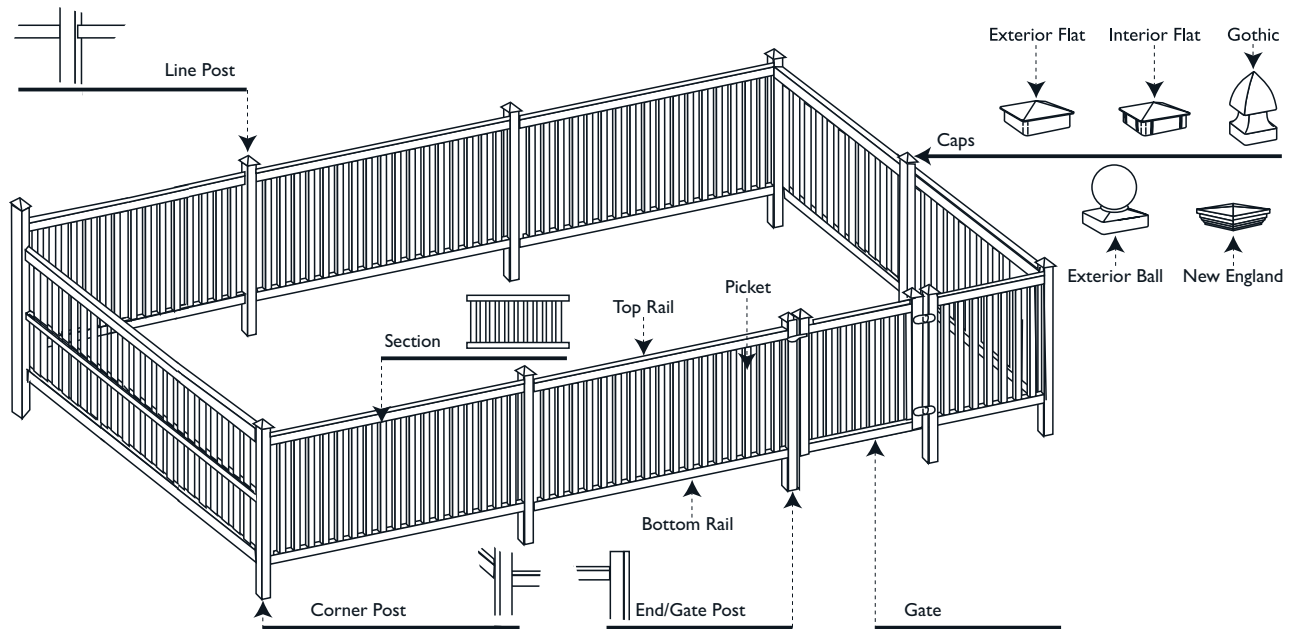• Use shrubbery to protect the area of siding from reflections.

Distorted or melted fence caused by the reflection of sunlight is not covered under the limited warranty. For more information on the potential damaging effects of concentrated solar reflection, visit the VSI website at https://www.vinylsiding.org/homeowners/resources/understanding-concentrated-solar-reflection/

Building codes and regulations vary throughout the country. Be sure to check with your local code official or governing body for the building requirements in your area.

Table of Contents

Fence System Components - Extruded

Line Post

Exterior Flat   Interior Flat   Gothic

Caps

Exterior Ball   New England

Section

Top Rail

Picket

Bottom Rail

Corner Post   End/Gate Post   Gate

1" ON EACH SIDE FOR HINGE

3/4" FOR LATCH

1" ON EACH SIDE FOR HINGE

ADJUSTABLE
NYLON HINGE

END/GATE POST

OPPOSITE
GATE

LOKK LATCH

DROP PIN

Fence System Components - Molded

Caps

Single Cap   Double Inline Cap   45° Cap

Fence Panel

72" x 72"
All size fence panels include steel channel in top and bottom rail

Post Types

Line Post   End Post   Corner Post

102" Gate Post   142" Gate Post

102"
POST HEIGHT

74" MINIMUM TOP OF POST
TO GROUND LEVEL

GROUND LEVEL

72"

28"

5" X 5"
POST

1-1/2"

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 Post

End Post

All gates require about a 1-1/2" gap between the gate and the gate post, and about a 1" gap between the gate and the end post or between the two gates when using double gates. For a single gate, use one gate post and one end post. For double gates, use two gate posts.

Inside-to-Inside Post Spacing (see table below)

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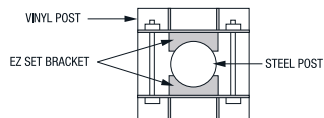
- Steel post should go at least halfway up the vinyl post
- Put EZ Set brackets together and slide over steel post
- Place one bracket on steel post below where the routed hole will be on your vinyl post
- Place other bracket just below the top of your steel post
- Slide vinyl post over steel post with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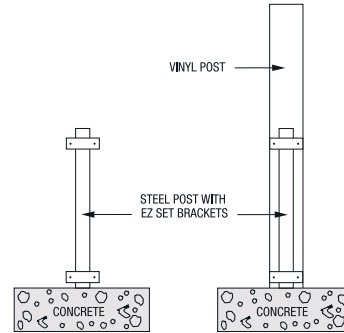
Care of the Product

- 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.

7

Includes: 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 are level
- Place stiffener between posts
- Set post (leave spacer in place for one hour minimum)

ProTip: create your own template/spacer 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 ½″ 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

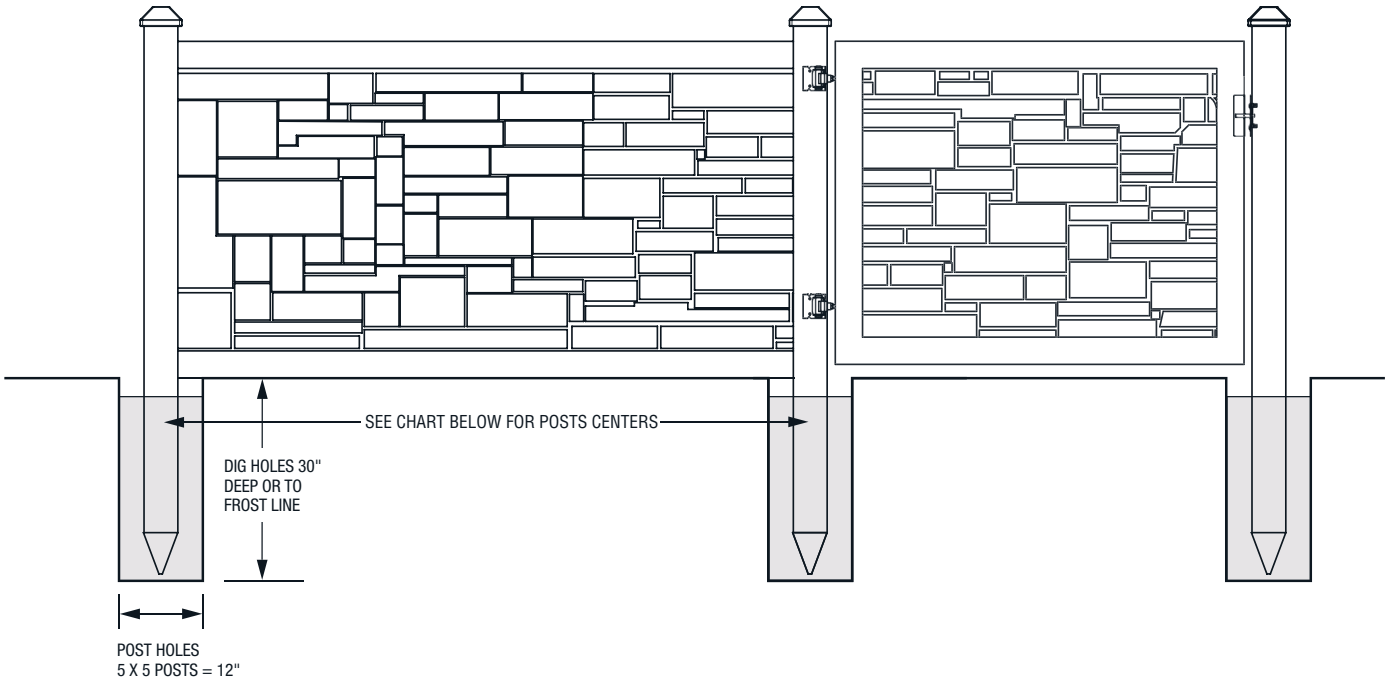- First, attach striker bar to gate using provided button head screws
- Thread the ½″ hinge rod into the upper and lower inserts in the metal gate frame leaving approximately 1-1/2″ from the edge of the gate to the bracket
- Determine proper height for gate and block up gate square with fence
- Attach 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)
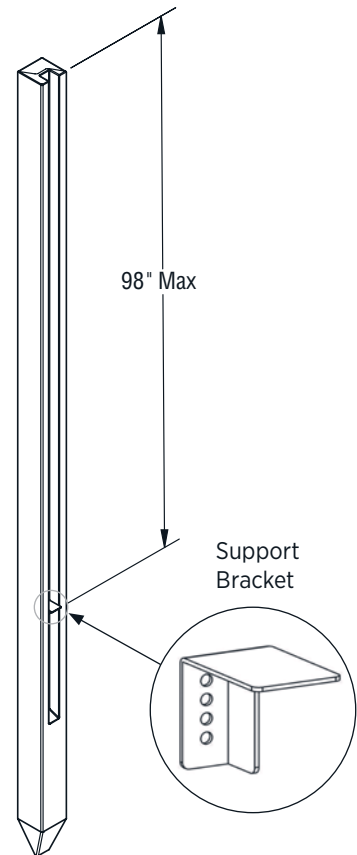
Includes: Allegheny

SEE CHART BELOW FOR POSTS CENTERS

DIG HOLES 30"
DEEP OR TO
FROST LINE

POST HOLES
5 X 5 POSTS = 12"

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"	72"	73"
	Corner		74"	73"	74"
4'x8'	Line	96"	97"	96"	97"
	Corner		98"	97"	98"

FEATURING
WINDZONE™
PERFORMANCE

98" Max

Support
Bracket

Privacy Fence

Includes: 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.
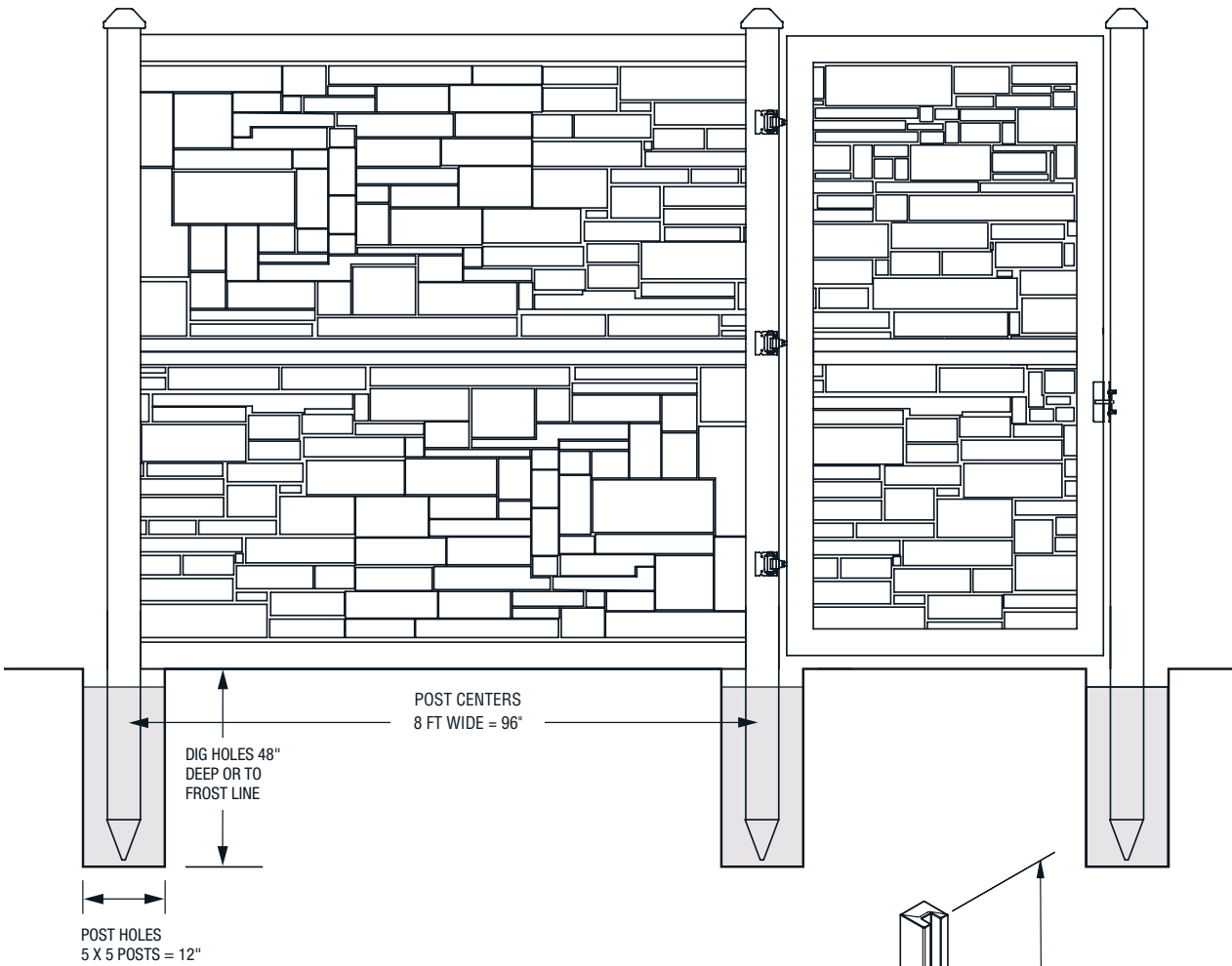- Hinges should be attached to a gate post

12. Gate installation

- First, attach striker bar to gate using provide button head screws
- Thread the ½″ 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.
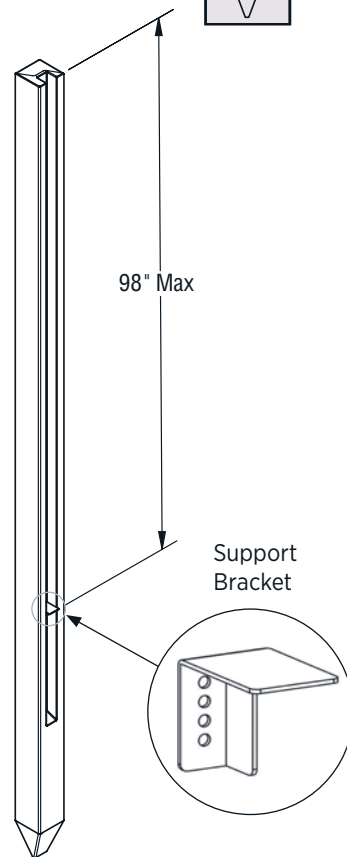
13. Install caps

- 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 CENTERS
8 FT WIDE = 96"

DIG HOLES 48"
DEEP OR TO
FROST LINE

POST HOLES
5 X 5 POSTS = 12"

98" Max

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

Support Bracket

Privacy Fence

Includes: 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 are 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 ½" 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
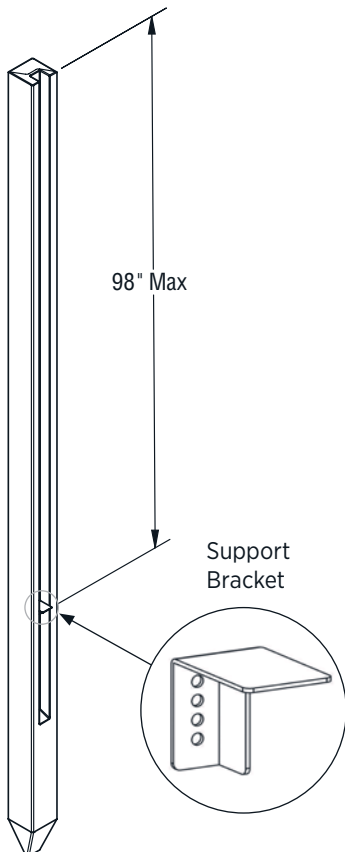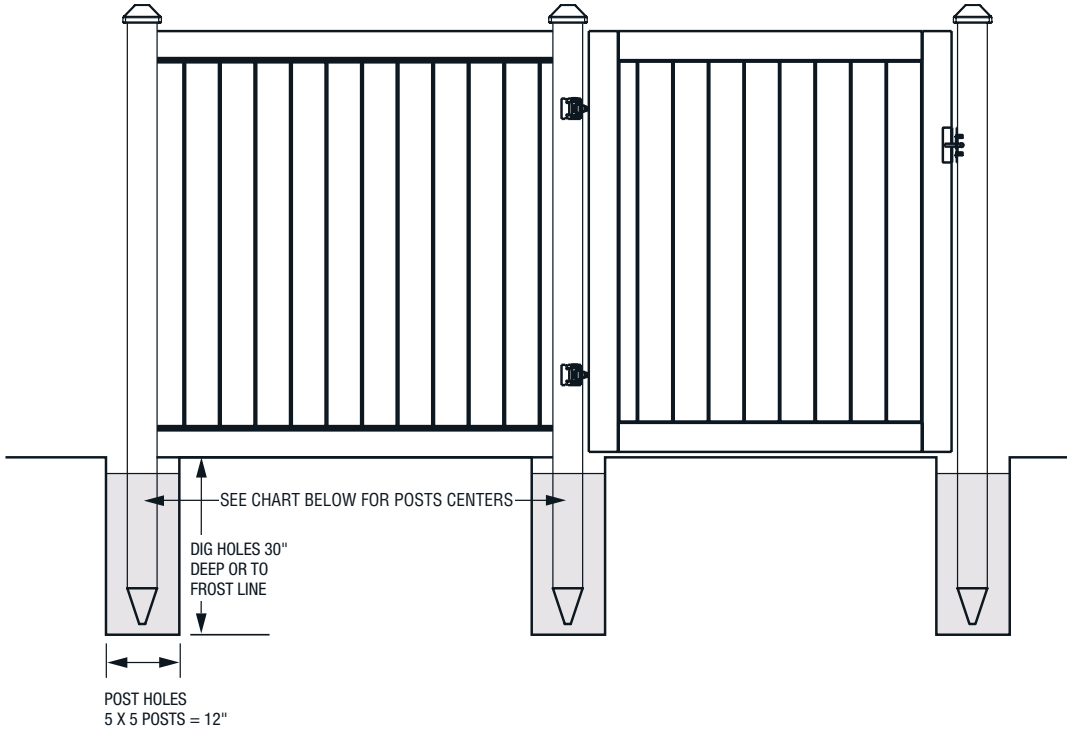- Hinges should be attached to a gate post

11. Gate Installation

- First, attach striker bar to gate using provide button head screws
- Thread the ½" 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)

Includes: Sherwood

SEE CHART BELOW FOR POSTS CENTERS

DIG HOLES 30" DEEP OR TO FROST LINE

POST HOLES
5 X 5 POSTS = 12"

98" Max

Support Bracket

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"	72"	73"
	Corner		74"	73"	74"
4'x8'	**Line**	96"	97"	96"	97"
	Corner		98"	97"	98"

Privacy Fence

Includes: Sherwood 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

- a. 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

- 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 panel 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

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- To prevent unauthorized panel removal, you can attach one end of each panel into the post with one fastener
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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 (#12 x 1″ pan head screw is recommended)

11. Gate Openings

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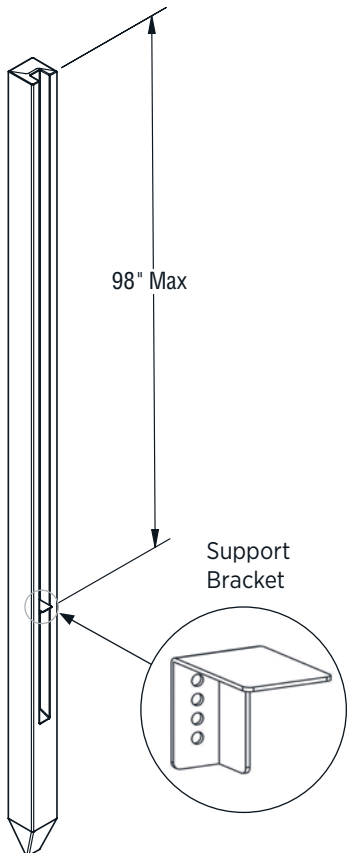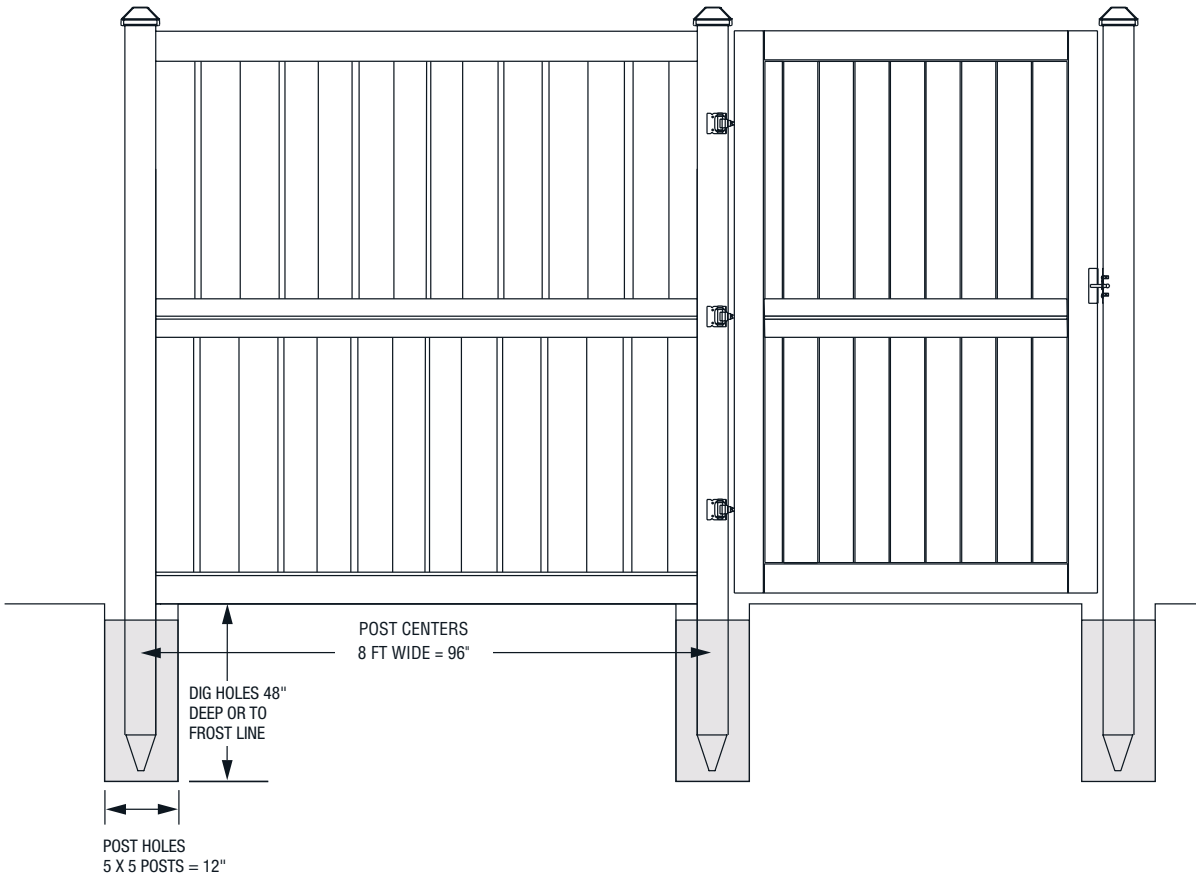- Hinges should be attached to a gate post

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- First, attach striker bar to gate using provide button head screws
- Thread the ½″ 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″ deck screw can be driven through the top of the cap into the middle of the post if desired)

Privacy Fence

Includes: Sherwood

POST CENTERS
8 FT WIDE = 96"

DIG HOLES 48"
DEEP OR TO
FROST LINE

POST HOLES
5 X 5 POSTS = 12"

98" Max

Support
Bracket

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

Post & Rail

Includes: Crossbuck, 2-Rail, 3-Rail and 4-Rail

1. Getting Started

- Be sure to call underground (811) prior to digging
- Assemble gates (if necessary) and decide where they will be located
- Stake out the fence line
- Space and mark post hole locations for gate and sections (spacer bar/template may be useful)
- Start at gate end post and work outward to determine proper fence height relative to ground

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 First 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
- Fence may be installed post and bottom rails first, then upper rails

4. Install Rails

- Tape the ends of any rail going into a post that is to be filled with concrete to prevent concrete seepage
- Standard rails are supplied in 16 foot lengths
- For rolling terrain, rails may need to be cut to 95-1/2″
- The starting point for rails should be staggered from post to post for bottom/mid/top rail for maximum strength
- Insert lock ring into one end of rail by depressing tabs, insert in rail end and release
- Depress lock ring tabs to insert bottom rail in first post
- Tabs will recoil to hold rail in post
- If bottom rail is 16′ long, slide rail through second post and then insert post in ground
- Insert lock ring in rail end, insert end into third post
- When installing rails leave a 1″ gap between rail ends inside post to allow for expansion

5. Support and Secure

- Block up bottom rail to determine correct fence height
- Fill holes around posts with concrete mix
- Tamp, level and square
- Fence assembly may be continued by installing all bottom rails first or one section at a time
- To lower a post, place a wood block from corner to corner of the post and carefully tap with a mallet
- Never strike the PVC post without a wood support

6. Crossbuck

- Insert lock rings in diagonal rails and insert into each post

  NOTE: Standard diagonal rails are cut to 97″ to compensate for angle of install

7. Hang Gate/Install Hardware

- For complete details, see gate installation instructions in hardware box
- Position gate between posts
- Allow 1-1/2″ gap on hinge side of the gate and 1-1/4″ on latch side to allow for the gate swing and hardware
- Block up gate to square with fence; rails should be level
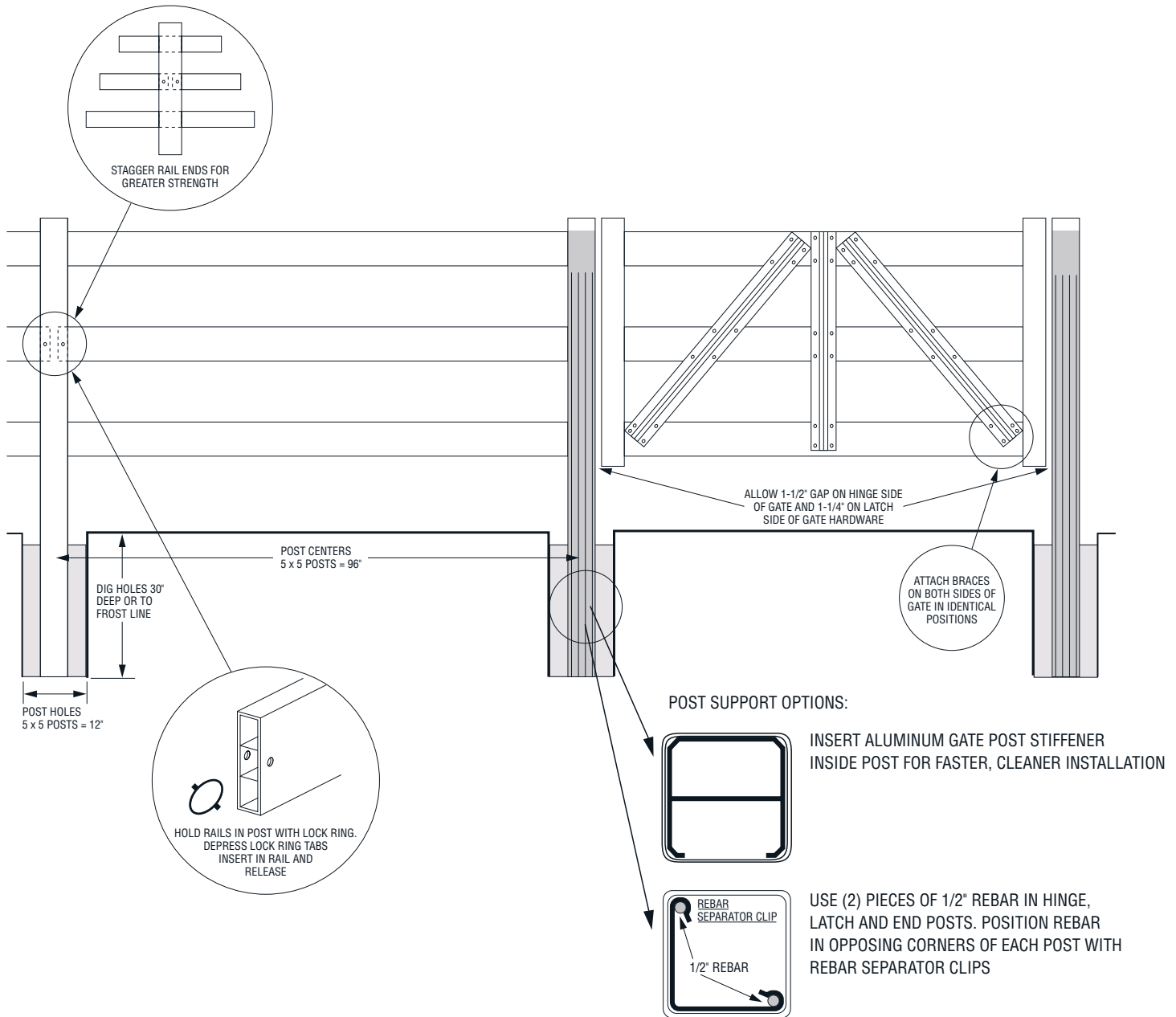- Gate hardware must be secured to two sides of the post

8. Solidify Gate Posts

- It is critical that gate hinge and latch posts are solid to ensure proper gate functionality. Two methods are available:

  A. Aluminum gate post stiffener
  - Slide aluminum gate stiffener inside hinge, latch or end posts
  - Drive a screw through the vinyl into the aluminum stiffener at the bottom of the post
  - Insert post into the ground
  - Fill hole with concrete around outside of post

  B. Concrete and rebar*
  - Use two pieces of 1/2″ rebar in each hinge, latch and end post
  - Rebar should extend from the bottom of the hole to approximately 12″ from the top of the post
  - Hold rebar in opposite corners of post with rebar separator clips
  - Fill post with concrete mix to cover rebar and hardware fasteners
  - Tamp post with a rubber mallet to eliminate air pockets
  - Leave gate on blocks for 72 hours to allow concrete to set

9. Install Caps

- Install post caps by pressing in place inside post

*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.

Post & Rail Fence

Includes: Crossbuck, 2-Rail, 3-Rail and 4-Rail

STAGGER RAIL ENDS FOR
GREATER STRENGTH

ALLOW 1-1/2" GAP ON HINGE SIDE
OF GATE AND 1-1/4" ON LATCH
SIDE OF GATE HARDWARE

POST CENTERS
5 x 5 POSTS = 96"

DIG HOLES 30"
DEEP OR TO
FROST LINE

POST HOLES
5 x 5 POSTS = 12"

ATTACH BRACES
ON BOTH SIDES OF
GATE IN IDENTICAL
POSITIONS

HOLD RAILS IN POST WITH LOCK RING.
DEPRESS LOCK RING TABS
INSERT IN RAIL AND
RELEASE

POST SUPPORT OPTIONS:

INSERT ALUMINUM GATE POST STIFFENER
INSIDE POST FOR FASTER, CLEANER INSTALLATION

REBAR
SEPARATOR CLIP

1/2" REBAR

USE (2) PIECES OF 1/2" REBAR IN HINGE,
LATCH AND END POSTS. POSITION REBAR
IN OPPOSING CORNERS OF EACH POST WITH
REBAR SEPARATOR CLIPS

Post & Rail with CertaGrain® Texture

Includes: 2-Rail, 3-Rail and 4-Rail

1. Getting Started

- Be sure to call underground (811) prior to digging
- Assemble gates (if necessary) and decide where they will be located
- Stake out the fence line
- Space and mark post hole locations for gate and sections (spacer bar/template may be useful)
- Start at gate end post and work outward to determine proper fence height relative to ground

*In climates where the temperature exceeds 100° Fahrenheit, we recommend installing Arctic Blend, Brazilian Blend, Sierra Blend and Weathered Blend products on 6' post centers

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 First 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
- Fence may be installed post and bottom rails first, then upper rails

4. Install Rails

- White product uses 1-1/2 x 5-1/2 rails
- Arctic Blend, Brazilian Blend, Sierra Blend and Weathered Blend use 2 x 6 rails
- Tape the ends of any rail going into a post that is to be filled with concrete to prevent concrete seepage
- Standard rails are supplied in 16 foot lengths for White (12 foot rails for Blend products)
- For rolling terrain, rails may need to be shortened
- The starting point for rails should be staggered from post to post for bottom/mid/top rail for maximum strength
- Insert lock ring into one end of rail by depressing tabs, insert in rail end and release
- Depress lock ring tabs to insert bottom rail in first post
- Tabs will recoil to hold rail in post
- Insert lock ring in rail end, insert end into third post
- When installing rails leave a 1" gap between rail ends inside post to allow for expansion

5. Support and Secure

- Block up bottom rail to determine correct fence height
- Fill holes around posts with concrete mix
- Tamp, level and square
- Fence assembly may be continued by installing all bottom rails first or one section at a time
- To lower a post, place a wood block from corner to corner of the post and carefully tap with a mallet
- Never strike the PVC post without a wood support

6. Hang Gate/Install Hardware

- For complete details, see gate installation instructions in hardware box
- Position gate between posts
- Allow 1-1/2" gap on hinge side of the gate and 1-1/4" on latch side to allow for the gate swing and hardware
- Block up gate to square with fence; rails should be level
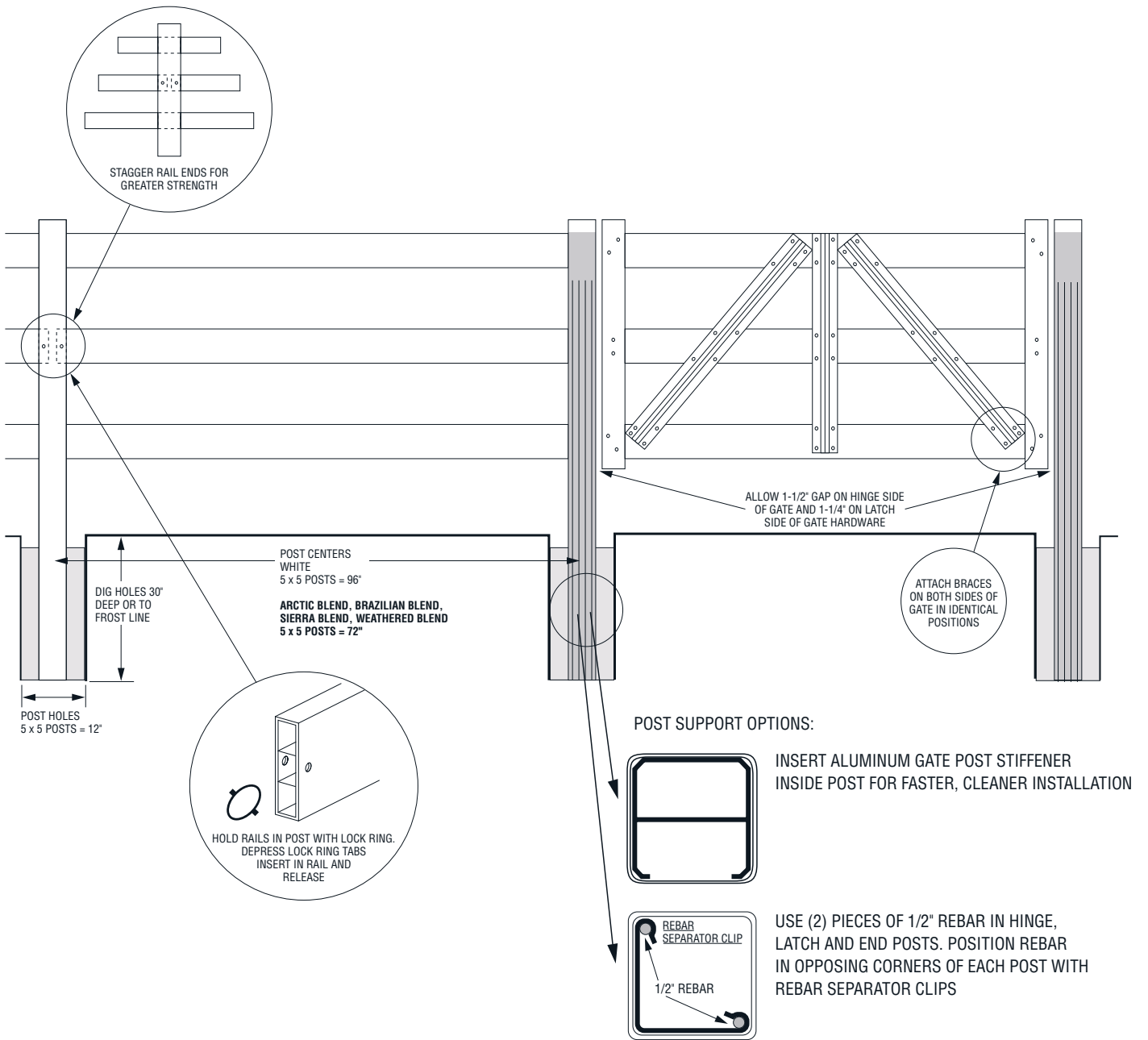- Gate hardware must be secured to two sides of the post

7. Solidify Gate Posts

- It is critical that gate hinge and latch posts are solid to ensure proper gate functionality. Two methods are available:

  A. Aluminum gate post stiffener
  - Slide aluminum gate stiffener inside hinge, latch or end posts
  - Drive a screw through the vinyl into the aluminum stiffener at the bottom of the post
  - Insert post into the ground
  - Fill hole with concrete around outside of post

  B. Concrete and rebar*
  - Use two pieces of 1/2" rebar in each hinge, latch and end post
  - Rebar should extend from the bottom of the hole to approximately 12" from the top of the post
  - Hold rebar in opposite corners of post with rebar separator clips
  - Fill post with concrete mix to cover rebar and hardware fasteners
  - Tamp post with a rubber mallet to eliminate air pockets
  - Leave gate on blocks for 72 hours to allow concrete to set

8. Install Caps

- Install post caps
- Caps may be secured with glue, silicone adhesive or #8 x 3/4" screws, caps and washers

*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.

Post & Rail with CertaGrain® Texture

Includes: 2-Rail, 3-Rail and 4-Rail

STAGGER RAIL ENDS FOR
GREATER STRENGTH

DIG HOLES 30"
DEEP OR TO
FROST LINE

POST HOLES
5 x 5 POSTS = 12"

POST CENTERS
WHITE
5 x 5 POSTS = 96"

**ARCTIC BLEND, BRAZILIAN BLEND,
SIERRA BLEND, WEATHERED BLEND
5 x 5 POSTS = 72"**

ALLOW 1-1/2" GAP ON HINGE SIDE
OF GATE AND 1-1/4" ON LATCH
SIDE OF GATE HARDWARE

ATTACH BRACES
ON BOTH SIDES OF
GATE IN IDENTICAL
POSITIONS

HOLD RAILS IN POST WITH LOCK RING.
DEPRESS LOCK RING TABS
INSERT IN RAIL AND
RELEASE

POST SUPPORT OPTIONS:

INSERT ALUMINUM GATE POST STIFFENER
INSIDE POST FOR FASTER, CLEANER INSTALLATION

REBAR
SEPARATOR CLIP

1/2" REBAR

USE (2) PIECES OF 1/2" REBAR IN HINGE,
LATCH AND END POSTS. POSITION REBAR
IN OPPOSING CORNERS OF EACH POST WITH
REBAR SEPARATOR CLIPS

Variable Terrain Installation – Extruded

Calculate Rise/Foot Angle

To determine the hole enlargement size, first calculate the slope rise/foot or the angle of the slope. Refer to the diagram and examples.

- Measure section length in inches
- Determine section rise by using line level and measuring vertical rise; measure rise in inches
- Divide rise by section length to get rise per inch
- Multiply by 12 to determine rise per foot

Ex: 24″ rise ÷ 96″ length = .25 rise per inch = 3″ rise per foot
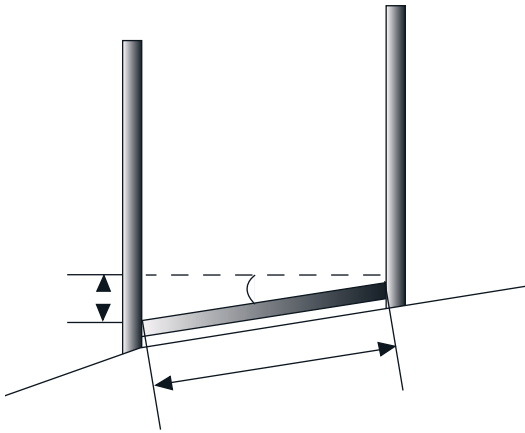
- Two methods exist for installing a fence on variable sloping terrain — stepping and racking
- For either method, divide slope evenly into all sections

Stepping Method

With the stepping method, the rails remain horizontal and the posts are extended to accommodate the variance in terrain. Longer end posts should be used and holes for the opposite side of the post can be field fabricated with template kit and router or spiral saw to accept rails.
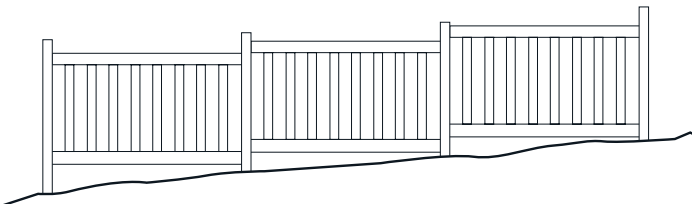
Racking Method — 10° or Less

With the racking method, the horizontal rails will follow the sloping terrain.
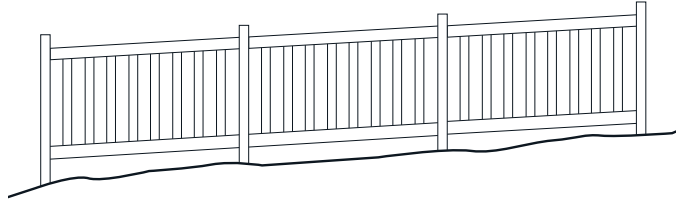
When installing multiple sections, it is advisable to use an end post and field fabricate the opposite side of the post to avoid a jagged fence line.

Depending on the severity of rack (and specific fence style), the following field fabrication steps may be necessary for proper installation:

1. Enlarge holes in post to accept rails
2. Enlarge holes in rail to accept pickets
3. Shorten picket length

NOTE: Depending on severity of rack, post centers may need to be decreased. Be sure to verify prior to setting posts.

1. Enlarge holes in post to accept rails
   - Determine angle or slope
   - Place first post in hole and hold plumb
   - Place rail next to post (not in routed hole) at correct angle of grade
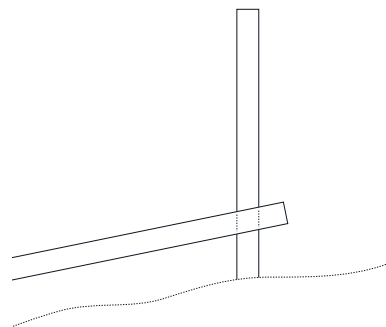
   - Mark rail where post crosses it on angle
   - Remove rail, measure the length of the drawn angle. Add 1/8″ to this length to determine proper post hole size
   - Enlarge post holes

NOTE: Always open bottom of top hole and top of bottom hole to maintain proper fence height.
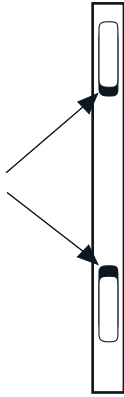
- Holes may be cut utilizing a template kit and router
  or
  spiral saw

- Determine location of holes on opposite side of line post by laying post across side of rail (align with routed hole) and marking exit position of rail on opposite side of post

- Cut holes with template kit and router or spiral saw as previous

2. Enlarge holes in rail to accept picket
   - Position rail at desired angle
   - Hold picket plumb against side of rail
   - Mark picket where rail crosses it on angle
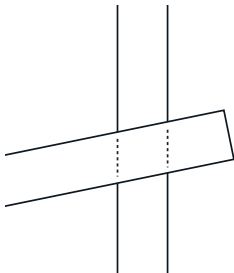
- Measure the length of the drawn angle and add 1/8″ to this length to determine proper rail hole size
- Enlarge holes with a spiral saw

NOTE: Always cut the same side of each hole to maintain spacing.

3. Shorten picket length
   - For extreme racking situations, picket ends may need to be cut to accommodate rack
   - Position top and bottom rails in routed post holes
   - Position picket next to rails so it is plumb and aligned with bottom side of bottom rail
   - Mark position where top of picket intersects with top of top rail; subtract 3/8″ and cut picket to length

NOTE: For ribbed rails, top and bottom of picket will need to be aligned with internal rib.
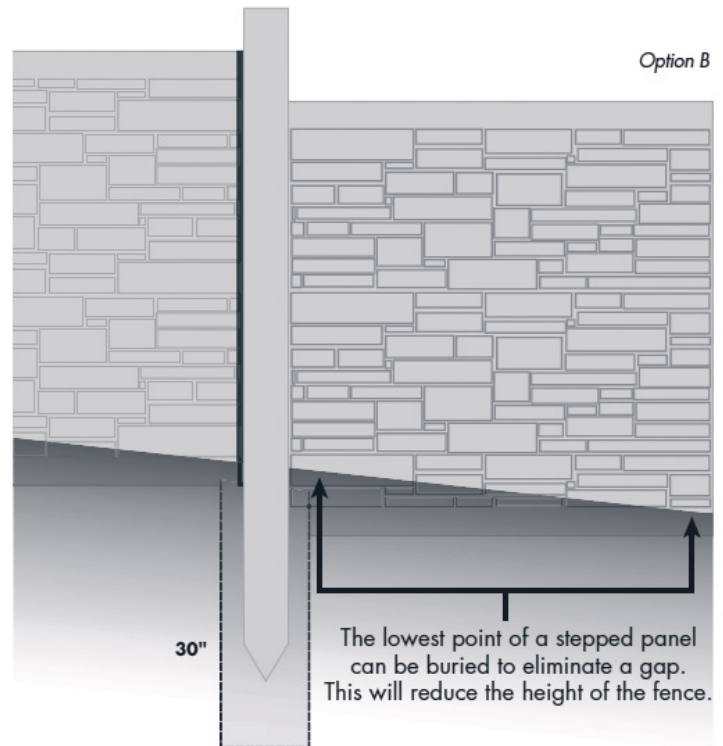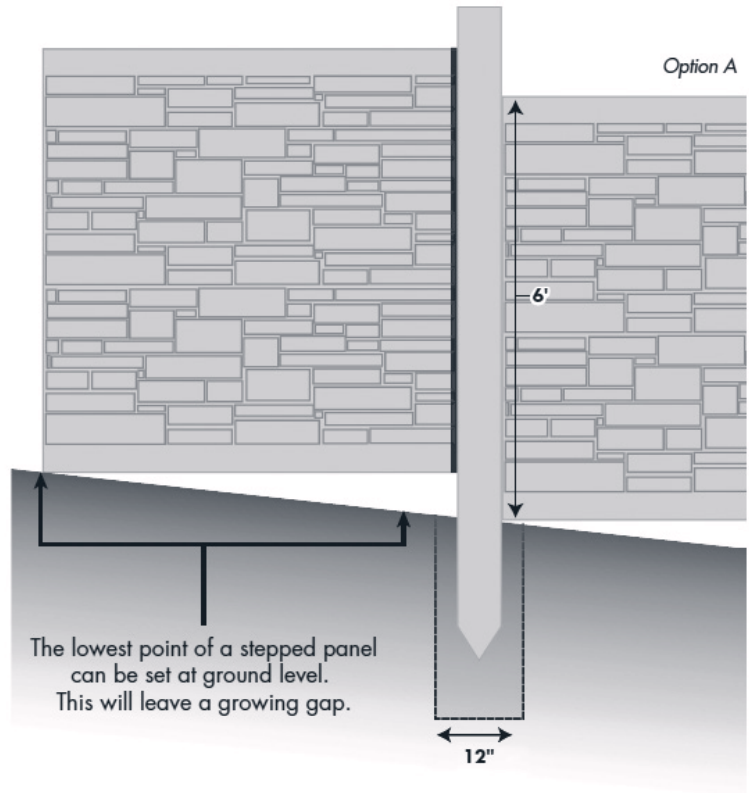
Installation on sloping terrain is similar to that on flat terrain. Professionals typically use a laser to shoot and obtain a grade.

- 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.

Option A

6′

The lowest point of a stepped panel can be set at ground level. This will leave a growing gap.

12″

Option B

30″

The lowest point of a stepped panel can be buried to eliminate a gap. This will reduce the height of the fence.

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.
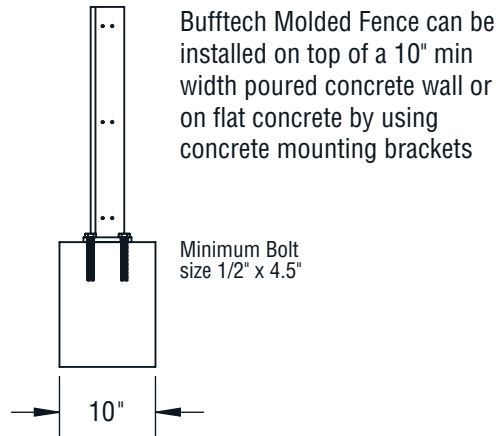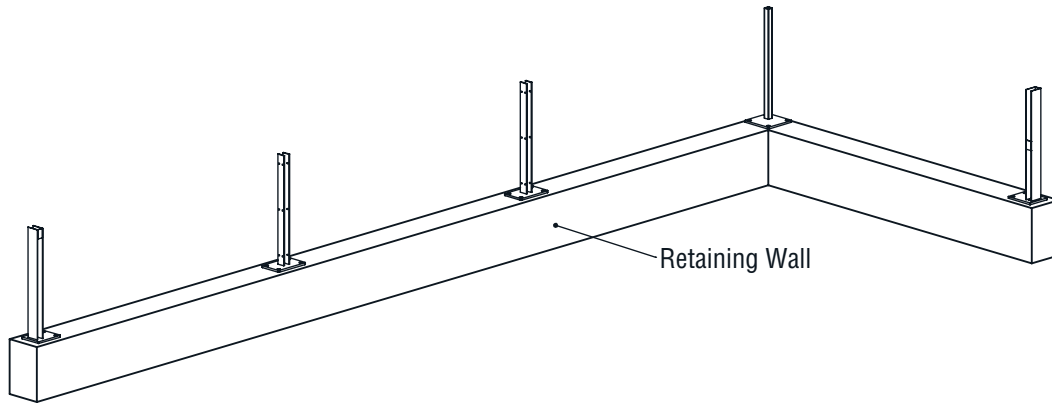
Concrete Installation – Molded
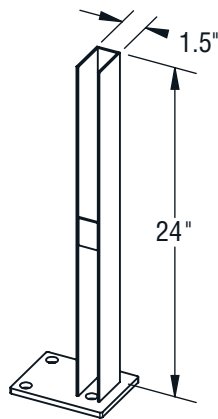
Concrete Install - Molded

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 stagged screws on each side of the strap into the pre-drilled holes)
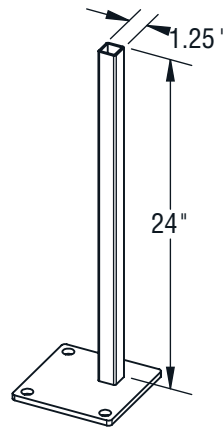
5. Install fence panels and post caps

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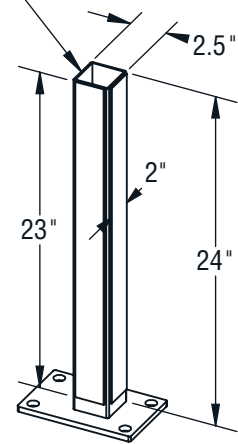
Retaining Wall

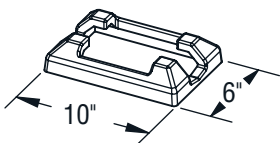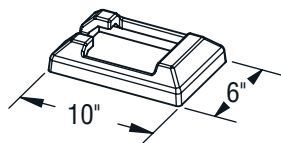Bufftech Molded Fence can be installed on top of a 10" min width poured concrete wall or on flat concrete by using concrete mounting brackets

Minimum Bolt size 1/2" x 4.5"

10"

Use epoxy anchors instead of wedge anchors for gate shoe

1"   1.5"   1.25"   2.5"

24"   24"   24"   23"   2"   24"

Line Shoe   End Shoe   Corner Shoe   Gate Shoe
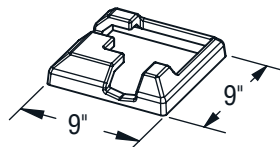
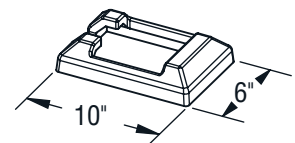Line Shoe Skirt   End Shoe Skirt   Corner Shoe Skirt   Gate Shoe Skirt

10"   6"   10"   6"   9"   9"   10"   6"

51

Post Routing Template Kit

The routing template kit can be used to enlarge holes for racking as well as to create transitions for stepping, changing heights or styles.

Install 3/8″ router blade and 5/8″ bearing or router guide. Any substitutions may result in improper hole size or damage to the template kit.

NOTE: Template cutout size is designed to be 1/8″ larger than the finished cut to allow bearing to follow the shape.

Select the appropriate template for the application.

Assemble the template as shown, configured for the desired post size (4″ or 5″).

NOTE: It is advisable to practice routing on a scrap piece before attempting actual cut.

Mark location of hole to be routed. Offset template cut by 1/8″ to allow for bearing (i.e., if hole is to be located 3″ from top of post, position edge of template 2-7/8″ from top).
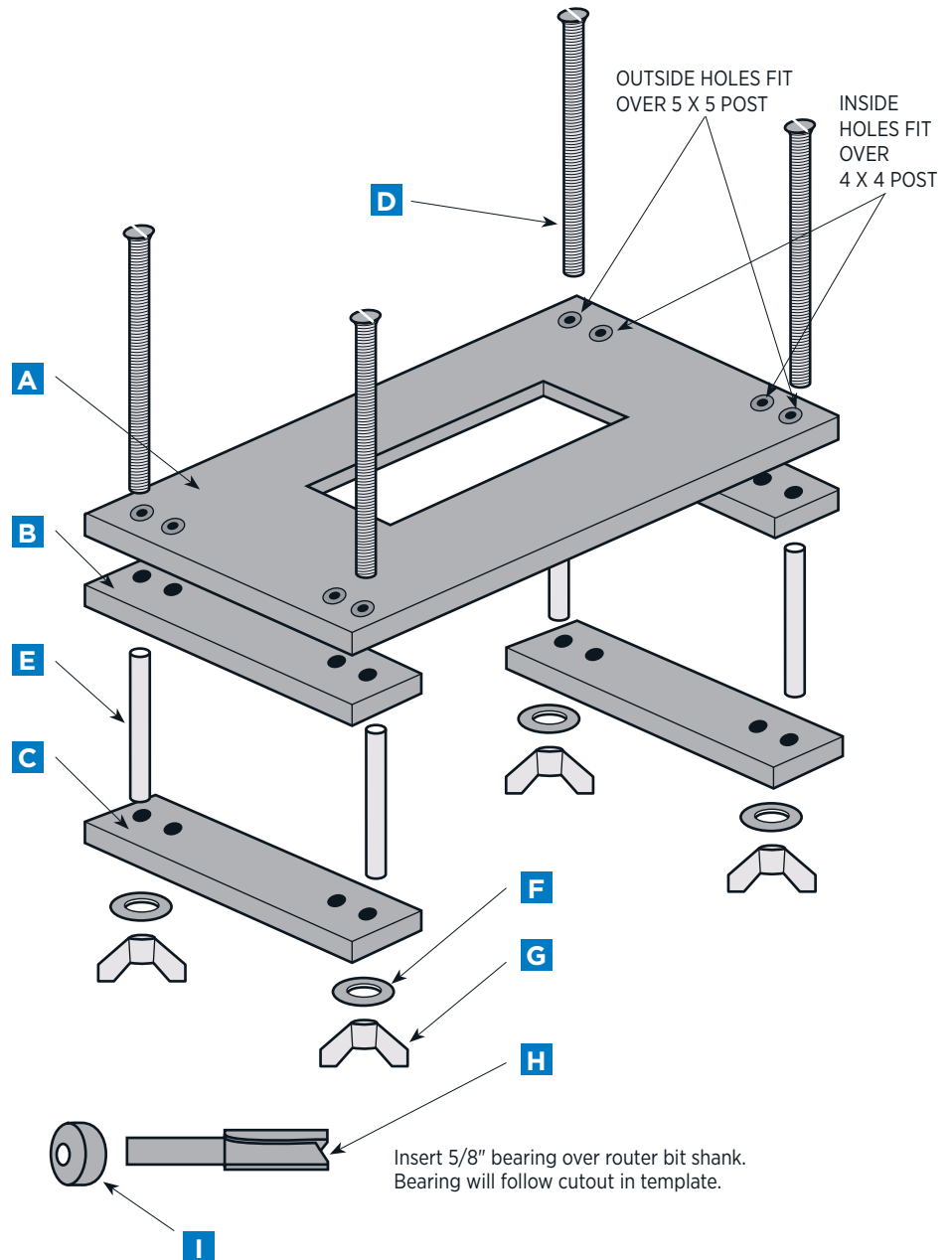
Tighten wing nuts. Place on a flat, firm surface to prevent tipping.

Route hole per manufacturer's recommendations.

ALWAYS WEAR SAFETY GLASSES.

Loosen wing nut and remove template.

For situations that require a larger hole to accommodate racking, route a standard hole, loosen wing nuts and slide template to new position to route excess material.

OUTSIDE HOLES FIT OVER 5 X 5 POST

INSIDE HOLES FIT OVER 4 X 4 POST

Insert 5/8″ bearing over router bit shank. Bearing will follow cutout in template.

A	ROUTING TEMPLATE
B	1-1/8″ TEMPLATE SPACER PLATE
C	1-1/2″ TEMPLATE SPACER PLATE
D	1/4″ -20 X 6″ BOLTS
E	3/8″ OD PLEXI TUBE
F	1/4″ FLAT WASHER
G	1/4″ -20 WING NUT
H	3/8″ ROUTER BIT W/ 1/4″ SHANK
I	5/8″ BEARING W/ 1/4″ ID OPENING

Breezewood Template

Breezewood template also available. Contact your Territory Manager for more details.

Each kit comes in a carrying case suitable for field use

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.