



## GrowSpan™ Giant Cold Frames



*Photo may show a different but similar model.*

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WARNING: Cancer and Reproductive Toxicity - P65Warnings.ca.gov

Revision date: 10.21.08

STK#	DIMENSIONS
104724	42' W x 15' H x 48' L
104725	42' W x 15' H x 72' L
104726	42' W x 15' H x 96' L



### YOU MUST READ THIS DOCUMENT BEFORE YOU BEGIN TO ASSEMBLE THE SHELTER.

Thank you for purchasing this GrowSpan™ cold frame. When properly assembled and maintained, this product will provide years of reliable service. These instructions include helpful hints and important information needed to safely assemble and properly maintain the cold frame. Please read these instructions **before** you begin.

If you have any questions during the assembly, contact Customer Service for assistance.

### SAFETY PRECAUTIONS

- Wear eye protection.
- Wear head protection.
- Wear gloves when handling metal tubes.
- Use a portable GFCI (Ground Fault Circuit Interrupter) when working with power tools and cords.
- Do not climb on the cold frame or framing during or after construction.
- Do not occupy the cold frame during high winds, tornadoes, or hurricanes.
- Provide adequate ventilation if the structure is enclosed.
- Do not store hazardous materials in the cold frame.
- Provide proper ingress and egress to prevent entrapment.

### ANCHORING INSTRUCTIONS

Prior to assembling this cold frame, please read the **MUST READ** document included with the shipment.

**⚠ WARNING:** The anchor assembly is an integral part of the cold frame construction. Improper anchoring may cause cold frame instability and failure of the structure. Failing to anchor the cold frame properly *will void the manufacturer's warranty* and may cause serious injury and damage.

### LOCATION

Choosing the proper location is an important step before you begin to assemble the structure.

The following suggestions and precautions will help you determine whether your selected location is the best location.

- Never erect the structure under power lines.
- Identify whether underground cables and pipes are present *before* preparing the site or anchoring the structure.
- Location should be away from structures that could cause snow to drift on or around the building.
- Do not position the cold frame where large loads such as snow and ice, large tree branches, or other overhead obstacles could fall.

### SITE

After choosing a location, proper preparation of the site is essential. Follow the information below.

- *A level site is required.* The site must be level to properly and safely erect and anchor the structure.
- For sites that are not concrete or gravel, placing wood blocks or other suitable supports under each rafter leg helps prevent the pipes from sinking or working into the site. *Does not apply to buildings with ground posts.*
- Drainage: Water draining off the structure and from areas surrounding the site should drain away from the site to prevent damage to the site, the structure, and contents of the structure.

**⚠ WARNING:** The individuals assembling this structure are responsible for designing and furnishing all temporary bracing, shoring and support needed during the assembly process. For safety reasons, those who are not familiar with recognized construction methods and techniques must seek the help of a qualified contractor.

## ASSEMBLY PROCEDURE

Following the instructions as presented will help ensure the proper assembly of your cold frame. Failing to follow these steps may result in an improperly assembled and anchored cold frame and will void all warranty and protection the owner is entitled to.

The steps outlining the assembly process are as follows:

1. Verify that all parts are included in the shipment. Notify Customer Service for questions or concerns.
2. Read these instructions, the Must Read document, and all additional documentation included with the shipment **before** you begin assembling the cold frame.
3. Gather the tools, bracing, ladders (and lifts), and assistance needed to assemble the cold frame.
4. Check the weather **before** you install the roof cover and any panels (if equipped). Do not install covers or panels on a windy or stormy day.
5. Re-evaluate the location and site based on the information and precautions presented in the documentation included with the shipment.
6. Prepare the site (if applicable).
7. Assemble the frame components in the order they are presented in these instructions.
8. Assemble the frame including the struts (if equipped).
9. Consult the MUST READ document and properly anchor the assembled frame.
10. Install, tighten, and secure the end panel and main cover (if equipped). This applies to fabric covers that stretch over the frame assembly. Your shelter may include roof panels or side panels or both.
11. Read the care and maintenance information at the end of these instructions.

## LIST OF WORDS AND PHRASES

Before you begin, it is important to become familiar with the words and phrases used in this instruction manual.

These words and phrases are common to most GrowSpan™ shelters and identify the different parts of the shelter. (Some are used in this document. Others may not apply to this particular shelter.) These terms describe the shipped parts and can also be found on the materials list/spec sheets included with the shipment. To aid in the assembly, read through the following definitions before you begin to assemble your shelter.

- **Conduit:** An assembly of pipes used to secure the main cover and end panels (if equipped). Purlins and some strut assemblies also consist of connected pipes to form a conduit. Each pipe joint of a conduit assembly is secured with a self-tapping Tek screw.
- **Coupler or Fitting:** A part of the frame assembly where legs, purlins and rafter pipes are inserted and secured. In most instances, 3-way and 4-way couplers are used. In some larger applications, couplers are used to secure the joints of the different rafter sections during the assembly of the rafters. Some shelters do not use couplers.
- **Foot or Rafter Foot:** The part attached to and found at the base of the rafter or leg of the shelter. Depending on the shelter, the foot is an optional purchase. Some shelters do not offer an optional foot. Some use 1-way connectors; others use ground posts.
- **Must Read Document:** This document includes building and shelter anchoring instructions, steps for end wall reinforcement, safety precautions, and notices and warnings. The Must Read document is sent with all shelters and buildings. If you did not receive a Must Read document, contact Customer Service to request one.
- **On-Center:** Term used to describe a measurement taken from the vertical center of the rafter or frame member to the vertical center of another.
- **Purlin:** The pipe assembly that runs perpendicular to the rafters or framework that supports the main cover. Purlins are found on the sides and roof areas of the assembled frame, are evenly spaced, and typically run from the front to the back of the shelter.
- **Plain or Straight Pipe:** A term used to describe a pipe that has the same diameter or width throughout its entire length.
- **Strut:** A strut is usually a length of pipe with two flattened ends and is used for diagonal bracing of the shelter frame. A strut is typically secured to the frame work by special brackets and bolts.
- **Swaged End or Swaged Pipe:** The term "swaged" refers to the tapered end of the pipe or tube. Swaged ends of a pipe can be inserted into couplers and the straight ends of other pipes.
- **Tek Screw:** A self-tapping fastener used to secure pipe joints and to fasten brackets to rafters.

## COLD FRAMES

### REQUIRED TOOLS

The following list identifies the main tools needed to assemble the shelter. Additional tools and supports may be needed depending on the structure, location, and application.

- Tape measure or measuring device
- Fine point marker to mark the location on tubing.
- Variable speed drill and impact driver (cordless with extra batteries works best)
- Wrench set or ratchet, and socket (recommended)
- Ropes long enough to reach over the frame.
- Hammers and gloves
- Metal file
- Duct tape (supplied by customer)
- Box cutter, utility knife, or scissors
- Ladders, work platforms, and other machinery for lifting designed to work safely at the height of the frame.

### UNPACK AND IDENTIFY PARTS

The following steps will ensure that you have all the necessary parts before you begin to assemble the shelter frame.

1. Unpack the contents of the shipment and place where you can easily inventory the parts. Refer to the Bill of Materials/Spec Sheets.
2. Verify that all parts listed on the Bill of Materials/Spec Sheets are present. If anything is missing or you have questions, consult the Pictorial Parts Guide and all diagrams for clarification, or contact Customer Service.

**NOTE:** At this time, you do not need to open the plastic bags containing smaller parts such as fasteners or washers (if equipped).

### QUICK START GUIDE

For a quick overview of this shelter and its components, consult the Quick Start Guide at the back of these instructions.

### SPECIAL NOTE: Baseboards for Frame

These instructions describe installing a baseboard (recommended) at ground level along each side of the frame. The baseboard runs from the front to the back of the frame.

This baseboard is *not included* with the shipment and must be supplied by the customer. Treated or recycled plastic lumber works well for a baseboard.

The baseboard, when installed properly, helps prevent the ground posts from sinking into the ground when anchored. Depending on the building, it also provides a surface to attach struts or other building components.

Consult these instructions, or contact Customer Service for additional information regarding baseboards.



greenhouse structures

The following graphics and photos will help you identify the different parts. (Some parts are not shown.)



FA4482B  
Tek Screw

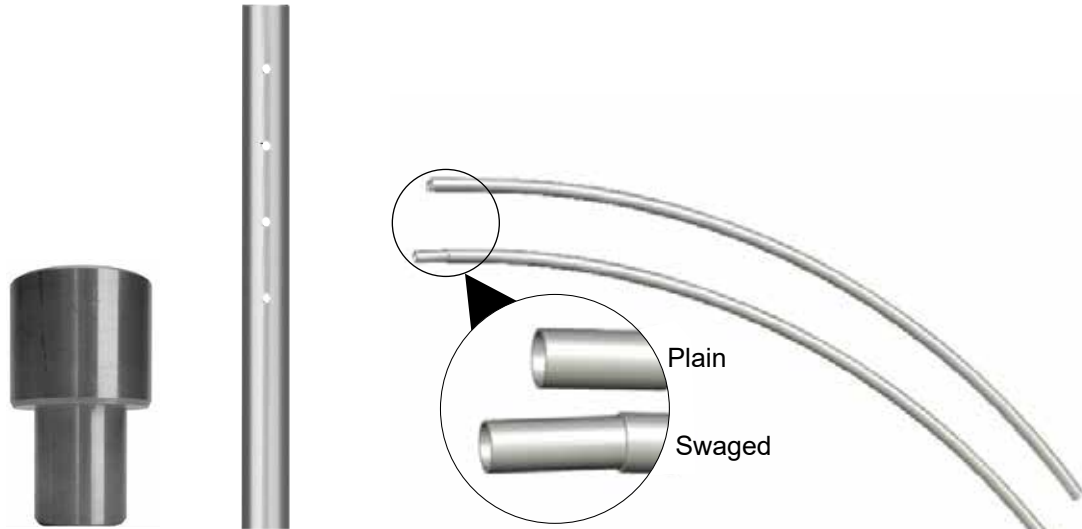
QH1404  
Band Clamp



102547  
Cross Connector

102857  
End Clamp

10016108  
Combo Tee  
Coupler



QH1072  
Post Driver

102676  
Ground Post

Swaged and Plain Rafter Sections



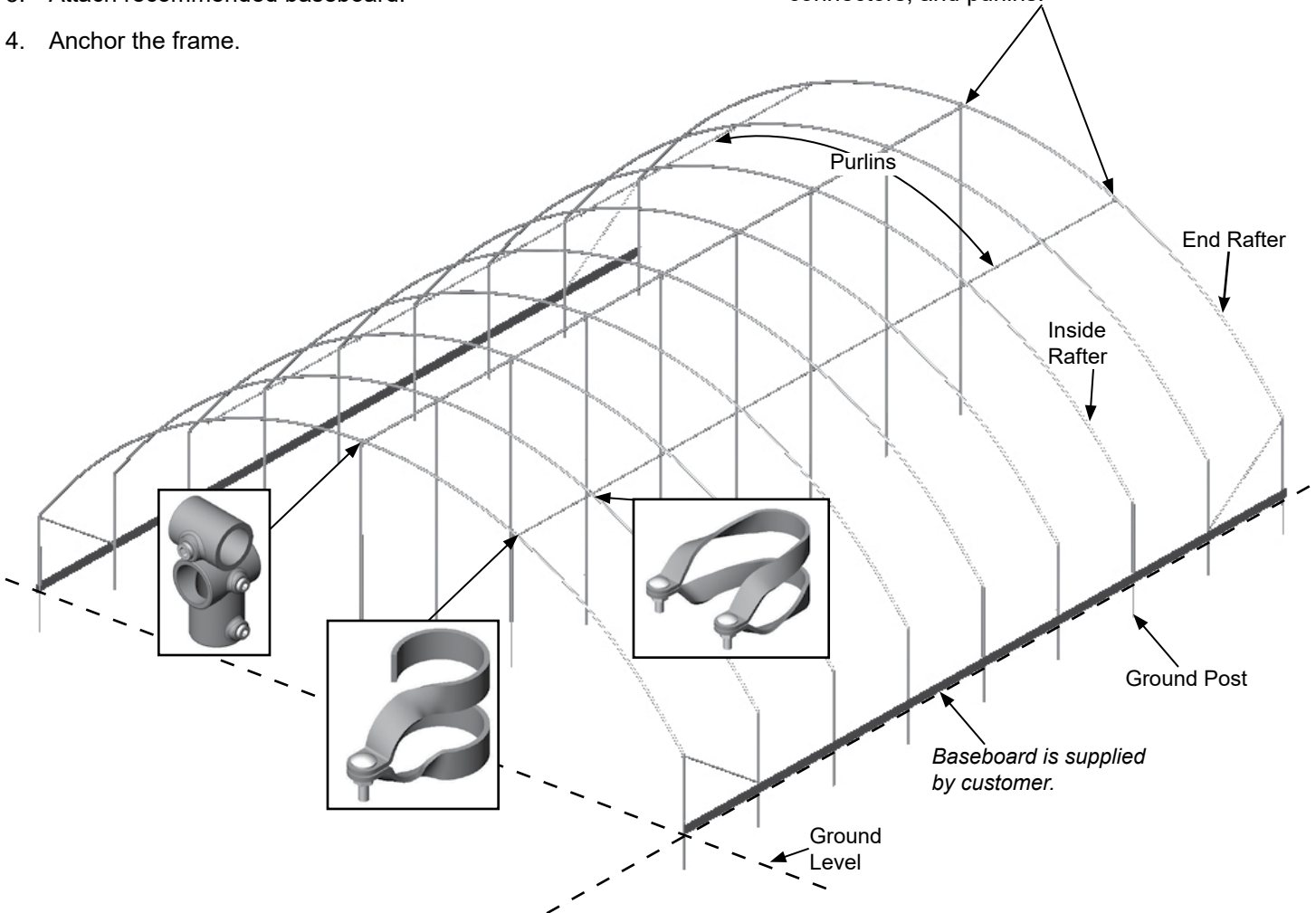
## Giant Cold Frame

### OVERVIEW

This section describes assembling your Cold Frame. For details, please see Assembling the Cold Frame Components. The illustration below identifies main parts of cold frame.

1. Locate the required parts for each assembly procedure.
2. Assemble the rafters and frame.
3. Attach recommended baseboard.
4. Anchor the frame.

**ATTENTION:** Position purlins evenly during the frame assembly. Use the rafter pipe joints as guides when installing the end clamps, cross connectors, and purlins.



Actual frame may differ in length from frame shown.

**LAY OUT THE BUILDING SITE**

After the site is prepared, lay out the building site.

Taking these steps **before** assembling the shelter saves time and ensures that the structure is positioned as desired.

*Ground posts must be driven to the proper depth. Width of the shelter is measured from the center of one ground post to the center of the remaining ground post.*

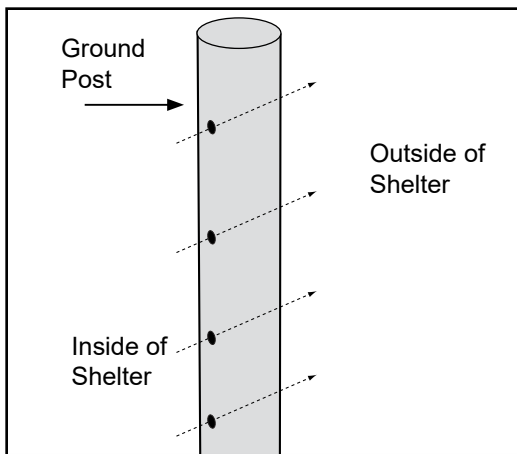
**SQUARE THE SITE**

Gather the parts:

- Ground posts
- Post driver
- 5/16" x 2-1/2" machine bolts
- 5/16" nuts

1. Identify a corner where a ground post will be positioned and drive the first ground post into the ground.

**NOTE:** Insert the ground post driver into the top of the ground post to protect the post and drive the post into the ground. *The top of the post will be one (1) foot above the finished grade when properly driven.*



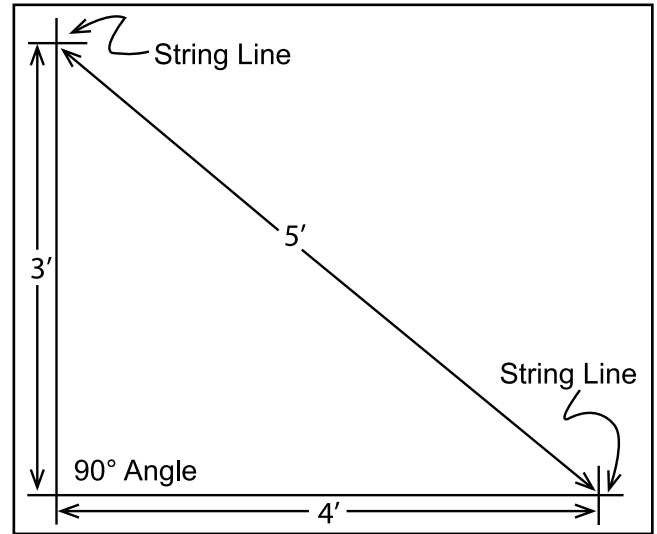
**ATTENTION:** Position the pre-drilled holes facing to the inside/outside of the shelter so they can be aligned with the bolt holes in the rafter legs.

To align the bolt holes in the ground posts with those in the rafter *after driving the ground posts*, insert a tapered rod or pry bar into a ground post bolt hole and turn the post using the rod or pry bar.

2. After the first corner ground post is in place, string a line the width of the building (center-to-center) and drive the second ground post into the ground just enough to hold it in place.
3. Use a transit or line level to drive the second corner post to the same depth as the first ground post.

4. String a line at least as long as the building from the first stake at 90°.

**NOTE:** A transit can be used to ensure an accurate 90° angle, or the 3-4-5 rule can be used. Refer to diagram. Using multiples of 3-4-5 such as 6-8-10 or 12-16-20 helps to maintain an accurate 90° angle.



5. After squaring the position of the building, measure the length and drive the next corner ground post.
6. Repeat the same step for the last corner post.

**NOTE:** The distance measured diagonally between corner posts must be equal for the building to be square.

7. Check all dimensions (and adjust if needed) before driving the remaining posts to the required height.
8. After all corner posts are accurately installed, tie a string line between the tops of the corner ground posts on the same side of the shelter. The string is used to identify the tops of all remaining ground posts. The string must remain tight and level.
9. Use a tape measure to mark the 72" on-center locations of the remaining ground posts.
10. Drive the remaining ground posts into the ground at the required 72" on-center width and the height identified by the string.

**NOTE:** Verify that the holes in the ground posts are in the proper position and that each post is plumb and driven to the correct depth.

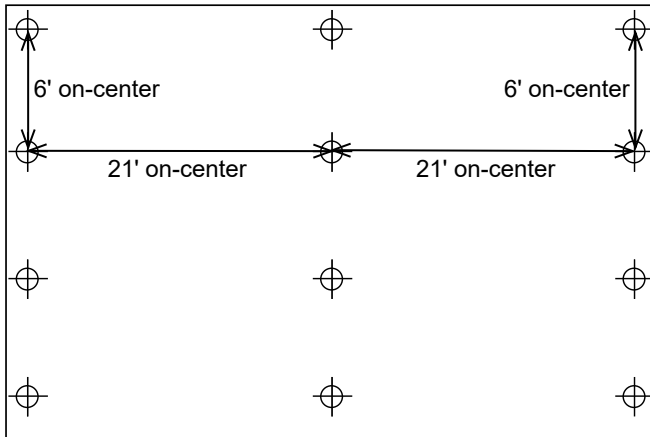
## COLD FRAMES

### LAY OUT THE BUILDING SITE (CONTINUED)

11. Using the remaining ground posts, drive the center ground posts in the same manner as the side ground posts. Verify on-center dimensions.

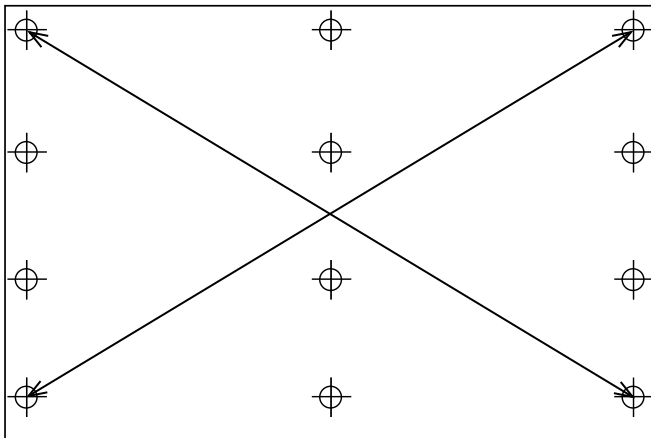


Space below is reserved for customer notes.



**NOTE:** Ground post layout shown above may differ from your shelter. Diagram used for illustration purposes only.

12. Verify that the on-center width of the frame is uniform between the corner ground posts.



**NOTE:** The frame is square when the two diagonal measurements are the same.

After the rafters have been assembled, the rafter ends are secured to the ground post using the upper hole.

The second and third holes on the ground post are used for the baseboard along the building base.

13. Continue with the **Rafter Assembly** steps that follow.



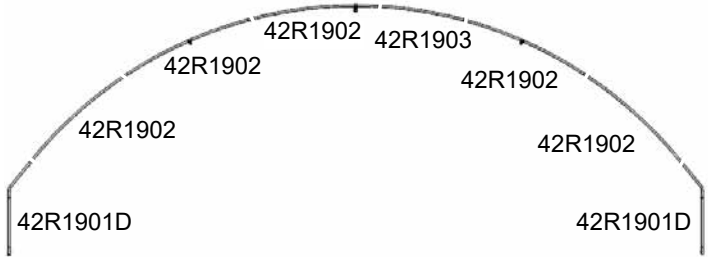
ASSEMBLING THE COLD FRAME COMPONENTS

NOTE: Assistance is required to assemble the frame.

END RAFTER ASSEMBLY

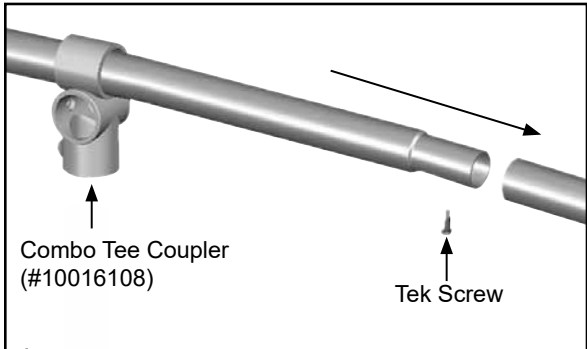
Complete the following steps for the two (2) end rafters only.

- 1. Select the required couplers, clamps and pipes needed to assemble an end rafter. Arrange these on a flat surface and assemble rafter as shown below.
- 2. Position all clamps as shown. (Do not secure the clamps to the rafter at this time. These clamps will be repositioned during the frame assembly when the purlins are added.)



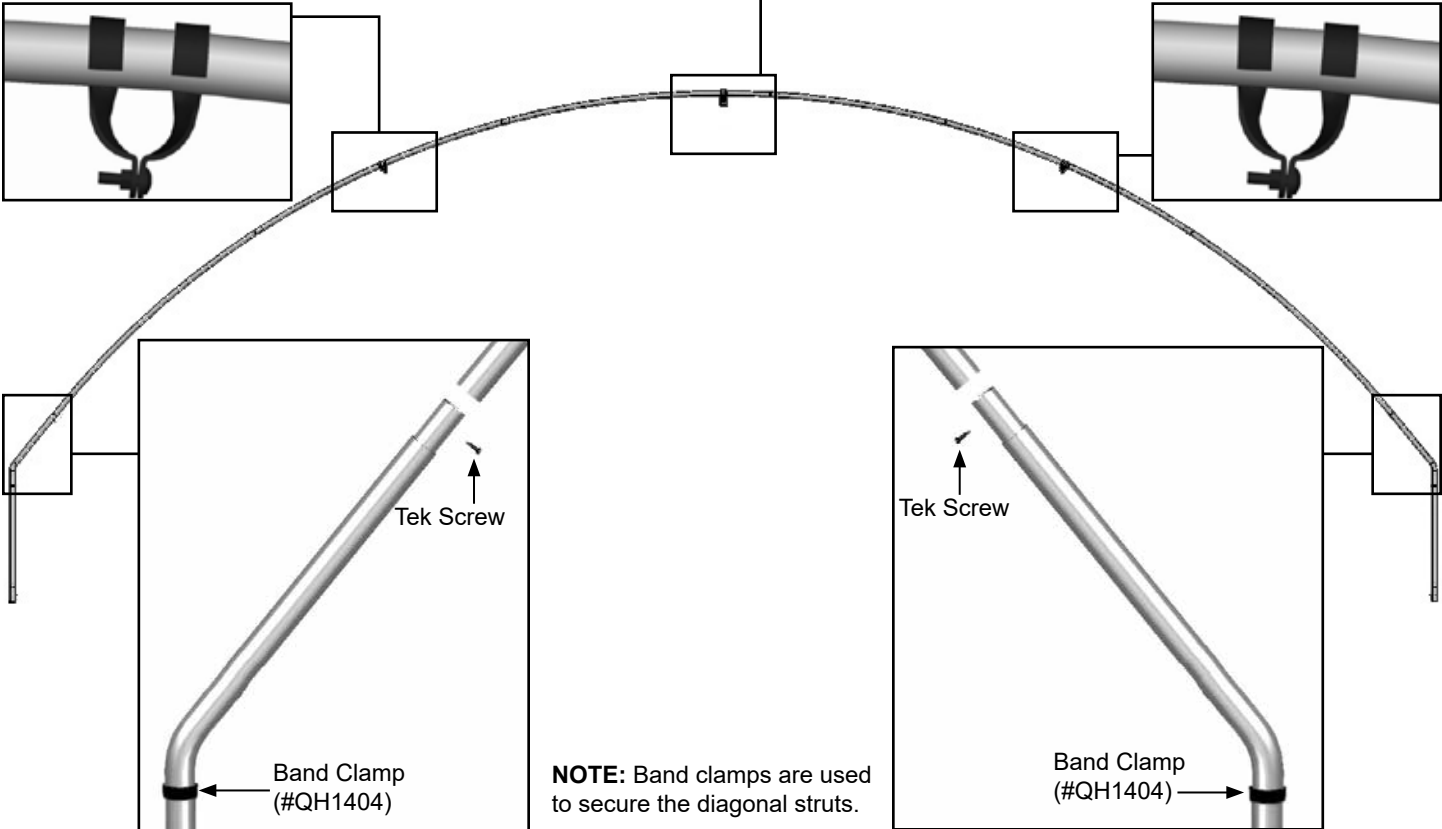
NOTE: Use a piece of duct tape (if desired) to keep each clamp from sliding when the rafter is lifted into position. View of the end rafter and clamps as shown from the outside when the frame is assembled.

- 3. With the rafter pipes seated at each joint and the rafter positioned on a flat surface, secure each joint with a single self-tapping Tek screw.



ATTENTION: Install the screws so they will not touch the cover once it is installed. This is typically on the backside of the rafter, which will be the surface visible from the inside of the cold frame once the frame is assembled.

- 4. Repeat the same procedure for the final end rafter.



NOTE: Band clamps are used to secure the diagonal struts.

## COLD FRAMES

### INTERIOR RAFTER ASSEMBLY

This section describes assembling your interior rafters. The illustration below identifies main parts of the assembly.

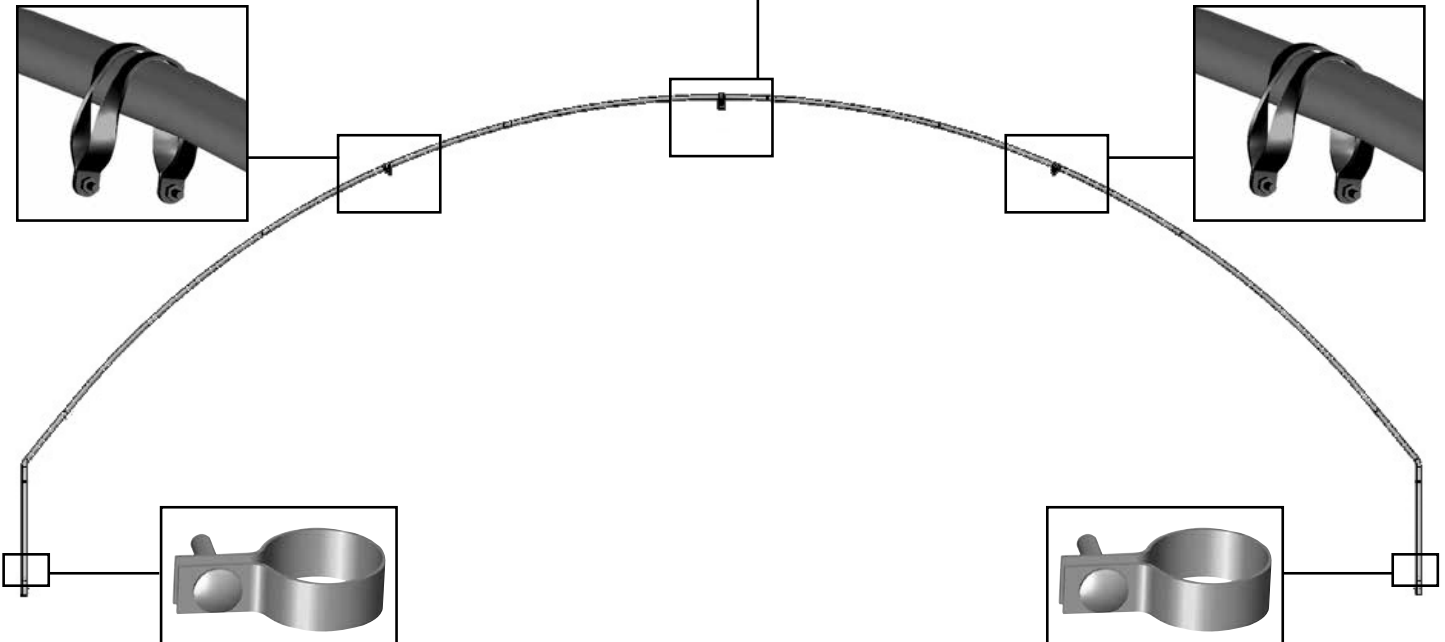
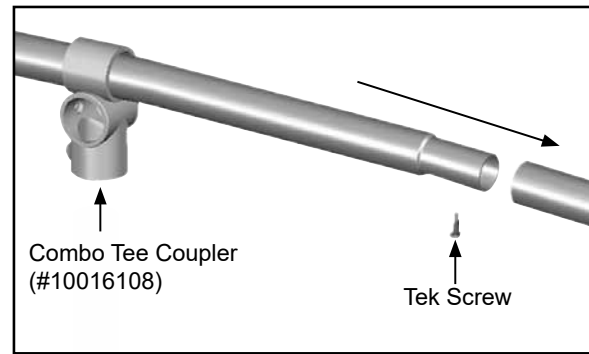
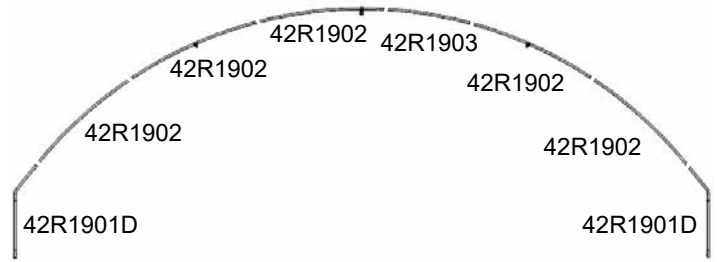
1. Locate the required cross connectors, couplers, band clamps and pipes: six (6) curved rafter pipes and two (2) leg pipes with drilled ends.
2. Assemble interior rafter assemblies as shown below.

**NOTE:** Band clamps (#QH1404) are only attached to two (2) interior rafter assemblies.

Use a piece of duct tape (if desired) to keep each clamp from sliding when the rafter is lifted into position.

3. With the rafter pipes seated at each joint and the rafter positioned on a flat surface, secure each joint with a single self-tapping Tek screw. Position Tek screw approximately 1" from pipe joint.

**ATTENTION:** Install the screws so they will not touch the cover once it is installed. This is typically on the backside of the rafter, which will be the surface visible from the *inside* of the shelter once the frame is assembled.



## ASSEMBLE AND PRE-MARK THE PURLINS

Pre-marking the purlins speeds the assembly process and eliminates the need to measure each purlin as it is installed. In addition, these steps ensure that an accurate spacing of the rafter assemblies is achieved.

**ATTENTION:** Do not assemble the upper purlin (1.90") at this time. Assemble only the two (2) purlins that use 1.315" diameter pipe.

Gather the Parts:

- Pipe 1.315" x 75" swaged (#131S075)
- Pipe 1.315" x 73.5" plain (#131P0735)
- Marker and tape measure

**NOTE:** The purlins are part of the assembled frame and run perpendicular to the rafter assemblies. Each purlin consists of 1.315" x 75" (#131S075) swaged pipes (number is determined by shelter length) and one (1) 1.315" x 73.5" (#131P0735) plain pipe.

1. Select the required pipe sections for one purlin and connect these by inserting the swaged ends of the pipes into the plain ends until the entire purlin is assembled.

**NOTE:** Assemble the purlins in a location that is accessible during the assembly of the frame, but will not interfere with the process of lifting and setting the rafters.

2. Verify that each pipe joint is properly seated.

**NOTE:** These pipes are taken apart during the assembly procedure. Do not fasten them together at this time.

3. For the 72" rafter spacing, measure 72-3/4" from the short plain pipe, used to complete each purlin run, of the assembled purlin, and mark the distance on the pipe.

**NOTE:** This first measurement is three-quarters (3/4) of an inch longer than the on-center rafter spacing to account for the length of purlin pipe that extends through the end purlin clamp of the first end rafter.

4. From the location marked in the previous step, measure seventy-two inches (72") and make another mark.
5. Continue to mark the purlin in 72" intervals until all locations are marked. These marks help to maintain the 72" on-center rafter spacing of the shelter during assembly.

6. Repeat this procedure until all assembled purlins are marked.
7. After assembling all rafters and pre-marking the purlins, continue by assembling the frame.

## FRAME ASSEMBLY

Gather the parts

- All rafter assemblies
- 1.315" pre-marked purlins
- Pipe 1.90" x 99" swaged (#190S099)
- Pipe 1.90" x 96" plain (#190P096)
- Struts - 7' (#QH1308)
- 5/16" x 2-1/2" machine bolts and 5/16" nuts
- Lifts, ladders, and assistants

The top center purlin consists of 1.90" x 99" (#190S099) swaged pipes (number is determined by shelter length) and one (1) 1.90" x 96" (#190P096) plain pipe.

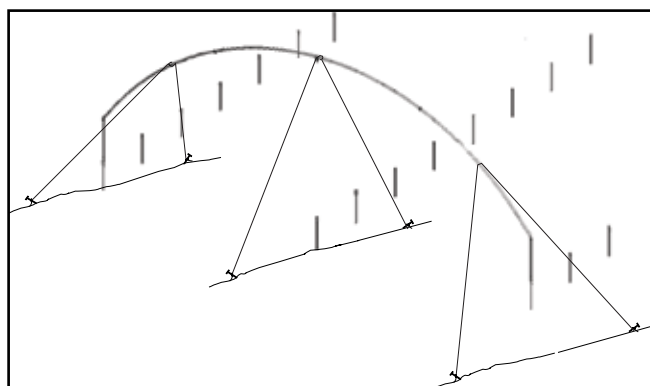
Frame Assembly Procedure:

After all rafters are constructed and placed in an orderly fashion for frame assembly, proceed with standing the first end rafter.

Forklifts and personnel booms are recommended for lifting and setting the rafters. Consult a construction professional if you are not familiar with construction techniques and erecting similar structures.

**ATTENTION:** Use the proper lifts. Rafter assemblies are heavy and awkward to handle.

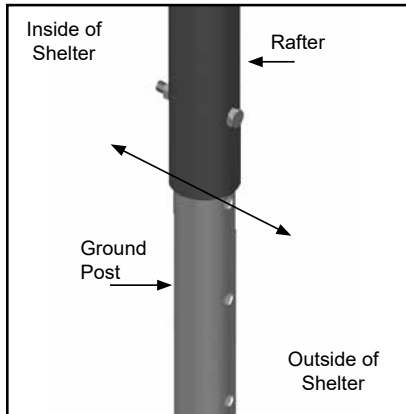
1. Using the proper lifts and with assistance, carefully stand the first end rafter assembly and place the leg pipes into the first set of ground posts.
2. Brace the first rafter using rope, cable, or some other form of temporary bracing to hold the rafter in position. Use a level (or other leveling device) to plumb the end rafter.



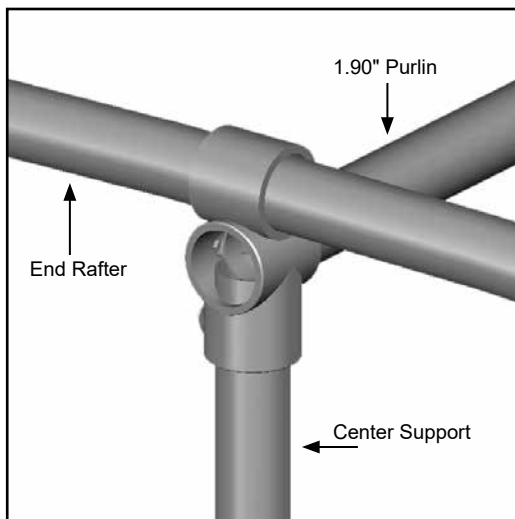
## COLD FRAMES

### FRAME ASSEMBLY (CONTINUED)

- Secure the leg pipes to the *ground posts top hole* using 5/16" x 2-1/2" machine bolts and nuts as shown below.



- Assemble the center support by inserting the swaged end of one 99" pipe into the non-drilled end of the 82" pipe and secure the joint with a Tek screw.
- Once the support is assembled, place the drilled end over the first center ground post and slide the upper end into the combo socket fitting at the top of the rafter.

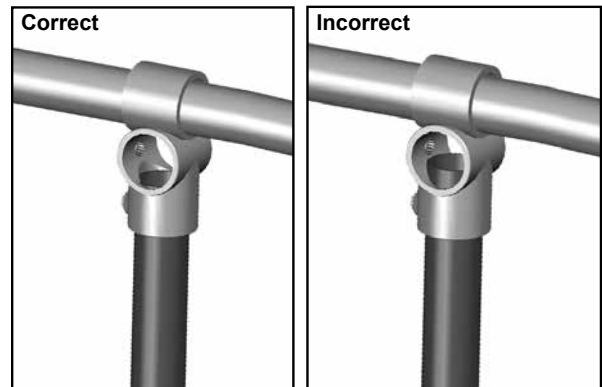


**NOTE:** It may be necessary to align the socket fitting with the center support during these steps.

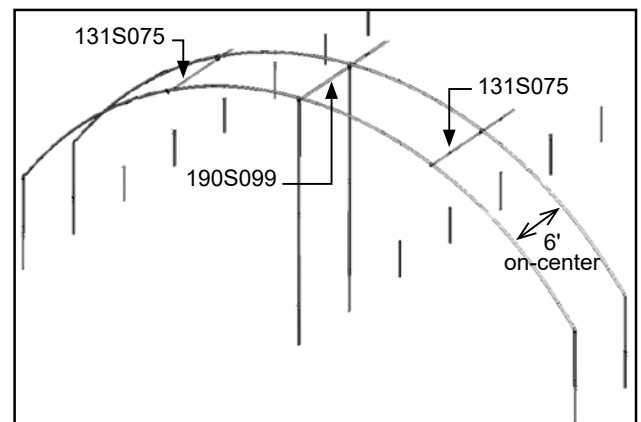
- With the upper end of the support in the socket fitting, align the drilled holes in the center support with the holes in the ground post and secure using the 5/16" bolts (FAG336B) and nuts (FALB02B).
- Once the support is anchored to the ground post, secure it to the socket fitting at the top of the rafter using an Allen wrench and the set screw.

**DO NOT SECURE THE SOCKET FITTING TO THE RAFTER AT THIS TIME.**

**ATTENTION:** Do not allow the center support pipe to extend into the opening for the upper purlin.



- Place the first interior rafter assembly (with QH1404 band clamps) into a second set of ground posts. Secure the leg pipes to the ground posts as previously described.
- Assemble another center support and secure the support to the first interior rafter.
- Position two (2) cross connectors near the top of the interior rafter assembly.
- Take two (2) swaged 75" purlin sections and insert each through each end clamp on the end rafter and through the cross connectors on the interior (or second) rafter.
- Insert one (1) swaged 99" purlin into the coupler at the *top of the end rafter* and through the coupler on the second rafter as shown.

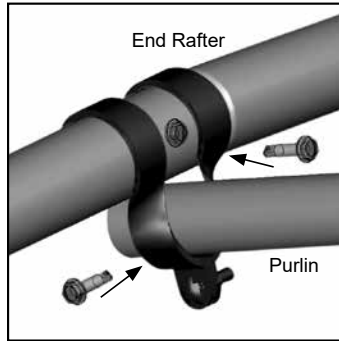


- Verify that both rafters are plumb and properly spaced (6' on center).

**FRAME ASSEMBLY (CONTINUED)**

14. Tighten the cross connectors and end clamps on the rafters to secure the first purlin pipes. Secure clamps and connectors to the rafters using a Tek screw.

Install Tek screw through end clamps and cross connectors and into the purlin pipes.



15. Continue adding rafters, center supports and purlins until the frame is assembled.
16. Finish each upper purlin run using the plain, shorter 1.315" pipe (#131P0735) and the center purlin with the shorter 1.90" plain pipe (#190P096).

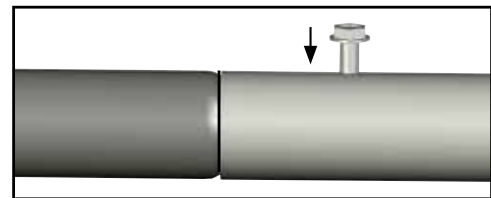
**NOTE:** Use the last interior rafter with band clamps for the second to last rafter. The band clamps are used to secure the diagonal struts.

If the last end rafter is plumb and the purlin runs extends beyond the end of the rafter, cut the last section of purlin pipes to the required length.

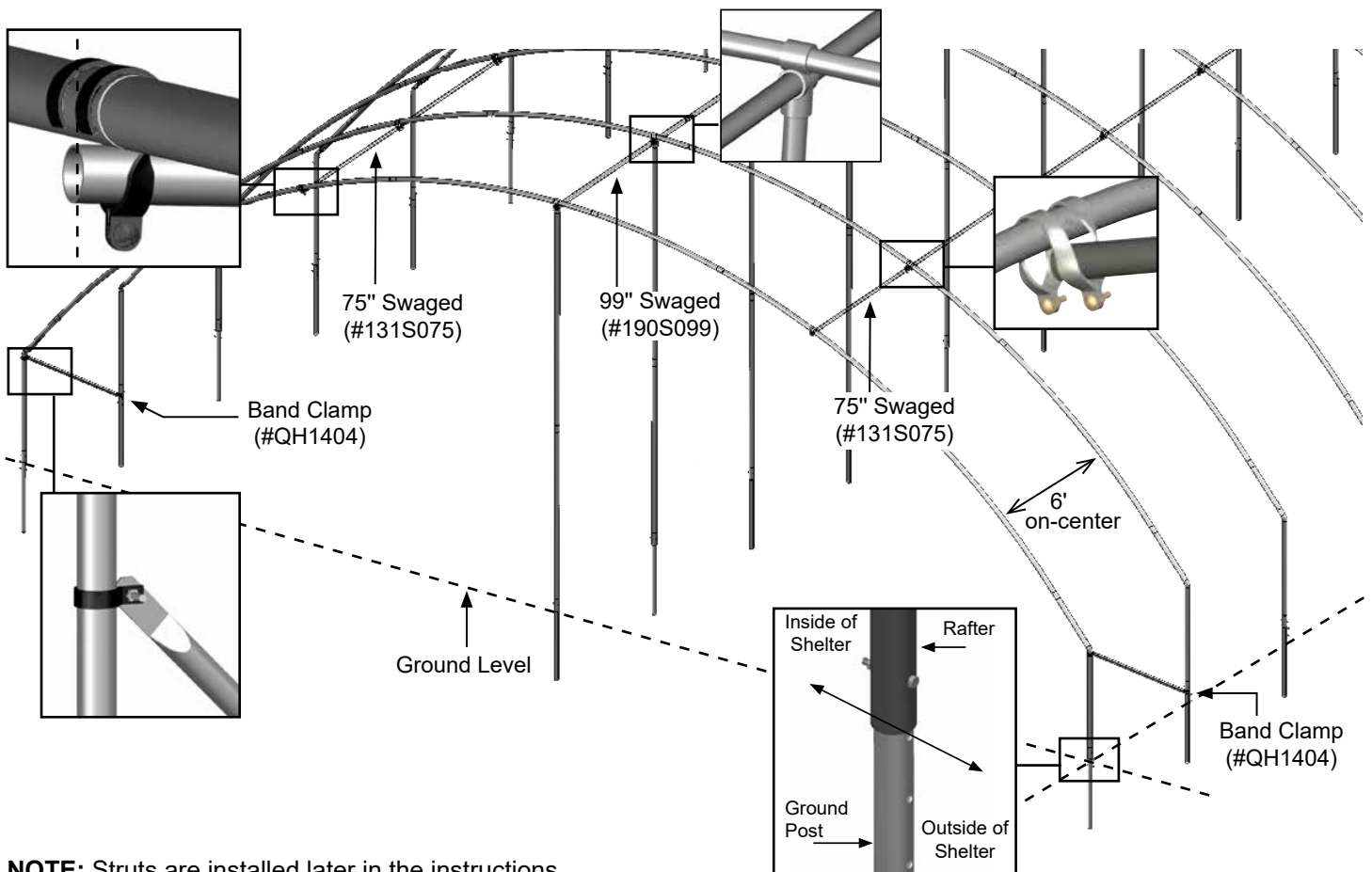
Typically purlin pipes do not require cutting. Verify that you have the correct plain pipes before you decide to cut any pipe to complete the purlin runs.

**CAUTION:** To prevent cover damage, the ends of the purlins should not extend past the end clamp. The bolt side of the end clamps must go toward the "inside" of the shelter (the same side as the purlin) as shown below.

17. Once all rafters are set and all purlins are in place and secured, return to each pipe splice of each purlin run and install a Tek screw through the pipes to secure the joints.



18. Continue by installing the struts.

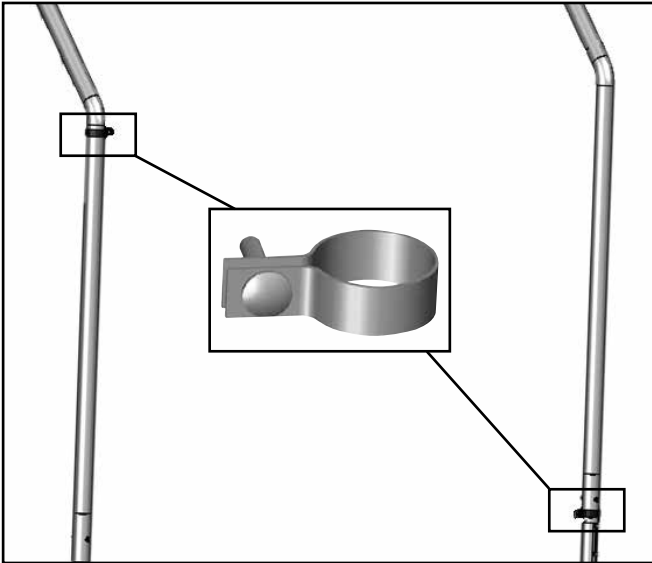


**NOTE:** Struts are installed later in the instructions.

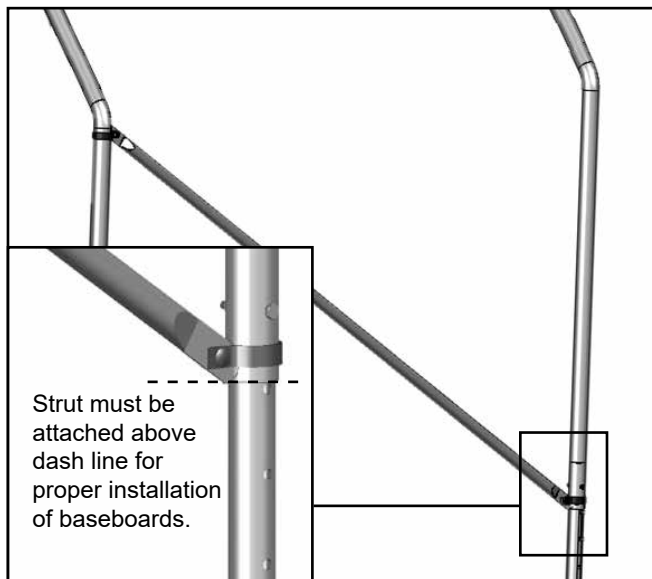
## COLD FRAMES

### STRUT ASSEMBLY

1. After the rafter assembly is complete, verify that the band clamps are in the proper location. See diagram below. Add clamps if needed.



2. Remove the bolts and attach a strut between the band clamp on the purlin and the band clamp on the end rafter. *The lower band clamp and strut must be attached as shown below.*



**NOTE:** Verify that the bolt heads are to the outside of the shelter and that the end rafter is plumb before tightening the nuts.

3. Install the remaining struts and tighten all band clamp bolts.
4. Secure each band clamp to each purlin or rafter with a Tek screw.
5. Check each purlin joint and secure using a Tek screw if this has not been done.
6. Continue by installing customer-supplied baseboards.

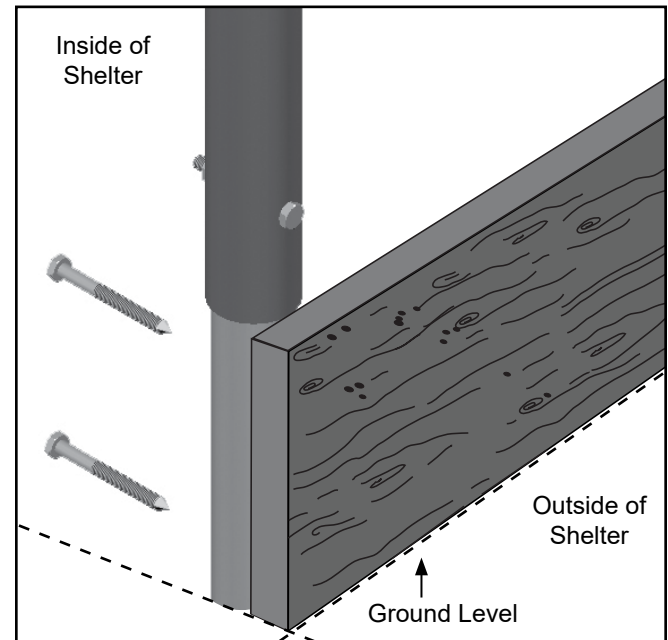
### BASEBOARD INSTALLATION (RECOMMENDED)

Gather the parts

- Treated or recycled plastic lumber (supplied by customer).
- 5/16" x 3" Lag Bolts (#FAJ117B)

**NOTE:** The following procedure describes one way to install the recommended baseboards. The size and type of the baseboard you choose may require the use of alternative steps. When properly installed, baseboards run the length of the frame.

On the outside of the frame, attach the first baseboard to the ground posts using the 5/16" x 3" lag bolts. Insert the lag bolts, from the inside of the shelter, through the ground posts into the baseboards. Continue adding baseboards to complete the first run. Splices are made between posts. Use a short section of baseboard to secure separate baseboards at a splice.

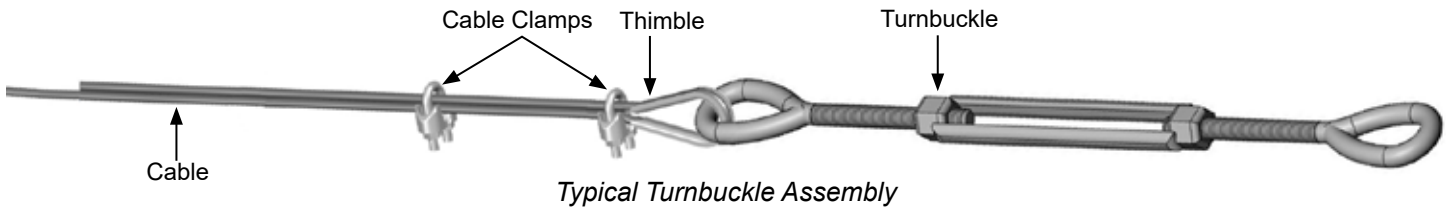


**NOTE:** The boards should be at ground level or slightly into grade to prevent the shelter from sinking and to create a seal along the bottom. After installing the baseboards, continue with these instructions.

**CABLE ASSEMBLY**

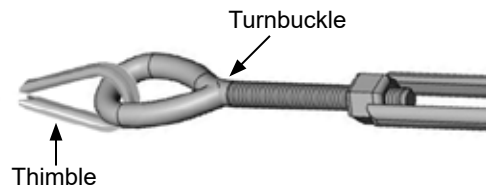
Cable assemblies provide diagonal bracing for the building. Each cable assembly includes the following items:

- Cable
- Turnbuckle (1)
- Cable thimbles (2)
- Cable clamps (4)



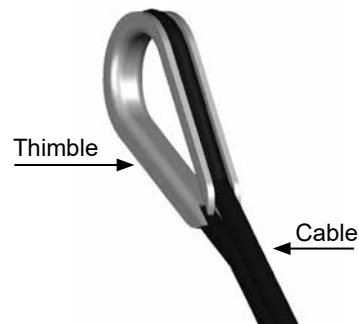
**Cable Assembly Procedure**

1. Cut the cable to the proper length for each assembly. More than an adequate amount has been sent for the cabling application. Use diagram on the following page for location of the cable and measure the length needed.
2. Insert one cable thimble through one end of the turnbuckle as shown in the first figure to the right.
3. Place the cable thimble approximately twelve inches (12") from the end of a cable section and wrap the cable around the thimble as shown in the second figure to the right.
4. Grasp both sections of the cable near the thimble and position one cable clamp one inch away from the thimble as shown above.



**NOTE:** The clamp must be positioned on the cable with its U-bolt portion over the short section of the cable as shown in the diagram above.

5. With the saddle portion of the cable clamp in position, thread the nuts onto the U-bolt section of the clamp and tighten slightly to maintain the position of the clamp on the cable.
6. Install a second cable clamp on the cable six to eight (6"-8") inches from the first clamp.
7. Tighten both clamps.
8. Open the turnbuckle to its longest position.
9. Repeat the above procedure for the remaining cable assembly.



## COLD FRAMES



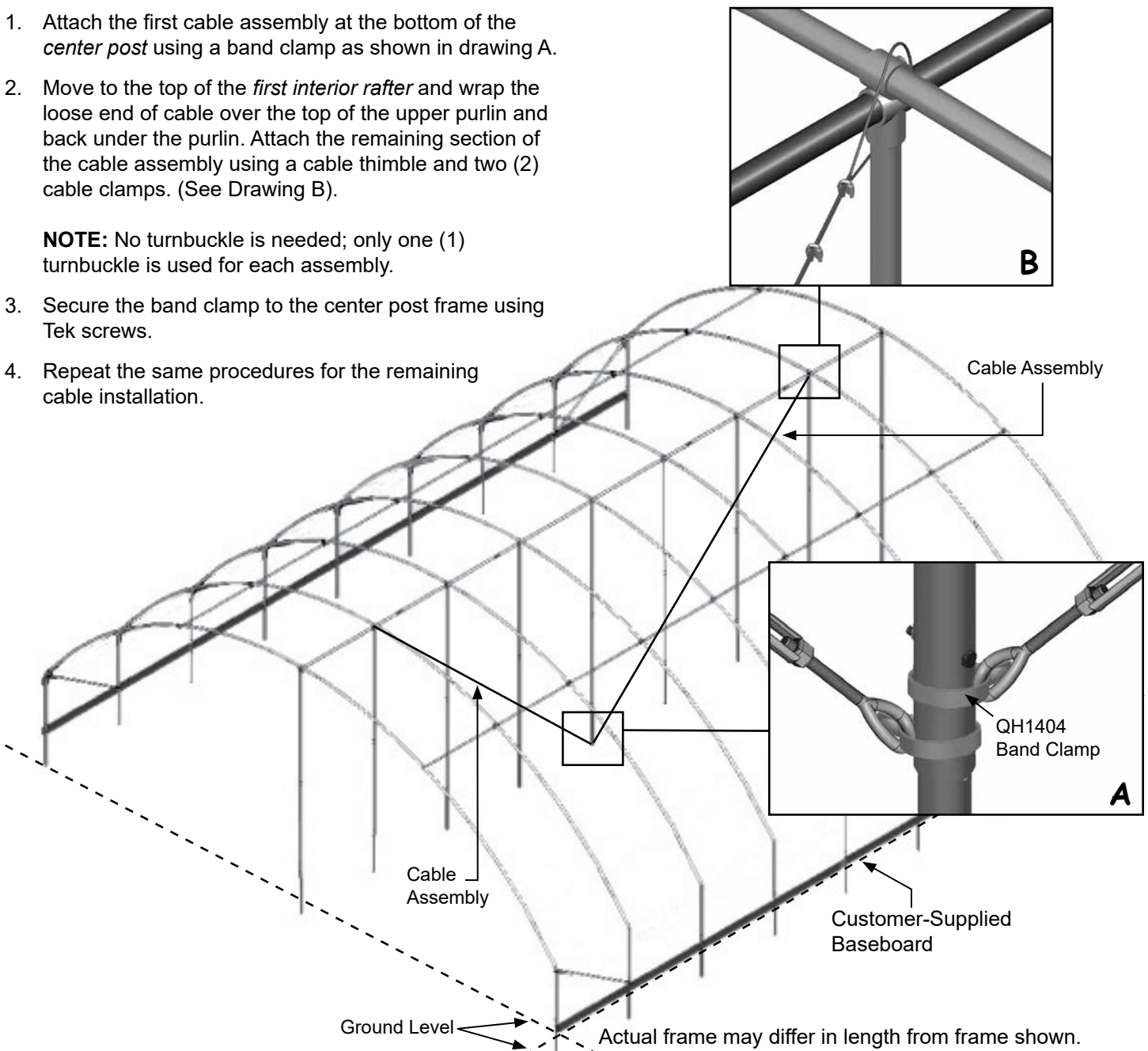
### CABLE PLACEMENT

The diagram and inserts below identify the placement and proper way to attach the cable assemblies to the building.

1. Attach the first cable assembly at the bottom of the *center post* using a band clamp as shown in drawing A.
2. Move to the top of the *first interior rafter* and wrap the loose end of cable over the top of the upper purlin and back under the purlin. Attach the remaining section of the cable assembly using a cable thimble and two (2) cable clamps. (See Drawing B).

**NOTE:** No turnbuckle is needed; only one (1) turnbuckle is used for each assembly.

3. Secure the band clamp to the center post frame using Tek screws.
4. Repeat the same procedures for the remaining cable installation.



### TIGHTEN THE CABLING

1. After attaching both cable assemblies to the building frame, return to the first turnbuckle and tighten the cables.

**NOTE:** Tighten the cables in each section evenly so that the frame remains plumb.

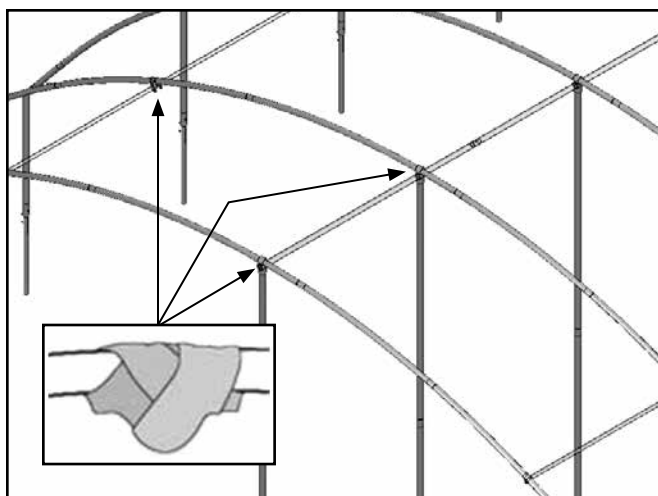
2. After the first cable assembly is tightened, move to the other assembly and repeat the tightening steps.
3. Continue with finishing rough edges and anchor the frame.



**FINISH ROUGH EDGES**

Gather the parts

- Duct tape (supplied by customer)
  - Metal file
1. Check for any sharp edges on the frame and file them smooth so they will not cut the cover.
  2. Apply two layers of heavy duct tape on all pipe connections and clamps that may contact the cover.

**ANCHOR THE ASSEMBLED FRAME**

At this point, anchor the cold frame frame. Consult the MUST READ document for anchoring information and suggestions. Please call customer service at 1-800-245-9881 for additional anchoring information.

**CAUTION:** The anchor assembly is an integral part of the cold frame construction. Improper anchoring may cause instability and failure of the structure to perform as designed. Failing to anchor the shelter properly will void the manufacturer's warranty and may cause serious injury and damage.

**SHELTER CARE AND MAINTENANCE**

Proper care and maintenance of the shelter is important. Check the following items periodically to properly maintain the shelter:

- Regularly check the main cover and panels (if equipped) to see that these remain tight and in proper repair.
- Check connections and all fasteners to verify that they remain tight.
- Do not climb or stand on the frame at anytime.
- Remove debris and objects that may accumulate on the cover (if equipped). Use tools that will not damage the cover when removing snow.
- Remove snow to prevent excess accumulation. Use tools that will not damage the cover (if equipped) when removing snow.
- Check the contents of the shelter to verify that nothing is touching the cover and/or end panels (if equipped) that could cause damage.
- Check the anchoring system to ensure that all components are tight and in good repair.
- If the shelter is moved, inspect all parts and connections before reassembling.
- For replacement or missing parts, call 1-800-245-9881 for assistance.

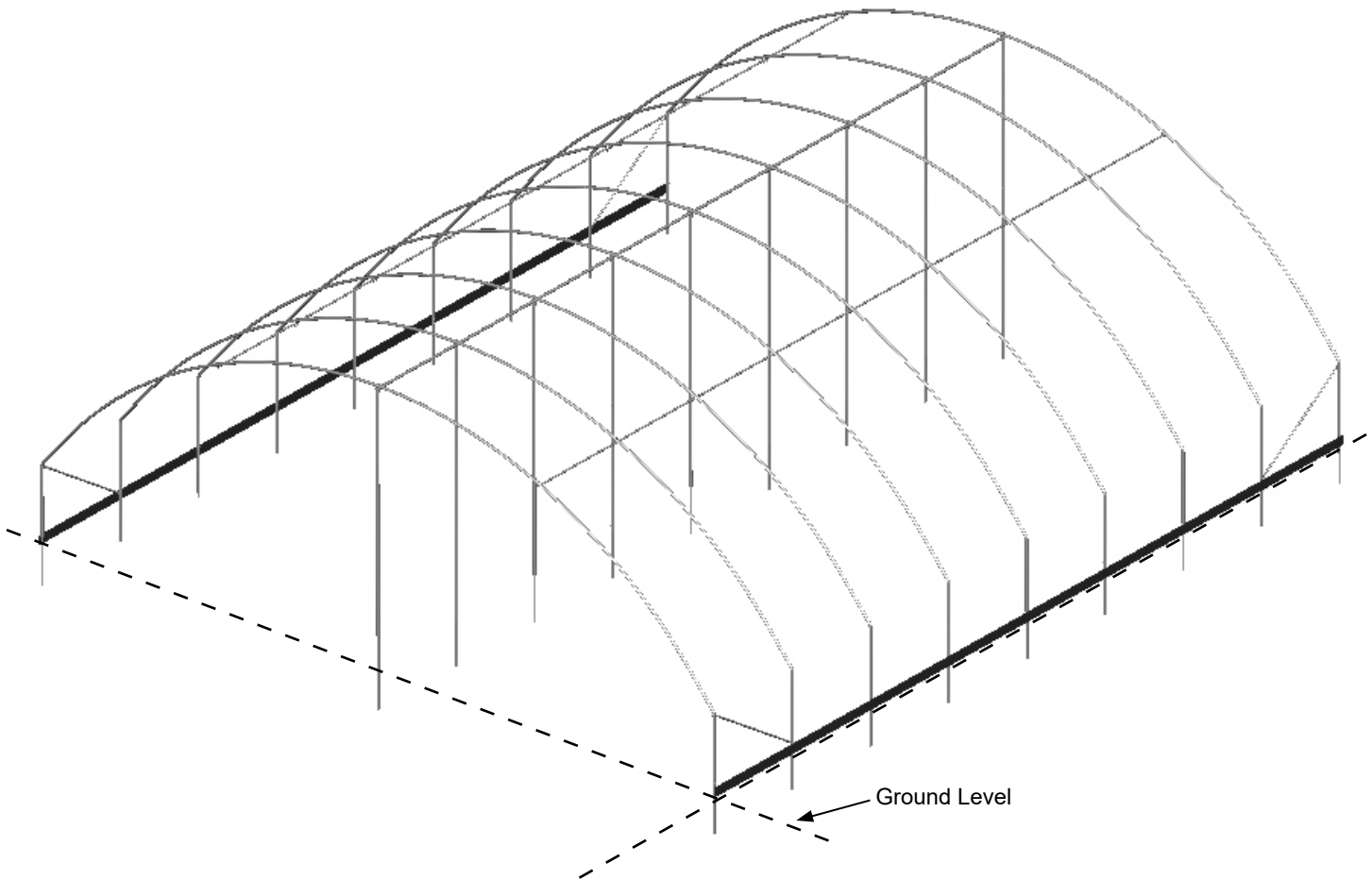
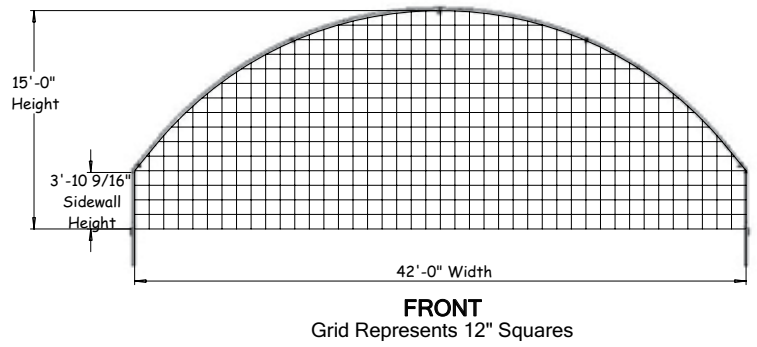
**NOTE:** With the exception of Truss Arch buildings, GrowSpan™ shelters and greenhouses *do not* have any tested loading criteria.

# COLD FRAMES



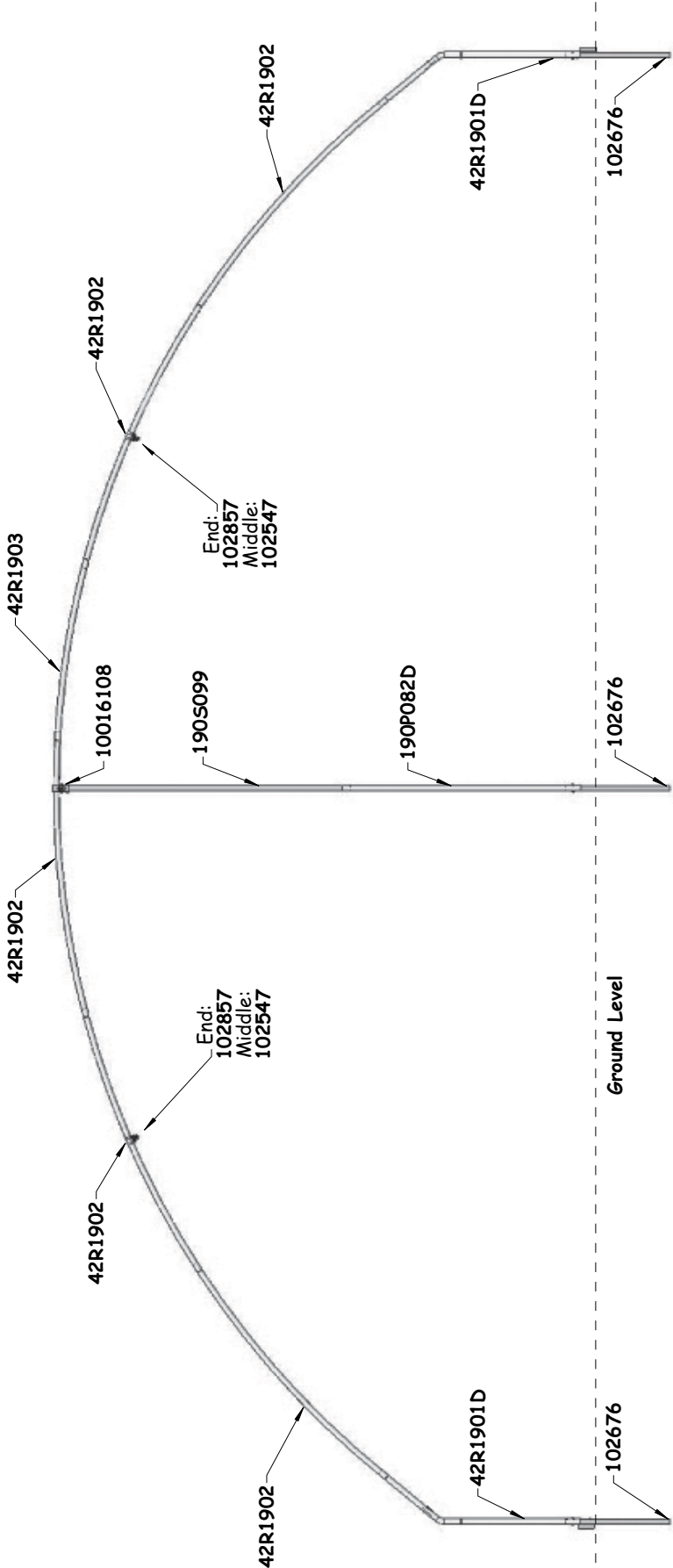
## QUICK START GUIDE

42' Wide Giant Cold Frame

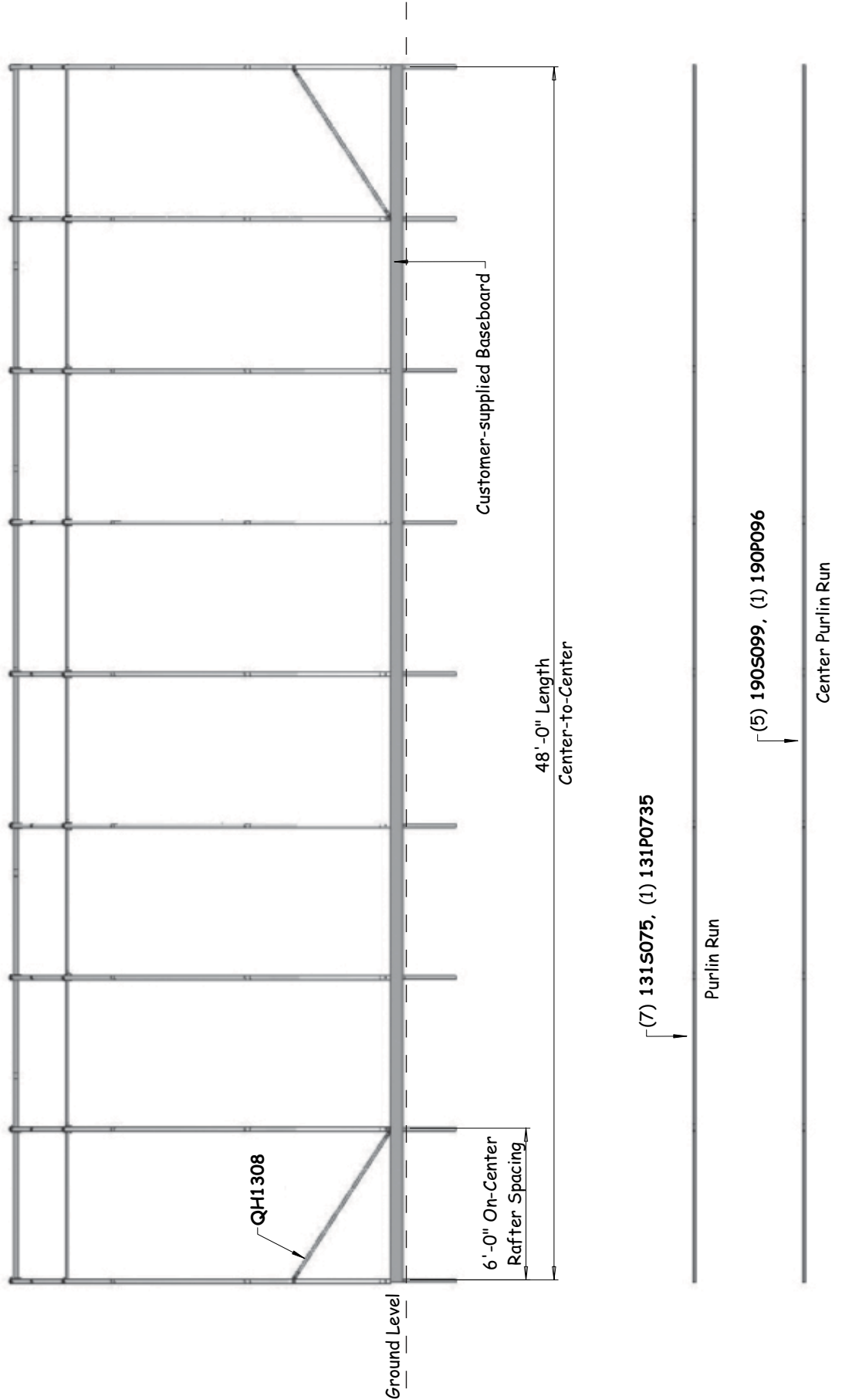


Actual frame may differ in length from frame shown.

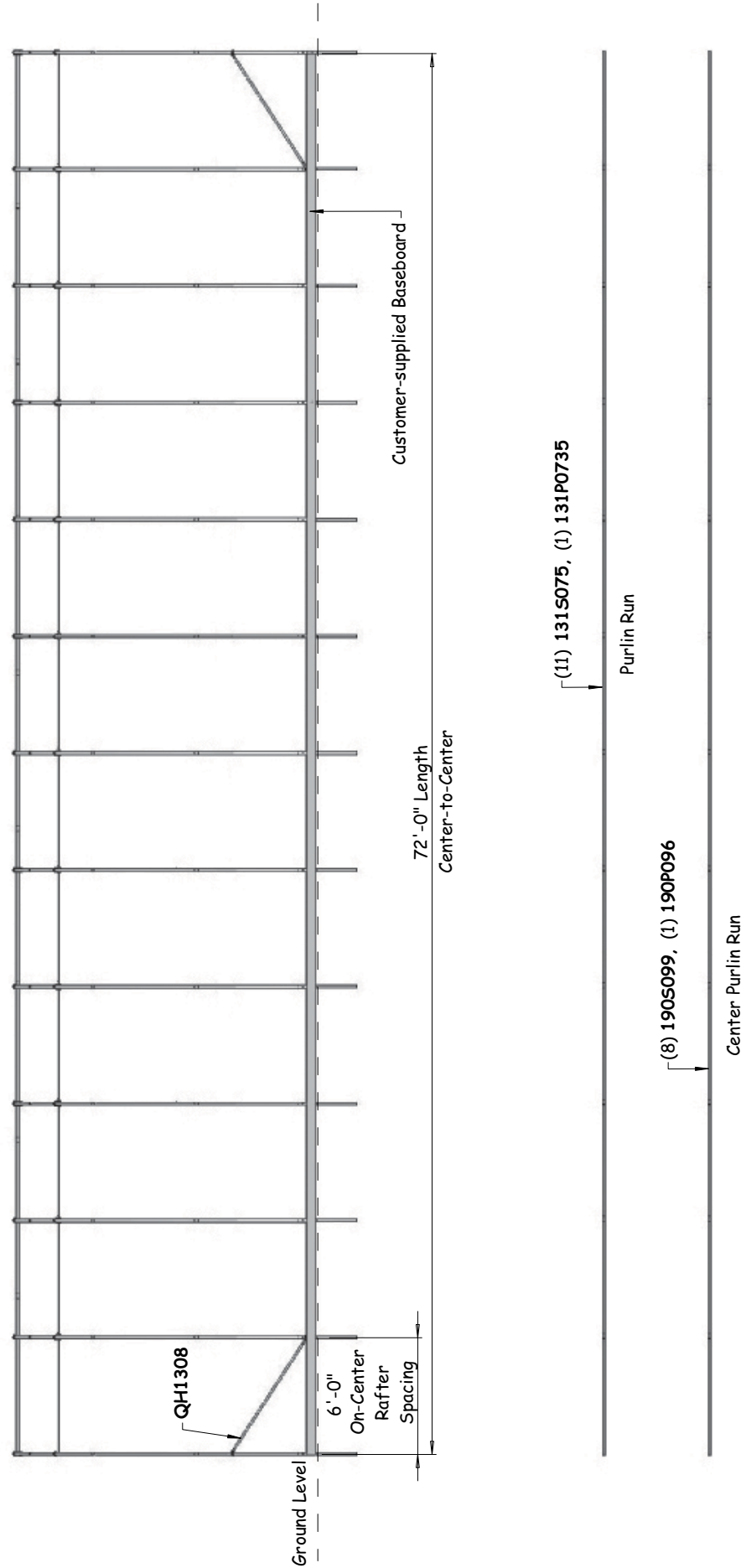
# FRONT PROFILE



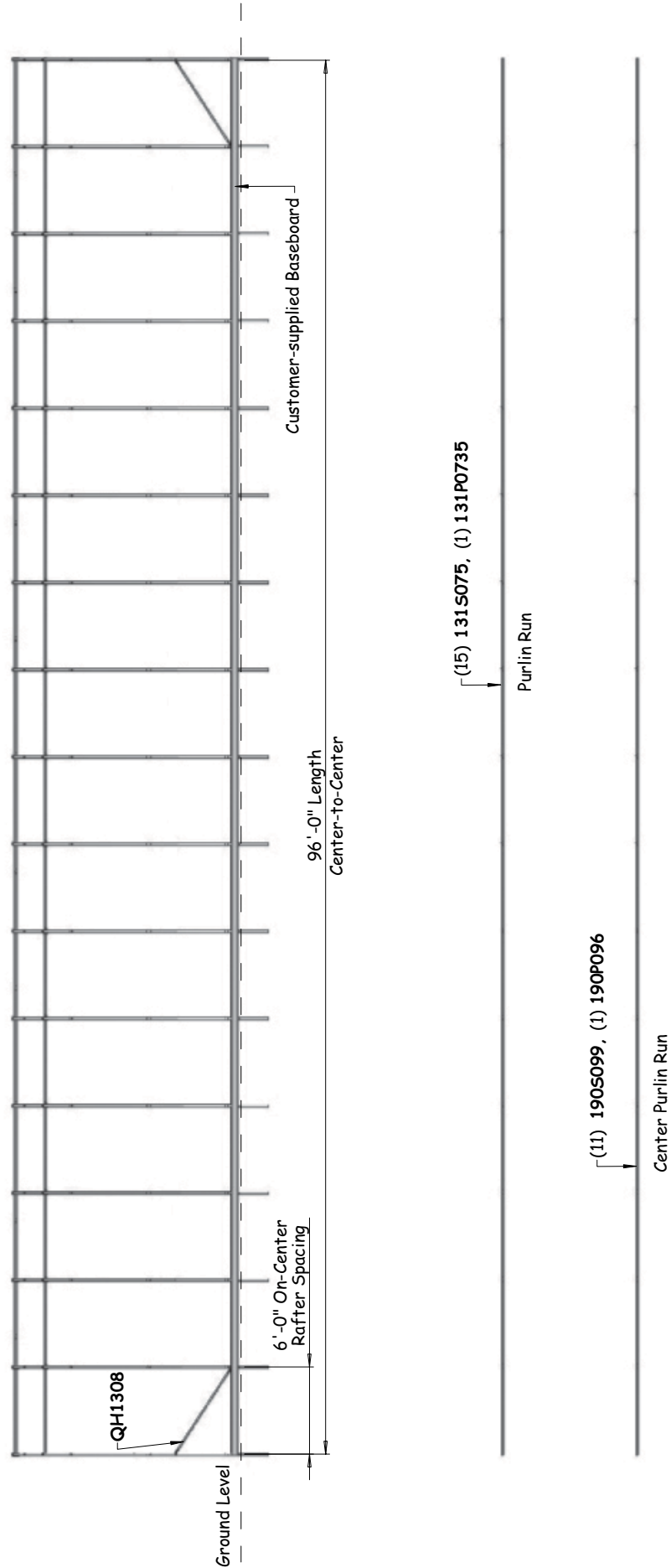
# SIDE PROFILE - 104724



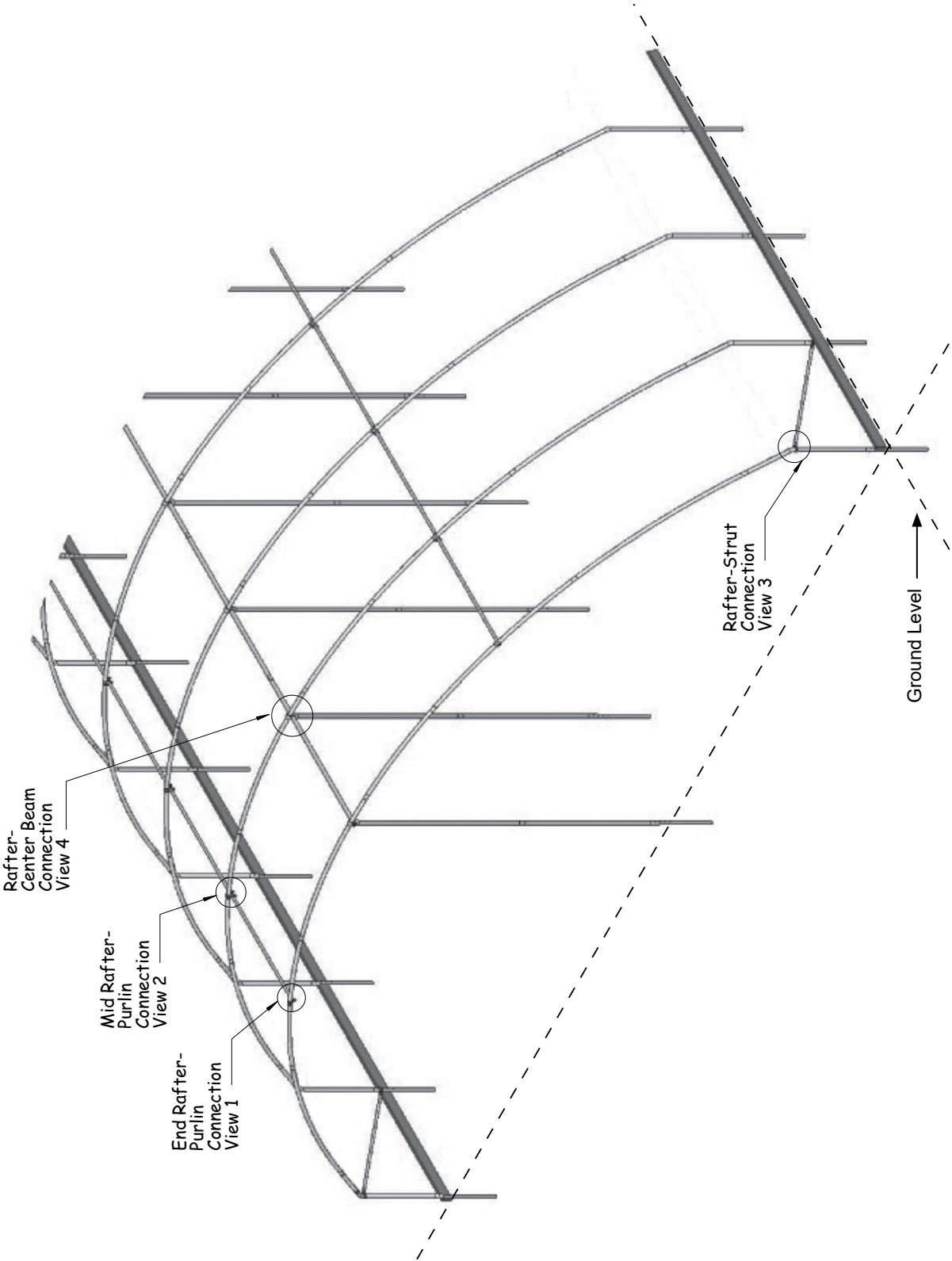
# SIDE PROFILE - 104725



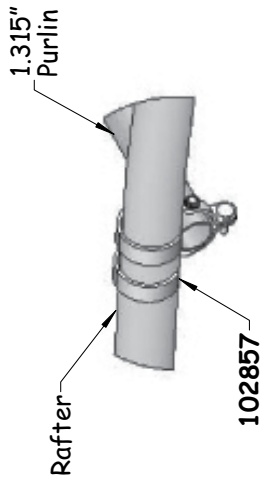
# SIDE PROFILE - 104726



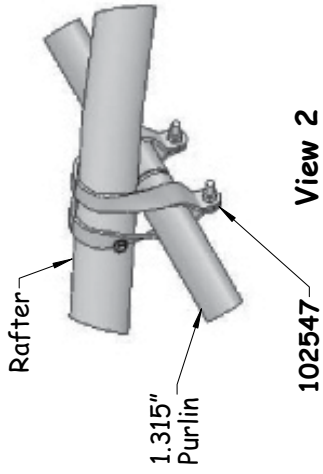
# CONNECTIONS



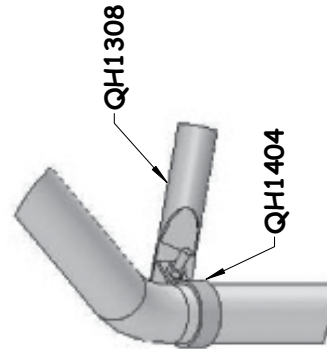
# CONNECTION DETAILS



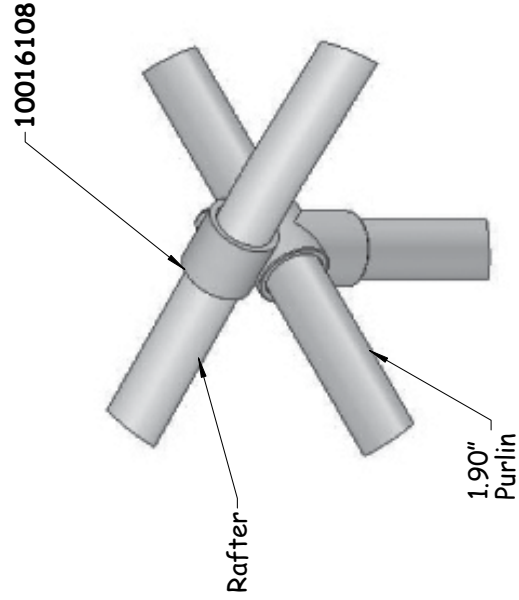
**View 1**  
End Rafter-  
Purlin  
Connection



**View 2**  
Mid Rafter-  
Purlin  
Connection



**View 3**  
Rafter-  
Strut  
Connection



**View 4**  
Rafter-  
Center Beam  
Connection





Space below is reserved for customer notes.