

SAFETYRAIL2000

Architectural Series NS

Patents Pending

Installation Manual

Revision C ; July 2017

P/N: 100357

WARNING: SERIOUS INJURY MAY RESULT IF THIS PRODUCT IS MISUSED OR NOT INSTALLED PROPERLY. BLUEWATER MFG., INC. PROVIDES THESE INSTRUCTIONS AND RELIES UPON THE PURCHASER AND END USER TO TRAIN ALL PERSONNEL TO ENSURE THE USERS OF THIS PRODUCT FULLY UNDERSTAND THE IMPORTANCE OF FOLLOWING THESE INSTRUCTIONS. BLUEWATER MFG. EXPRESSLY DISCLAIMS ANY LIABILITY FROM INJURY, DAMAGE, OR OTHER LOSS RESULTING FROM THE IMPROPER OR UNAUTHORIZED INSTALLATION OR USE OF SAFETYRAIL 2000.



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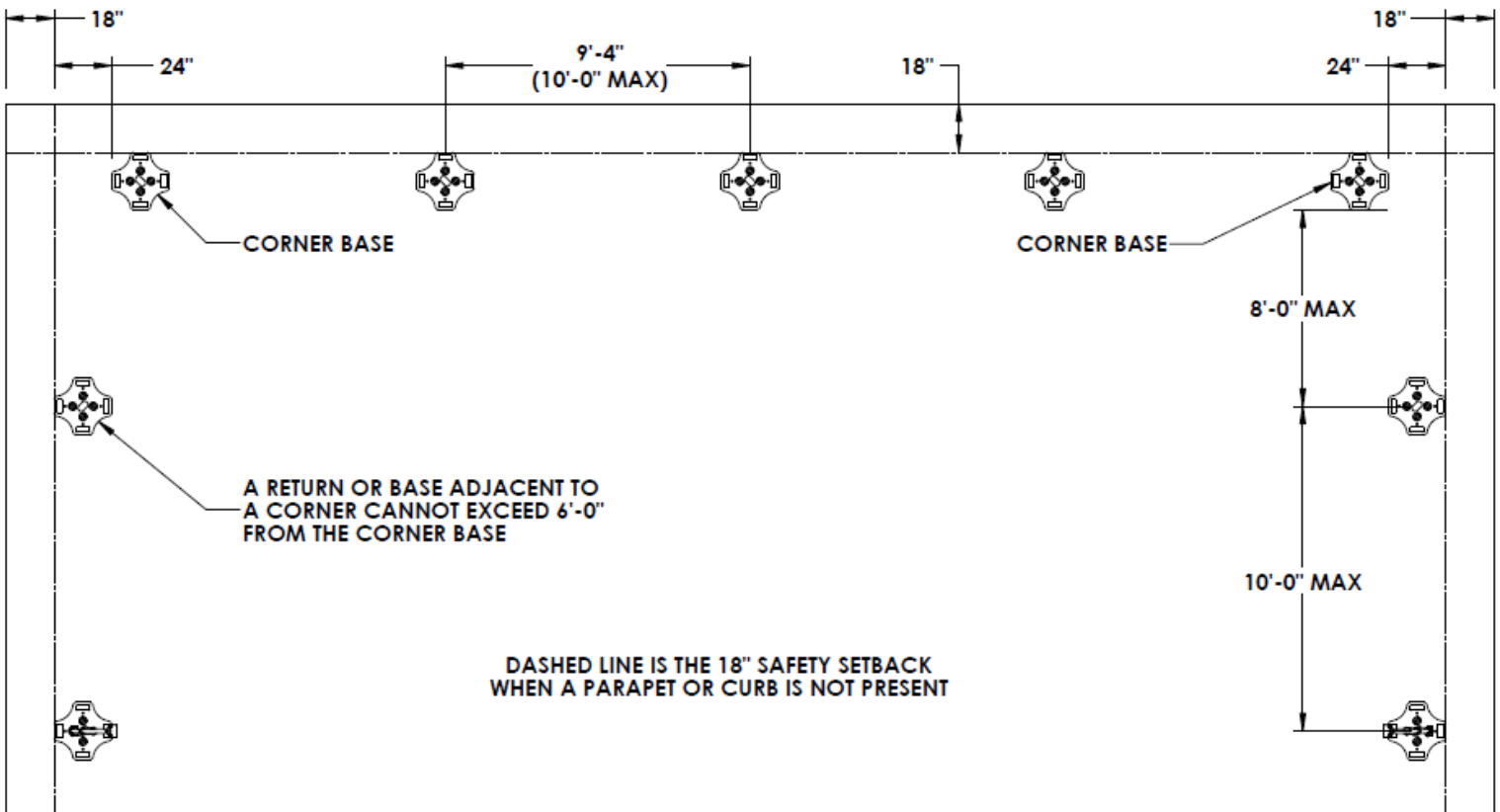
SAFETY PRECAUTIONS:

- ! Personnel using this product must be trained on proper and safe installation.**
- ! The load limit of the installation surface must be checked to ensure that the surface can tolerate the weight of the SafetyRail 2000 and installation personnel.**
- ! SafetyRail 2000 is designed to be used only on flat surfaces, free of debris.**
- ! Never use SafetyRail 2000 on slick surfaces.**
- ! Never set up SafetyRail 2000 near electrical wires. The rails must be at least five feet from power lines.**
- ! Never use damaged rails or gates. Inspect all product to ensure there is no damage. If any product is damaged, replace with new product.**
- ! Always use an outrigger at the beginning and end of a continuous run or any interruption in a run. The outrigger should be positioned approximately at a 90 degree angle to the run.**
- ! Never use SafetyRail 2000 rails for hoisting.**
- ! Verify that the bottom of the base has four rubber pads. Install new pads if any are missing.**
- ! Bases must be placed at a minimum of 18” away from the leading edge where there is no curb or parapet on a leading edge. Bases may be placed next to the vertical rise if a curb or parapet is present.**
- ! Contact BlueWater Mfg. with any questions or concerns.**

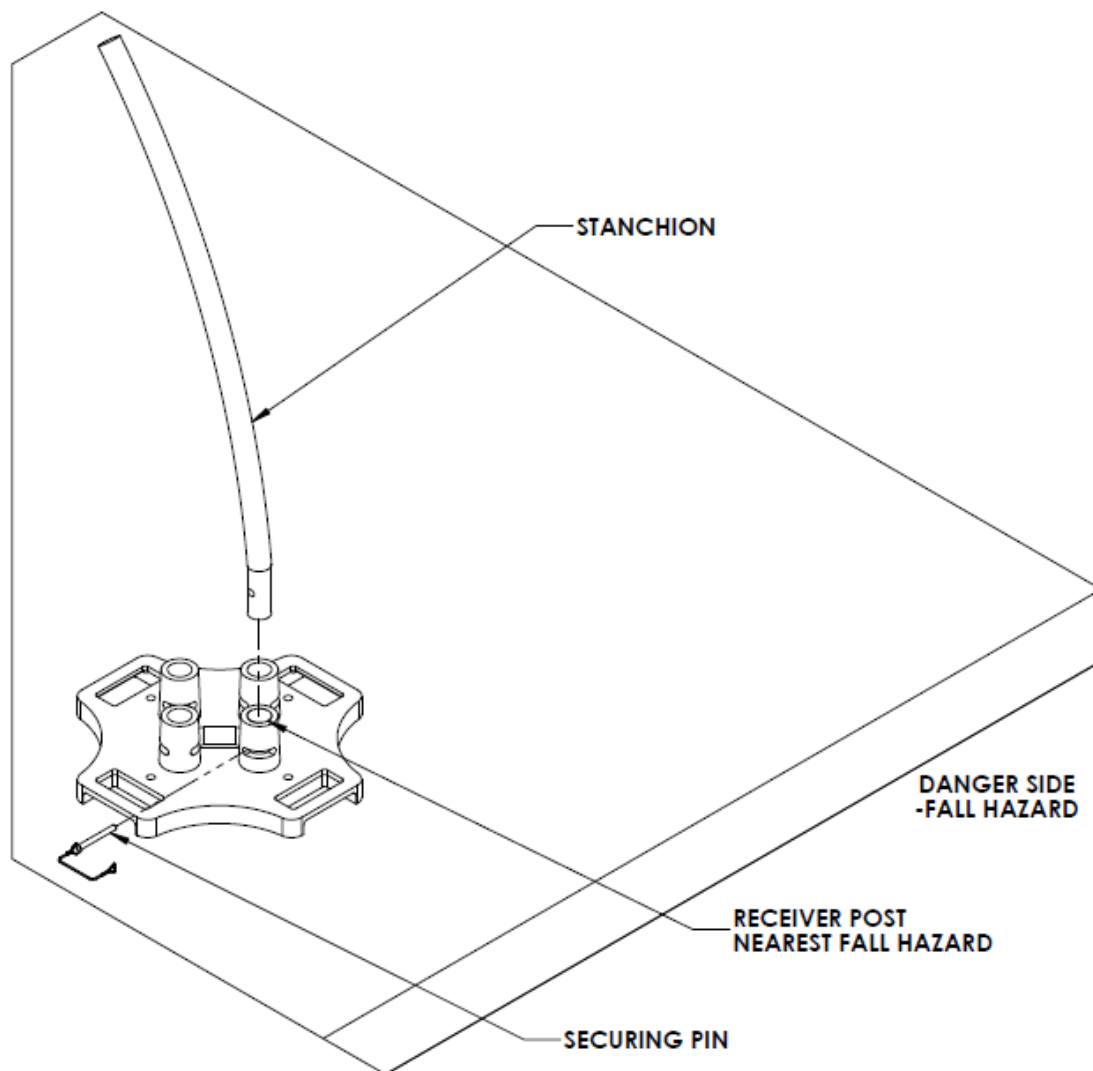
These instructions must be followed in order to comply with the Occupational Safety and Health Administration's regulations: (Standards- 29 CFR) 1910.28 (e) and 1926.501 (b).

PLEASE NOTE: A minimum of two people are required for installation.
All set screws must be tightened to 24 lb-ft of torque.

1. Place the bases as shown on the supplied installation drawing.
2. If an installation drawing was not supplied, use the following steps.
 - a. Place a base at each corner.
 - i. A minimum clearance of 21" is required to add returns.
 - ii. A minimum clearance of 21" is also required when continuing a run at 90 degrees.
 - b. Measure the distance between the center of the corner bases and divide the distance by the maximum distance allowed.
 - i. OSHA maximum distance allowed is 10 feet.
 - ii. California OSHA maximum distance allowed is 8 feet.
 - iii. The result will give you the number of bases needed for the run.
 - c. The number of bases needed must be rounded up if there is a decimal place.
 - i. Divide this number into the measured distance.
 - ii. The result will give the spacing between bases.
 - d. Place the bases as required for the rail run.
 - e. Refer to the example below:

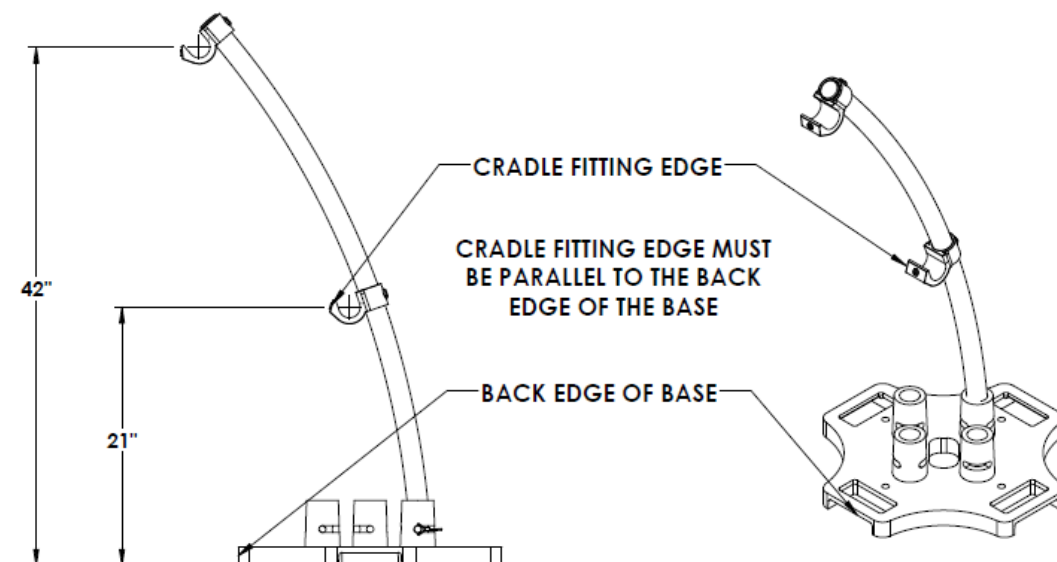


Example: The distance between corner bases is 37'-6" on center. Divide the distance (37'-6") by 10 feet. (California OSHA requires the divisor to be 8 feet instead of 10 feet. Substitute 8 for 10 in the formula for that region.) The result is 3.75. Round 3.75 up to 4. Divide the distance (37'-6") by the rounded number (4) and the result is 9'-4". This will be the spacing between the bases on center. The spacing between the bases must not be greater than 10 feet (8 feet in CA) to meet OSHA regulations.

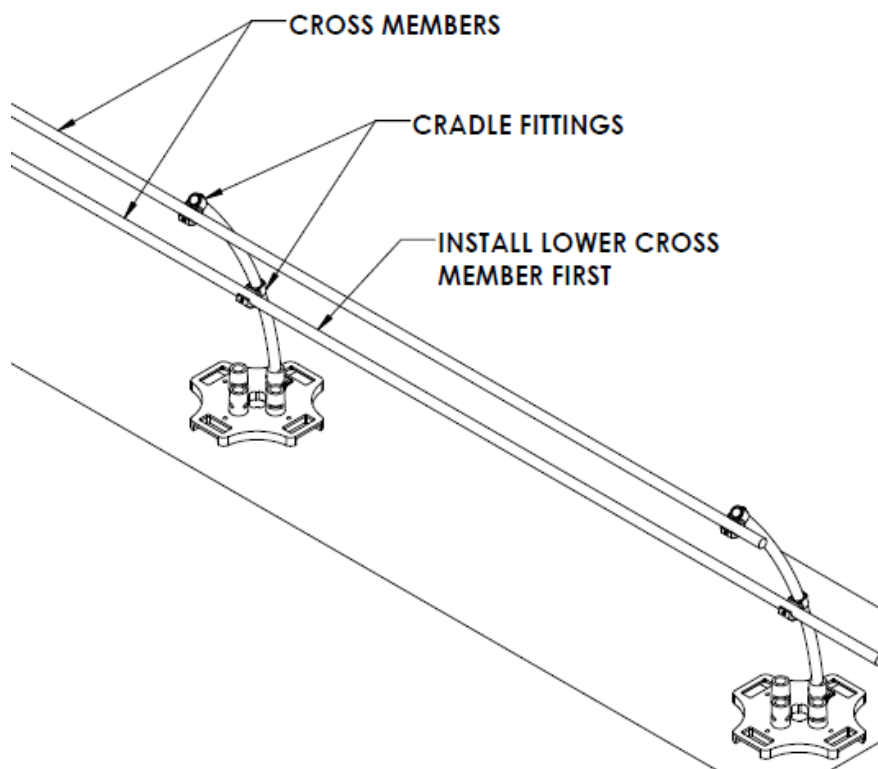


3. Insert stanchions into the receiver ports nearest the fall hazard and secure them to the bases by installing securing pins.
 - a. If the stanchions are angled or curved, the stanchions must be installed with the radius or angle oriented away from the fall hazard.

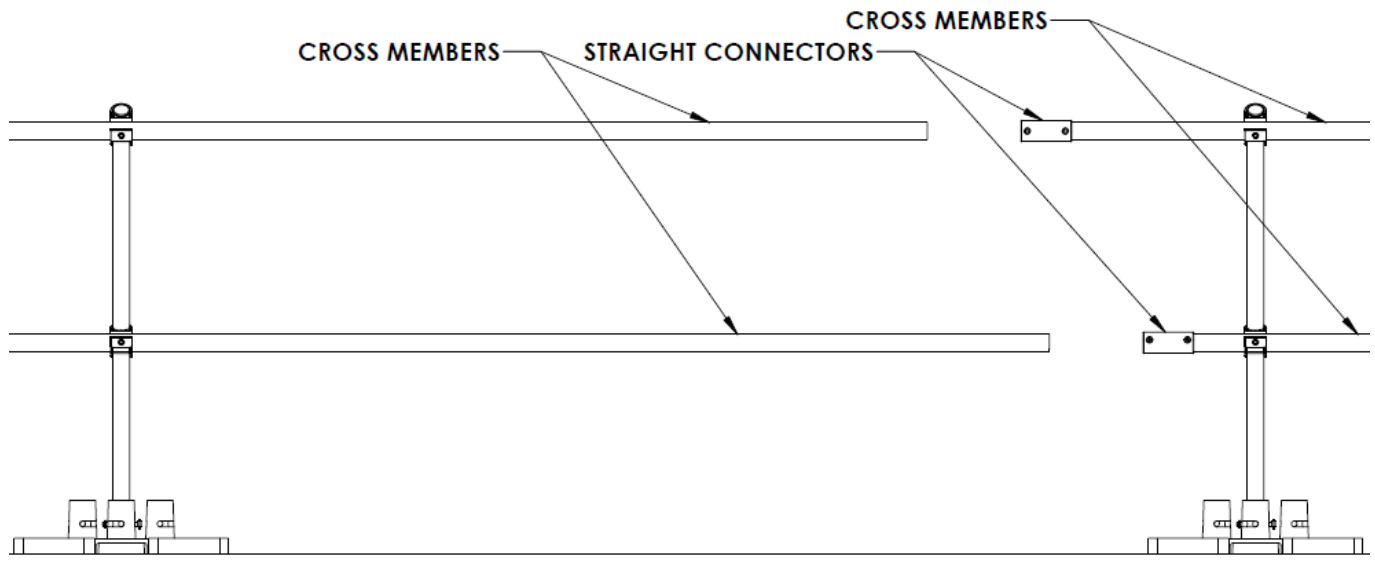
PLEASE NOTE: Always start the assembly on one end of the guardrail set up and work to the other end.



4. PLEASE NOTE: The edge of the cradle fittings must be parallel to the back edge of the bases during installation.
5. Install cradle fittings onto the stanchions and adjust height to 21" from the roof top.
 - a. Tighten the set screws.
6. Install a second cradle fitting onto the stanchions and adjust height to 42" from the roof top.
 - a. Tighten the set screws.
7. Press an end cap plug into the top of each stanchion.

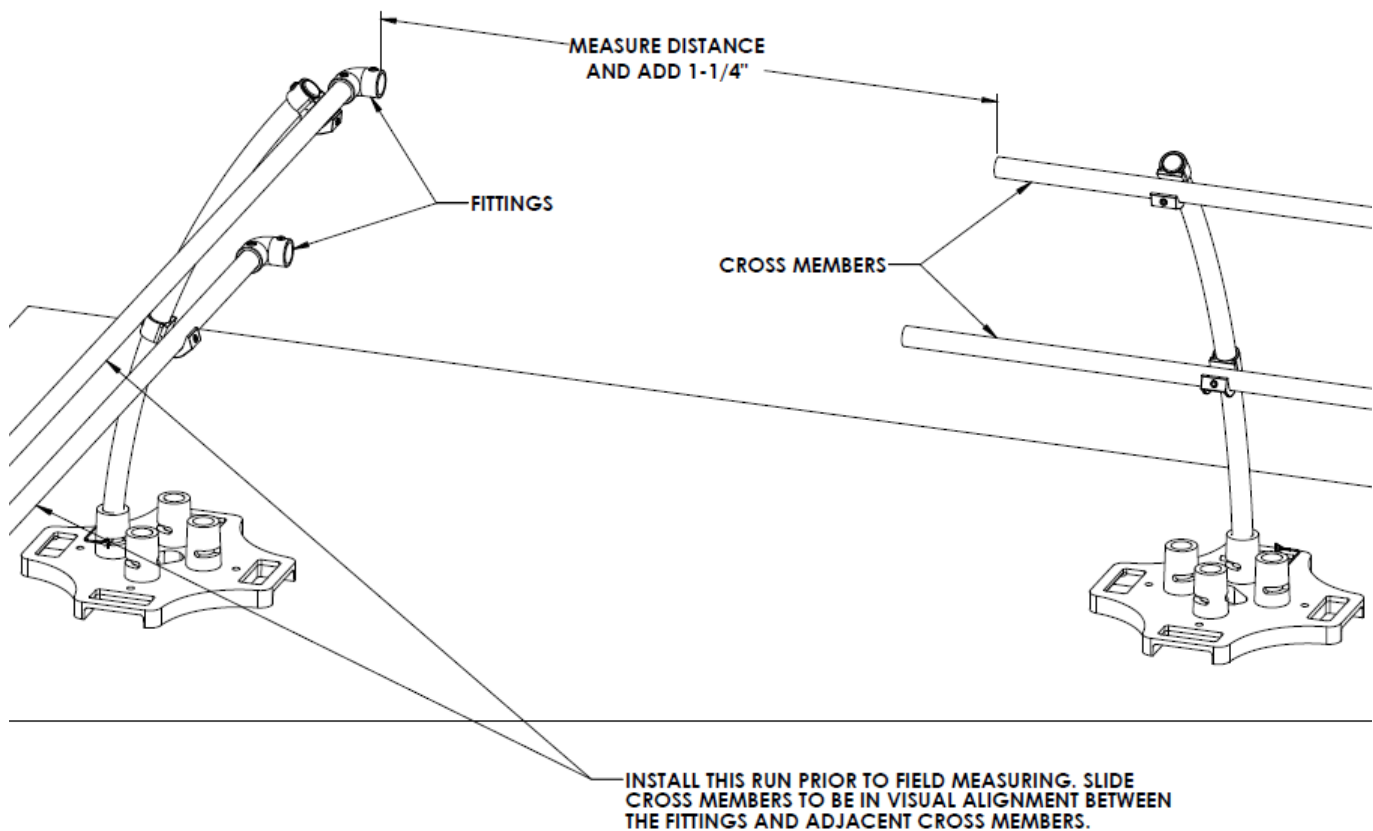


8. Place cross members into the cradle fittings set at 21" from the roof top.
9. Place cross members into the cradle fittings set at 42" from the roof top.



10. If extending cross members, add a straight connector to the ends of the cross members.
 - a. Ensure that the cross member is inserted no more half way into the straight connector.
 - b. Tighten the straight connectors to the cross member.
11. Using the next set of cross members, repeat steps 4 through 8.
12. Once assembled, slide the cross members into the straight connectors and tighten the set screws.
13. When cross members exceed the required length, field cut to size.

PLEASE NOTE: Always cut cross members to size prior to installation. Do not attempt to cut the cross member after it has been installed.



14. When a change of direction is required, install 90 degree elbows on the ends of the cross members closest to the corner base.
15. Slide the cross members to be in visual alignment between the fittings and adjacent cross members.
 - a. For returns, slide the cross member to be in visual alignment with the start end kit fittings.
16. Measure the distance from the installed cross member to the edge of the fitting that will receive the field cut cross member.
 - a. For returns, measure the distance between the cross member fittings and start end kit fittings.
 - i. Add 1-1/4" to this measurement to accommodate the inside length of the fitting.
 - ii. Repeat as required.
17. Install field cut cross members to the fittings and tighten.
18. When the guard rail system is fully installed, ensure that all fittings are secured to the cross members and stanchions.

ANNUAL INSPECTION PROCEDURE

- CHECK FOR ANY MISSING OR DAMAGED LOCKING PINS, REPLACE IF NECESSARY.
- CHECK FOR ANY LOOSE OR MISSING SET SCREWS IN FITTINGS, REPLACE AND TORQUE TO 24 LB-FT.
- CHECK FOR DAMAGED RAILS AND STANCHIONS. REPLACE AS NECESSARY.