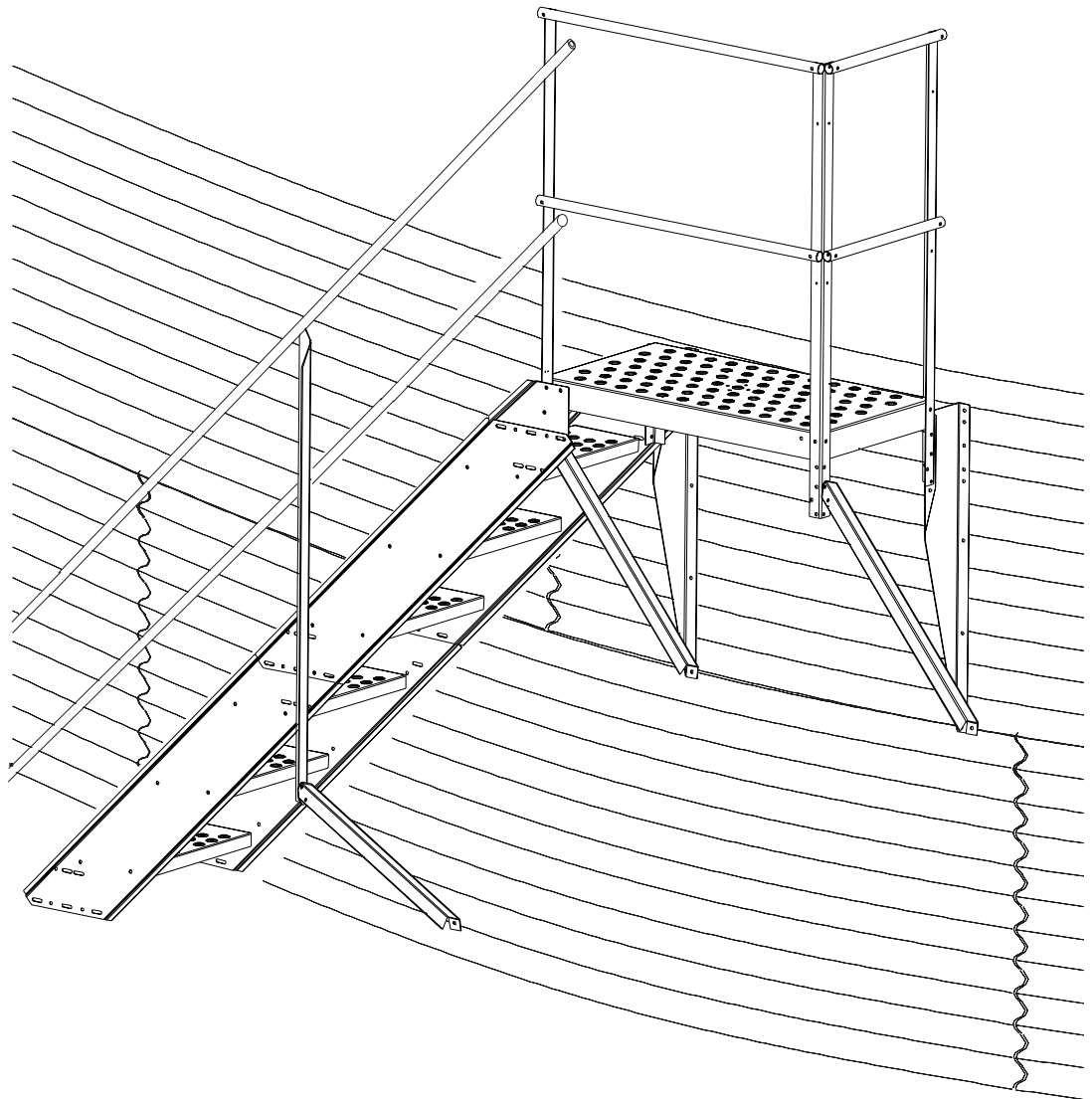


**PNEG-1112**  
**8-23-06**

# **Side Wall Bin Stair Assembly**

Assembly & Operation Manual



**PNEG-1112**  
**8-23-06**



# SAFETY GUIDELINES

This manual contains information that is important for you, the owner/operator, to know and understand. This information relates to protecting **personal safety** and **preventing equipment problems**. It is the responsibility of the owner/operator to inform anyone operating or working in the area of this equipment of these safety guidelines. To help you recognize this information, we use the symbols that are defined below. Please read the manual and pay attention to these sections. Failure to read this manual and its safety instructions is a misuse of the equipment and may lead to serious injury or death.



**This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.**

 **DANGER**

**DANGER** indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

 **WARNING**

**WARNING** indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

 **CAUTION**

**CAUTION** indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.

**CAUTION**

**CAUTION** used without the safety alert symbol indicates a potentially hazardous situation which, if not avoided, may result in property damage.

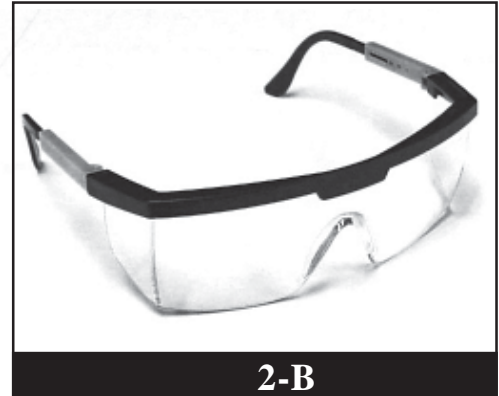
**NOTE**

**NOTE** indicates information about the equipment that you should pay special attention to.

# SAFETY GUIDELINES

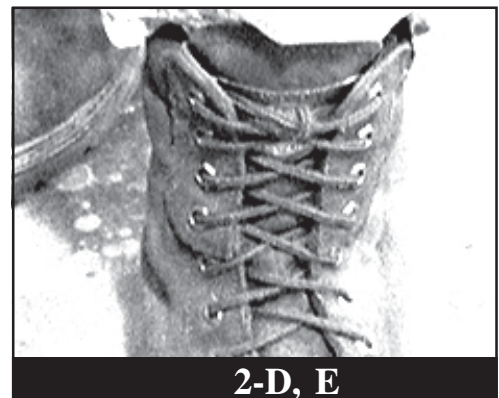
## 1. General Safety Guidelines

- A. **DO NOT** make any alterations to the equipment. Such alterations may produce a very dangerous situation, where **SERIOUS INJURY** or **DEATH** may occur.
- B. This equipment shall be installed in accordance with any regulations or installation codes that are required by law. Authorities having jurisdiction should be consulted before installations are made.
- C. Keep children and other unqualified personnel out of the working area at **ALL** times.
- D. **NEVER** work alone.
- E. Keep work area free of obstacles such as electrical cords, blocks, etc. that might trip workers.
- F. Any worker who is tired and/or under pressure is apt to have an accident. Give extra breaks and/or varied jobs to all workers. If necessary, delay installation of this equipment until the worker is adequately rested.



## 2. Personal Protective Equipment

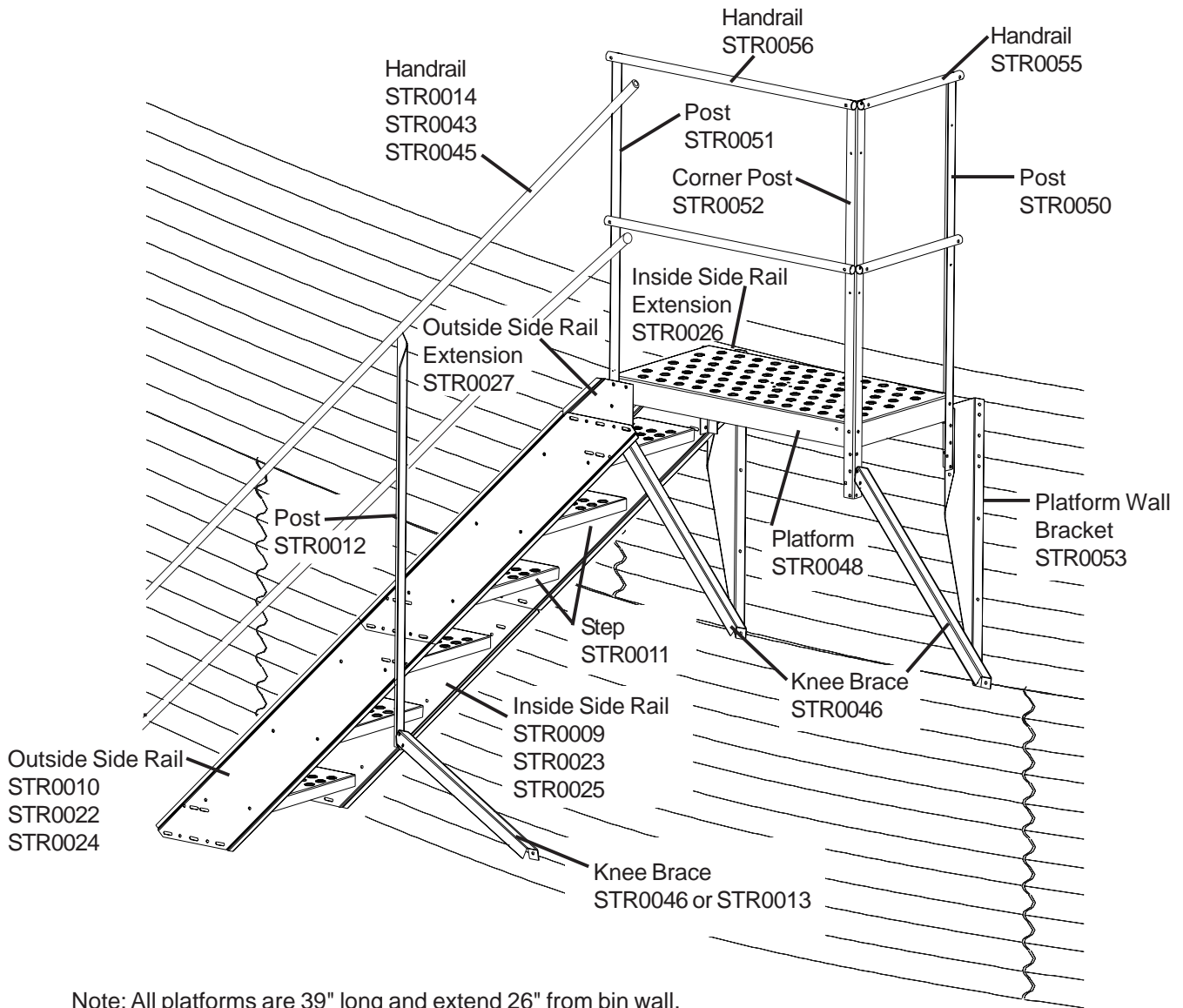
- A. The proper personal protective equipment should be worn at **ALL** times by anyone in the work area.
- B. **ALWAYS** wear safety glasses when in the work area.
- C. The operator should **NEVER** wear jewelry.
- D. Loose clothing should not be worn. Any clothing that becomes loosened should be tucked in tightly.
- E. Loose or dangling shoe strings should be tucked in.
- F. Long hair should be tied up and/or back.



Part Listings

**WARNING** Read and follow directions carefully before installation. We are not responsible for damage or accidents caused by improper installation. Our stairs are designed to hold one person and the weight they can carry.

**NOTE** Stairs installed at the time of bin construction are usually installed from top to bottom. Stairs installed on an existing bin are usually installed from bottom to the top. Either way can be used, just remember to make sure nothing will obstruct the construction path of the stairs, such as doors, conduit, heaters, fans, unloading equipment, etc.



Note: All platforms are 39" long and extend 26" from bin wall.

Use the charts below to be sure you have all the packages necessary to complete your installation.

Package Charts for the Top Two Rings		
	32" Tall Bin Sidewall Sheet	44" Tall Bin Sidewall Sheet
Platform 5-1/2" Below Eave	STR1003 Platform STR1000 21" Section STR1001 32" Section	STR1003 Platform STR1001 32" Section STR1002 44" Section
Platform 16" Below Eave	STR1003 Platform STR1002 44" Section	STR1003 Platform STR1000 21" Section STR1002 44" Section
Platform 26-1/2" Below Eave	STR1003 Platform STR1009 Booster Step STR1001 32" Section	STR1003 Platform STR1009 Booster Step STR1000 21" Section STR1001 32" Section
Intermediate Platform	STR1005 Intermediate Platform STR1001 32" Section	STR1005 Intermediate Platform STR1001 32" Section

**Listed In Order To Be Placed On Bin From First To Last For Each Scenario**

Example: (8) 32" Bin Rings with a Platform 16" below eave uses (1) STR1003 Platform, (1) STR1002 Stair Section, and (6) STR1001 Stair Sections.

**Stair & Platform Packages**

(Hardware is included with each package)

**STR1000 - 21" Stair Section**

Part #	Description	Quantity
STR0008	Wall Bracket 6" x 1" x 9" Channel	1
STR0012	Baluster Post 54"	1
STR0013	Knee Brace 32" Section 34-3/4"	1
STR0010	Siderail Outside 21" Section 38"	1
STR0009	Siderail Outside 21" Section 35"	1
STR0011	Step 9" x 20"	2
STR0014	Handrail 21" Section 34"	2

**STR1001 - 32" Stair Section**

Part #	Description	Quantity
STR0008	Wall Bracket 6" x 1" x 9" Channel	1
STR0012	Baluster Post 54"	1
STR0013	Knee Brace 32" Section 34-3/4"	1
STR0022	Siderail Outside 32" Section 53"	1
STR0023	Siderail Outside 32" Section 50"	1
STR0011	Step 9" x 20"	3
STR0043	Handrail 32" Section 51"	2

**STR1002 - 44" Stair Section**

Part #	Description	Quantity
STR0008	Wall Bracket 6" x 1" x 9" Channel	1
STR0012	Baluster Post 54"	1
STR0046	Knee Brace 44" Section 42-1/2"	1
STR0024	Siderail Outside 44" Section 70-1/4"	1
STR0025	Siderail Outside 44" Section 65"	1
STR0011	Step 9" x 20"	4
STR0045	Handrail 44" Section 67-1/2"	2

**STR1003 - Platform**

Part #	Description	Quantity
STR0046	Knee Brace 44" Section 42-1/2"	2
STR0054	Bottom Knee Brace Bracket	1
STR0049	Post 9-1/2"	1
STR0050	Platform Post Right 51-1/2"	1
STR0051	Platform Post Left 51-1/2"	1
STR0052	Platform Corner Post Right 51-1/2"	1
STR0053	Platform Wall Bracket 37"	2
STR0027	Outside Siderail	1
STR0026	Inside Siderail Extension	1
STR0048	Platform	1
STR0055	Platform Handrail 20"	2
STR0056	Platform Side Handrail 39"	2

**STR1005 - Intermediate Platform**

Part #	Description	Quantity
STR0008	Wall Bracket 6" x 1" x 9" Channel	1
STR0046	Knee Brace 44" Section 42-1/2"	2
STR0049	Post 9-1/2"	2
STR0050	Platform Post Right 51-1/2"	1
STR0051	Platform Post Left 51-1/2"	1
STR0027	Outside Siderail	2
STR0026	Inside Siderail Extension	2
STR0056	Platform Side Handrail 39"	2

**STR1006 - Twin Platform**

Part #	Description	Quantity
STR0046	Knee Brace 44" Section 42-1/2"	2
STR0050	Platform Post Right 51-1/2"	2
STR0051	Platform Post Left 51-1/2"	2
STR0053	Platform Wall Bracket 37"	2
STR0048	Platform	1
STR0055	Platform Handrail 20"	4

**STR1007 - Ladder Platform**

Part #	Description	Quantity
STR0046	Knee Brace 44" Section 42-1/2"	2
STR0049	Post 9-1/2"	1
STR0050	Platform Post Right 51-1/2"	1
STR0051	Platform Post Left 51-1/2"	1
STR0052	Platform Corner Post Right 51-1/2"	1
STR0053	Platform Wall Bracket 37"	2
STR0048	Platform	1
STR0055	Platform Handrail 20"	2
STR0056	Platform Side Handrail 39"	2

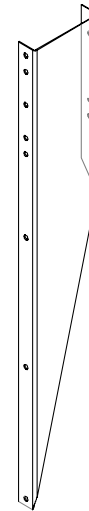
**STR1009 - Booster Handrail**

Part #	Description	Quantity
STR0058	Booster Step 7" x 20"	1
STR0059	Right Booster Rail	1
STR0060	Left Booster Handrail	1

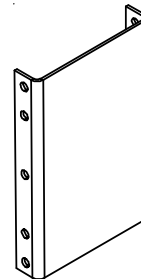
# Assembly and Installation Instructions

## 1. Wall Bracket and Knee Brace Layout

- A. Mark the layout on bin wall using the horizontal bolt holes in the bin as a guide.
- B. The location of your Platform Wall Brackets is determined by the distance below the eave you want your platform and the sheet size of the bin. Using this information, refer to the illustration on page 8 or 9 that corresponds to your information.
- C. Line up the hole in the Platform Wall Bracket with the first Row of Horizontal Bolts. (Use the hole indicated in illustration for your platform height and bin sheet size.)
- D. Mark the location of the holes to be drilled as indicated by the illustration.



**Platform Wall Bracket**

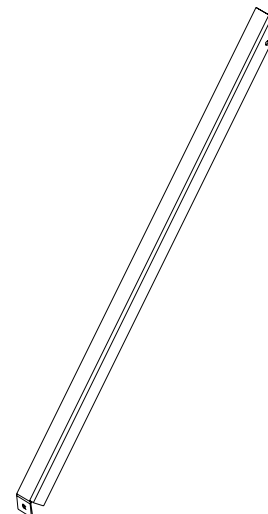


**Stair Wall Bracket**

**NOTE**

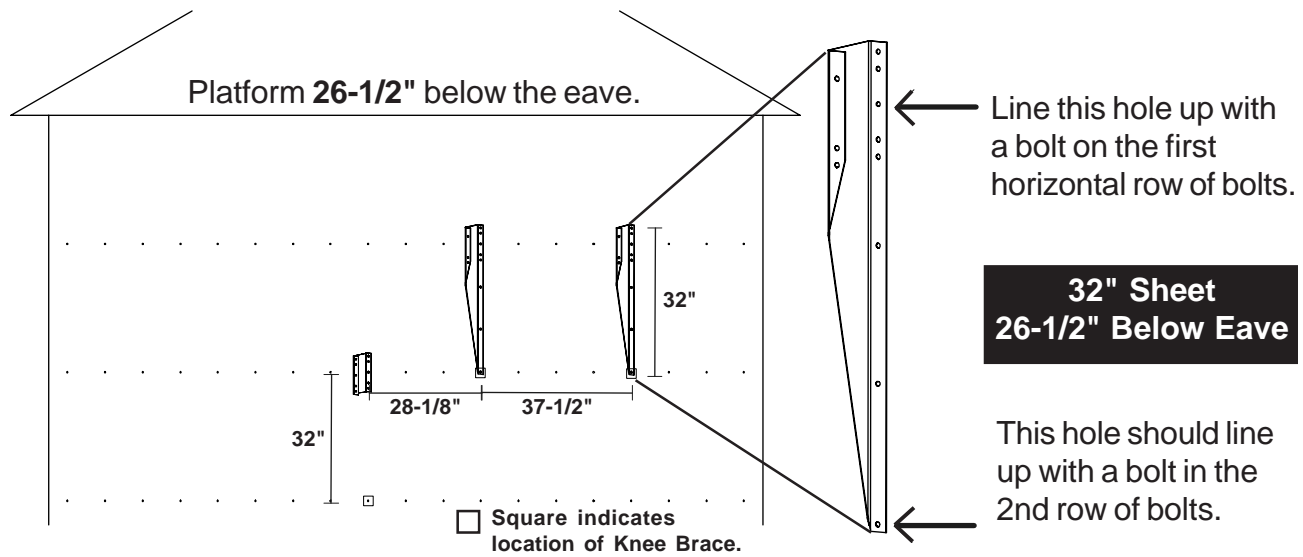
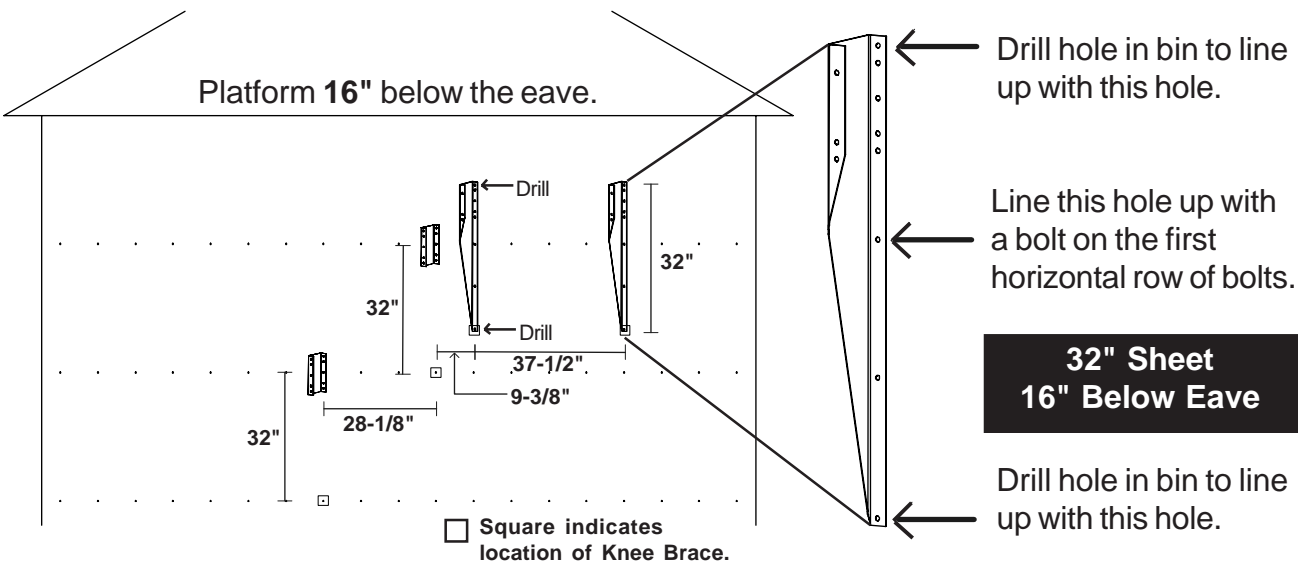
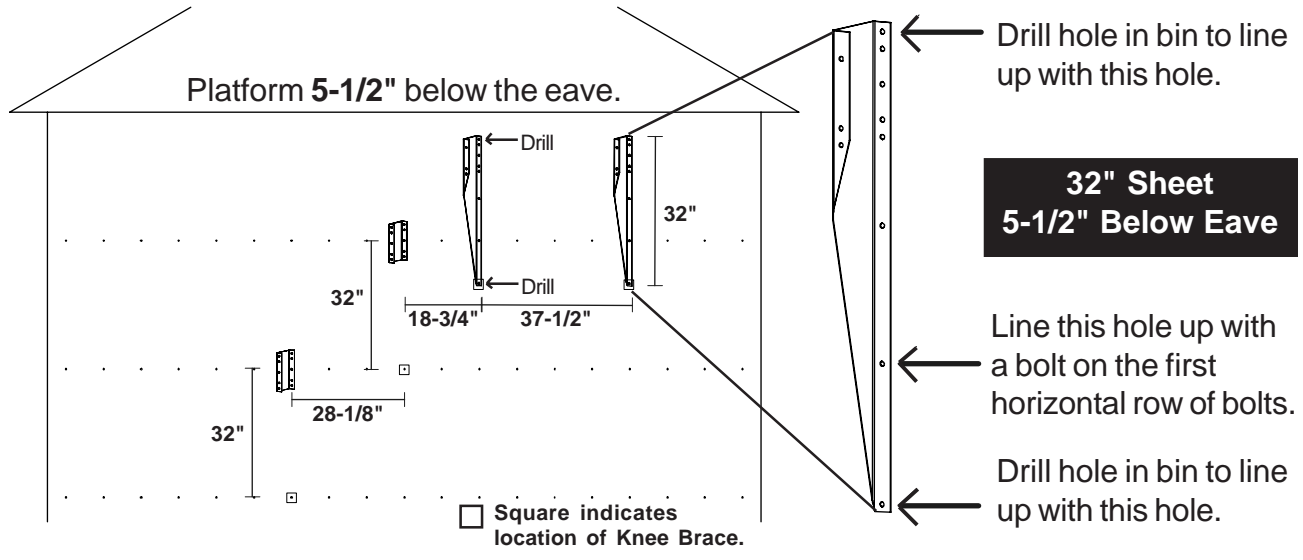
All wall brackets should line up with a hole in the bolt rows except for a platform 26-1/2" below the eave on a 44" bin sheet. Using the center hole, this wall bracket should be located approximately 2 bolts over from the bracket and down one hole in the platform bracket. Field drill as necessary. (See page 8 & 9 for illustration.)

- E. Mount Platform Wall Brackets, Stair Wall Brackets, and Knee Braces. Use the center hole of the wall bracket to align the bracket on the horizontal seam of bolts as previously marked.



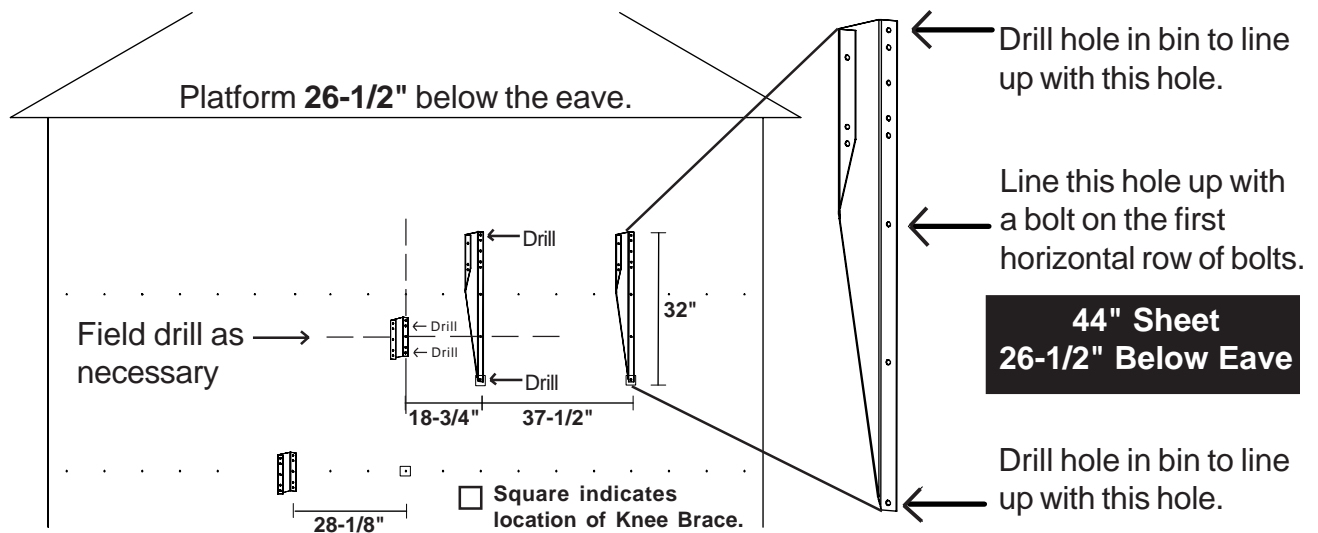
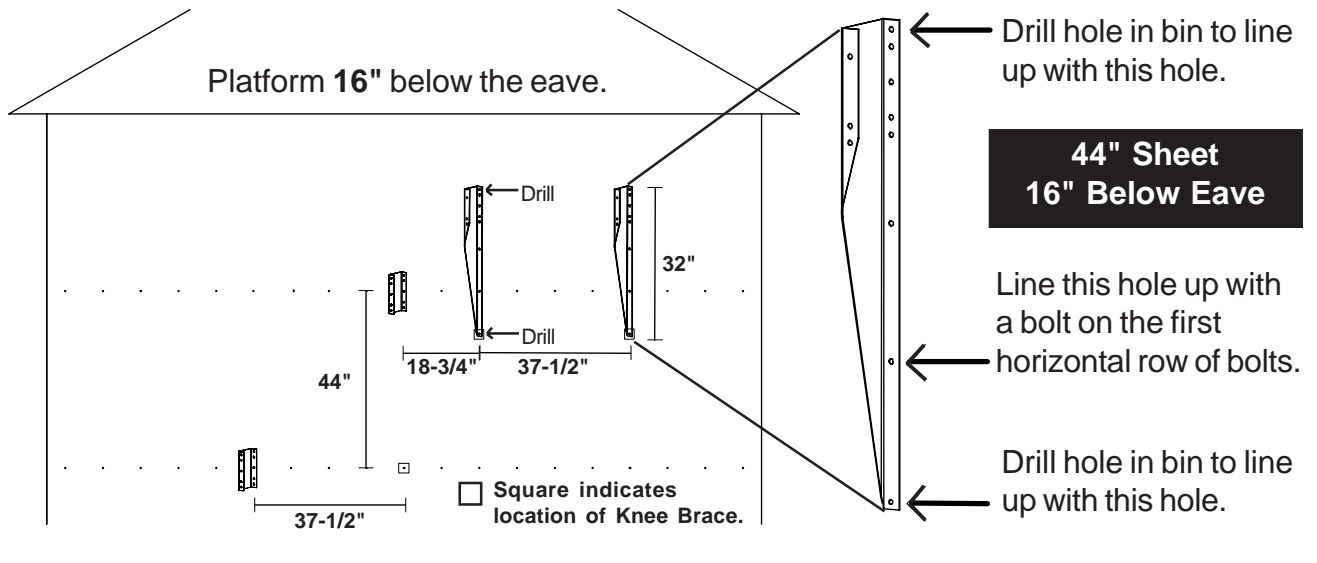
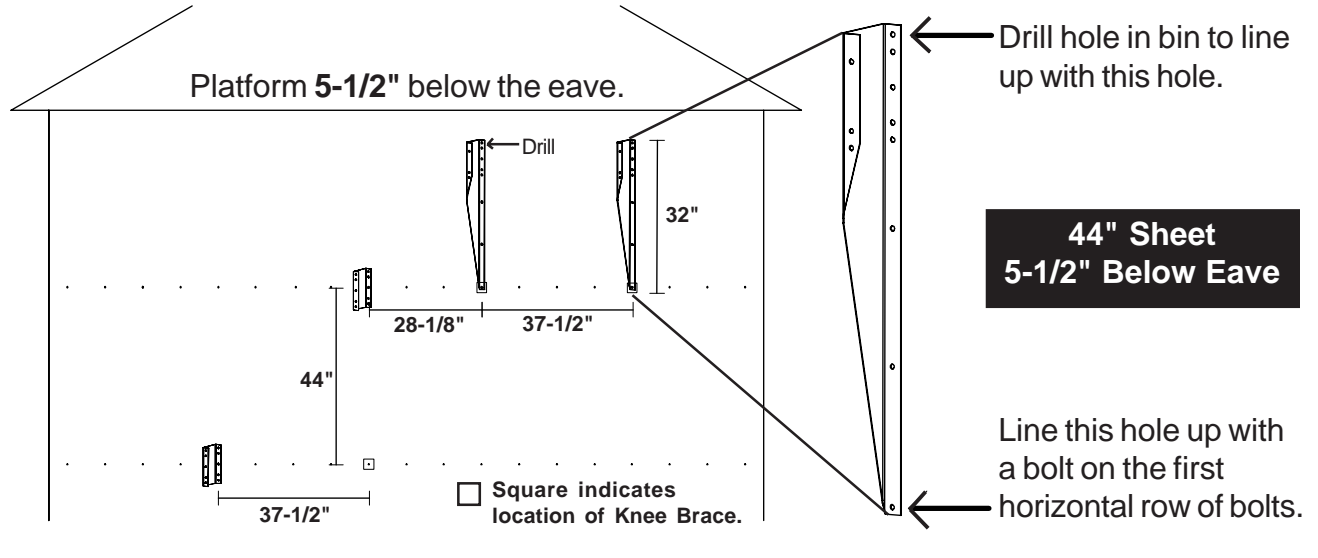
**Knee Brace**

### 32" Bin Sheet Size





### 44" Bin Sheet Size





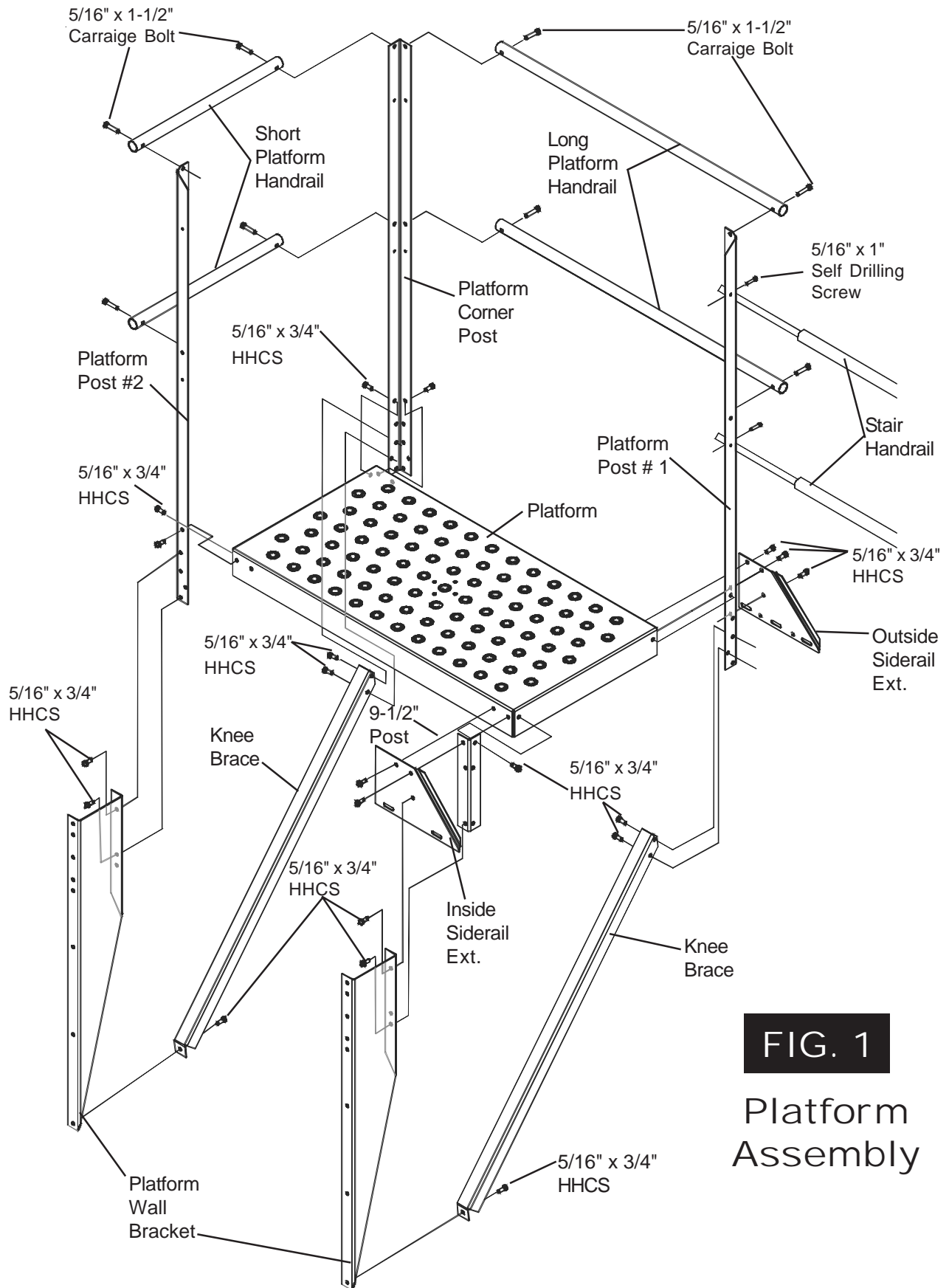
**2. Platform Assembly** (Refer to Fig. 1 on page 11)

- A. While on the ground construct the platform.
- B. Fasten the corner post using two 5/16" x 3/4" HHCS bolts with hex nuts.
- C. Fasten post #1 between the outside siderail extension and the platform using three 5/16" x 3/4" HHCS bolts and hex nuts. (See Fig 1)
- D. Attach the long handrails to the posts using four 5/16" x 1-1/2" carriage bolts and flangewiz nuts. (See Fig. 1)
- E. Install the 9-1/2" post and post #2 to the platform using the hole on the short side of the platform with one 5/16" x 3/4" bolt for each post. (See Fig. 1)
- F. Install the short handrails to the posts using four 5/16" x 1-1/2" carriage bolts and flangewiz nuts.
- G. While attaching assembled platform to the platform wall brackets:
  - 1. Install the inside siderail extension between the platform and the platform wall bracket using three 5/16" x 3/4" HHCS bolts and hex nuts. (See Fig. 1)
  - 2. Install the 51-1/2" post between the platform and the platform wall bracket using two 5/16" x 3/4" HHCS bolts and hex nuts

**NOTE**

**The Inside siderail extension has (5) holes and the outside siderail extension has (8) holes.**

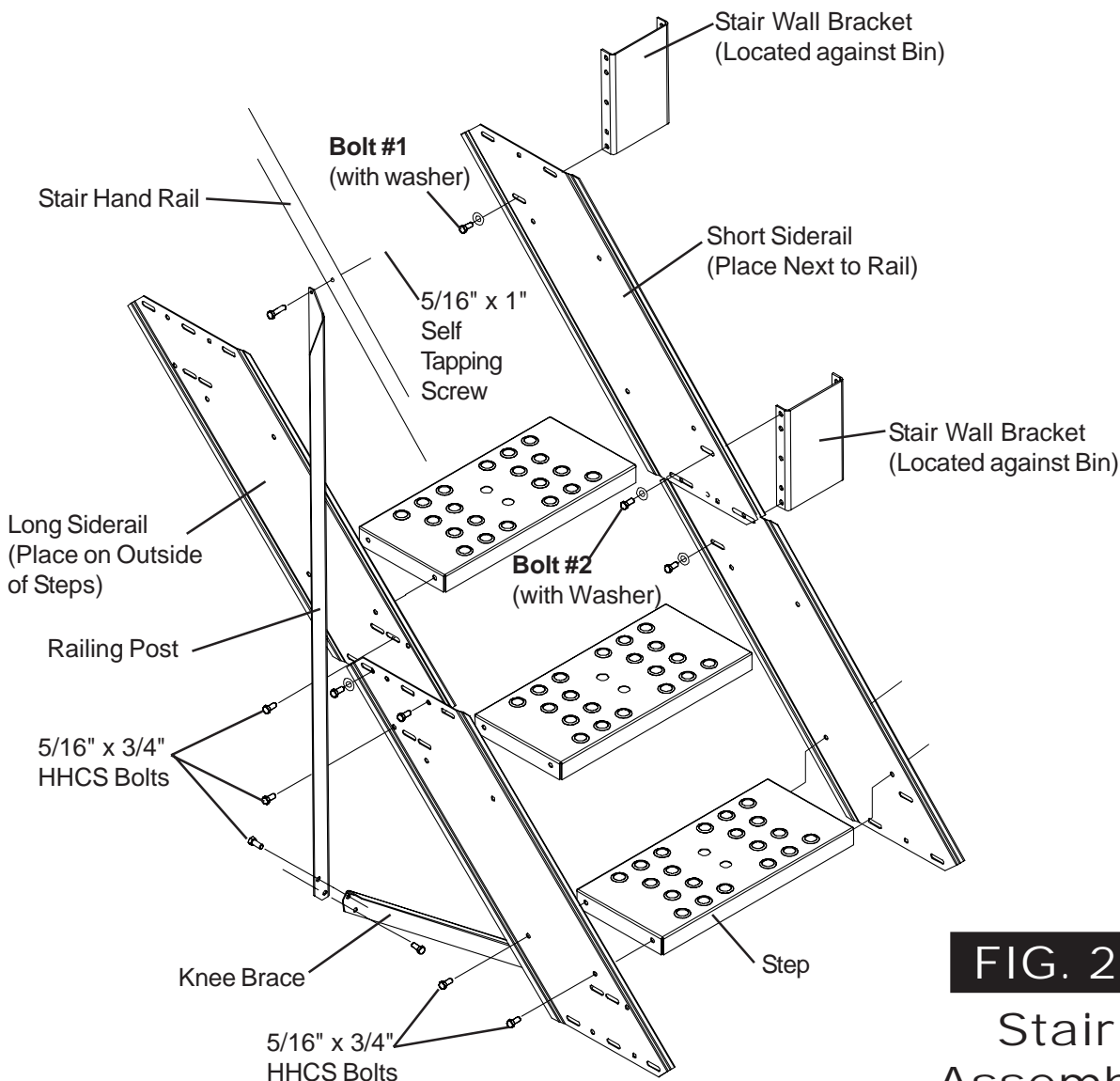
- H. Attach knee braces to the bottom of the outside platform posts using four 5/16" x 3/4" HHCS and hex nuts.



**FIG. 1**  
Platform Assembly

### 3. Stair and Handrail Assembly

- A. While on the ground mount the steps between the siderails. Notice the short siderails go to the inside of the steps next to the bin and the long siderails go to the outside.
- B. Install the stair sections attaching the top end (painted end) of the inside siderail to the wall bracket, placing a 5/16" x 3/4" Hex Head Capscrew (HHCS) bolt in the single slotted hole 4" from the top of the siderail and through the bottom hole in the wall bracket. (See Fig. 2 - Bolt #1)
- C. Attach the bottom end of the inside siderail to the wall bracket, sliding a 5/16" x 3/4" HHCS in the single slotted hole 4" from the bottom of the stair section and through the top hole in the wall bracket. (See Fig. 2 - Bolt #2) Now using the slots, equalize the stairs and tighten bolts.



**FIG. 2**  
Stair  
Assembly

**3. Stair and Handrail Assembly (Cont.)**

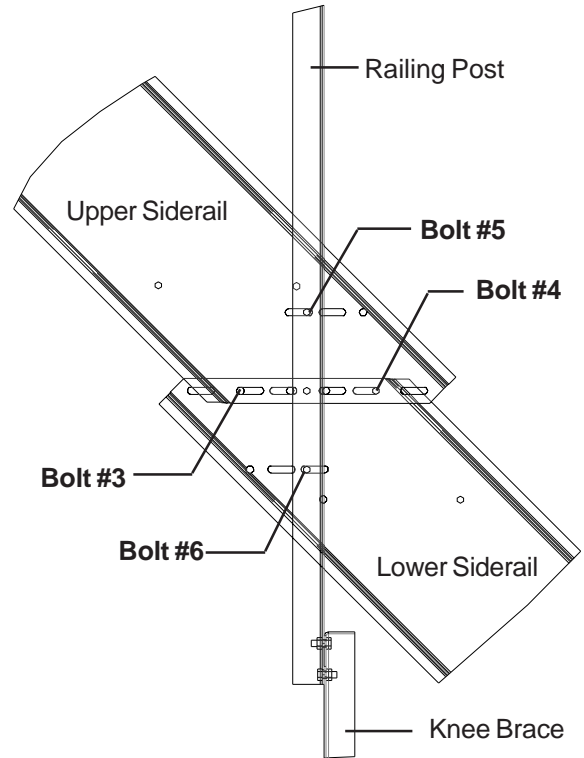
D. Fasten the outside siderails of the stair sections together with 5/16" x 3/4" HHCS bolts, flat washers, and hex nuts. (See Fig. 3 & 4 - Bolts #3 & #4). You may use any combination of slotted and round holes, but make sure to place the bolts as far apart as possible.

E. As your installing the stair sections, connect the posts to the outside of the siderails using 5/16" x 3/4" HHCS (See Fig. 3 & 4 Bolts #5 & #6).

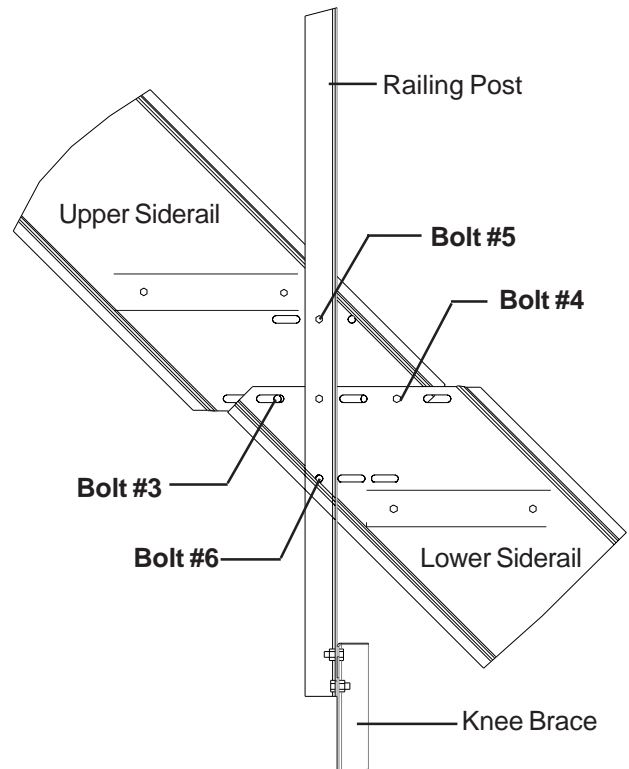
**NOTE** Use flat washers on all slotted holes.

F. Attach the bottom of the post to the top of the knee brace using two 5/16" x 3/4" HHCS bolts with hex nuts. The bolts should be installed in opposite directions. (See Fig. 3 & 4) Make sure that each post is centered and plumbed before it is tightened.

**NOTE** On top stair section, the hand rail post nearest to the platform needs to be as close as possible to the platform.



**Fig. 3 - Outside Rails for Large Diameter Bins**

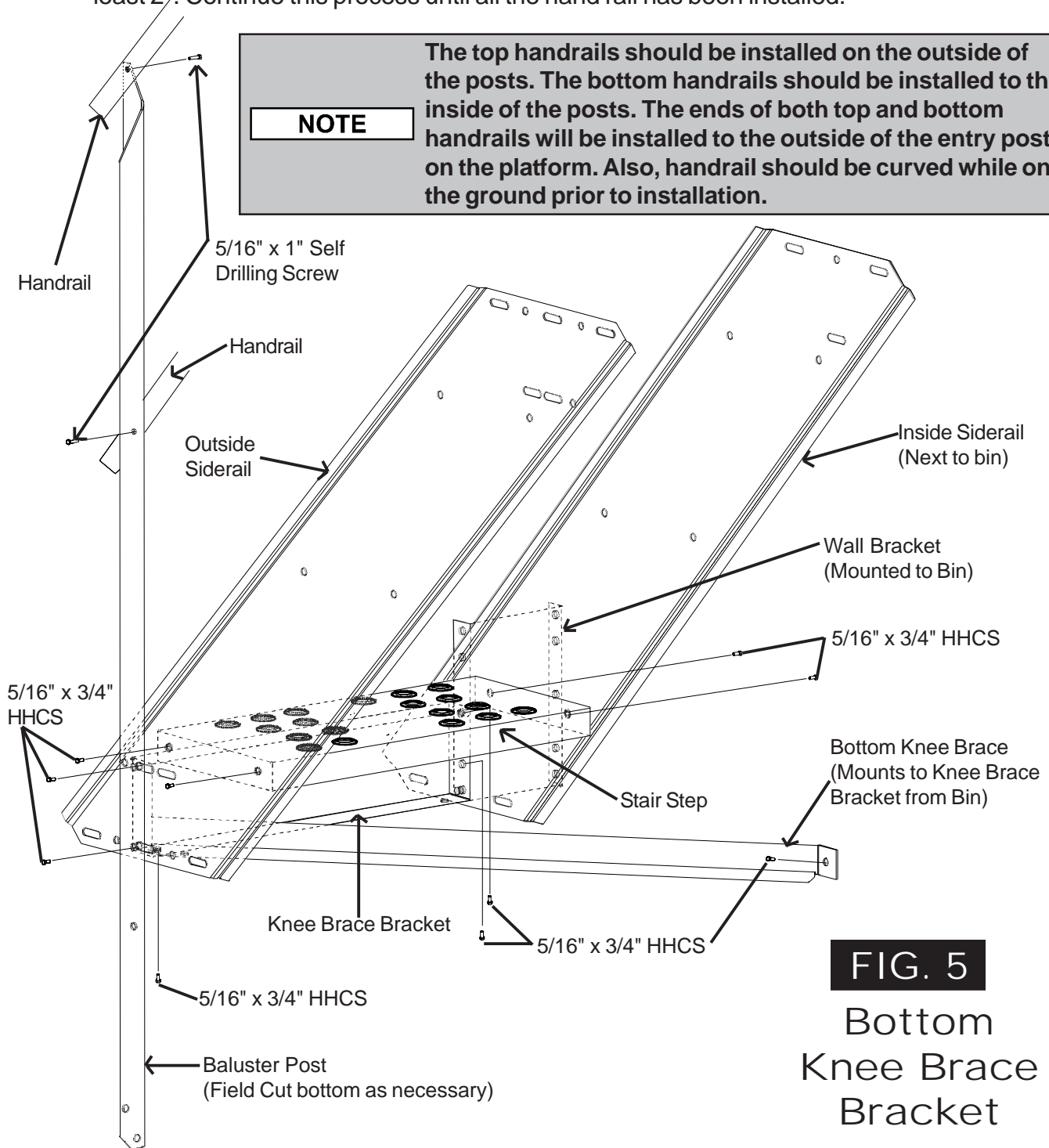


**Fig. 4 - Outside Rails for Small Diameter Bins**

**3. Stair and Handrail Assembly (Cont.)**

- G. Install the bottom knee brace and knee bracket (which comes in the platform package) to the bottom stair section as shown in Fig.5.
- H. Use 5/16" x 1" self drilling screws to fasten the handrails to the inside of the posts beginning at the bottom of the stairs and proceeding up the stairs. With the reduced portion of the rail pointing up, slip the second rail over the first rail overlapping them at least 2". Continue this process until all the hand rail has been installed.

**NOTE**  
 The top handrails should be installed on the outside of the posts. The bottom handrails should be installed to the inside of the posts. The ends of both top and bottom handrails will be installed to the outside of the entry post on the platform. Also, handrail should be curved while on the ground prior to installation.

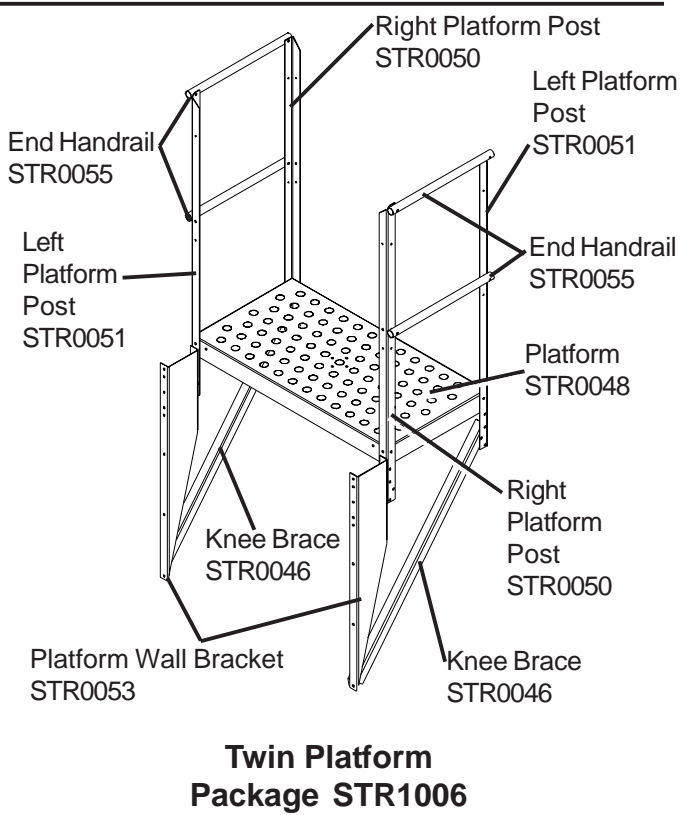
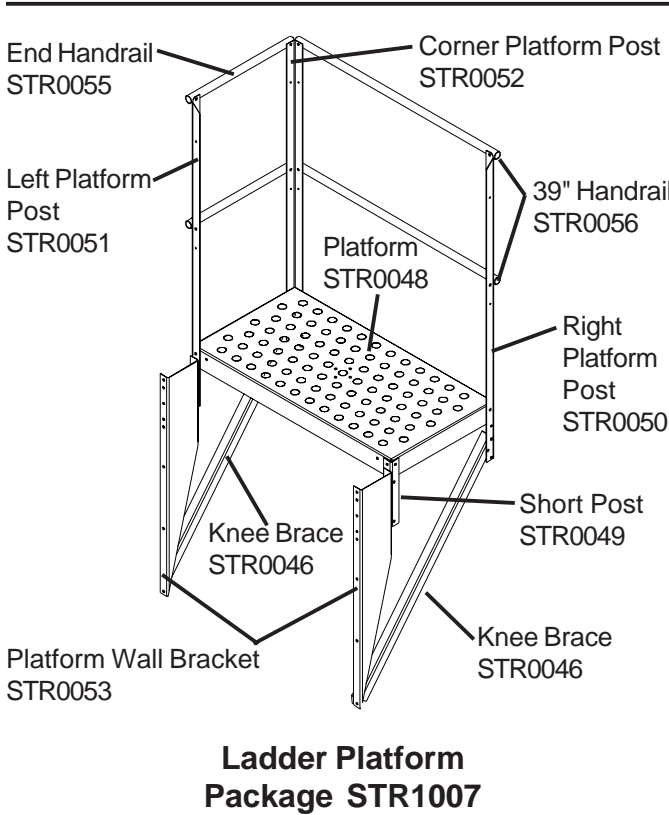
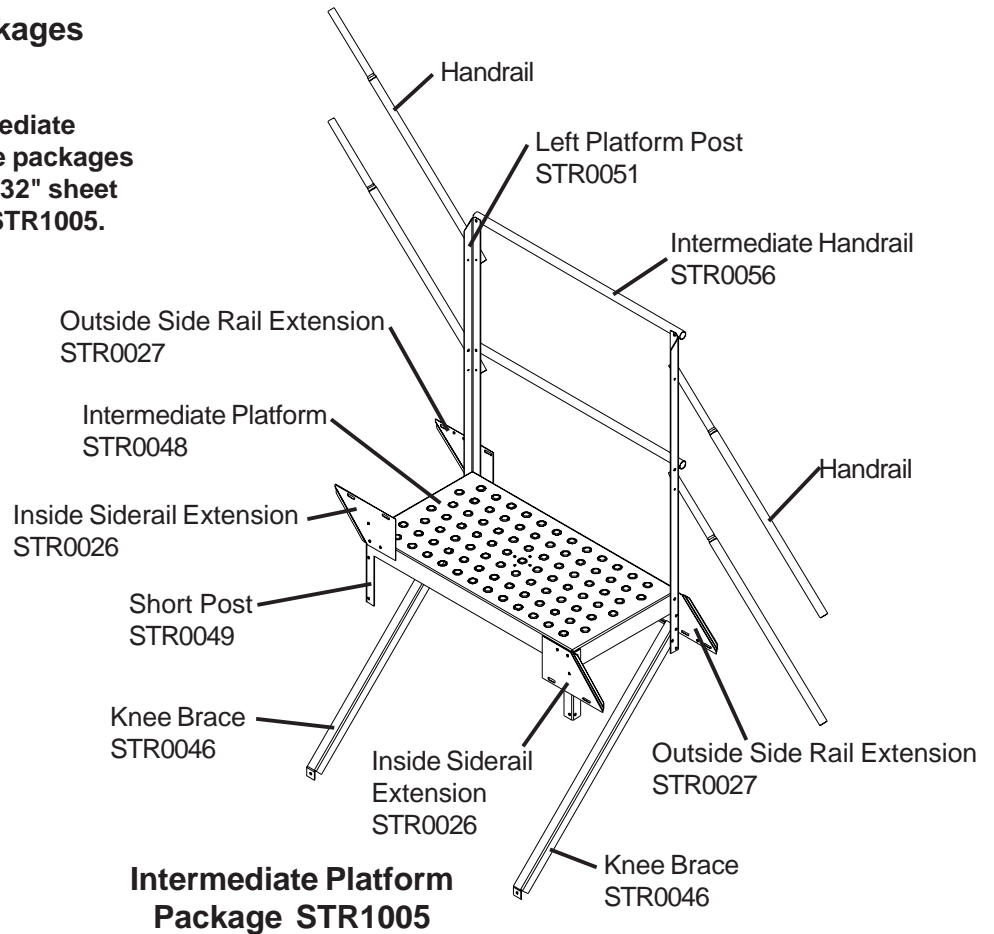


**FIG. 5**

**Bottom Knee Brace Bracket**

4. Optional Platform Packages

When installing an intermediate platform on a 44" sheet use packages STR1001 & STR1005. On a 32" sheet use packages STR1000 & STR1005.



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## The GSI Group, Inc. Warranty

THE GSI GROUP, INC. ("GSI") WARRANTS ALL PRODUCTS WHICH IT MANUFACTURES TO BE FREE OF DEFECTS IN MATERIAL AND WORKMANSHIP UNDER NORMAL USAGE AND CONDITIONS FOR A PERIOD OF 12 MONTHS AFTER RETAIL SALE TO THE ORIGINAL END USER. THE PURCHASER'S SOLE REMEDY AND GSI'S ONLY OBLIGATION SHALL BE TO REPAIR OR REPLACE, AT GSI'S OPTION AND EXPENSE, PRODUCTS THAT, IN GSI'S SOLE JUDGMENT, CONTAIN A MATERIAL DEFECT DUE TO MATERIALS OR WORKMANSHIP. ALL DELIVERY AND SHIPMENT CHARGES TO AND FROM GSI'S FACTORY WILL BE PURCHASER'S RESPONSIBILITY. EXPENSES INCURRED BY OR ON BEHALF OF THE PURCHASER WITHOUT PRIOR WRITTEN AUTHORIZATION FROM AN AUTHORIZED EMPLOYEE OF GSI SHALL BE THE SOLE RESPONSIBILITY OF THE PURCHASER.

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This Equipment shall be installed in accordance with the current installation codes and applicable regulations which should be carefully followed in all cases. Authorities having jurisdiction should be consulted before installation occurs.

THE GSI GROUP



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