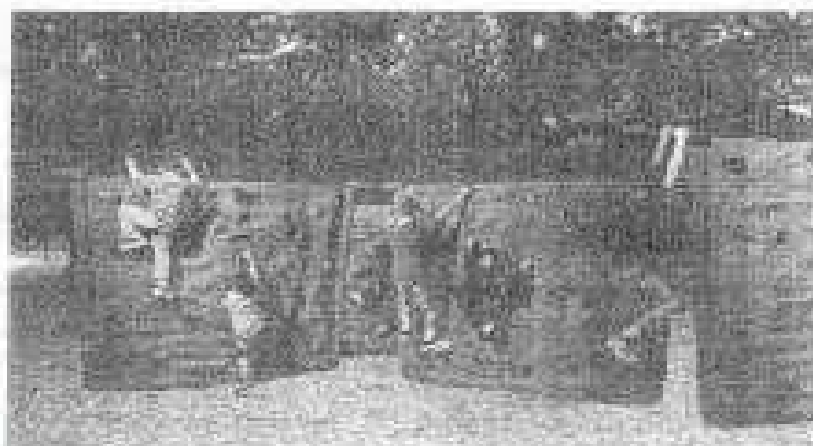


WingWall

Site Planning and Installation Guide.



PAGE CONTENTS

- 1 Introduction
- 2-6 Suggested layouts
- 7 Visualization tool
- 8 Foundation diagram
- 9 Adjustments and Maintenance
- 10 Warranty

Planning a WingWall Site

WingWalls are designed to be installed in groups of interacting units. When properly placed, a group of WingWalls forms a kind of traveling maze that can be changed from time-to-time by unhooking the base flanges and pivoting the individual WingWalls into new positions.

The grid system shown in the following diagrams allows placement of any number of WingWalls so that they are at the ideal distance of 54" from each other. The triangular grid is easy to lay out, and is an excellent tool for planning a WingWall installation.

The illustrations on the following pages show some recommended WingWall arrangements. The designs follow a couple of simple principles:

- Every WingWall should be connected on the grid to one or two other WingWalls.
- Do not have three WingWalls grouped together on the corners of a single triangle. This will create a closed-in space that is undesirable.
- Avoid other groupings that will create hidden spaces — for example, don't put five WingWalls on five corners of a hexagon, or worse, six WingWalls at the six corners of a hexagon; it is best to string them out in an open-ended pattern.

In general, each WingWall should not connect to more than 2 other WingWalls. The one exception is shown in the 4-unit drawing where a central WingWall has three WingWalls surrounding it.

Often, the site itself will suggest the best arrangement. Sometimes there is a shape to the site that dictates how to lay out the pattern. In other circumstances, sight-lines are important.

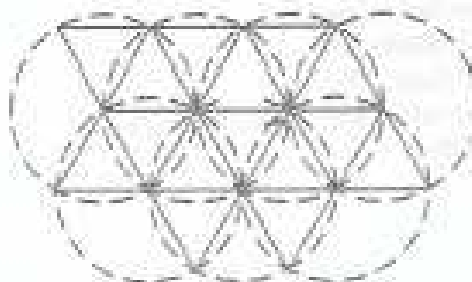
As you can see from the diagrams, as you increase the number of WingWalls, the possibilities increase dramatically. With six WingWalls, there are about 50 different arrangements, and with eight there are hundreds! If you follow the above recommendations, however, almost any pattern will work well.

Laying out the grid:

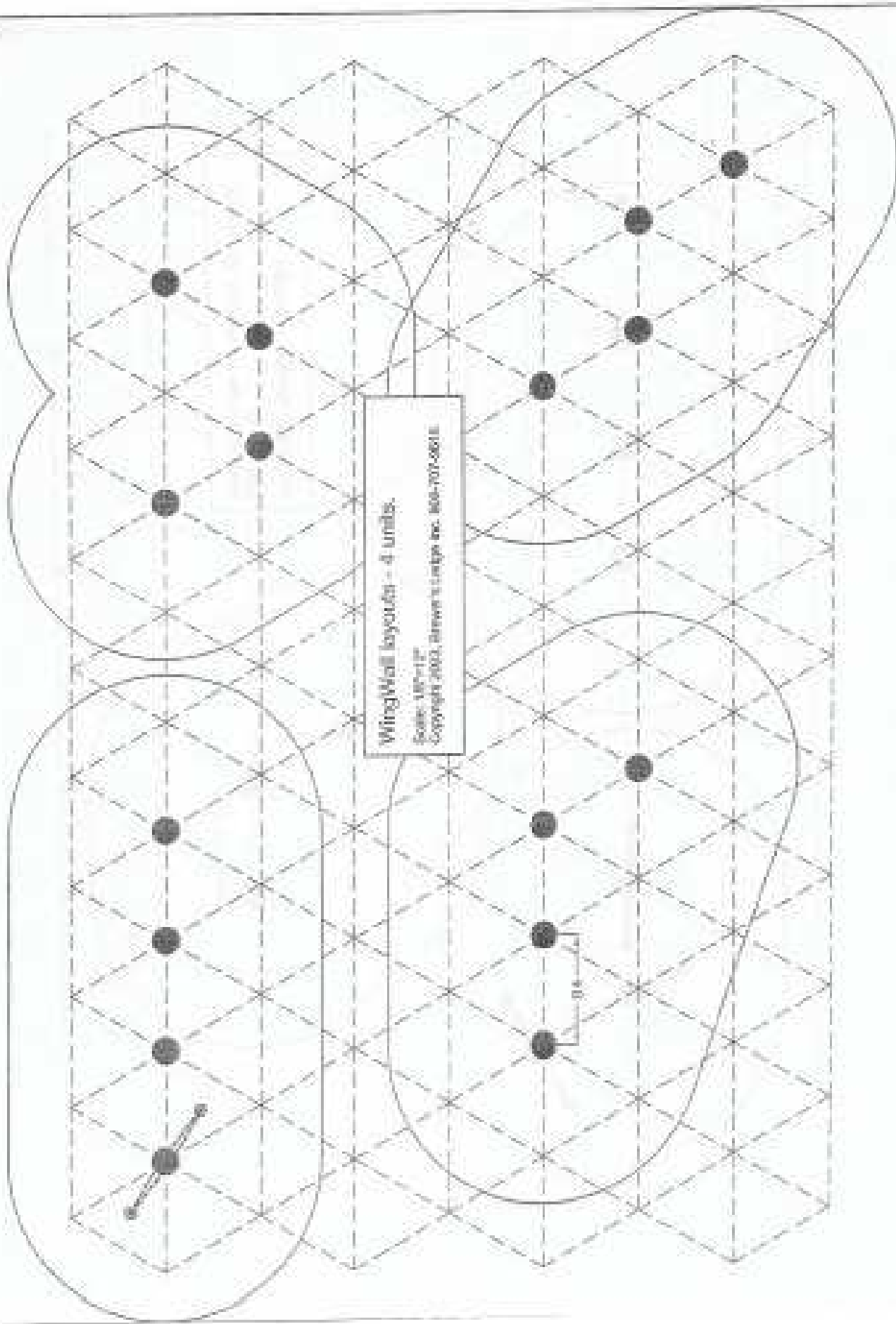
Laying out a triangular grid is very easy using some stakes and a 7 foot long cord with a loop at each end.

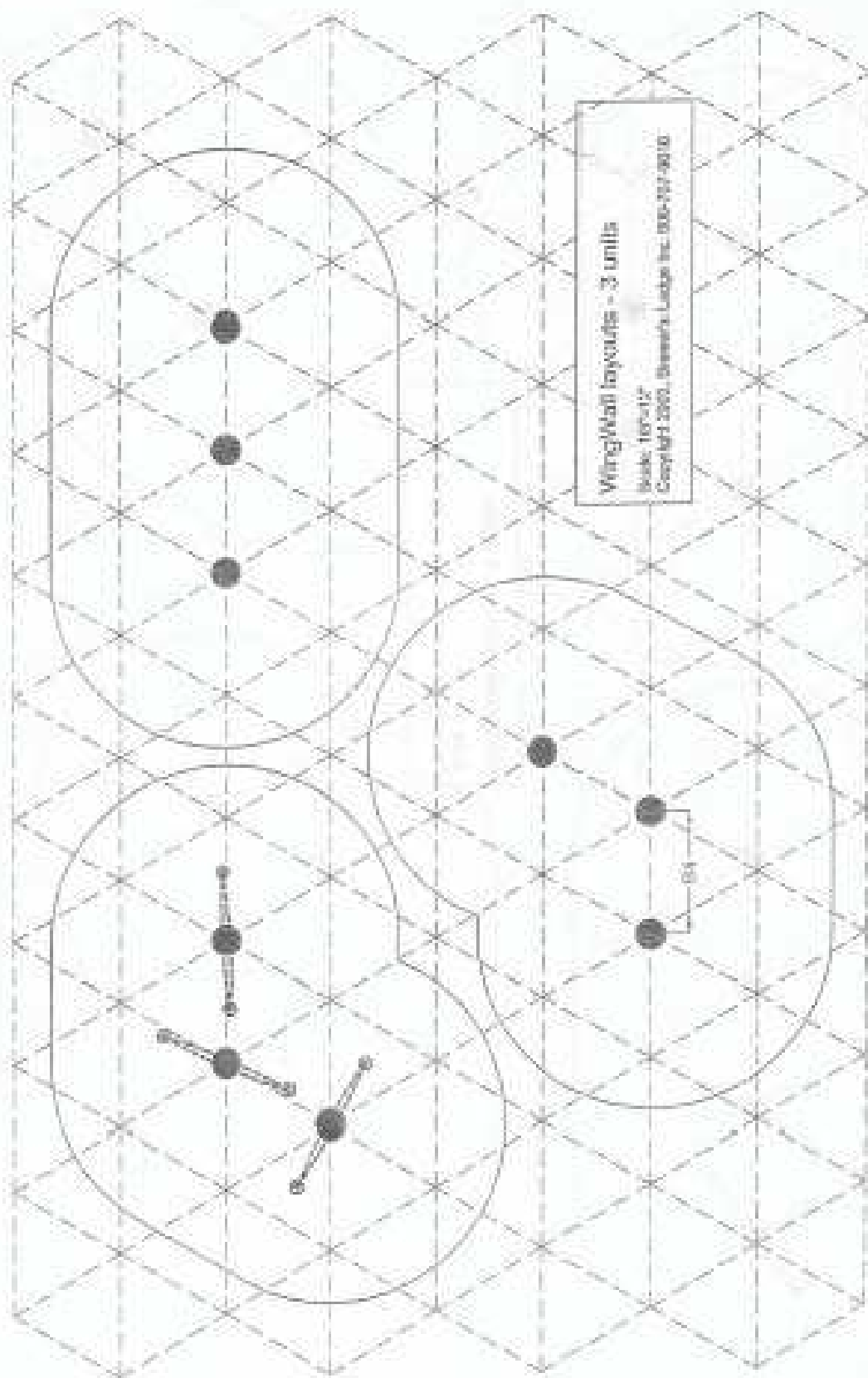
Choose a location for the first WingWall, and put in a stake. Use the string to locate the second WingWall location and put in another stake. Now use the string like a compass to mark circles around both stakes, and where the circles intersect, put in more stakes and draw more circles. As you draw circles, the intersections form the points of your grid.

See page 8 of this guide for important foundation information.



Brewer's Ledge Inc.
54 Brooklyn Road
Bedford, NH 02810
800-707-1818



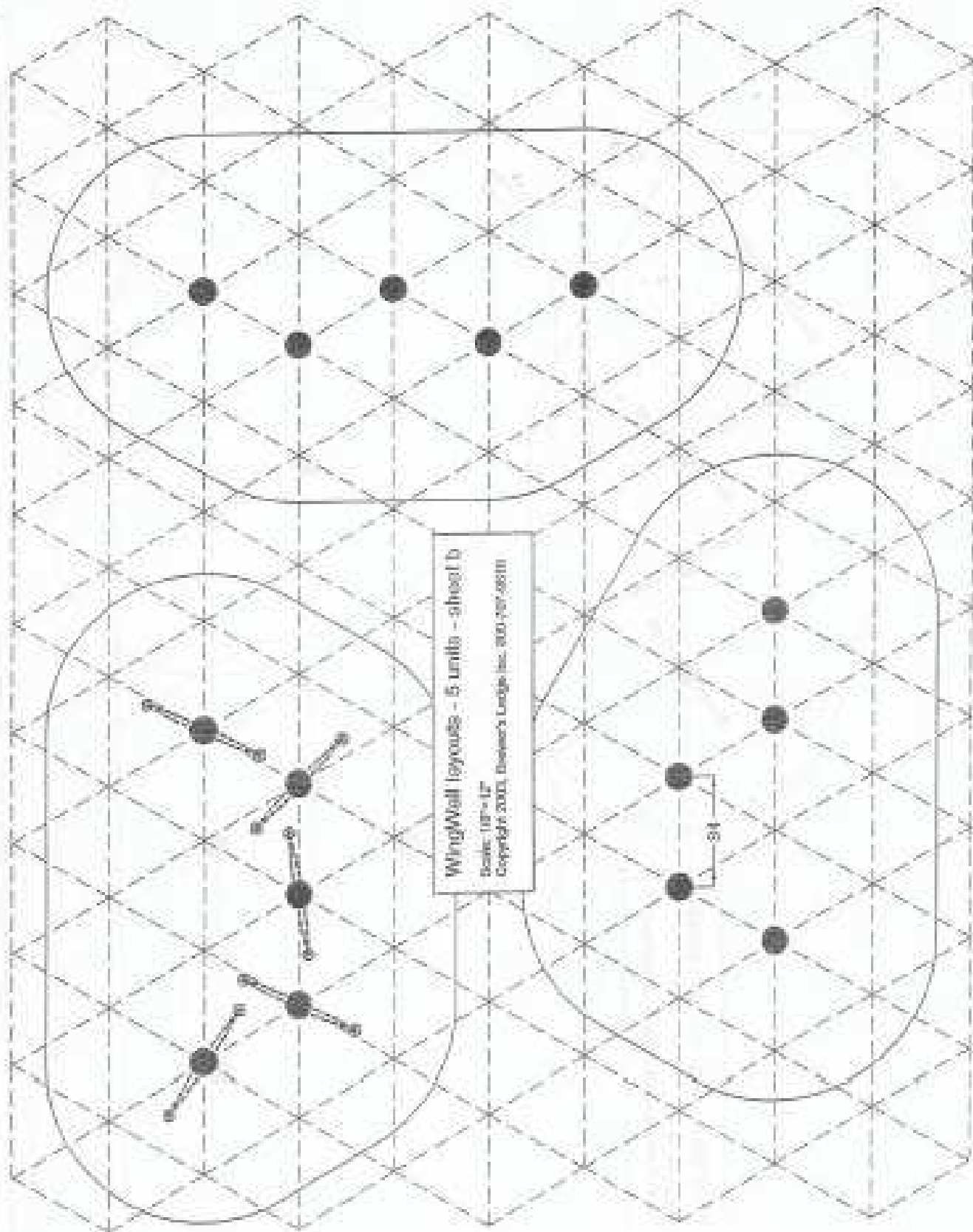


WingWall layouts - 3 units

Scale: 1/8"=1'-0"

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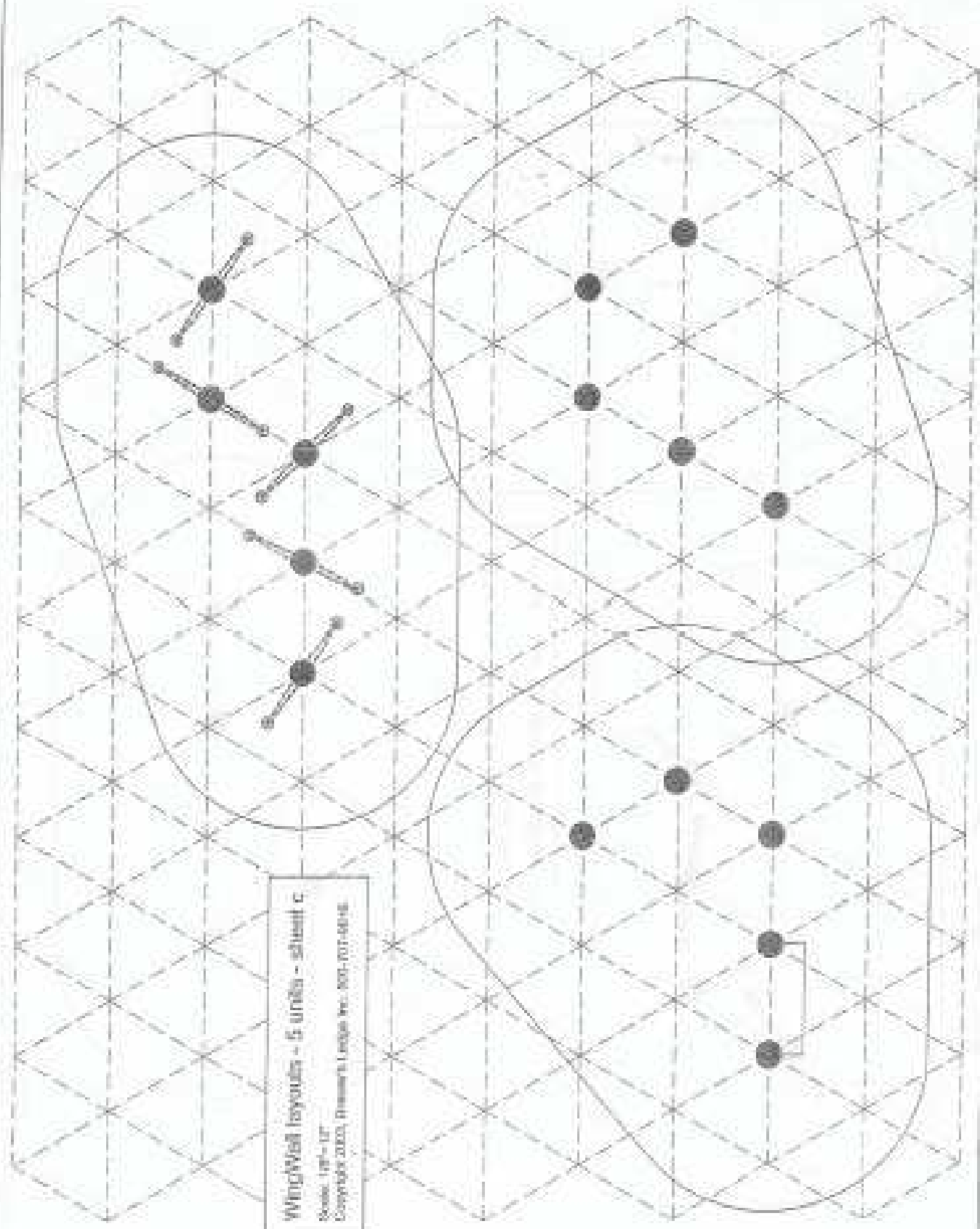


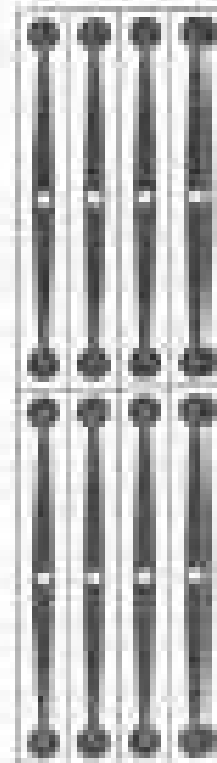
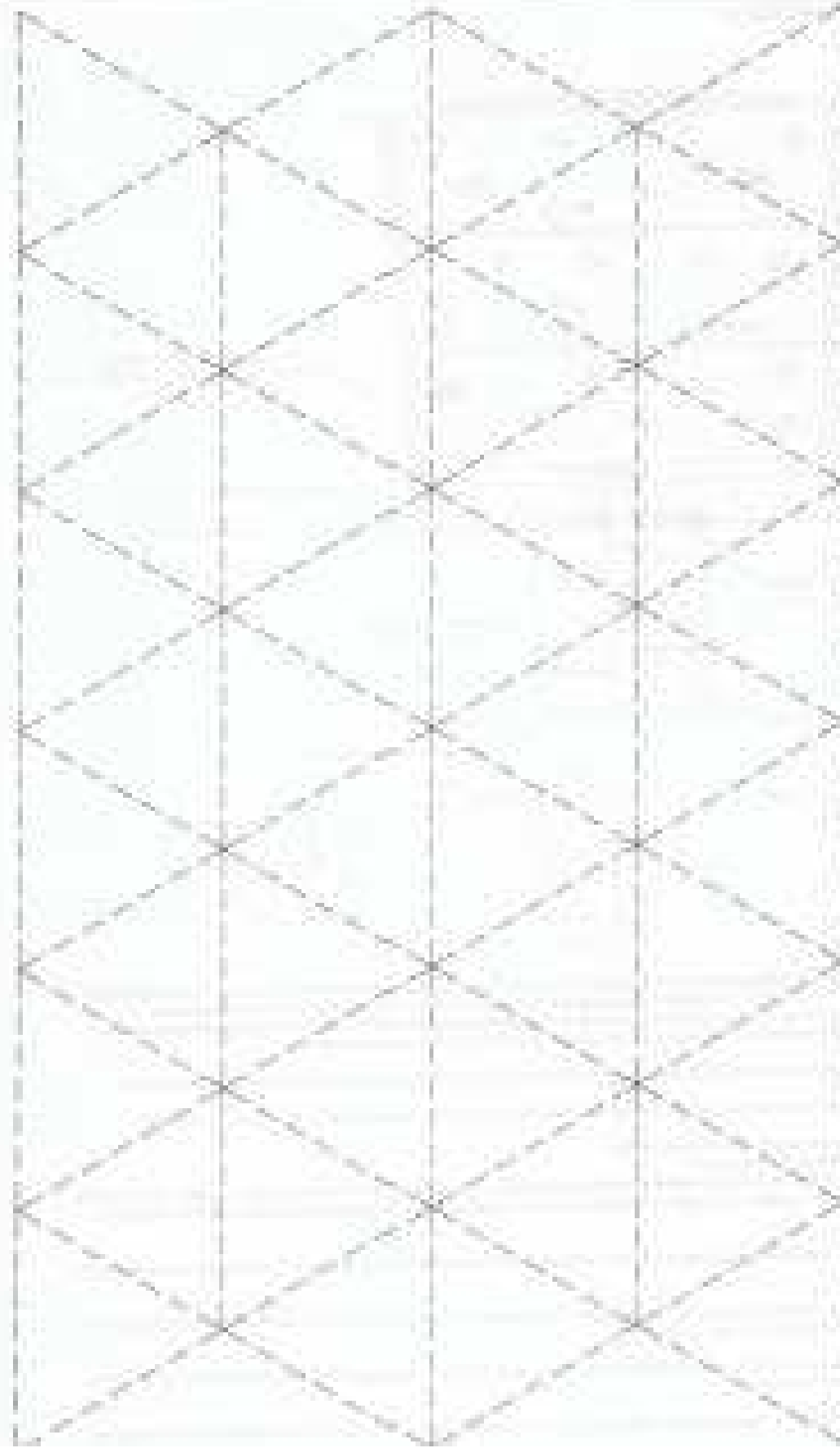
WingWall layouts - 5 units - sheet b

Scale: 1/8" = 1'

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34



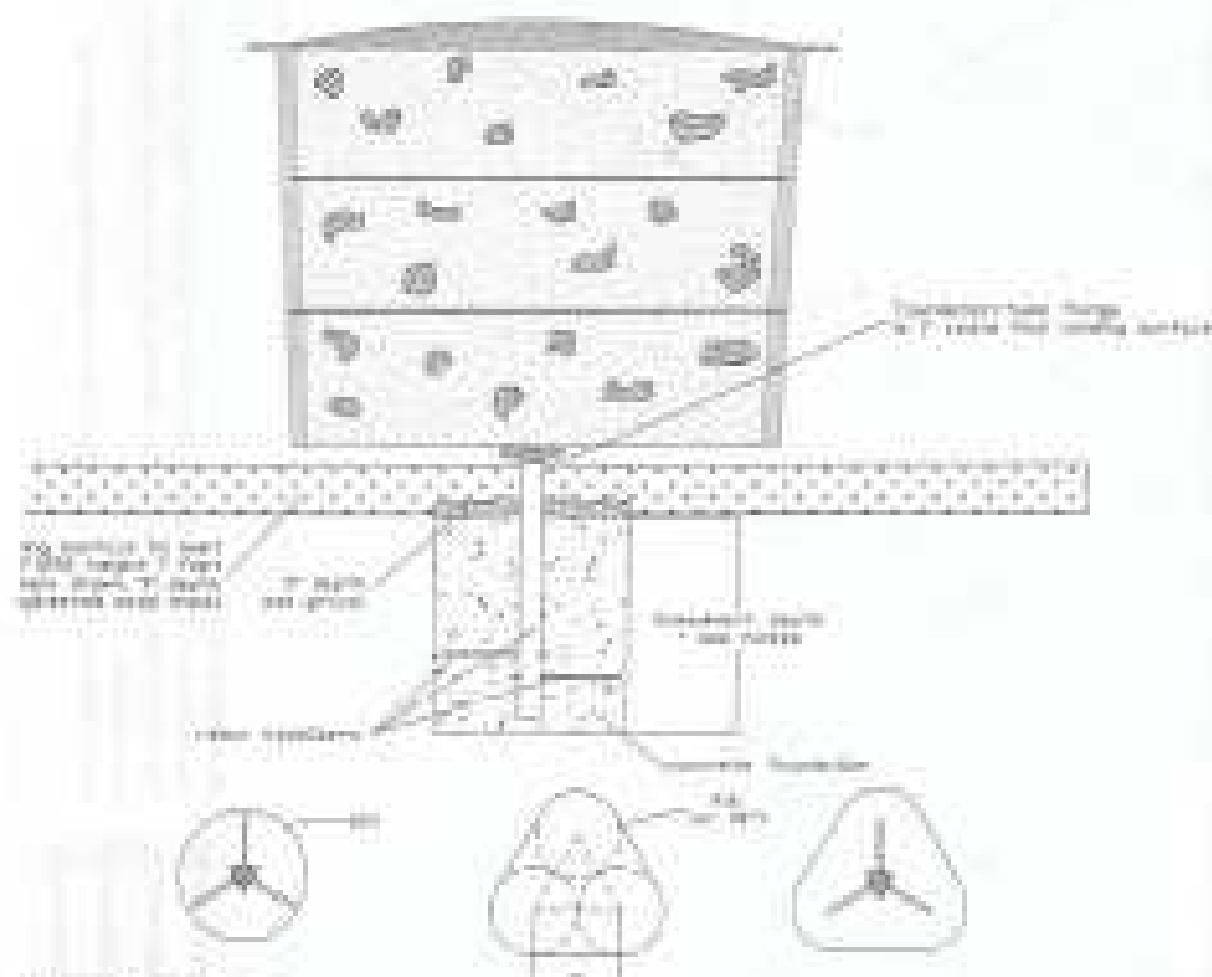


PLANNING GRID:

Use this grid with a compass and pins to simulate a WingWall layout. Cut out the WingWalls along the rectangular lines and pin them to the instructions.

See "Planning a WingWall Layout" for important layout instructions.

ISWALL FOUNDATIONS



Slipping & Tilting of Foundations

The foundation slab for a cylindrical tank is a single horizontal slab about 1" above the flat surface of the bedding zone. The slab must be designed for a sliding slab that without ASTM C 1207 for a 1" foundation. For example, 1" of soil above the slab must be provided for protection for ground movement. The foundation slab must be provided with a 1" of soil above the slab and a 1" of soil below the slab. The slab must be designed for a sliding slab that without ASTM C 1207 for a 1" foundation. For example, 1" of soil above the slab must be provided for protection for ground movement. The foundation slab must be provided with a 1" of soil above the slab and a 1" of soil below the slab.

The vertical slab must be designed for a sliding slab that without ASTM C 1207 for a 1" foundation. For example, 1" of soil above the slab must be provided for protection for ground movement. The foundation slab must be provided with a 1" of soil above the slab and a 1" of soil below the slab.

For a 1" of soil above the slab, the foundation slab must be designed for a sliding slab that without ASTM C 1207 for a 1" foundation. For example, 1" of soil above the slab must be provided for protection for ground movement. The foundation slab must be provided with a 1" of soil above the slab and a 1" of soil below the slab.

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WINGWALL ADJUSTMENTS

WingWalls are designed to be adjusted from time to time to bring new excitement to the playground environment.

Two or more WingWalls act as a climbing-traversing "maze". By pivoting the WingWalls, the shape of the maze changes, altering the appearance and the climbing challenges.



To pivot a WingWall, loosen the 8 bolts on the flange at the bottom of the wall, using the special wrench that is supplied with your WingWalls. With the bolts loosened, the WingWall will be free to pivot around the center post. After adjusting the angle, re-tighten the bolts. Adjust the spaces between adjacent Wings so that climbers can move from Wing to Wing, but not so close that they can't move around the ends to the other side. Good spacings vary from 1 to 3 feet.

The hand and foot holds on a WingWall can also be moved around or rotated to provide new challenges. The holds are removed or loosened using the special Allen-wrench provided.

The holds on a WingWall have a unique "LedgeLock" system to prevent them from rotating. Each hold has a number of recesses on the bottom surface, one of which lines up with a projection on the WingWall itself. Make sure that the hold is properly aligned so that one of the recesses is lined up with the projection before tightening the hold firmly.



WINGWALL MAINTENANCE

WingWalls are carefully constructed of highest quality materials and require minimal maintenance. The wall should be checked for loose parts on a regular basis. In particular, check the climbing holds to make sure none have loosened-up. Also visually check the climbing holds for any damage from abuse or vandalism. The flange bolts at the base of the wall should be kept tight enough so that the WingWall cannot be pivoted.

LIMITED WARRANTY

All *Flowfin* components are warranted as follows against failure caused by material defects or defective workmanship:

This warranty does not cover damage due to excessive wear, color fade, vandalism, theft, parts not installed or adjusted according to the Seller's instructions, cosmetic defects, or negligence.

Upon presentation of a valid claim, the Seller shall at its discretion repair or replace parts deemed defective according to the schedule below. The Seller shall be the sole judge of the warranty claim and at its discretion and written notice its customer may require return of the defective product to the point of manufacture.

The warranty period shall begin on the date of invoice. All materials or parts replaced under this warranty shall be warranted for the balance of the original limited warranty only.

The Warranty covers the following parts for a period of 10 years:

- Aluminum hand rings
- Galvanized steel structure and flanges
- Rotationally molded plastic stations
- Hooks

The Warranty covers the following parts for a period of 3 years:

- All threaded inserts and bolt locking systems

- For the initial five (5) years, the seller will deliver replacement parts, free of charge, at the customer's address, excluding labor.
- For the balance of the limited warranty, the seller will repair or replace, free of charge, parts FOB point of manufacture, excluding labor.

The Seller will not accept the return of any item without prior written approval. The Seller will not be responsible or liable herein for accessories involved in the removal of products or the installation of replacement products covered under this warranty.

Except as provided herein, the Seller makes no express warranty, implied warranty of merchantability or fitness for a particular purpose is limited to its duration to the duration of the written implied warranties set forth herein.

In no event shall the Seller be liable for any special, incidental, or consequential damages based on breach of warranty or contract, negligence or any other legal theory. Such damages include but are not limited to, loss of loss of the equipment or any associated equipment, the cost of capital, the cost of substitute equipment, facilities or services, the claims of third parties, including customers, and injury to property.

This limitation does not apply to claims for personal injury where such limitation would be a violation of the applicable law. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation of exclusion may not apply to you.