Stair Stringers

Installation Instructions

Note: See reverse side for stairwell dimensions and BILCO Door and Stair Stringer sizes for various grade conditions.

To Install:
Measure up from the finished basement floor line and draw a level line on the wall as shown in **Figure 1**. Place one stringer up against the wall and line up the lower anchor holes on the stringer to the level line on the wall. Make sure that the top of the stringer is up tight against the outer wall, The stringer is now in position to be anchored. Anchor stringer to wall through the anchor holes in the stringer using the 1-1/4" long masonry nails supplied. Use (6) masonry nails for each stringer.

When installing the stringer against a masonry block wall, it is necessary to anchor into the solid part of the blocks or into the joints between the block. The masonry nails will not hold if driven into the hollow part of the block. If some anchor holes do not line up with a joint or solid portion of block, you can make your own holes by driving the masonry nails through the steel stringer. Use (6) masonry nails for each stringer.

Using standard 2 x 10 lumber (actually measures 1-5/8" x 9-1/2") cut off the required number of pieces to be used for treads to a length of 2" less than the width of the masonry opening. On one piece only (to be used for the top tread) the two rear corners must be notched out as shown in **Figure 2** to allow the tread to fit snugly against the outer wall.

It is generally easier to install the second stringer by leveling from the first installed stringer. Place the second stringer against the opposite wall and insert the top and bottom treads by sliding them into the slots provided in the stringers. With the treads level, and the stringer tight against the outer wall, the second stringer is in position to be anchored to the wall following the same procedure used to anchor the first stringer. Insert all of the treads into the slots in the stringer and secure all treads with the 8-penny nails provided. Use one nail in each end of each tread utilizing the holes supplied in the stringer, see **Figure 3**.

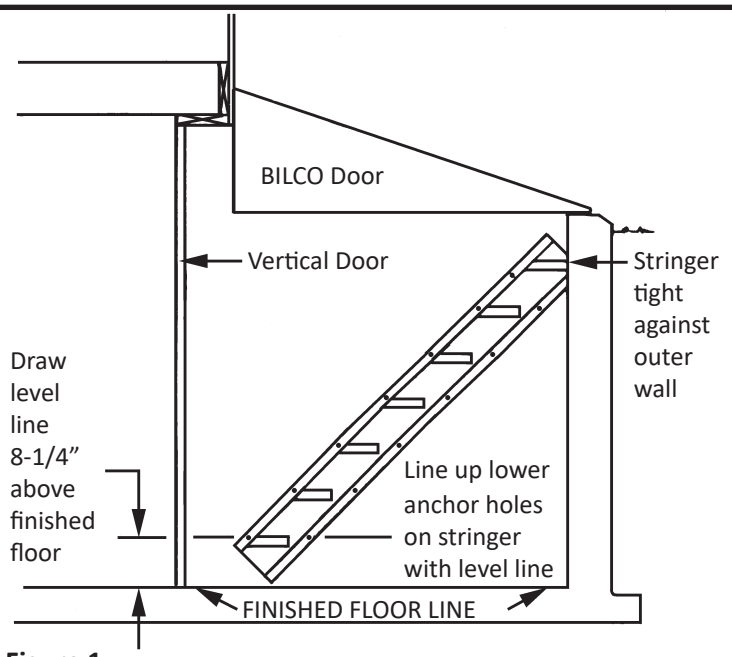
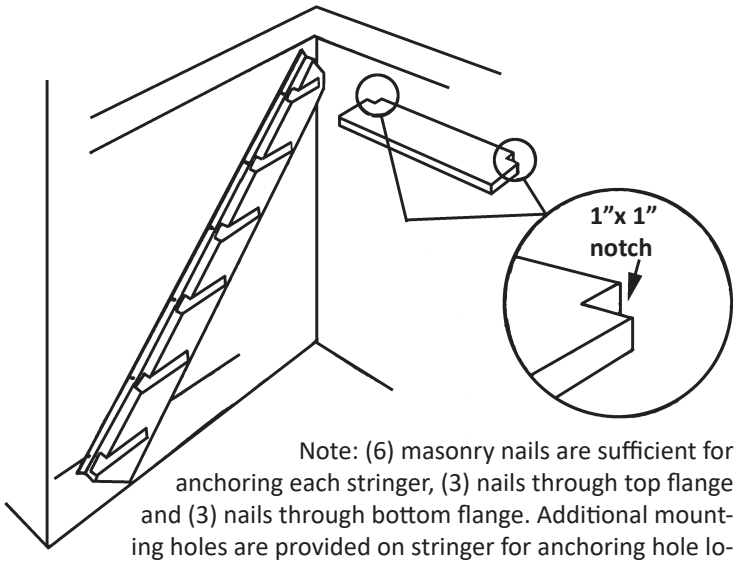
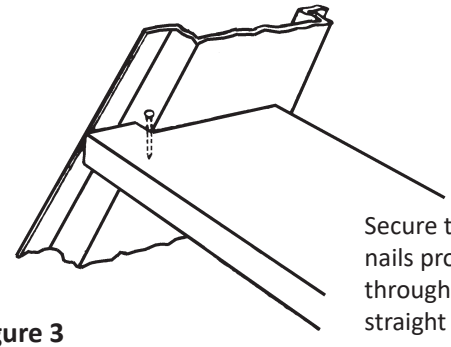


Figure 1



Note: (6) masonry nails are sufficient for anchoring each stringer, (3) nails through top flange and (3) nails through bottom flange. Additional mounting holes are provided on stringer for anchoring hole location flexibility when installing on concrete block walls.

Figure 2



Secure treads with 8-penny nails provided. Drive nails through hole in stringer and straight down in step

Figure 3

Quanex
A Part of Something Bigger℠

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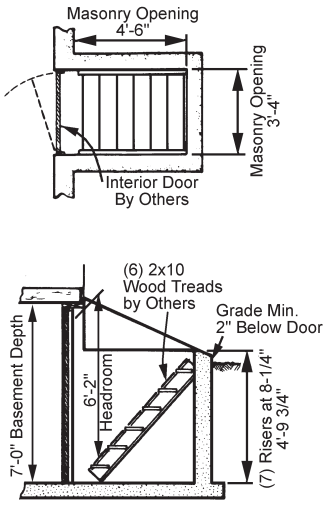
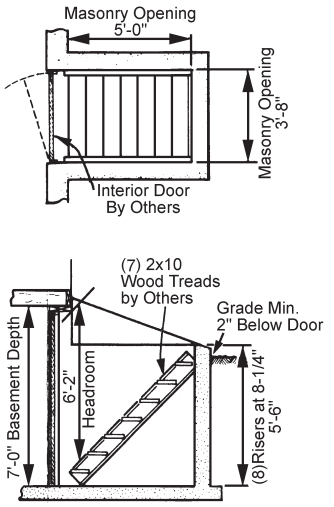
Stairway Details

Showing areaway dimensions for four BILCO Door sizes and sectional views of Stair Stringer installations for normal grade conditions.

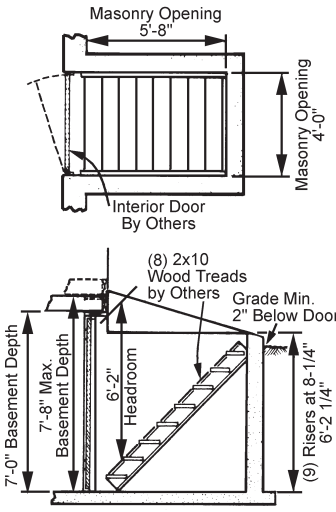
Size O
Door and Stair Stringers



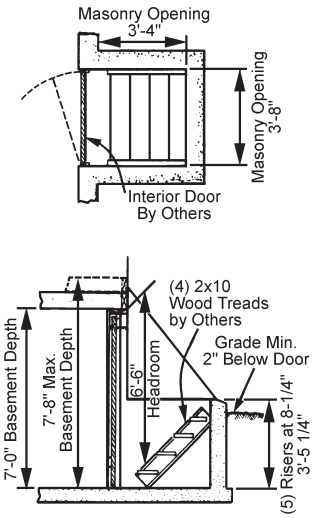
Size B
Door and Stair Stringers



Size C
Door and Stair Stringers

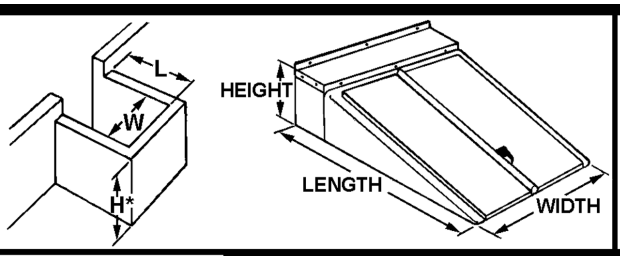


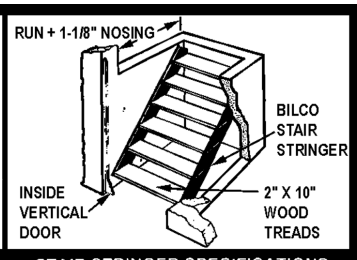
Size SL
Door and Stair Stringers



Construction Guide

for building areaway to suit various grade conditions

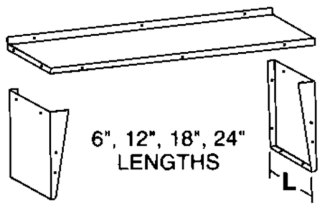




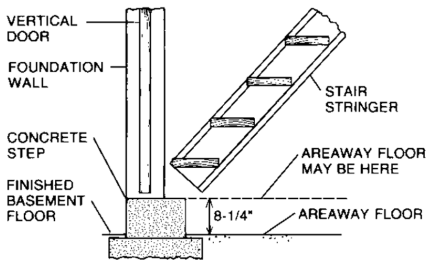
HEIGHT OF GRADE ABOVE FINISHED BASEMENT FLOOR WILL BE:	AREAWAY DIMENSIONS — BUILD AREAWAY TO THESE INSIDE DIMENSIONS (See Drawing Above)			USE THIS BILCO DOOR AND EXTENSION		STAIR STRINGER SPECIFICATIONS — STRINGER UNIT HAS 8-1/4" RISE, 8-3/8" RUN AND 1-1/8" NOSING		USE THESE BILCO STAIR STRINGERS AND EXTENSIONS (Size E Extension has 3-Tread Run)
	H*	L	W	Door Size	Extension Size	Run+ in Areaway	Treads in Areaway	
24" to 31"‡	33"	40"	44"	SL	None	26-1/4"	3	(Not Available)
32" to 39"	41-1/4"	40"	44"	SL	None	34-5/8"	4	SL
➔ 40" to 47" (See Note)	49-1/2"	40"	44"	SL	None	34-5/8"	4	SL
48" to 55"‡‡	57-3/4"	54"	40"	O	None	51-3/8"	6	O
56" to 64"‡‡	66"	60"	44"	B	None	59-3/4"	7	B
65" to 72"	74-1/4"	68"	48"	C	None	68-1/8"	8	C
➔ 73" to 80" (See Note)	82-1/2"	68"	48"	C	None	68-1/8"	8	C
73" to 80"	82-1/2"	80"	48"	C	12"	76-1/2"	9	O + E
➔ 81" to 88" (See Note)	90-3/4"	80"	48"	C	12"	76-1/2"	9	O + E
81" to 88"	90-3/4"	86"	48"	C	18"	84-7/8"	10	B + E
➔ 89" to 97" (See Note)	99"	86"	48"	C	18"	84-7/8"	10	B + E
89" to 97"	99"	93"	48"	C	24"	93-1/4"	11	C + E
98" to 106"	107-1/4"	104"	48"	C	24" + 12"	101-5/8"	12	C + SL
107" to 115"	115-1/2"	110"	48"	C	24" + 18"	110"	13	O+B
116" to 123"	123-3/4"	116"	48"	C	(2)24"	118-3/8"	14	B+B
124" to 131"	132"	134"	48"	C	(2)24"+18"	126-3/4"	15	C+B
132" to 139"	140-1/4"	140"	48"	C	(3)24"	135-1/8"	16	C+C
140" to 148"	148-1/2"	146"	48"	C	(3)24"+6"	143-1/2"	17	B+B+E
149" to 156"	156-3/4"	158"	48"	C	(3)24"+18"	151-7/8"	18	C+B+E
157" to 164"	165"	164"	48"	C	(4)24"	160-1/4"	19	C+C+E
165" to 172"	173-1/4"	176"	48"	C	(4)24"+12"	168-5/8"	20	C+C+SL

* Above Finished Basement Floor ‡ Maximum House Wall 85" ‡‡ Maximum House Wall 88" + Run plus 1-1/8" Nosing on Bottom Tread

BILCO DOOR EXTENSIONS: Available for Size C Door (only), these extensions increase the length to fit longer areaways. Horizontal top and two sidepieces are easily assembled and installed. Furnished in four sizes: 6", 12", 18" and 24". Complete with instructions and required hardware.



STAIR STRINGER EXTENSION -- SIZE E: Three-tread extension butts to bottom of standard stringer unit. Used with any size (O, B or C) Stair Stringer. Complete with hardware.

➔ **NOTE:** For basements more than 91" deep (finished floor to top of foundation wall) building a bottom step within the foundation wall opening (see drawing below) is recommended. The concrete step should extend 6" into stairwell.

CAUTION: Suggested construction allows minimum of 74" headroom. This is the recommended minimum.