

# *Metal Craft*<sup>®</sup> **DOCKS**

*The World's Most Durable Boat Piers!*

## **Configuration Guide Stationary Docks**

January 1, 2005

**Stationary / Portable Aluminum Docks**

**Dock Accessories**

The highest grade 6061/6063 aluminum marine alloys & 18-8 stainless fasteners are used.

*Metal Craft* **DOCKS**<sup>®</sup> are warranted for **15 years!**

*(see Warranty for details)*

Dealer Information and Orders: **800-989-DOCK**

Phone: 440-286-7135 FAX: 440-286-7134

Email: [info@metalcraftdocks.com](mailto:info@metalcraftdocks.com)

**[www.metalcraftdocks.com](http://www.metalcraftdocks.com)**

**[www.metalcraftlifts.com](http://www.metalcraftlifts.com)**

**Metal Craft Docks Inc.**

300 Industrial Parkway  
Chardon, Ohio 44024-1044

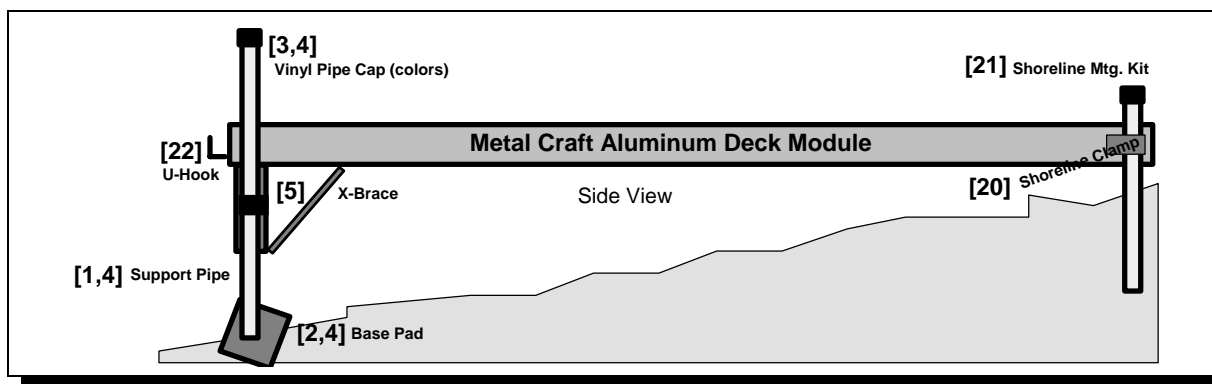
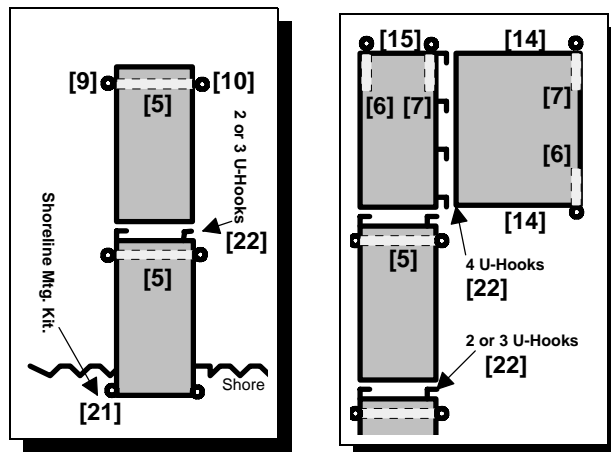
## STATIONARY / PORTABLE ALUMINUM BOAT DOCKS

Metal Craft Docks' Stationary piers are supported by Pipes, Pads and/or Augers on lake bottom. They can be easily removed for Winter storage and reinstalled in the Spring. The docks are very, very stable due to use of large diameter support pipes, the 12"H wishbone pipe brackets and a trussed X-Brace design.

Stationary/Portable docks are preferred over floating systems when water depths are less than 10 ft. and/or the water levels during boating season fluctuate within a  $\pm 1$  ft. range. General guidelines for configuration of the dock system are:

- Water depths at the dock site should be known (measured from lake bottom to top of water at normal summer pool level). If bottom is really soft, adjust measurement to allow pad or auger to reach the lake bottom structure.
- Lay out general shape of dock system to fit need.
- Decide on freeboard height of the deck from the top of the water. Normal freeboard is about 14"-16".
- If first section starts on a typical sloping shoreline, allow up to  $\frac{1}{2}$  of this deck module to lie out of the water on land. This will permit the deck to intersect the shoreline without a step up to the dock. Use

Metal Craft's **Shoreline Mounting Kit (#21)** to support the shore end of the first section. The Kit includes of two  $3\frac{1}{2}$ 'L pipes that are driven into the shore. Two clamps on the dock section (included in Kit) secure the pipes to the dock.



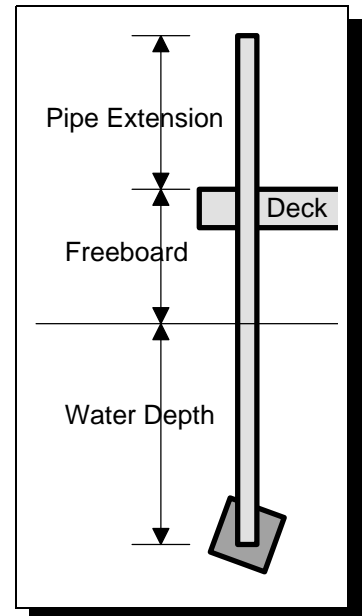
- If the first section starts off from a seawall, no overlap of the first section on land is required. Use a minimum of two Metal Craft **U-Hooks** [#22] installed on the seawall to support the shore end of the first section if section is 3'W or 4'W. Use a minimum of three if section is 5'W or 6'W.
- **Support Pipe** lengths are determined by adding three key components together:
  - ◆ **Water depth** at support pipe location (normal summer pool level), plus
  - ◆ **Freeboard height** at support pipe location (desired height of deck module above water level to facilitate easy entry/exit from docked watercraft), plus
  - ◆ **Pipe extension** height at support pipe location (desired height of top of pipe above deck module for adjustment, hand hold, etc.).

For example, if water depth = 30 in., freeboard = 16 in., and pipe extension = 12 in., order the 5 ft. pipe length.

Water Depth		Freeboard		Pipe Extension	=	Order Pipe Length
24"	+	16"	+	8"	=	5 ft.
30"	+	16"	+	8"	=	5 ft.
36"	+	16"	+	8"	=	5 ft.
42"	+	16"	+	8"	=	7 ft.
48"	+	16"	+	8"	=	7 ft.
54"	+	16"	+	8"	=	7 ft.
60"	+	16"	+	8"	=	9 ft.
66"	+	16"	+	8"	=	9 ft.
72"	+	16"	+	8"	=	9 ft.

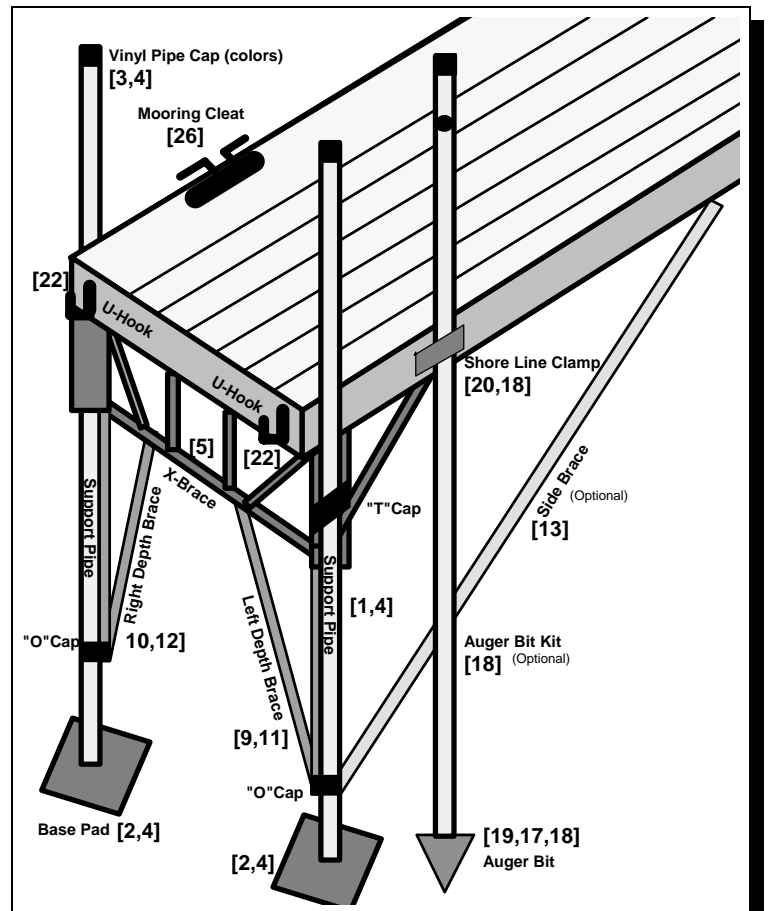
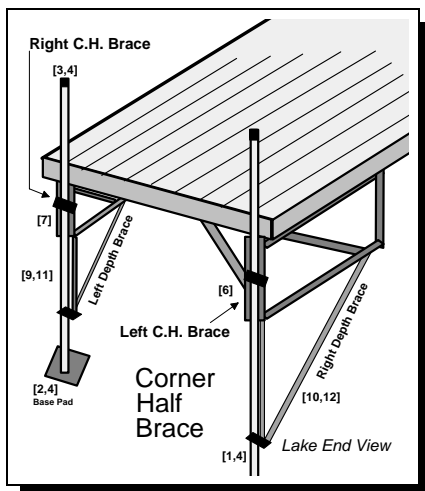
30"	+	6"	+	24"	=	5 ft.
48"	+	10"	+	2"	=	5 ft.
36"	+	20"	+	18"	=	7 ft.
36"	+	24"	+	42"	=	9 ft.
48"	+	30"	+	48"	=	11 ft.



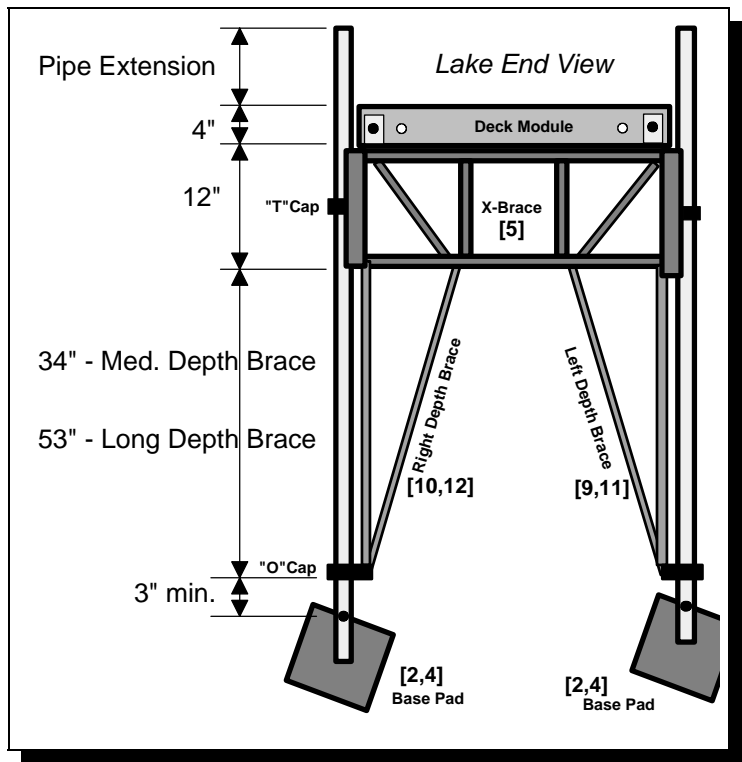
- For most inland installations, use:
  - If water depth is less than 3.5 ft., order **5'H Support Pipe** [#1/#4].
  - If water depth is greater than 3.5 ft. and less than 5.5 ft., order **7'H Support Pipe** [#1,#4].
  - If water depth is greater than 5.5 ft. and less than 7.5 ft., order **9'H Support Pipe** [#1/#4].
  - If water depth is greater than 7.5 ft. and less than 9.5 ft., use a **9'H Support Pipe** [#1] and a **Splayed Leg** [#8]. The Splayed Leg adds 2 ft. of height to the pipe and provides a 1 ft. Horizontal offset for the **Base Pad** [#2].

- Attach the Support Pipes [#1/#4] to the deck using either an **X-Brace Trussed Support w/Gusset Arm** [#5] or the **Corner Half Brace w/Gusset Arm** [#6,#7]. Both feature the 12"H Wishbone shaped extrusion and Gusset Arm that holds the support pipe firmly in place.

- Use the **X-Brace** [#5] to locate the Support Pipes [#1/#4] off the side of the dock.
- Use the **Corner Half Brace** [#6,#7] to locate the Support Pipes [#1/#4] off the end of the dock.

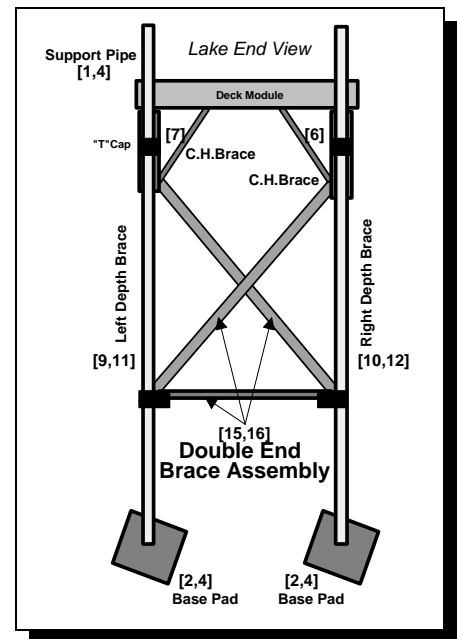


- In depths greater than 5' (freeboard+water) the use of **Depth Braces** [#9-#12] will improve Support Pipe stability.
  - ◆ The **Medium Depth Brace** [#9,#10] is about 34" in length and is generally used with 7'H Support Pipes.
  - ◆ The **Long Depth Brace** [#11,#12] is about 53" in length and is generally used with 9'H Support Pipes.
  - ◆ When mounted to **X-Brace** [#5] determine need for "Left" or "Right" model as viewed from on top of the dock (e.g., standing on dock) looking down at the location for the part.
  - ◆ When mounted to **Corner Half Brace** [#6,#7] use "Left" Depth Brace when attached to a "Right" C.H. Brace, and vice versa.
  - ◆ If **Splayed Leg(s)** [#8] are being used, the bottom of the **Depth Brace** must be located above the top of the Splayed Leg.

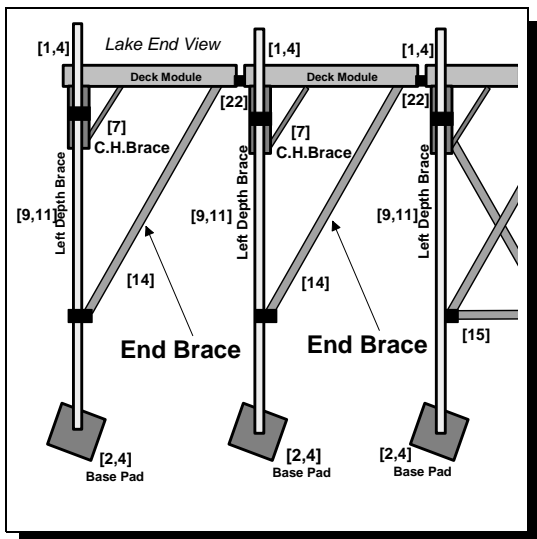


For unusual site conditions, there are five optional items that will improve dock stability:

- **Auger Bit Kit(s)** [#18] - Add to hold down the dock in rough water situations, or, when a large boat is tied to the dock that could have a tendency to pull over the dock in high winds. The **Auger Bit Kit** [#18] is installed either on the end of a deck section, or on the side. It is generally used in addition to the **Base Pad** [#2] facilitate fast dock installation.
- **Splayed Legs** [#8] - Use a pair to widen the distance between the base pads by 2 ft. This will improve stability in deep water. See **Support Pipes** [#1/#4] above.
- **Double End Brace** [#15-#16] - Use to improve stability at end of pier when **Corner Half Braces** [#6-#7] and **Depth Braces** [#9-#12] are present.

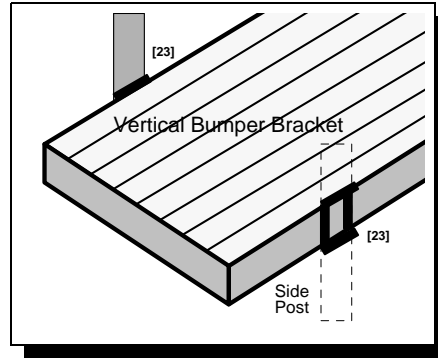
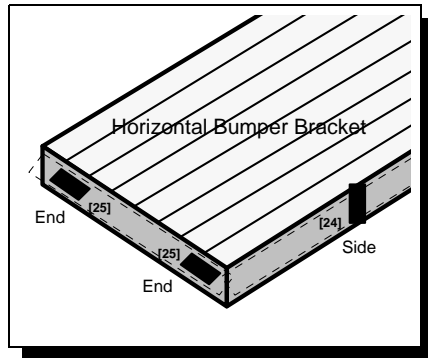


- **Side Braces** [#13] - Add a pair to improve dock stability in the same direction of the dock length.
- **End Brace(s)** [#14] - Add to improve platform stability in the same direction as the width of the dock section. Requires **Corner Half Braces** [#6-#7] and **Depth Braces** [#9-#12] as a prerequisite.



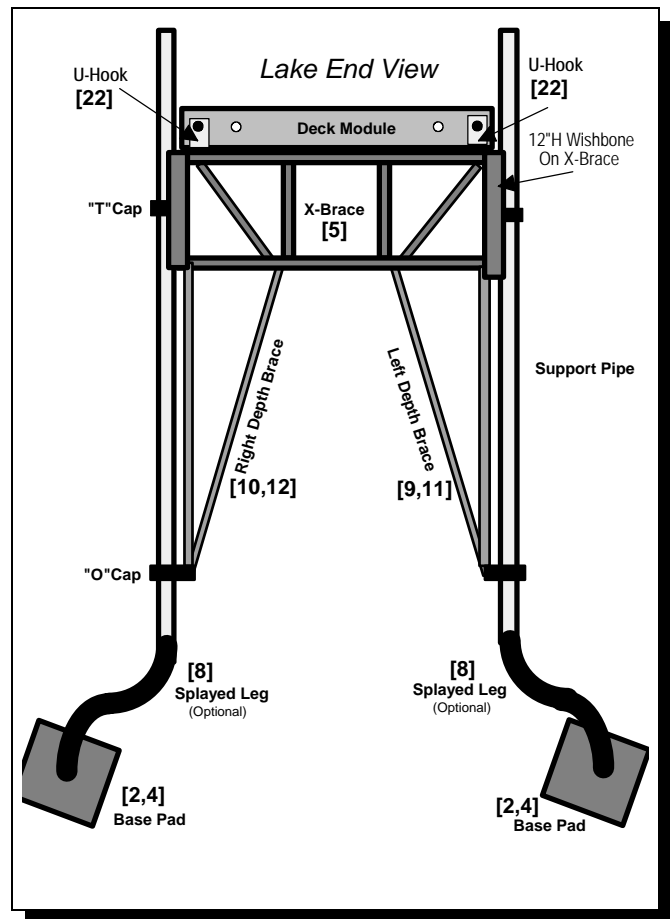
To connect dock sections together, use U-Hooks:

- For 3'W and 4'W **Deck Modules** laid end-to-end, use two **U-Hooks** [#22] mounted on the outside end of the dock to interconnect and lock to the next dock section. Locate the two U-Hooks at the prepunched holes in the Deck Corner part. Adjust U-Hooks to provide +/- 1/8" side-to-side play in the deck module resting in the U-Hooks. Do not use the prepunched holes located about 4" in from each end of the deck. These are reserved for use by other accessories (e.g., Shoreline Clamp, etc.) 5'W and 6'W **Deck Modules** require three **U-Hooks** [#22], with the third installed evenly spaced in between the other two.
- For 10'L deck modules laid side-to-side, use four **U-Hooks** [#22] mounted on the Side Rail of the first **Deck Module** pointing up. The Side Rail of the second **Deck Module** will drop into the **U-Hooks** [#22] installed on the first **Deck Module**. Locate two of the U-Hooks at the prepunched holes in the Deck Corner part and the other two evenly spaced in between.

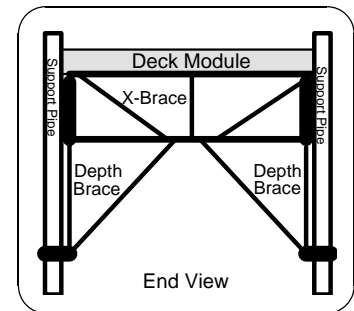
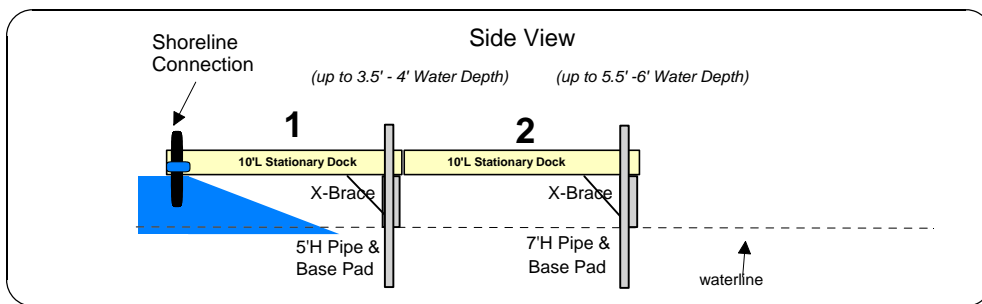
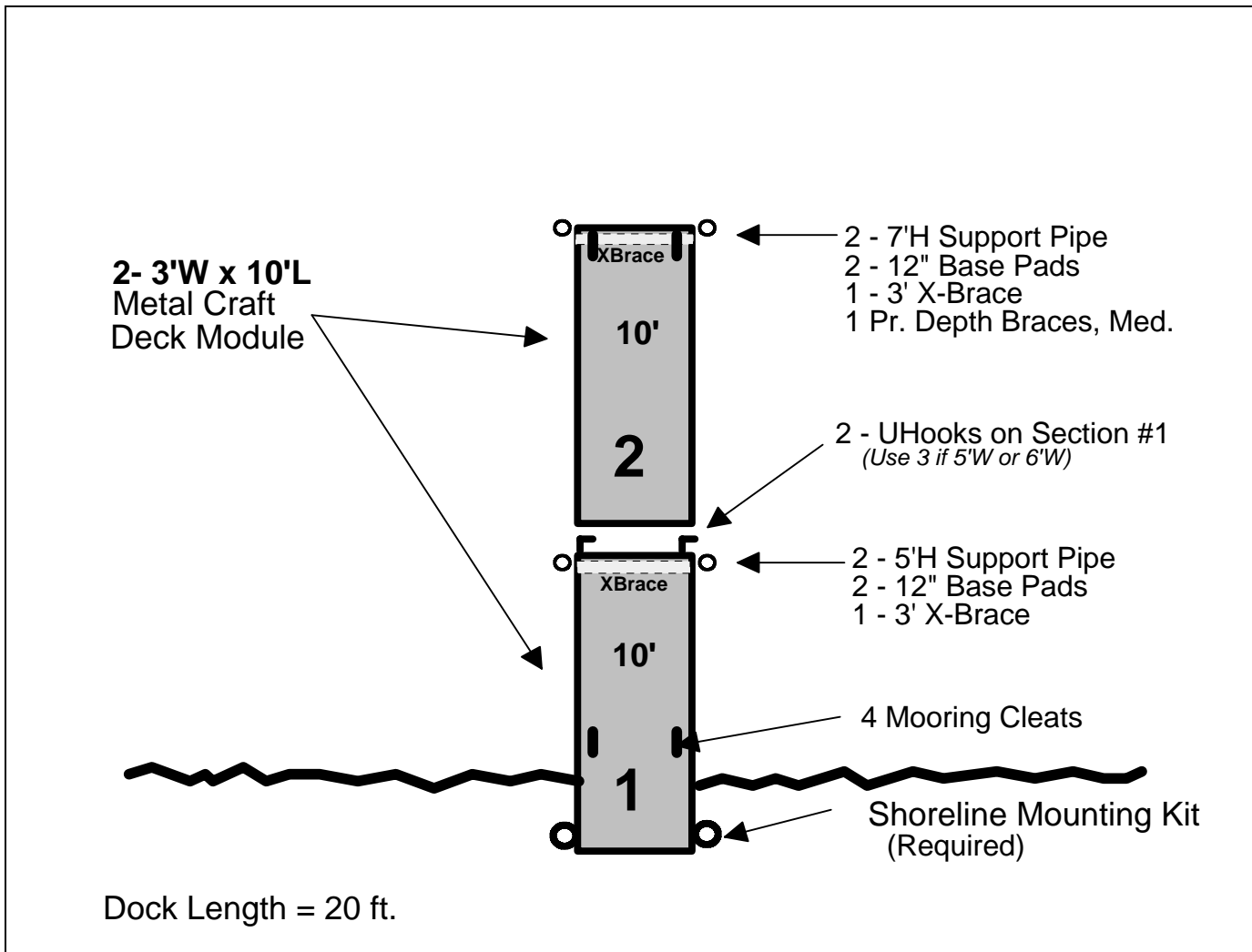


Accessories include:

- Use **Horizontal Bumper Brackets** to provide a mounting surface for a 2" x 4" (1½" x 3½" actual size) wood or PVC bumper.
- Use **Vertical Bumper Brackets** to provide a strong mounting surface for a 4" x 4" (3½" x 3½" actual size) wood or PVC post. These are ideal for pontoon boats.
- Use **White Bumper** rub strips nailed or screwed to the bumpers or posts to provide extra protection for the boat.
- Use **Mooring Cleat** to anchor boat to dock. Cleat attaches to sub-frame of **Deck Module** and can be relocated to any of the 14 pre-determined mounting locations.



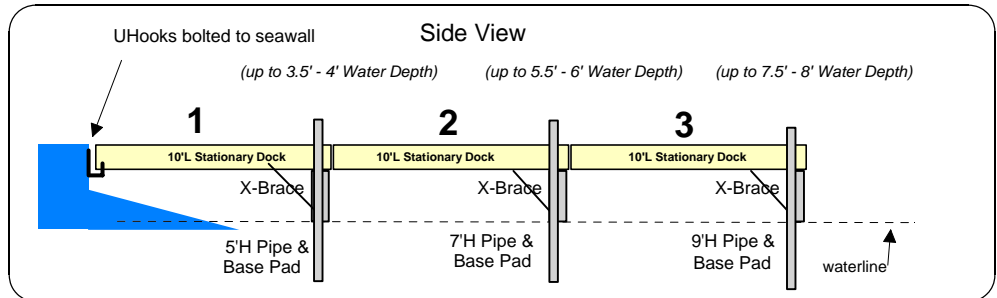
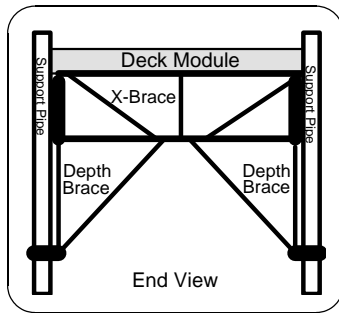
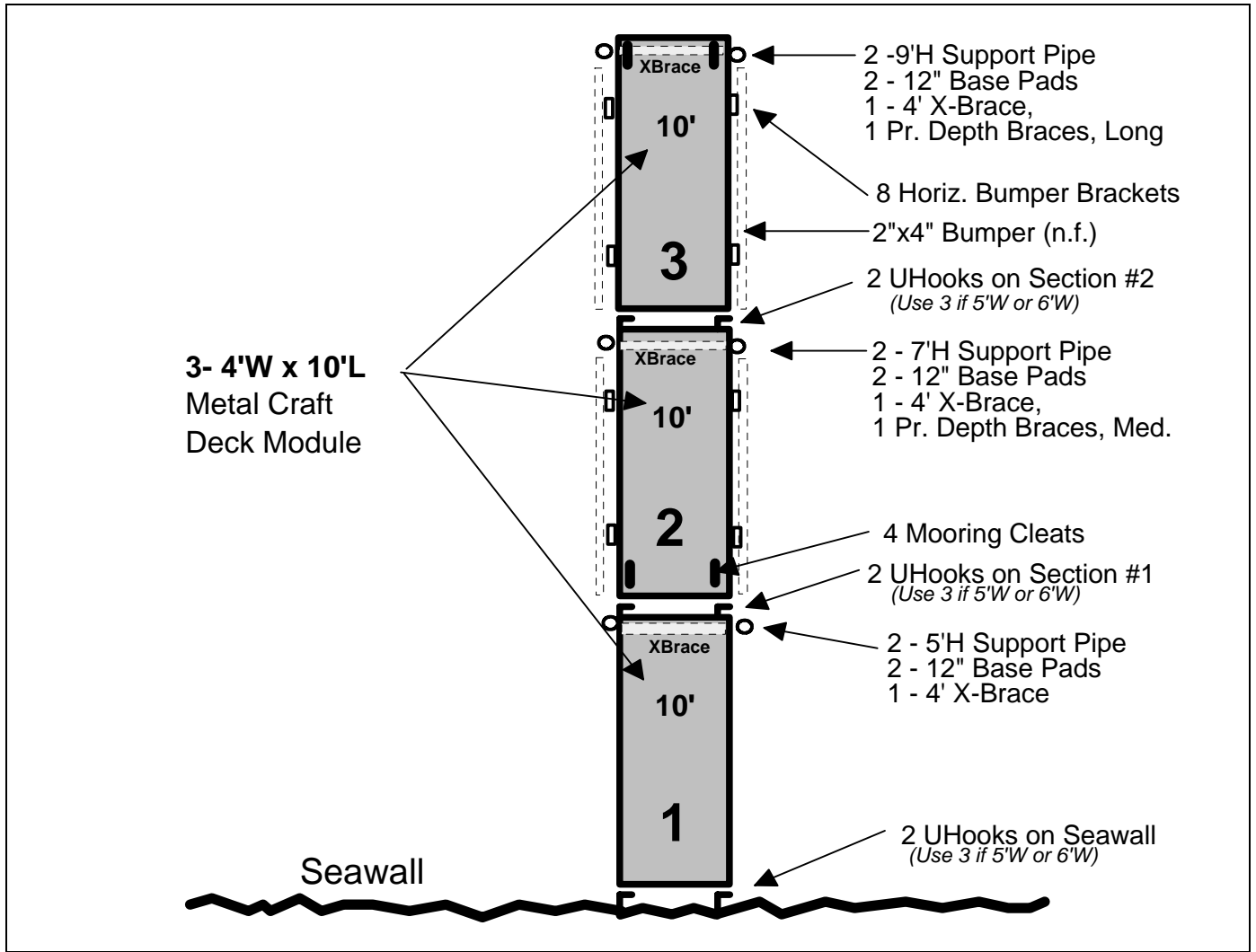
# Stationary Example #1



Qty	Description	Qty	Description
1	Shoreline Mounting Kit, 1 7/8", Stationary Dock	1	Depth Brace, Medium, Left
2	3'W x 10'L x 4"H Deck Module	1	Depth Brace, Medium, Right
2	3'W X-Brace Support w/2 Gusset Arms	2	U-Hook
2	5'H Support Pipe, 12" Base Pad & Vinyl Cap	4	Mooring Cleat
2	7'H Support Pipe, 12" Base Pad & Vinyl Cap		

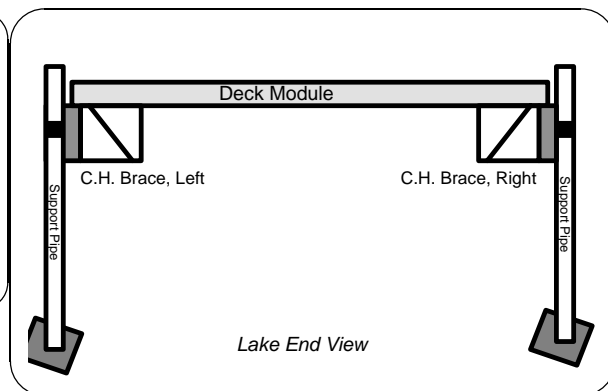
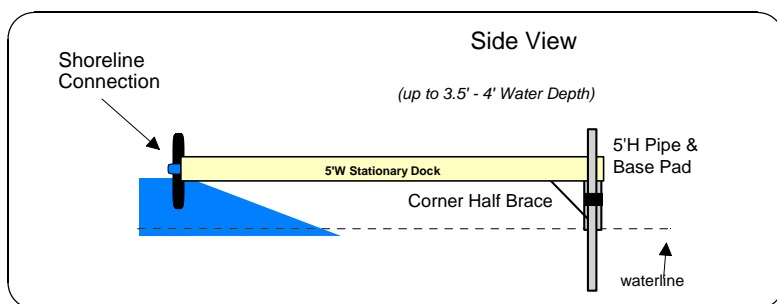
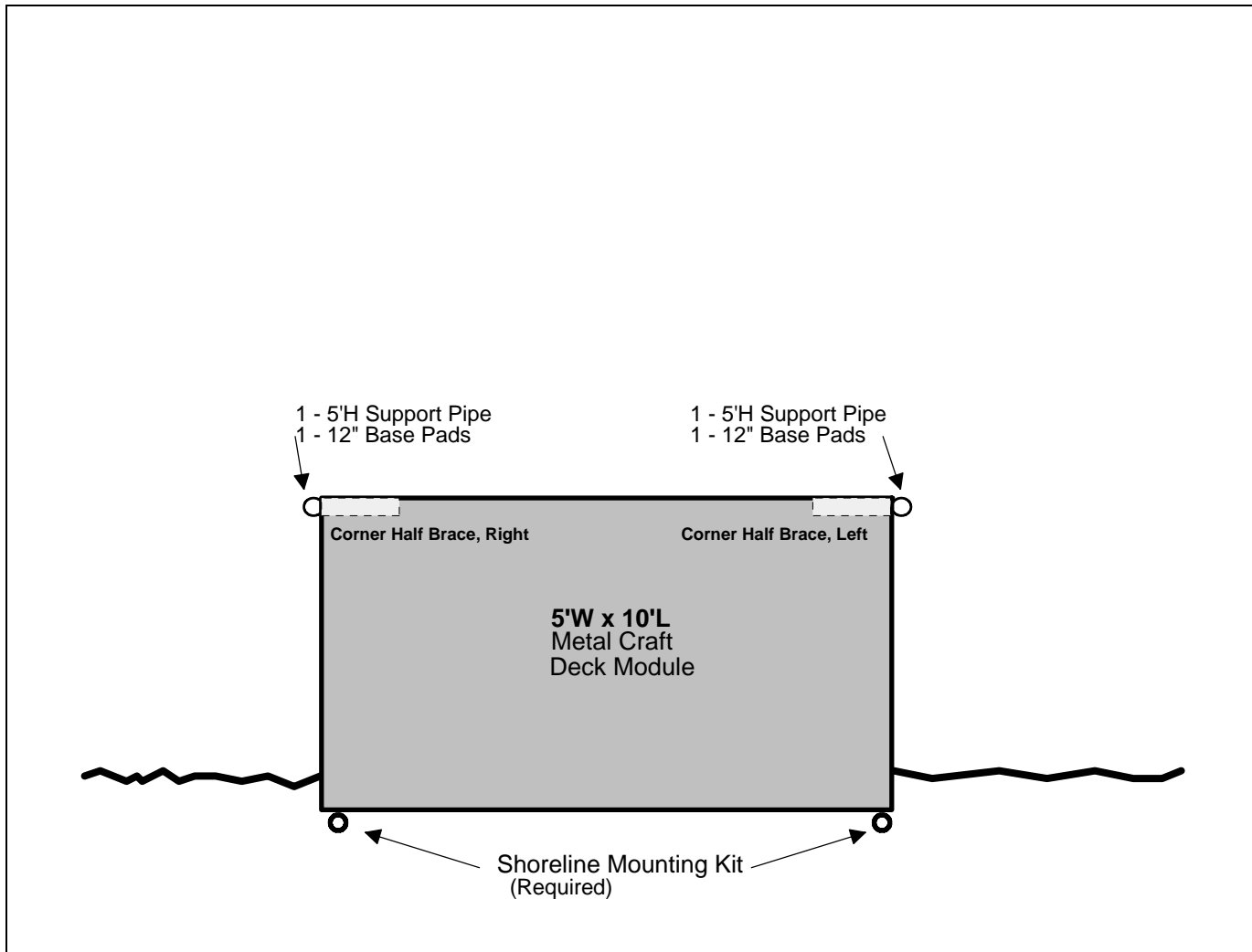
*Metal Craft's* Stationary/Portable Docks come in 10' lengths, four widths: 3', 4', 5' & 6', and three colors: Cloud White, Earth Sand and Sea Green.

# Stationary Example #2



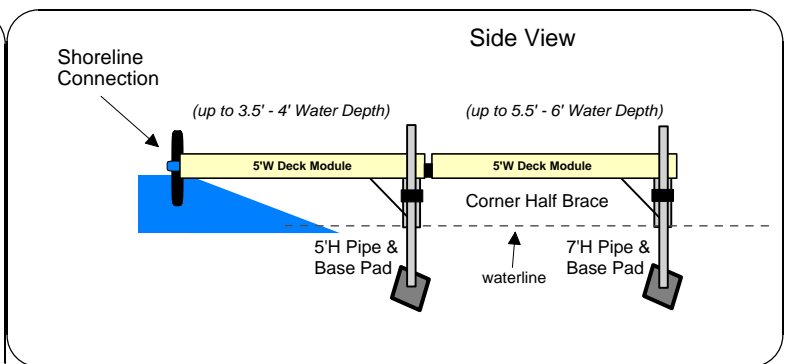
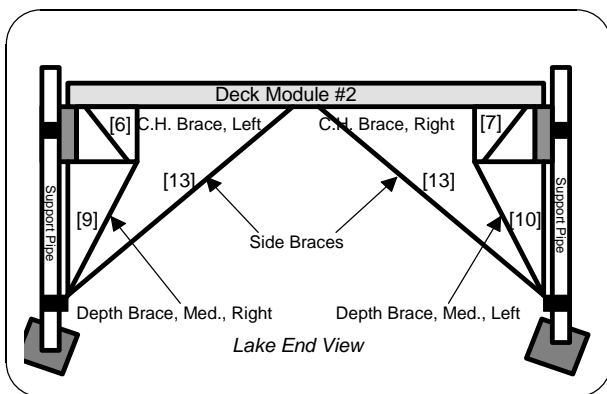
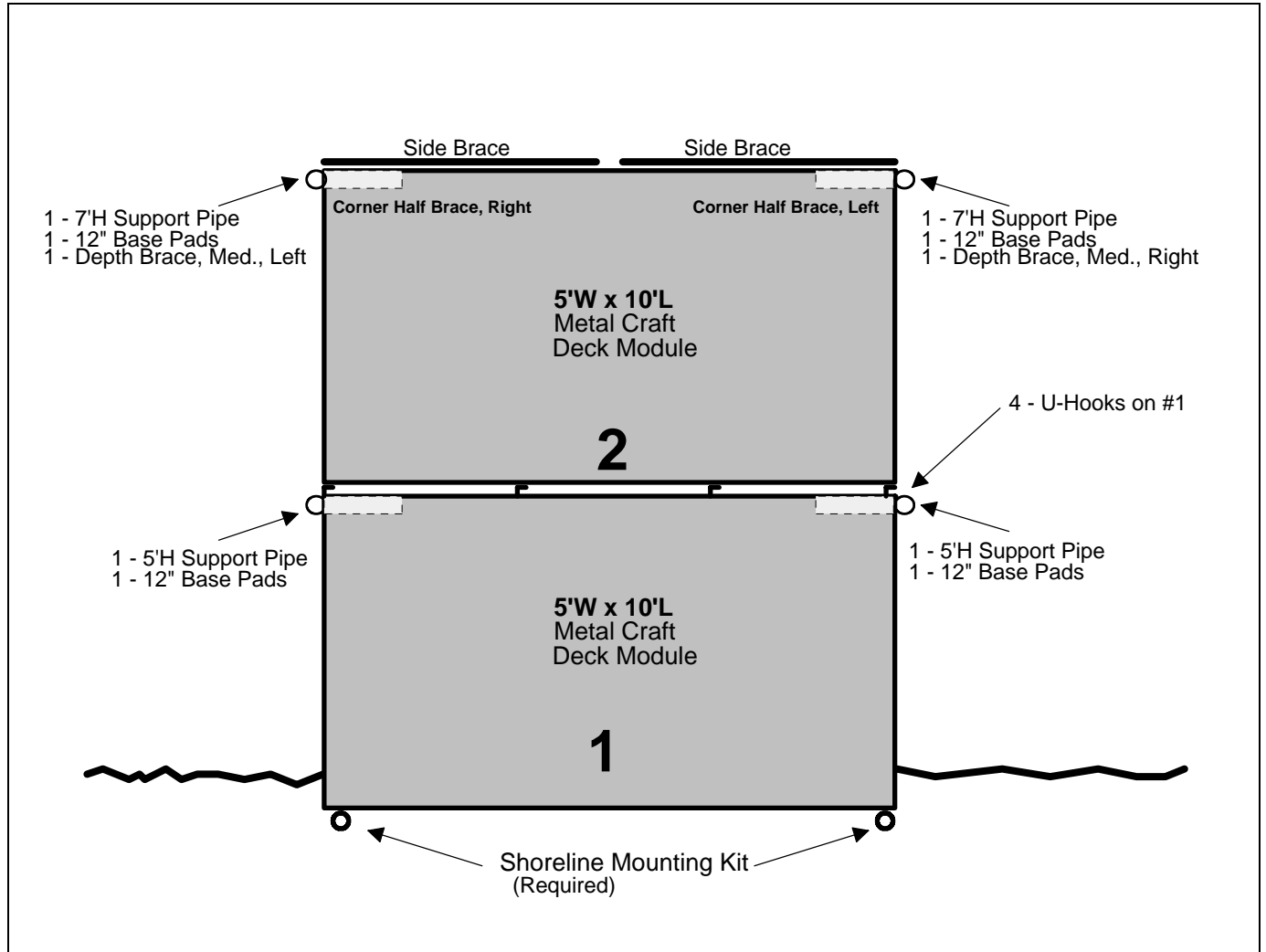
Qty	Description	Qty	Description
3	4'W x 10'L x 4"H Deck Module	2	9'H Support Pipe, 12" Base Pad & Vinyl Cap
3	4'W X-Brace Support w/2 Gusset Arms	1	Depth Brace, Long, Left
2	5'H Support Pipe, 12" Base Pad & Vinyl Cap	1	Depth Brace, Long, Right
2	7'H Support Pipe, 12" Base Pad & Vinyl Cap	6	U-Hook (4 on dock, 2 on seawall)
1	Depth Brace, Medium, Left	4	Mooring Cleat
1	Depth Brace, Medium, Right	8	Horizontal Bumper Bracket
		4	White PVC Boat Bumper, 10'L

# Stationary Example #3



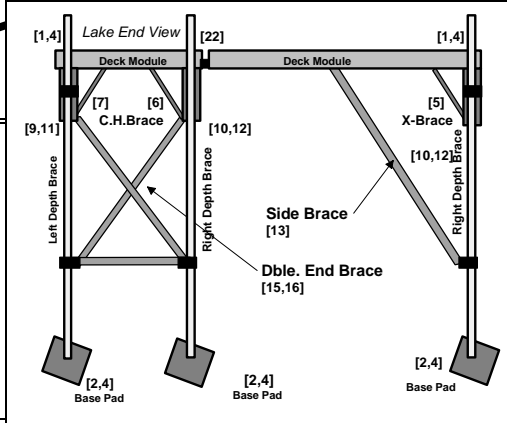
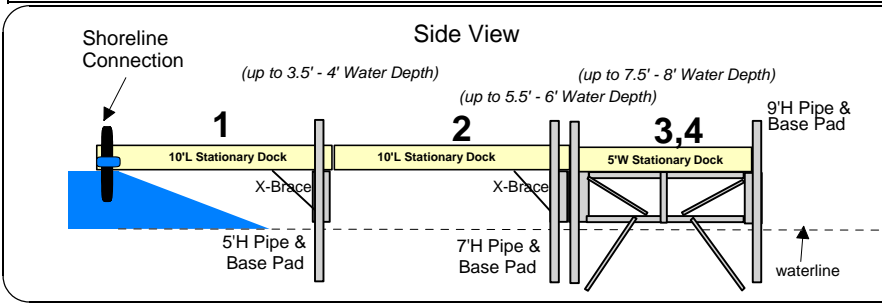
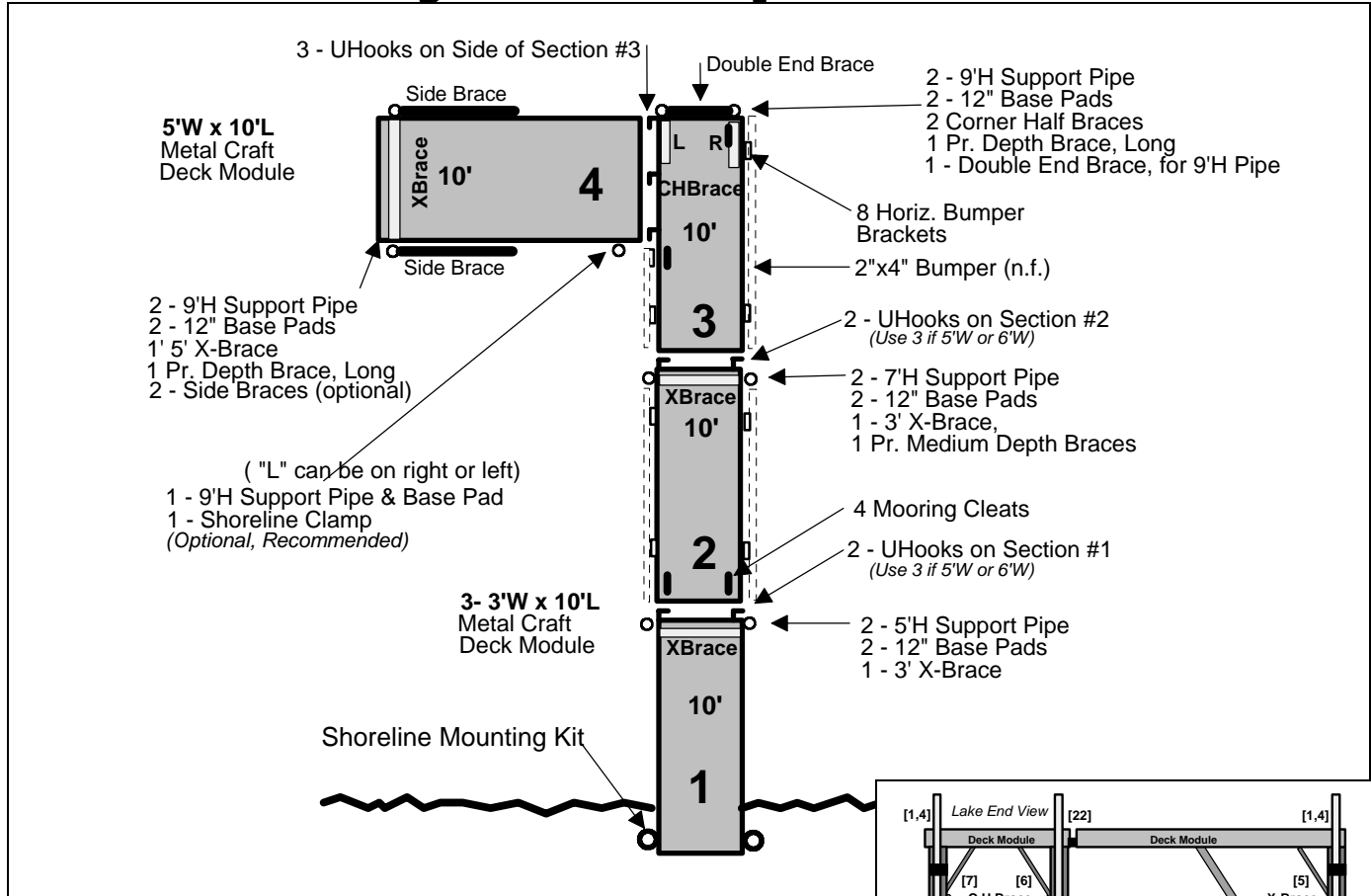
Qty	Description	Qty	Description
1	Shoreline Mounting Kit, 1 7/8", Stationary Dock	2	5'H Support Pipe, 12" Base Pad & Vinyl Cap
1	5'W x 10'L x 4"H Deck Module		
1	Corner Half Brace Support w/1 Gusset Arm, Left		
1	Corner Half Brace Support w/1Gusset Arm, Right		

# Stationary Example #4



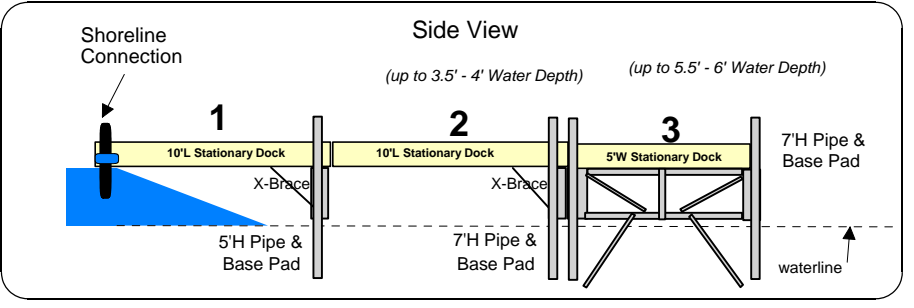
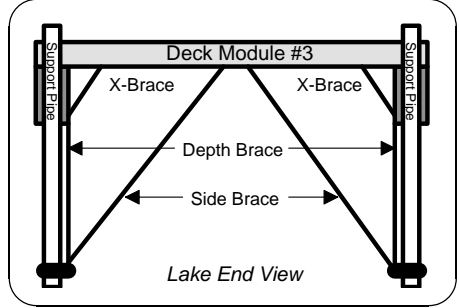
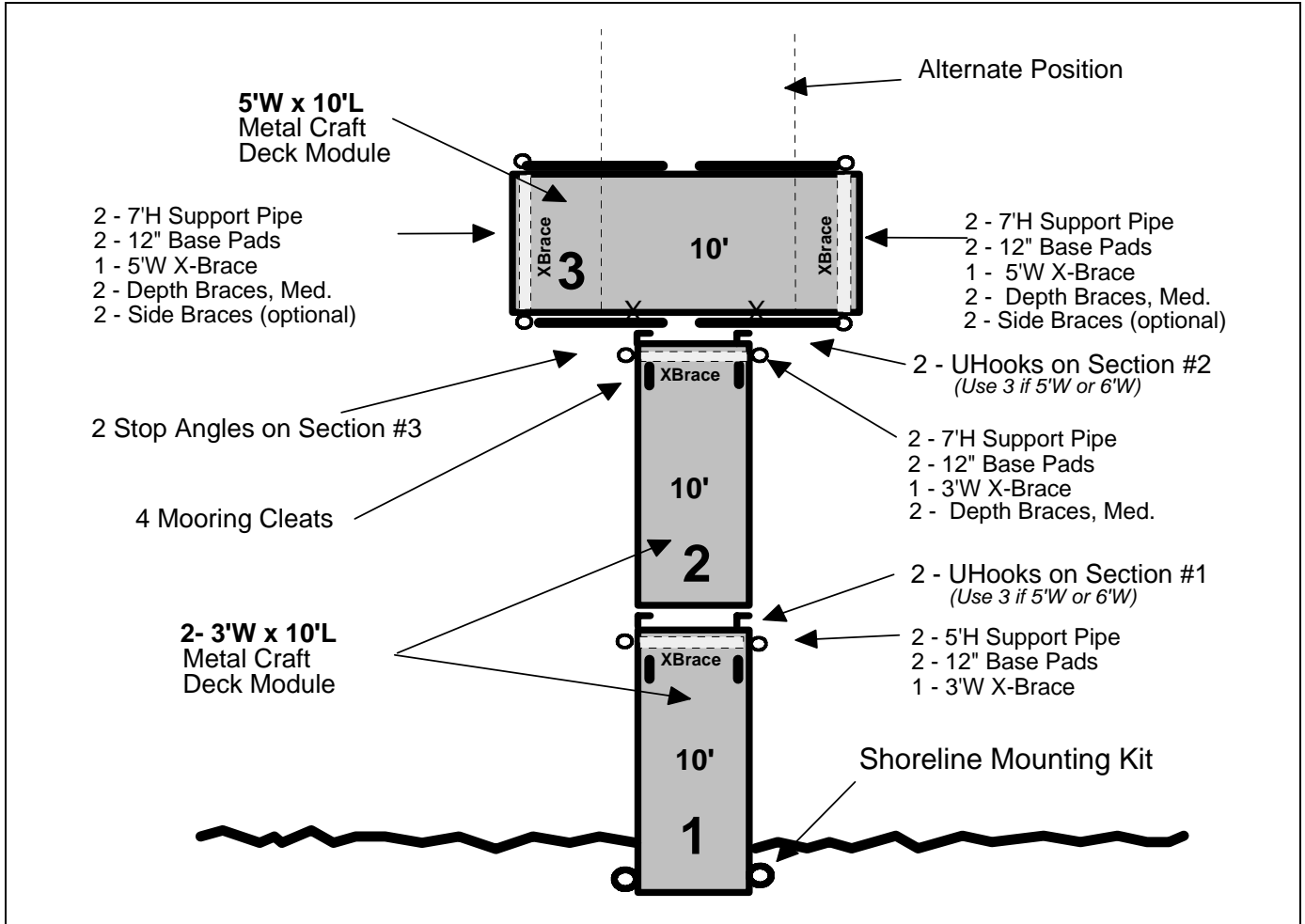
Qty	Description	Qty	Description
1	Shoreline Mounting Kit, 1 7/8", Stationary Dock	2	5'H Support Pipe, 12" Base Pad & Vinyl Cap
2	5'W x 10'L x 4"H Deck Module	2	7'H Support Pipe, 12" Base Pad & Vinyl Cap
2	Corner Half Brace Support w/1 Gusset Arm, Left	1	Depth Brace, Medium, Left
2	Corner Half Brace Support w/1 Gusset Arm, Right	1	Depth Brace, Medium, Right
4	U-Hook	2	Side Brace (optional)

# Stationary Example #5 "L"



Qty	Description	Qty	Description
1	Shoreline Mounting Kit, 1 7/8", Stationary Dock	2	Depth Brace, Long, Left
3	3'W x 10'L x 4"H Deck Module	2	Depth Brace, Long, Right
1	5'W x 10'L x 4"H Deck Module	2	Side Brace (optional)
2	3'W X-Brace Support w/2 Gusset Arms	1	Double End Brace (optional)
1	5'W X-Brace Support w/2 Gusset Arms	1	Shoreline Clamp (on #4, optional); and
1	Corner Half Brace Support w/1 Gusset Arm, Left	1	9'H Support Pipe, 12" Base Pad & Vinyl Cap (optional)
1	Corner Half Brace Support w/1 Gusset Arm, Right	7	U-Hook
2	5'H Support Pipe, 12" Base Pad & Vinyl Cap	4	Mooring Cleat
2	7'H Support Pipe, 12" Base Pad & Vinyl Cap	8	Horizontal Bumper Bracket
1	Depth Brace, Medium, Left	4	White PVC Boat Bumper, 10'L
1	Depth Brace, Medium, Right	1	4-Step Aluminum Swim Ladder (optional)
4	9'H Support Pipe, 12" Base Pad & Vinyl Cap	1	3-Person Aluminum Bench (optional)

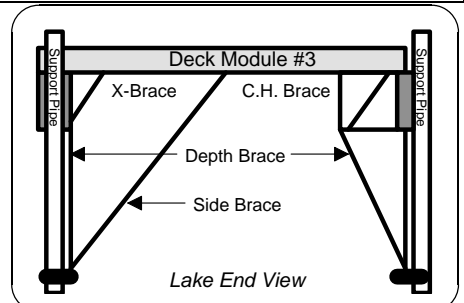
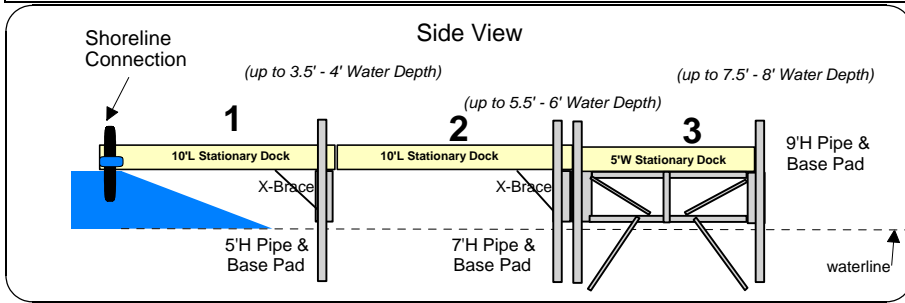
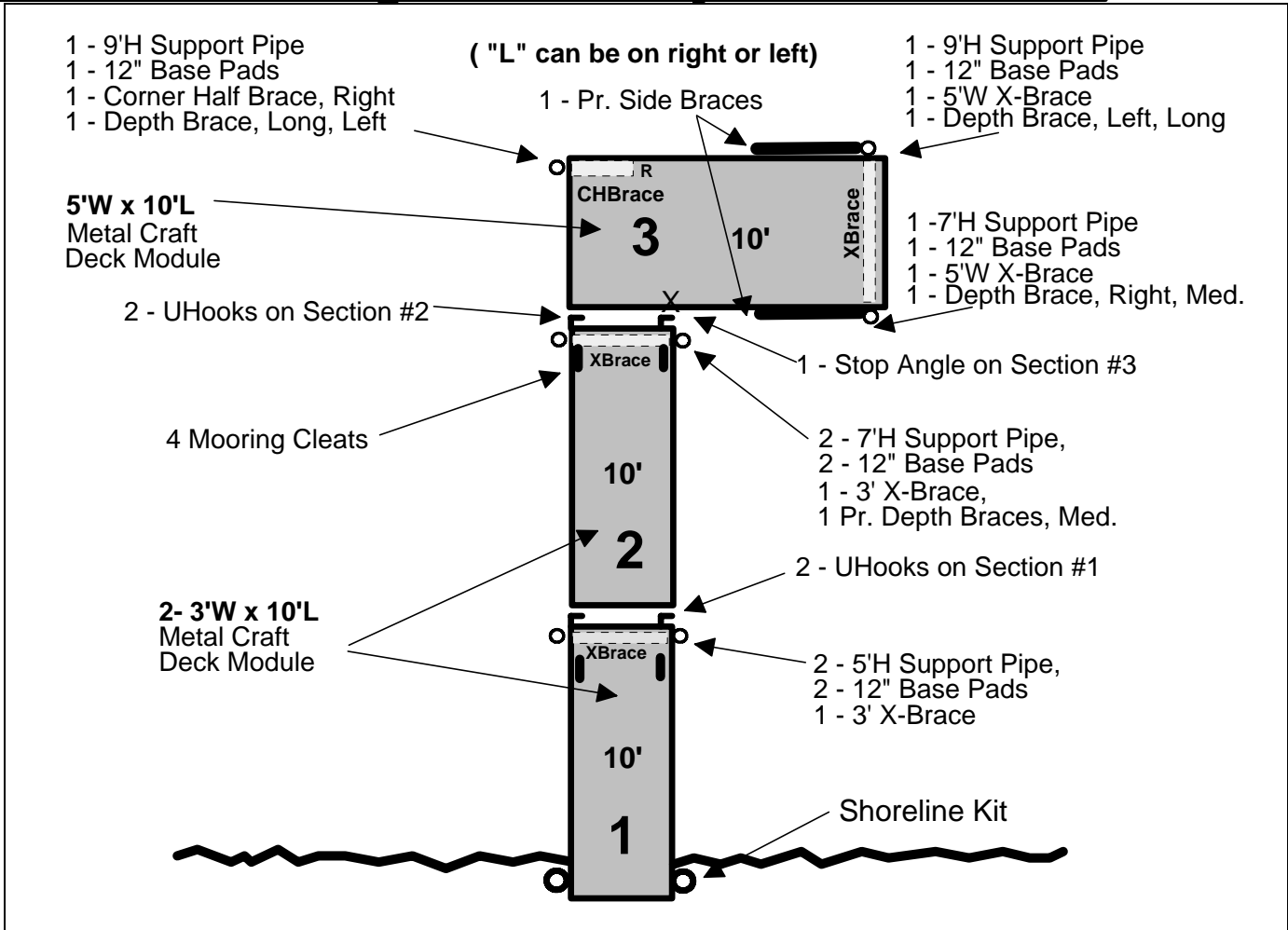
# Stationary Example #6 "T"



Qty	Description	Qty	Description
1	Shoreline Mounting Kit, 1 7/8", Stationary Dock	3	Depth Brace, Medium, Left
2	3'W x 10'L x 4"H Deck Module	3	Depth Brace, Medium, Right
1	5'W x 10'L x 4"H Deck Module	4	Side Brace (optional)
2	3'W X-Brace Support w/2 Gusset Arms	4	U-Hook
2	5'W X-Brace Support w/2 Gusset Arms	4	Mooring Cleat
2	5'H Support Pipe, 12" Base Pad & Vinyl Cap	1	4-Step Aluminum Swim Ladder (optional)
6	7'H Support Pipe, 12" Base Pad & Vinyl Cap	1	3-Person Aluminum Bench (optional)
		2	Stop Angle - Holds Uhook in place (no cost)

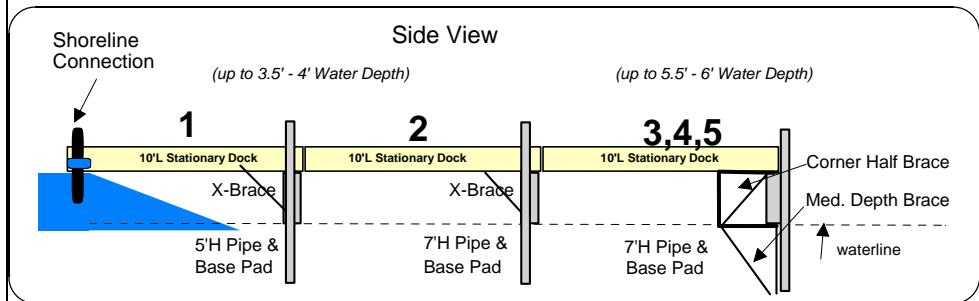
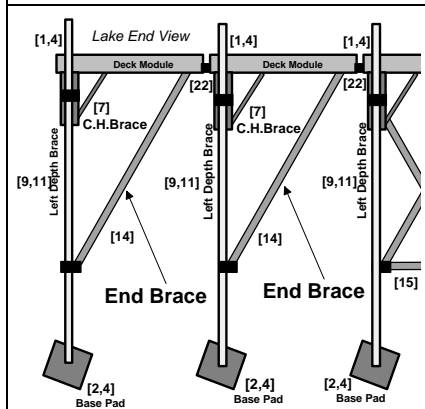
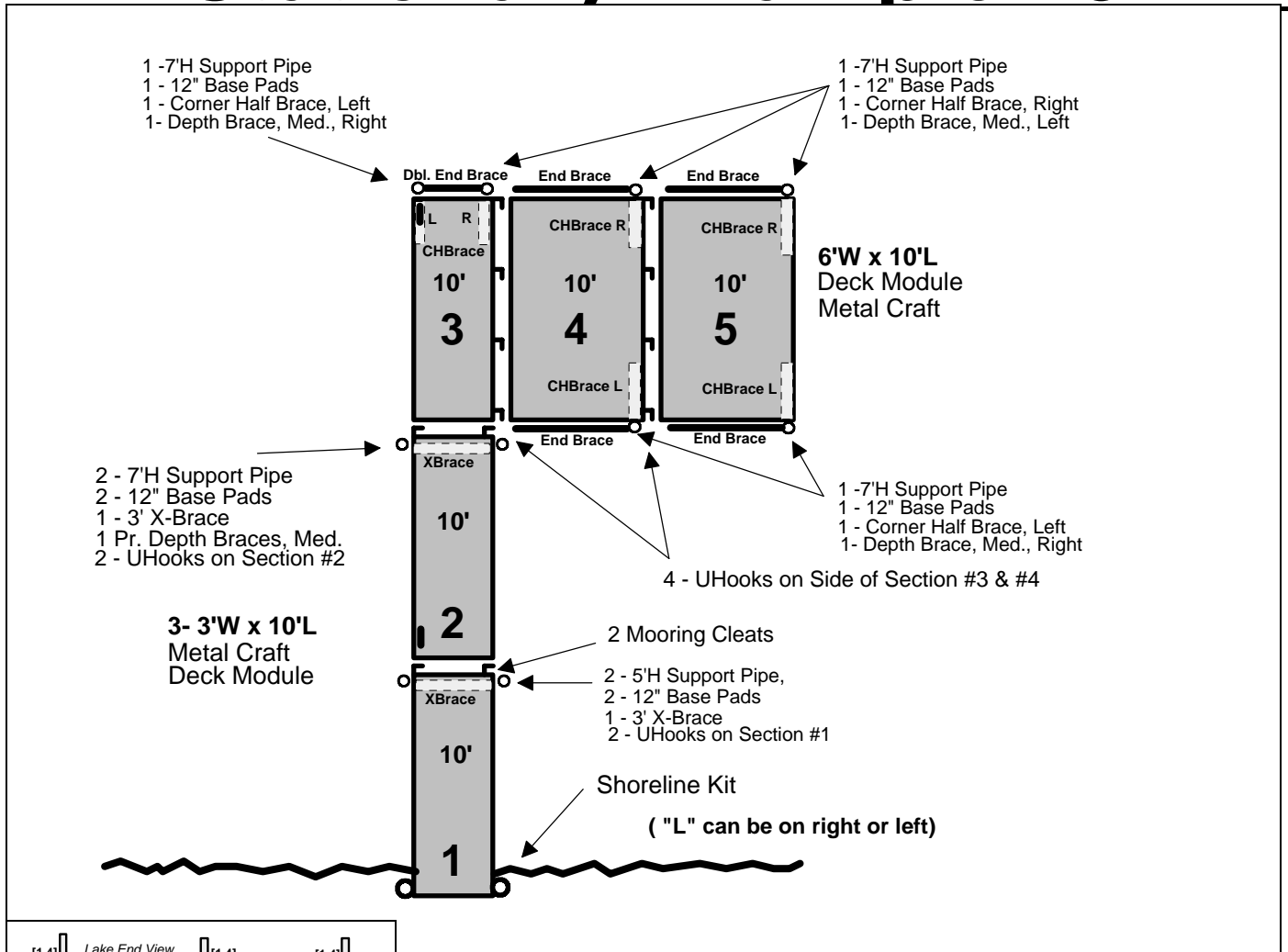
*Metal Craft's* Stationary/Portable Docks come in 10' lengths, four widths: 3', 4', 5' & 6', and three colors: Cloud White, Earth Sand and Sea Green.

# Stationary Example #7 "L"



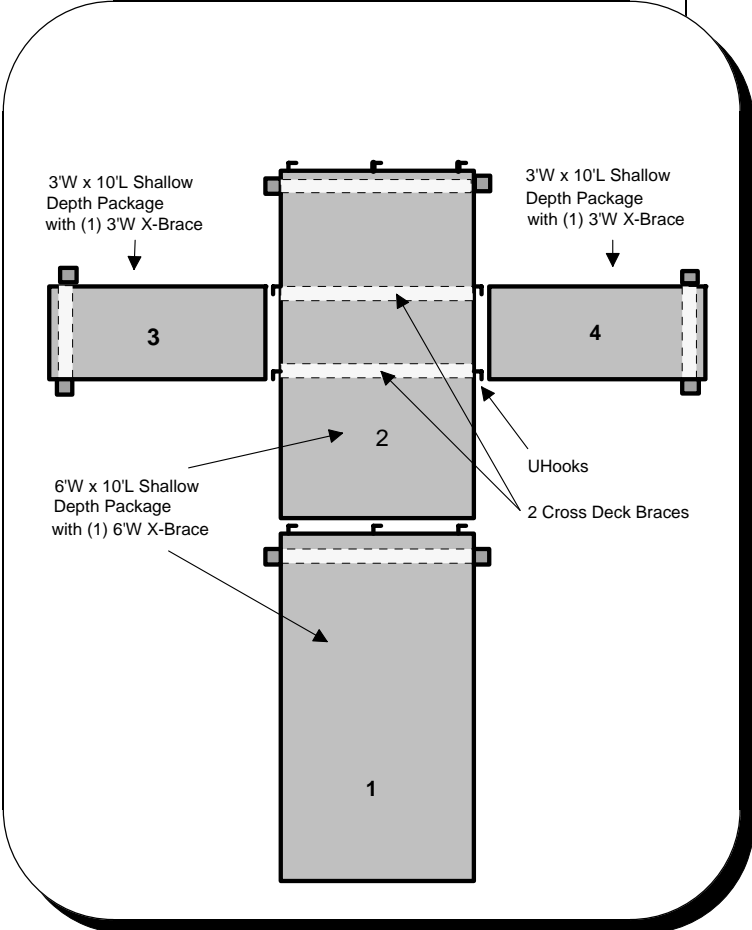
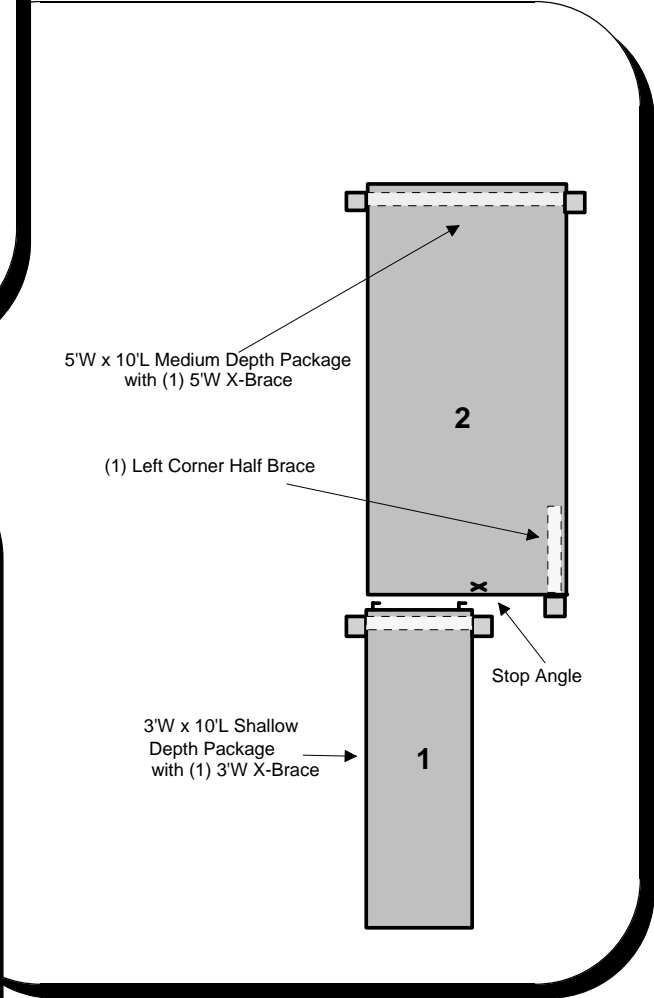
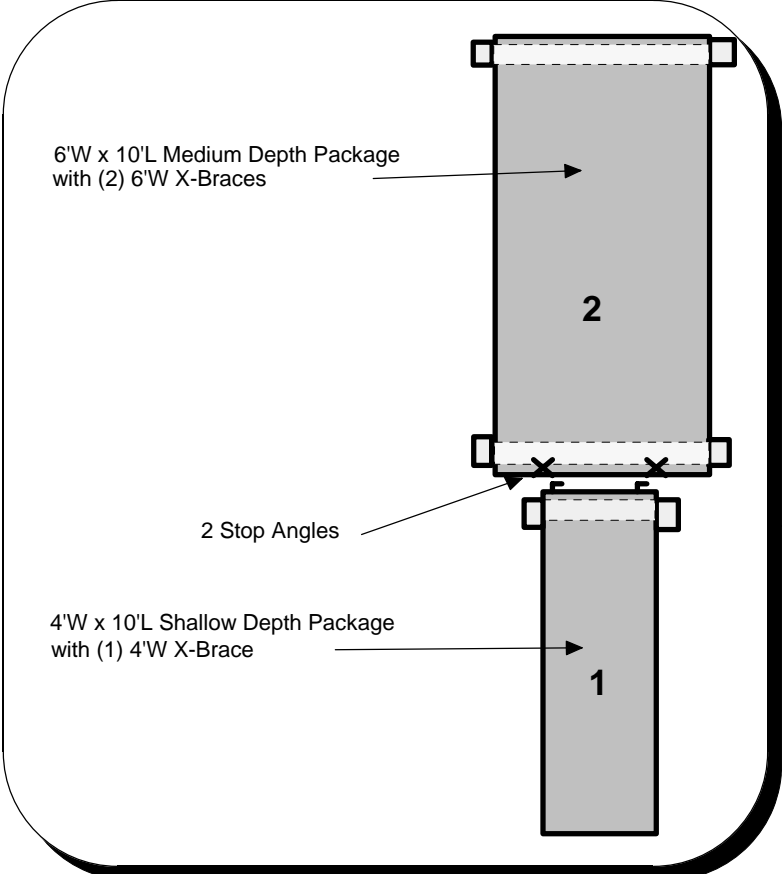
Qty	Description	Qty	Description
1	Shoreline Mounting Kit, 1 7/8", Stationary Dock	2	Depth Brace, Medium, Right
2	3'W x 10'L x 4"H Deck Module	2	9'H Support Pipe, 12" Base Pad & Vinyl Cap
1	5'W x 10'L x 4"H Deck Module	2	Depth Brace, Long, Left
2	3'W X-Brace Support w/2 Gusset Arms	2	Side Brace
1	5'W X-Brace Support w/2 Gusset Arms	4	U-Hook
1	Corner Half Brace Support w/1Gusset Arm, Right	4	Mooring Cleat
2	5'H Support Pipe, 12" Base Pad & Vinyl Cap	1	4-Step Aluminum Swim Ladder <i>(optional)</i>
3	7'H Support Pipe, 12" Base Pad & Vinyl Cap	1	3-Person Aluminum Bench <i>(optional)</i>
1	Depth Brace, Medium, Left	1	Stop Angle - Holds Uhook in place (no cost)

# Stationary Example #8 "L"



Qty	Description	Qty	Description
1	Shoreline Mounting Kit, 1 7/8", Stationary Dock	4	Depth Brace, Medium, Left
3	3'W x 10'L x 4"H Deck Module	4	Depth Brace, Medium, Right
2	6'W x 10'L x 4"H Deck Module	4	End Brace (optional)
2	3'W X-Brace Support w/2 Gusset Arms	1	Double End Brace (optional)
3	Corner Half Brace Support w/1Gusset Arm, Left	12	U-Hook
3	Corner Half Brace Support w/1Gusset Arm, Right	2	Mooring Cleat
2	5'H Support Pipe, 12" Base Pad & Vinyl Cap	1	4-Step Aluminum Swim Ladder (optional)
8	7'H Support Pipe, 12" Base Pad & Vinyl Cap	1	3-Person Aluminum Bench (optional)

# Stationary Dock Examples



# More Stationary Dock Examples

