



**Building Solid Foundations  
for Boardwalks**



# BOARDWALKS



MacLean Civil Products (MPC) offers a wide range of steel foundation piles used to support boardwalks in environmental sensitive areas. We offer many time proven solutions with experience in anchoring since the 1920's.

There are many advantages to choosing MacLean Dixie to install your boardwalks. MacLean Dixie's boardwalks are easy to install. Unlike building a concrete pathway through these natural parks, our boardwalks provide an easy way to enjoy nature without disturbing it. The height of the boardwalks allows wildlife to pass underneath without being disturbed. The boardwalk can also be removed years later, without damage to the environment.



## Advantages



Constructing your boardwalks with helical piles does not require building a road — helical piles are installed and boardwalk sections are set in place as pile installation advances.

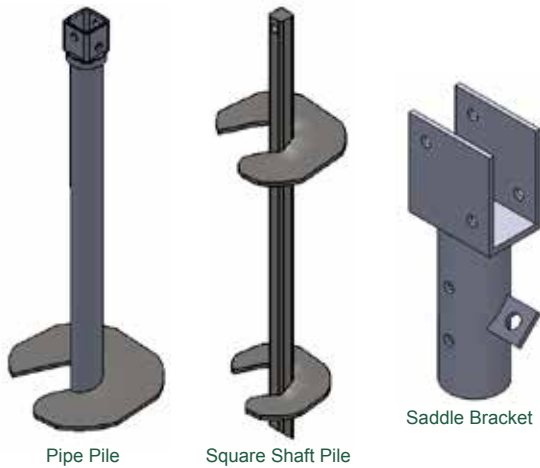


No concrete needs to be mixed. No Trees need to be removed. Light weight equipment minimizes impact to wildlife. For these reasons and more, helical pile mounted boardwalks are the environmentally friendly choice.



In extremely hard to reach locations, helical piles can even be installed with hand-held equipment.

## Products



MCP offers a broad range of products for boardwalk construction. Light-duty square shaft piles are perfect for pedestrian or bicycle boardwalks and larger pipe piles can construct boardwalks sturdy enough to support motor vehicles. Custom designed boardwalk connections are available in every pile size category to ensure a secure connection between the structure and the foundation. Additionally, all parts are hot dip galvanized to ASTM A123 for long term protection.

All of these products have been tested and documented to meet the ICC-ES AC308 Acceptance Criteria for Helical Foundation Systems and Devices (ESR 3032). This standard is updated to the current International Building Code.



Example of cross bracing for lateral support.

Typical MPS Products Used for Boardwalk Applications			
Product Type	Torque Capacity (ft-lbs)	Ultimate Axial Capacity (lbs)	Estimated Lateral Capacity (lbs)*
1-1/2" Square Shaft	5,500	55,000	500
1-3/4" Square Shaft	10,000	100,000	500
2-7/8" Schedule 40 Pipe Shaft	6,700	70,000	1,000
2-7/8" Schedule 80 Pipe Shaft	8,000	90,000	1,000
3-1/2" Schedule 40 Pipe Shaft	11,400	100,000	1,500

\* The lateral capacity of helical piles is highly dependent on the site soil conditions. The allowable lateral capacity for your site must be determined by a geotechnical engineer

## Installation

The pile is typically advanced 5 to 15 feet into the ground (depending on loading and soil conditions) using a hand held or mounted hydraulic torque head. A typical pile can be installed in less than 5 minutes.

Once the pile is installed boardwalk support brackets are slipped over the top and bolted on.

Finally the timbers laid into place and a through bolt connects them to the plates on the boardwalk support brackets. The boardwalk pictured below was built in a single morning.



## Other Quality MacLean Civil Products

Dixie™

Duckbill™

Manta Ray™

MacLean Power Grip (MPG)™

MacLean Vortex Pile (MVP)™

Sting Ray™



## MPS Civil Products, building solid foundations

MPS Civil Products is part of MacLean-Fogg, a diversified international manufacturing enterprise with more than half a billion dollars in sales. A result of the acquisition and merger of Joslyn, Dixie and Foresight, MPS Civil Products is now one of the leading suppliers of steel foundation systems. Our comprehensive product line includes engineered solutions for tension, compression and structural stabilization in any type of soil. With over 90 years of experience in earth anchoring and the most comprehensive line of helical and driven anchor products MPS is the right choice if you are in the business of building solid foundations.

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