

PermaTrak Installation Guide



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Patented Product: U.S. Patent
#8,302,362 #8,522,505
#9,096,975 #D940,912 #D925,068
& Other Patents Pending


The Concrete Boardwalk Company

***NOTE: INSTALLER SHALL ONLY USE THE APPROVED
“FOR CONSTRUCTION” DRAWING SET FOR INSTALLATION***

Preface:

This installation guide is to be used as a reference only. The construction of the PermaTrak® system may vary from information contained in this guide due to varying field conditions, special components, or other construction requirements. Please contact your PermaTrak field representative with any questions regarding installation details or product features.

Acceptability Criteria for Treads:

The finished visible (in the final installed position) surface shall have no obvious imperfections as defined by the approved submittal and project specifications.

Safety:

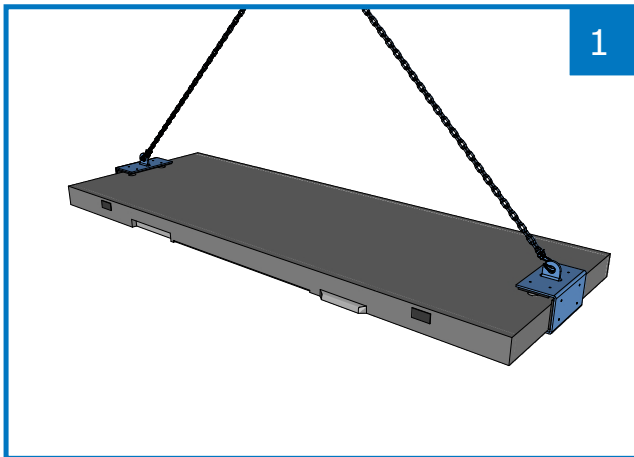
All safety codes and construction guidelines for handling heavy material should be closely followed. Those working at the job site should comply with all health, safety, and environmental policies.

Field Modifications:

Please contact PermaTrak North America if there are any field modifications. Do not attempt the following without approval from a PermaTrak representative:

- **Do not** cut any tread, beam, curb, abutment, or pier component.
- **Do not** change the scope of installation of any PermaTrak Boardwalk system.
- **Do not** move or lift product without proper lifting equipment at locations defined on the approved submittal.
- **Do not** start the installation of the PermaTrak system before reviewing the Installation Guide in its entirety.

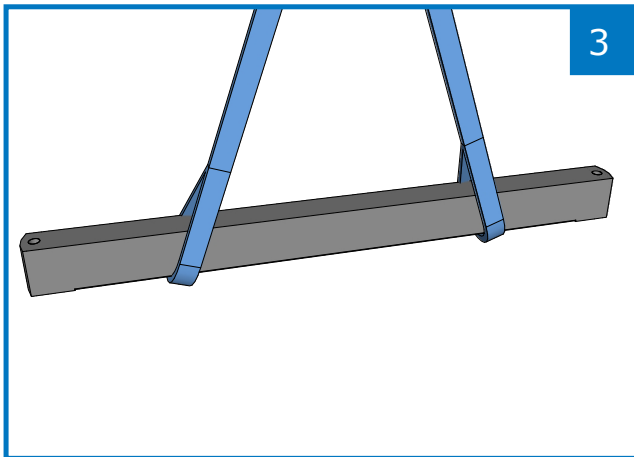
Handling Treads, Beams and Abutments



•Lift tread using lifting device



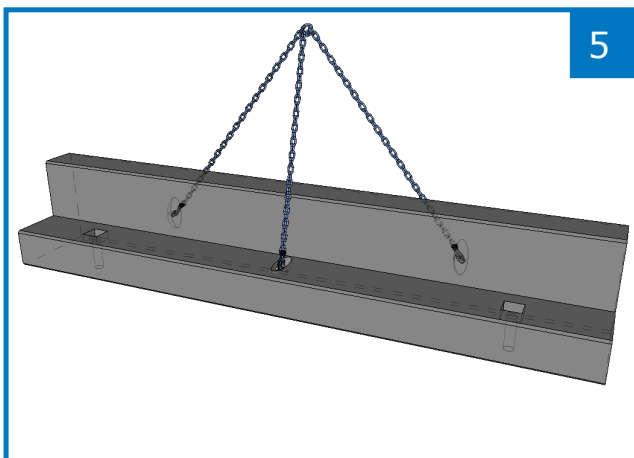
•Tread handling photo



•Lift beam at quarter points



•Beam handling photo

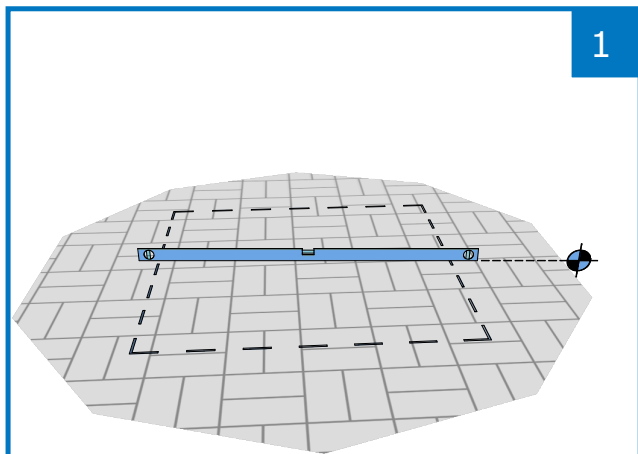


•Use lifting inserts and chains to lift abutment



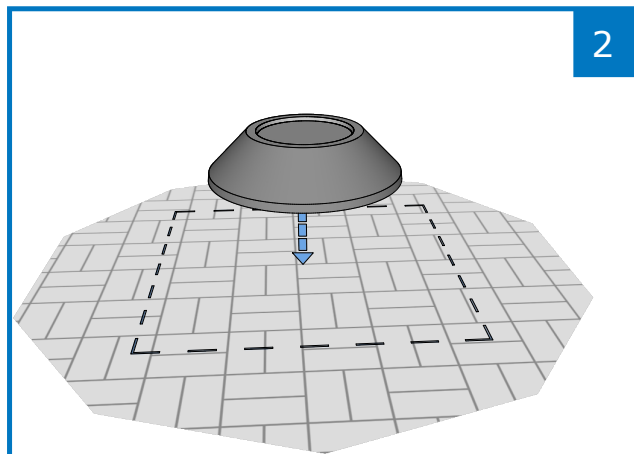
•Abutment handling photo

Setting Precast Foundations



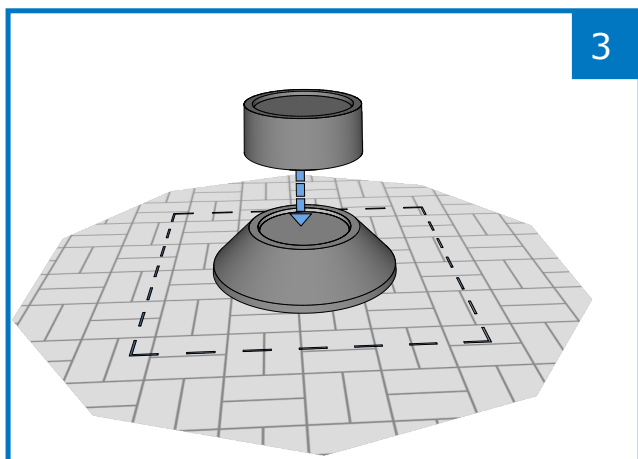
1

- Ensure subbase meets specifications per plans
- Level subbase



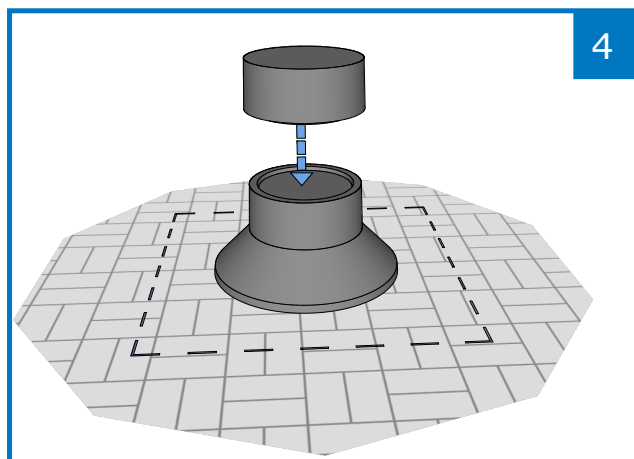
2

- Set precast pedestal base



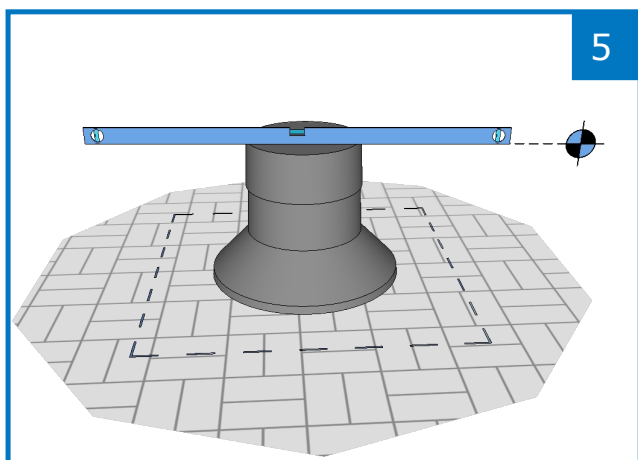
3

- Set precast riser on pedestal base



4

- Set precast cap on riser



5

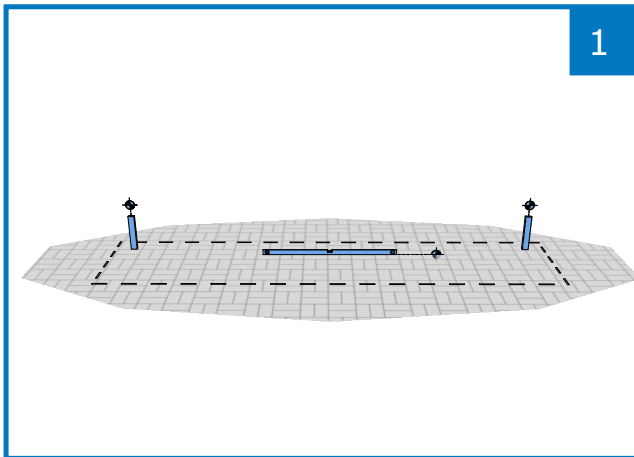
- Ensure precast cap is level



6

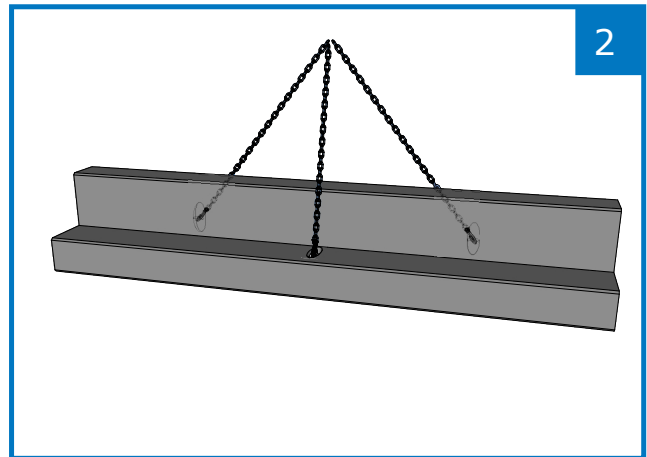
- Completed precast foundation installation

Setting Abutment on Grade



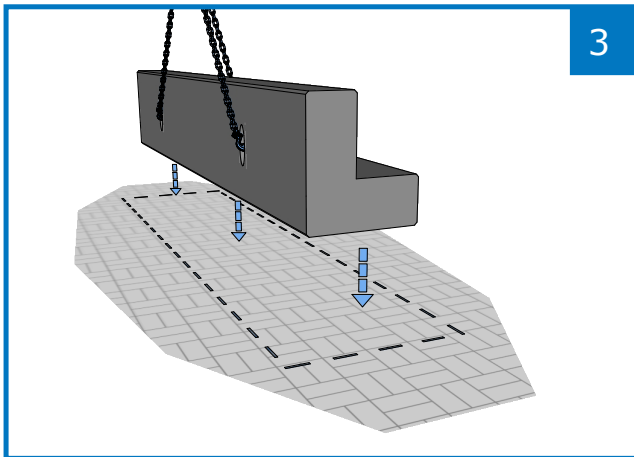
1

- Stake structure limits at corner points
- Ensure subbase meets specifications per plans
- Level subbase



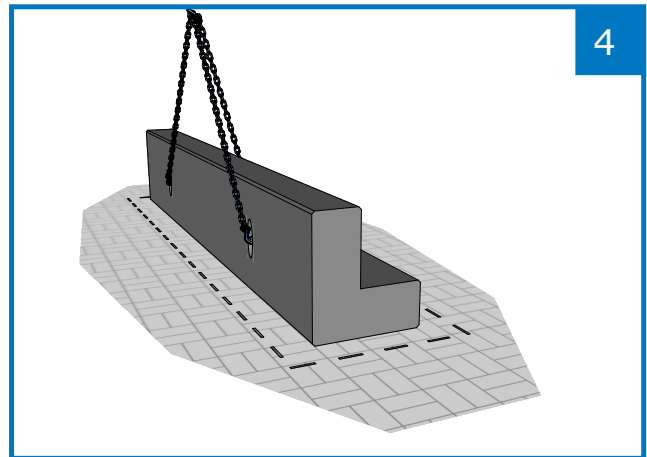
2

- Lift precast abutment



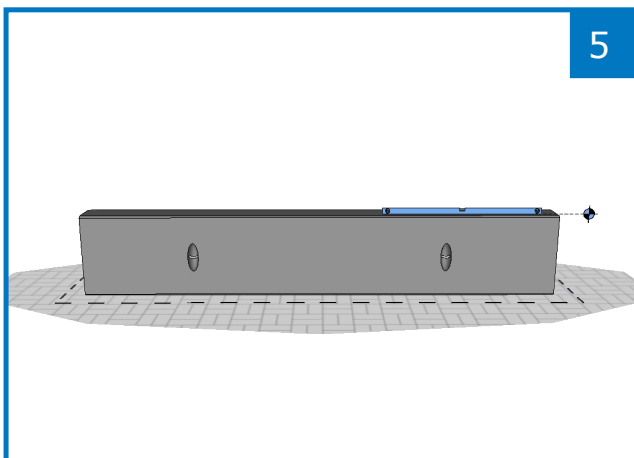
3

- Set precast abutment



4

- Ensure alignment of abutment



5

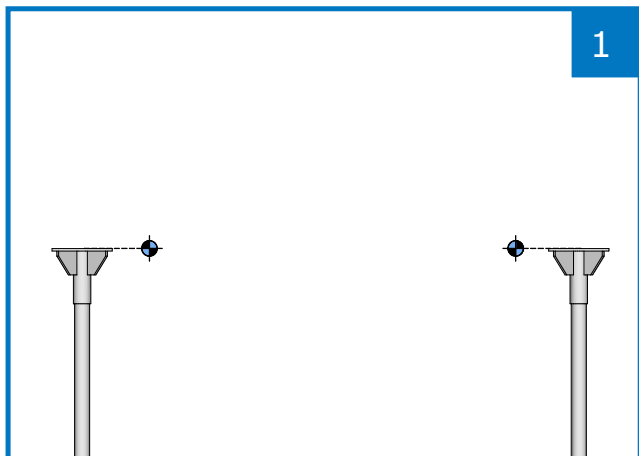
- Ensure precast abutment is level



6

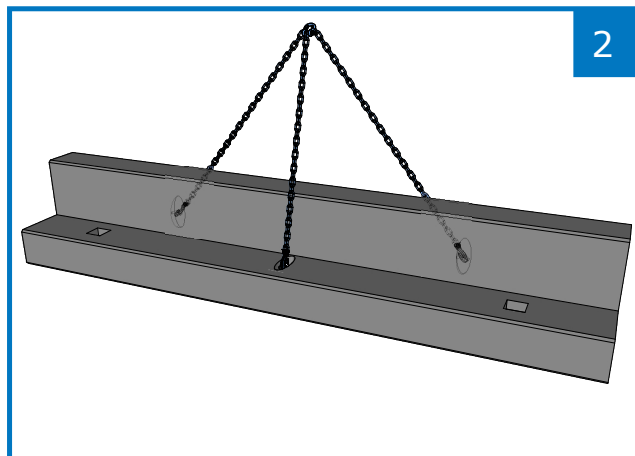
- Completed precast abutment

Setting Abutment on Helical Pier



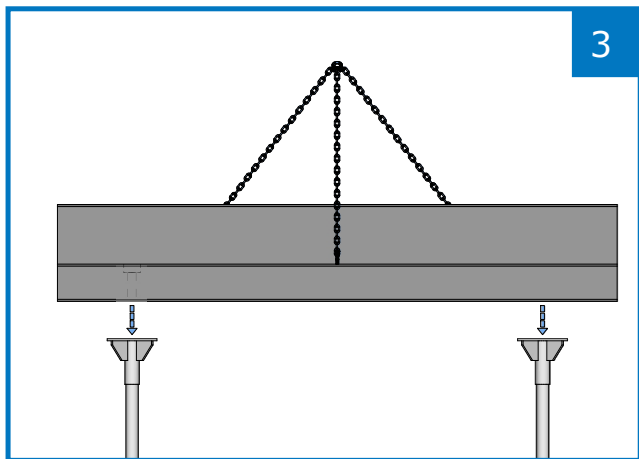
1

•Verify elevations and locations of helical piers



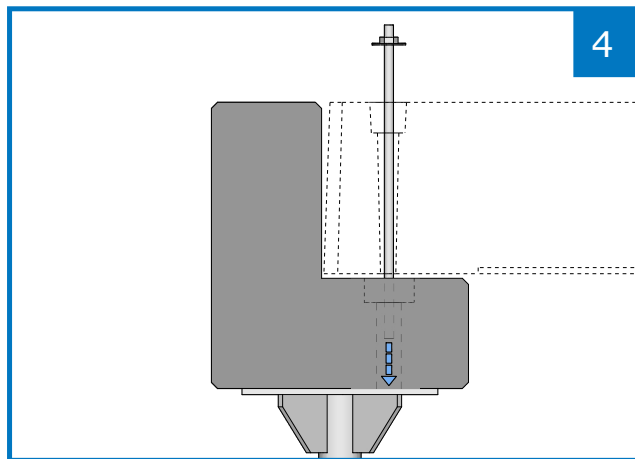
2

•Lift precast abutment



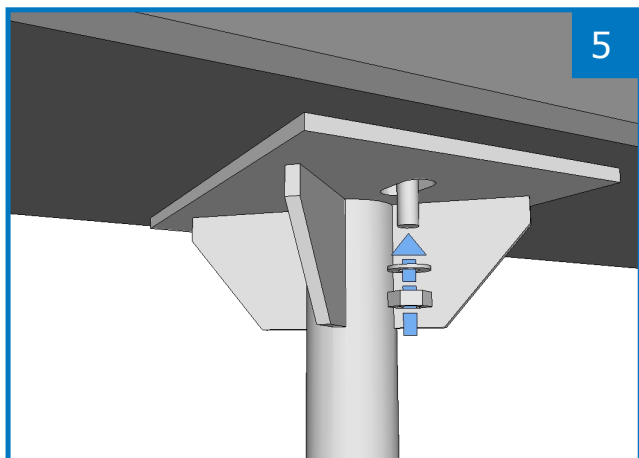
3

•Set precast abutment
•Align preformed holes in abutment to hole in plate



4

•Align preformed holes in beam to hole in abutment
•Set beam on abutment, place rod through holes



5

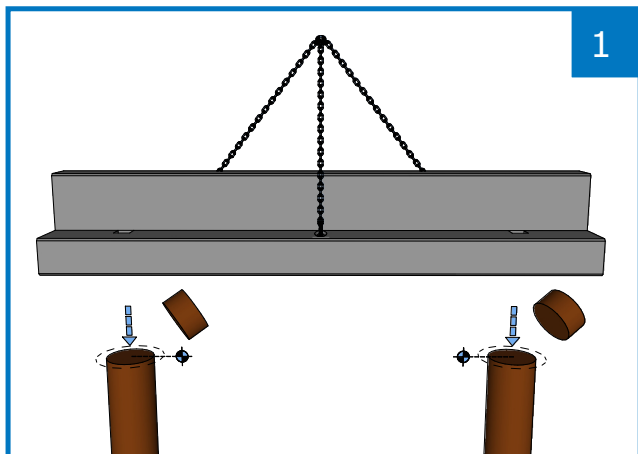
•Thread nut and washer on bottom of plate



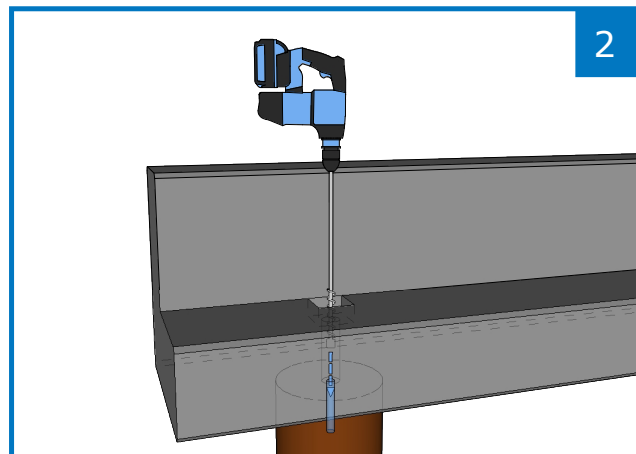
6

•Completed precast abutment on helical pier

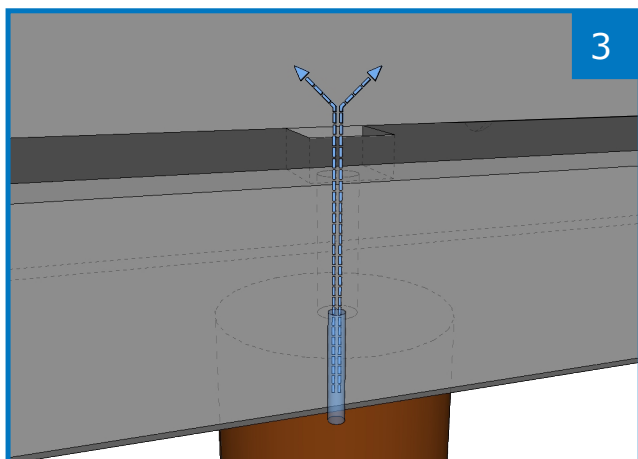
Setting Abutment on Timber Pile



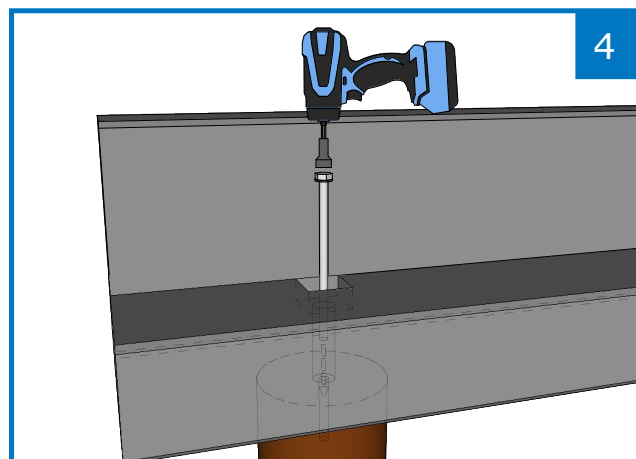
- Cut off pile
- Set precast abutment



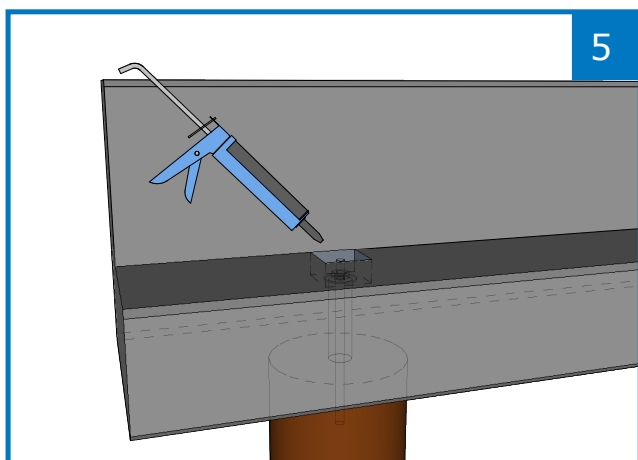
- Place drill bit through preformed hole
- Drill pilot hole in timber pile



- Clean out hole



- Install lagscrew

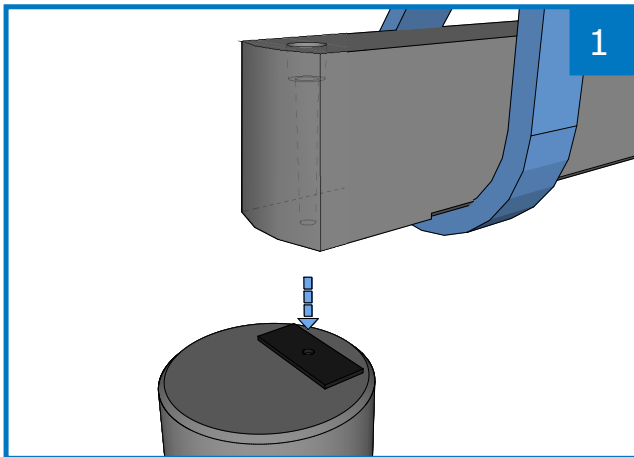


- Fill recess in top of cap with sealant

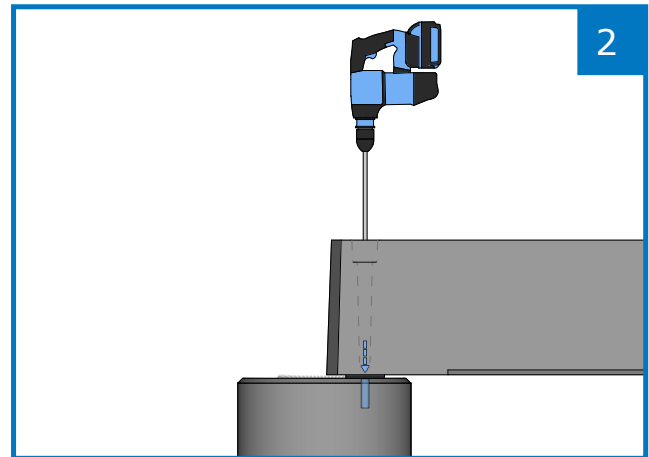


- Completed precast abutment on timber pile

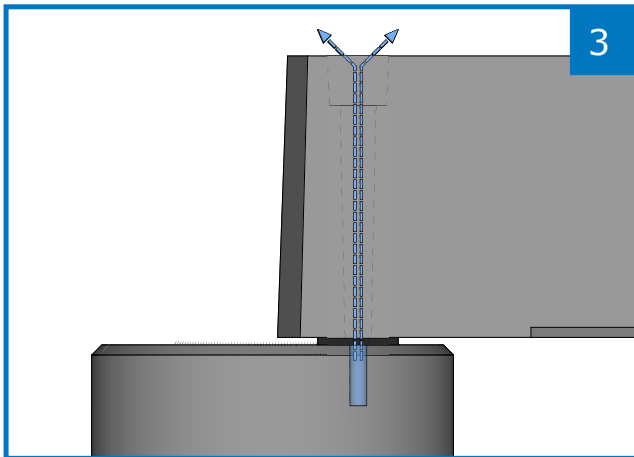
Beam to Cast-In-Place Concrete Foundation



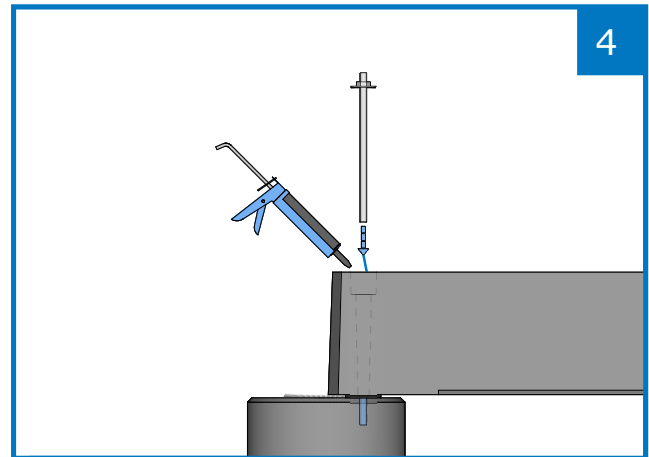
- Set elastomeric bearing pad
- Set beam in line with hole on pad



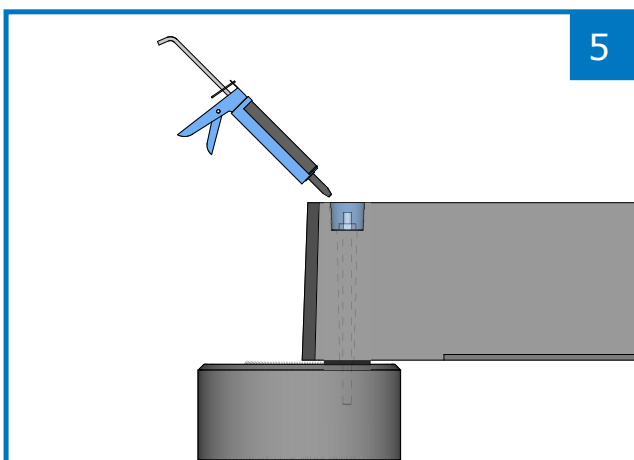
- Place drill bit through preformed hole
- Drill into foundation



- Clean out hole



- Fill hole in cap with epoxy
- Install threaded rod

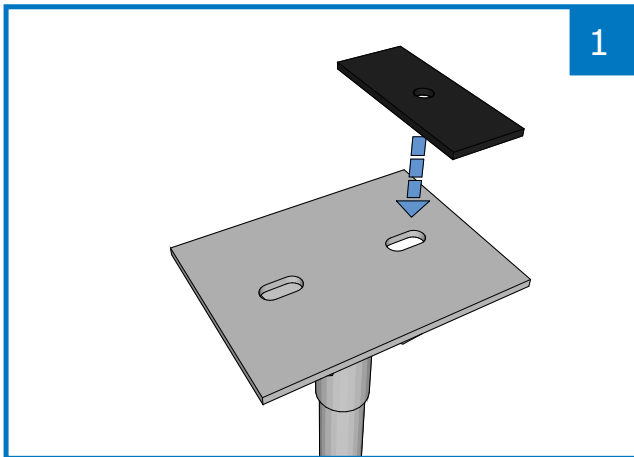


- Fill recess in top of beam with sealant

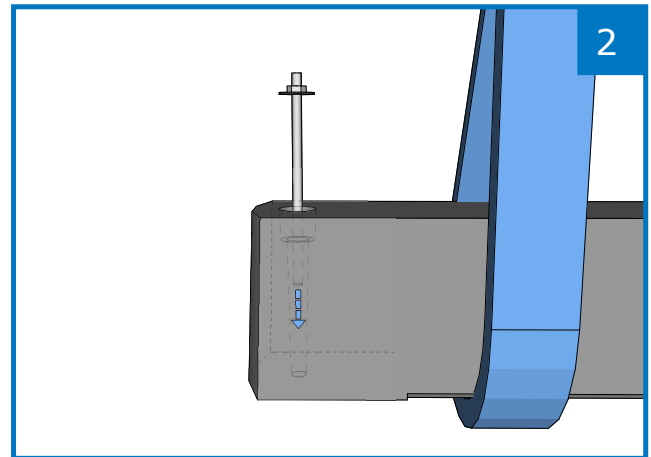


- Completed beam to C.I.P. foundation connection

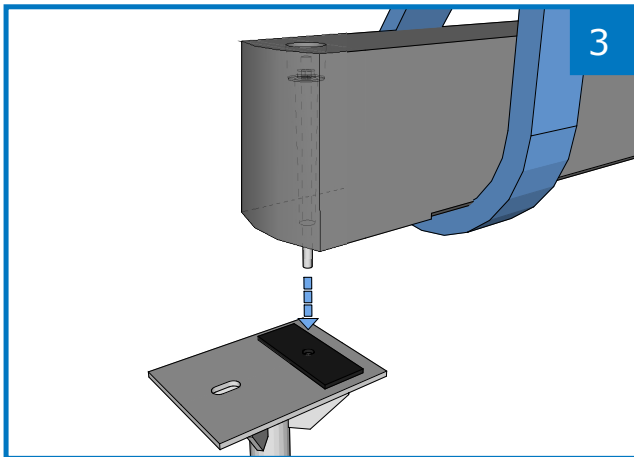
Beam to Helical Pile



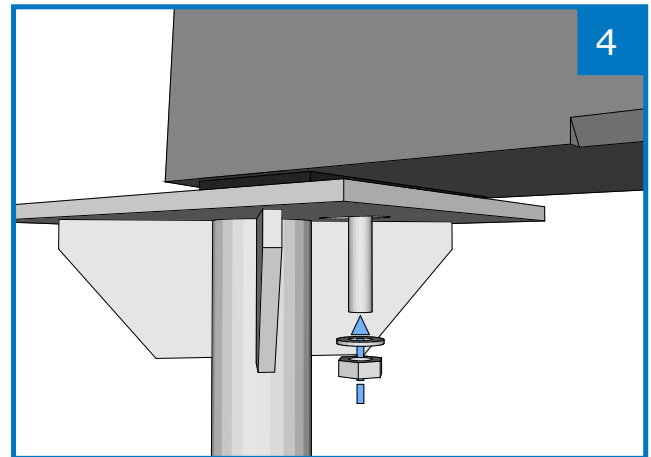
•Set elastomeric bearing pad



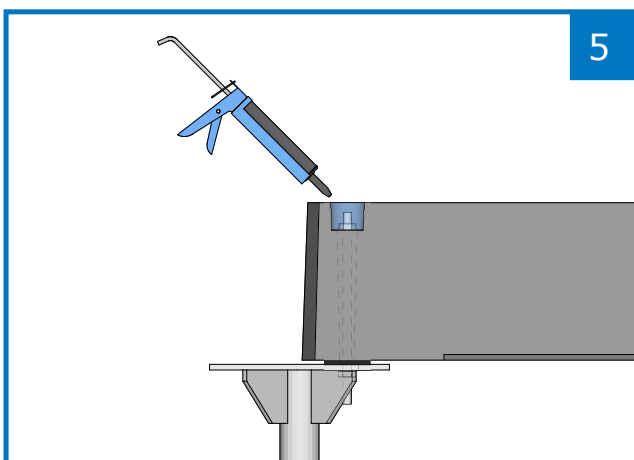
•Place threaded rod through preformed hole



•Set beam in line with hole in pad



•Thread nut and washer on bottom of plate

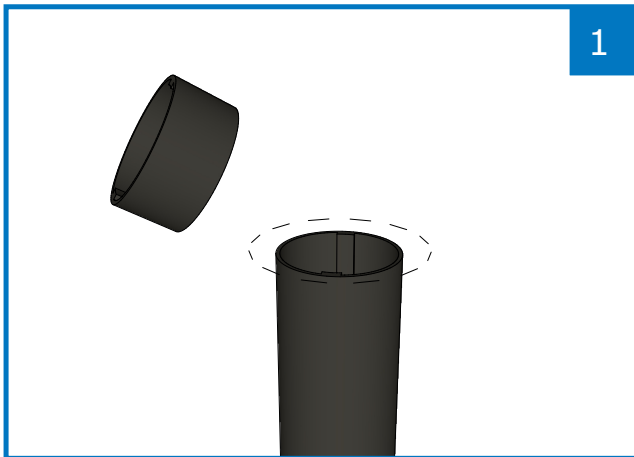


•Fill recess above top of bolt with sealant



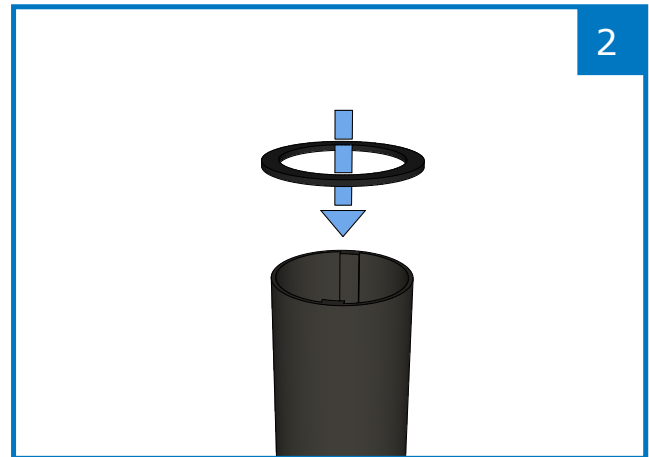
•Completed beam to helical pile connection

Beam to Composite Pile Cap



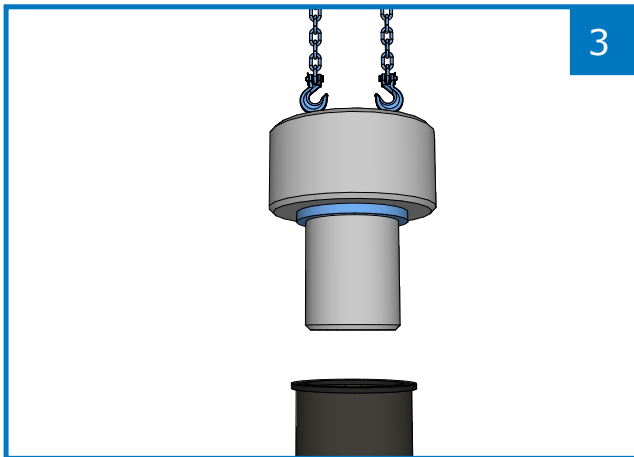
1

•Cut off pile



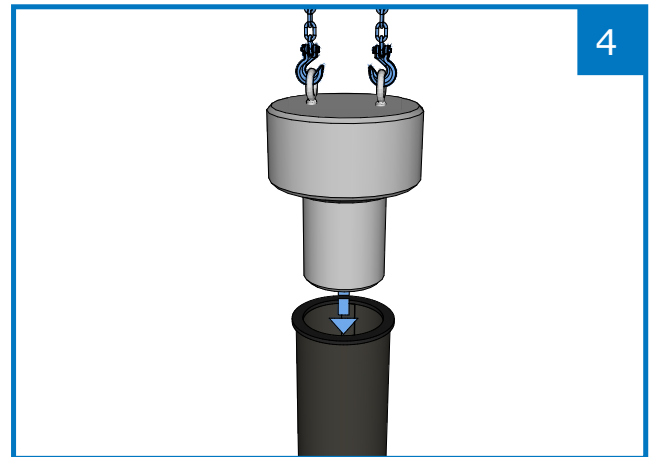
2

•Set rubber gasket on pile



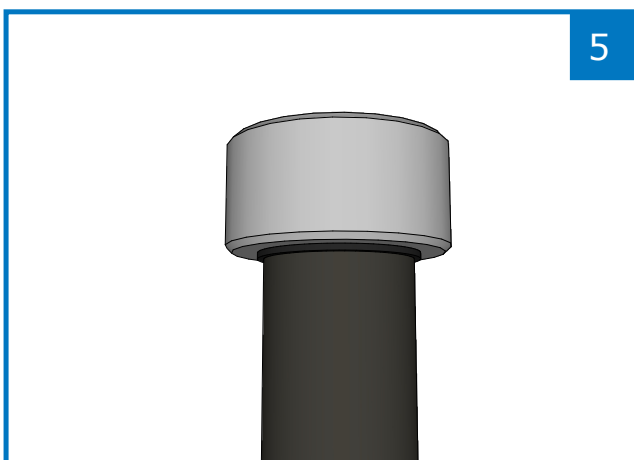
3

•Apply butyl rubber sealant around pile cap



4

•Set cap on pile using lifting inserts



5

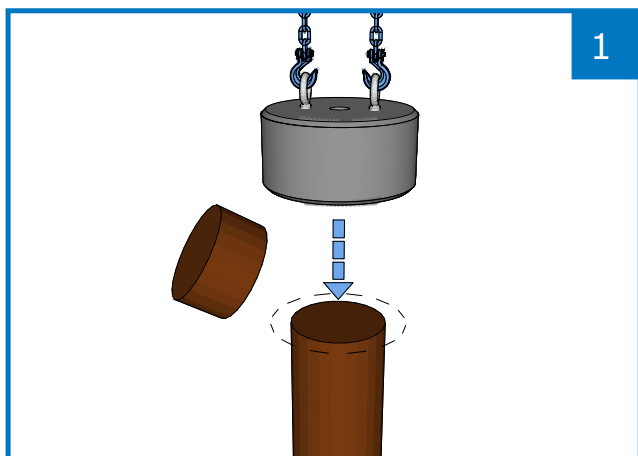
•Completed cap to pile connection



6

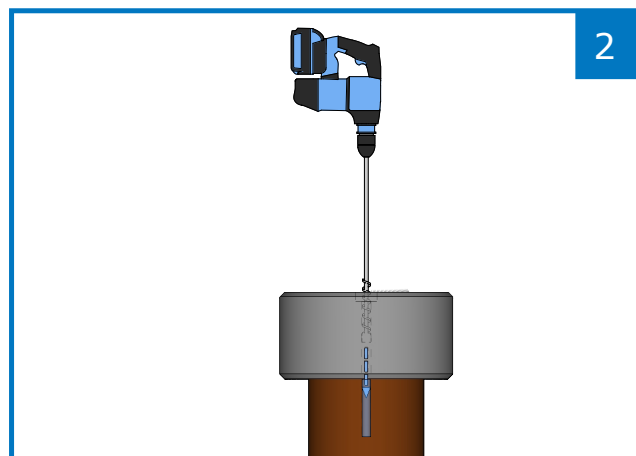
•Completed cap to pile connection

Cap to Timber Pile



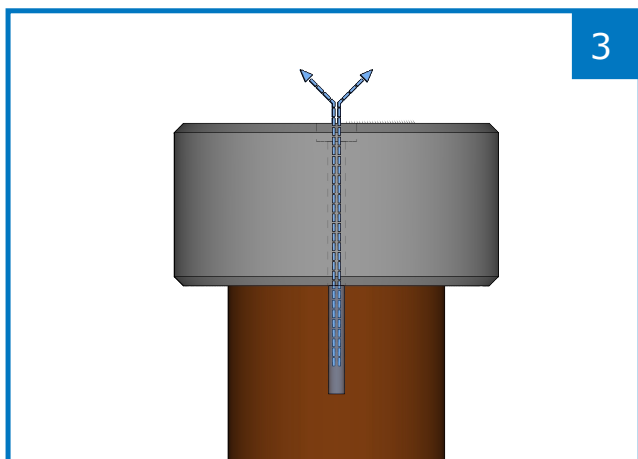
1

- Cut off pile
- Set cap on pile using lifting inserts



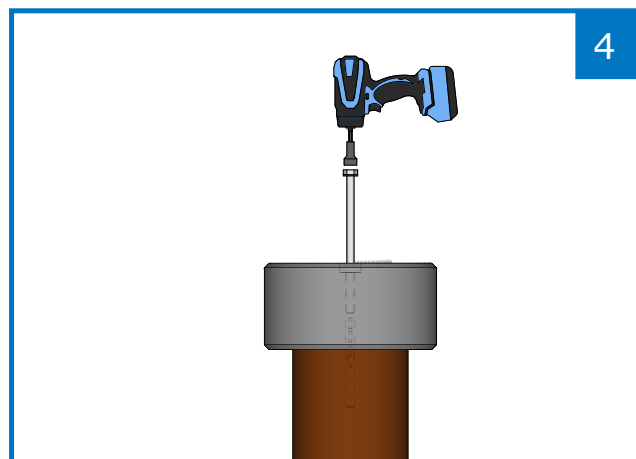
2

- Place drill bit through preformed hole
- Drill pilot hole in timber pile



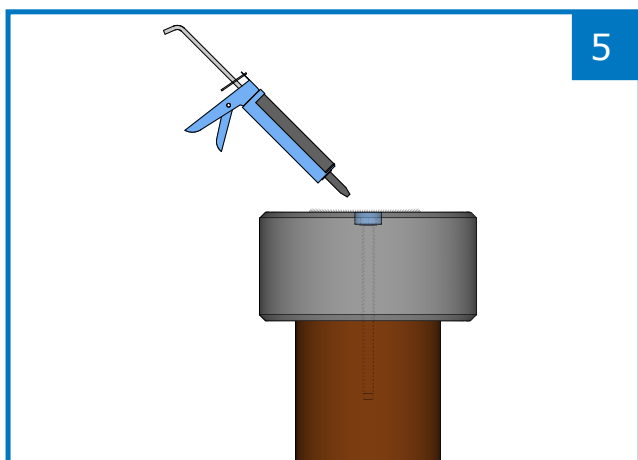
3

- Clean out hole



4

- Install lagscrew



5

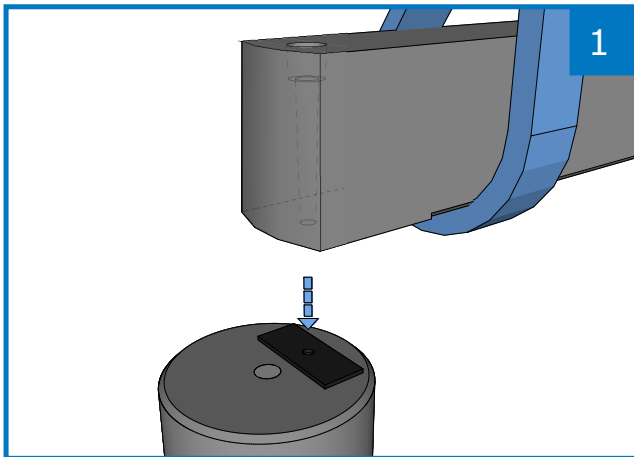
- Fill recess in top of cap with sealant



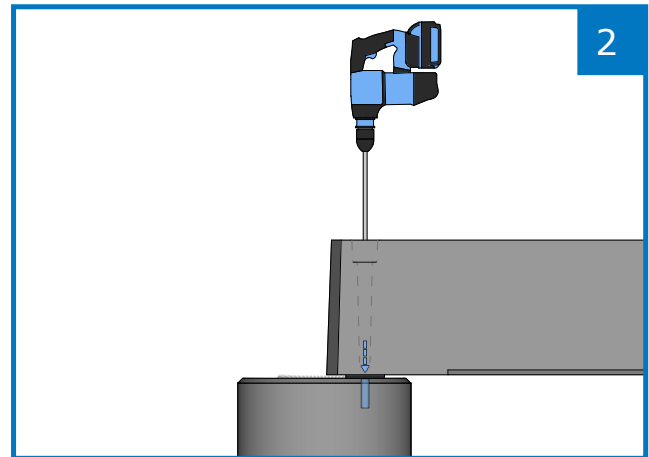
6

- Completed cap to pile connection

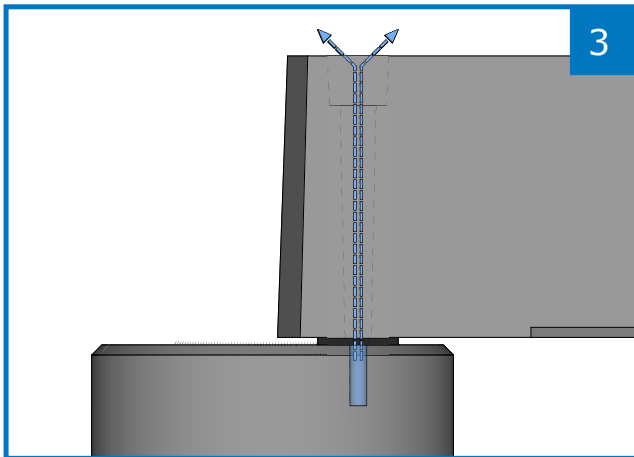
Beam to Timber Pile Cap



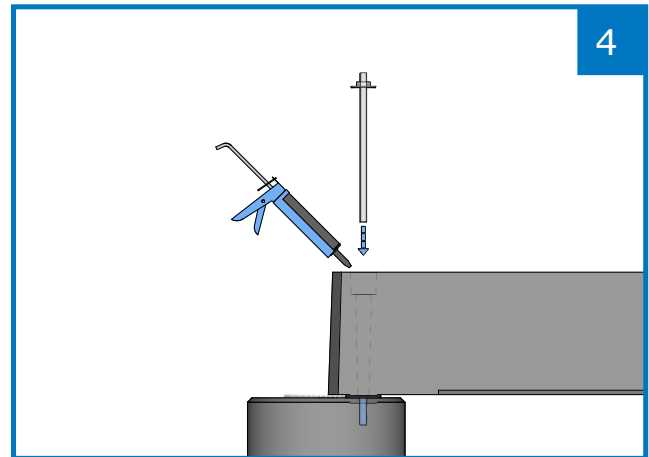
- Set elastomeric bearing pad
- Set beam in line with hole on pad



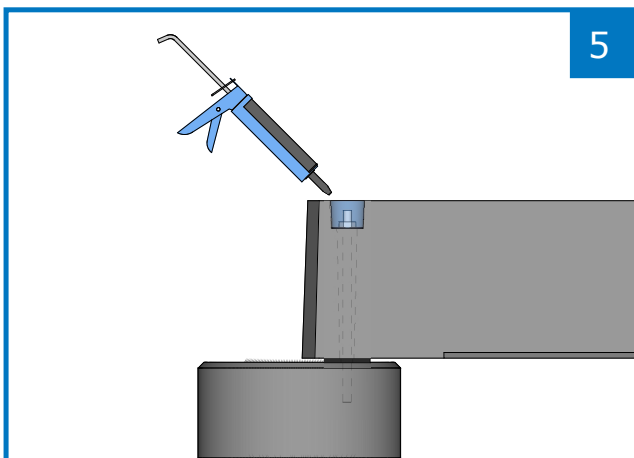
- Place drill bit through preformed hole
- Drill into cap



- Clean out hole



- Fill hole in cap with epoxy
- Install threaded rod

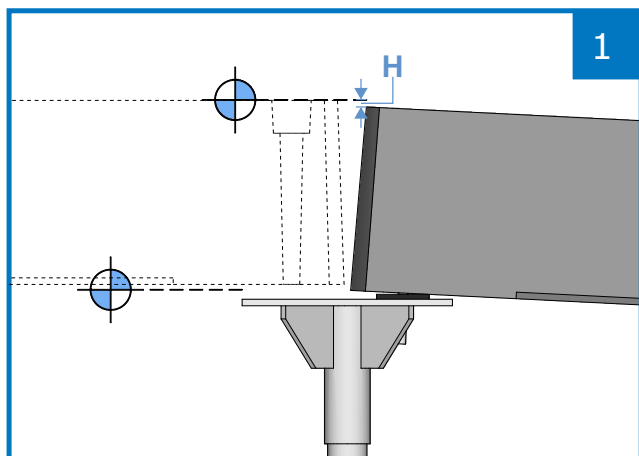


- Fill recess in top of beam with sealant

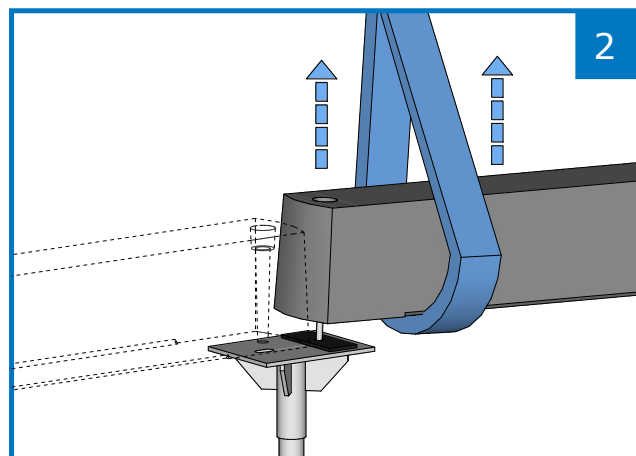


- Completed beam to cap connection

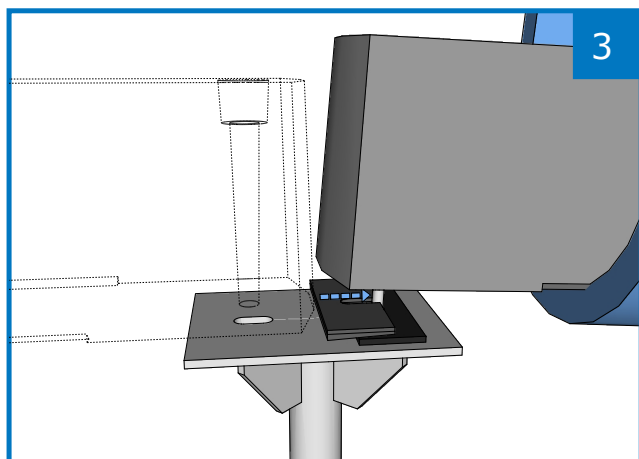
Shimming Beam



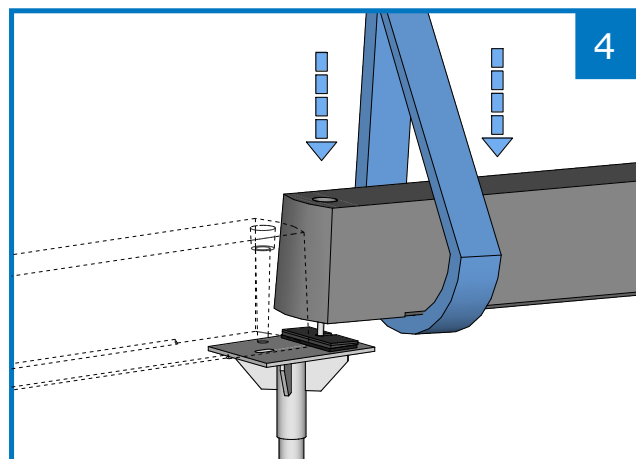
- Determine height (H) of shims needed



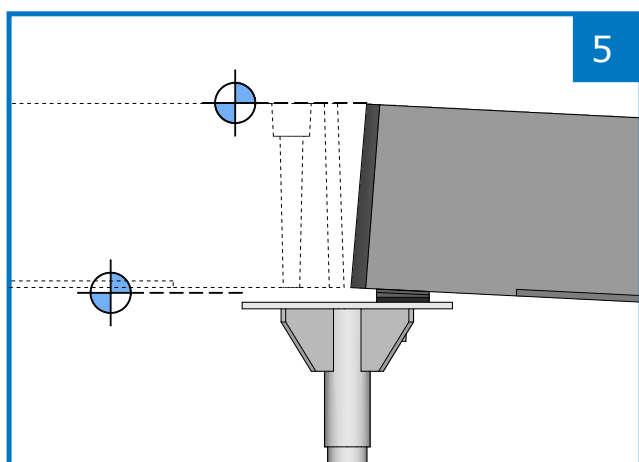
- Lift beam



- Insert shims as needed
- Metal and wood shims are not permitted



- Reset beam

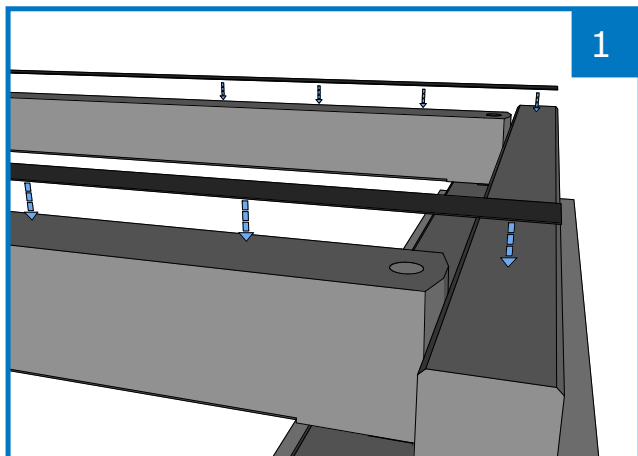


- Verify elevation
- Repeat shimming process as needed

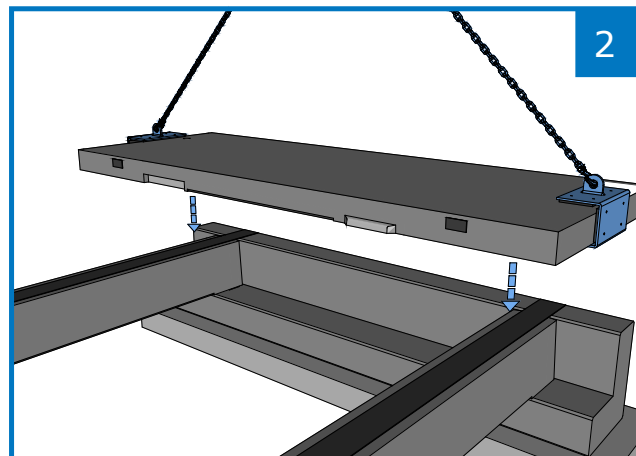


- Completed beam shimming

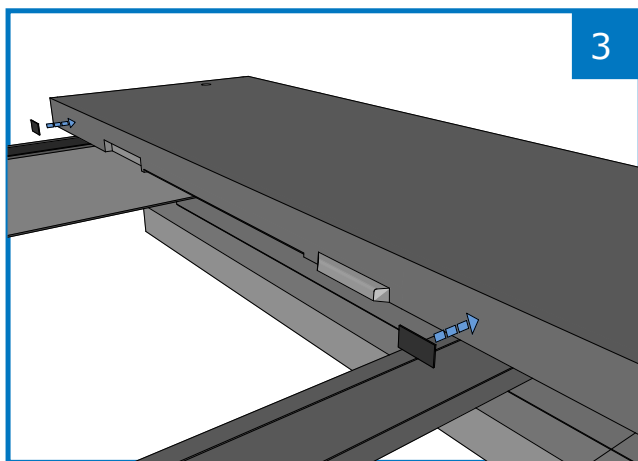
Setting Treads



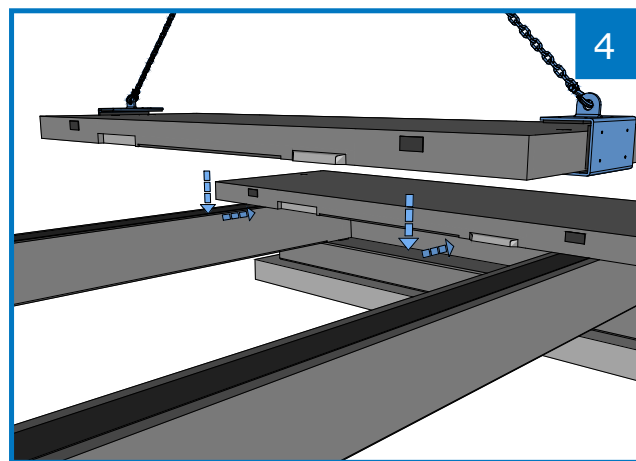
- Place rubber leveling pad on beam



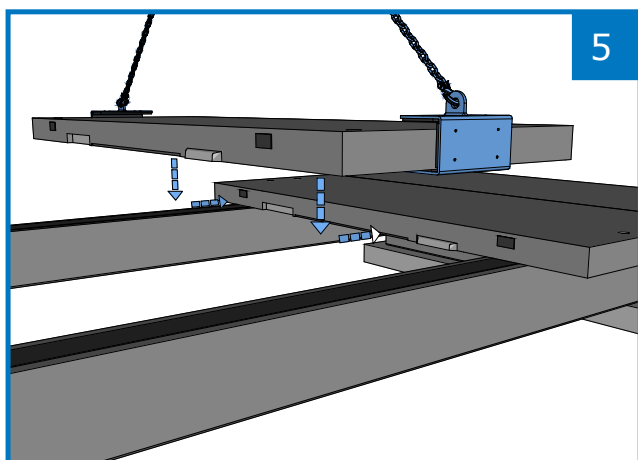
- Set tread



- Place adhesive spacer pads on treads



- Set next tread

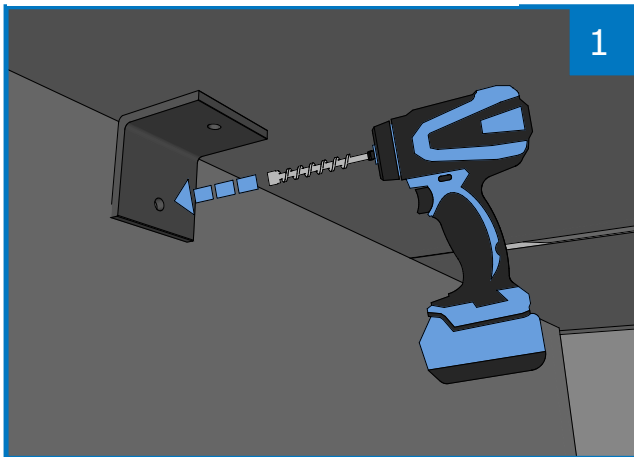


- Continue setting treads
- Check alignment at the end of each span

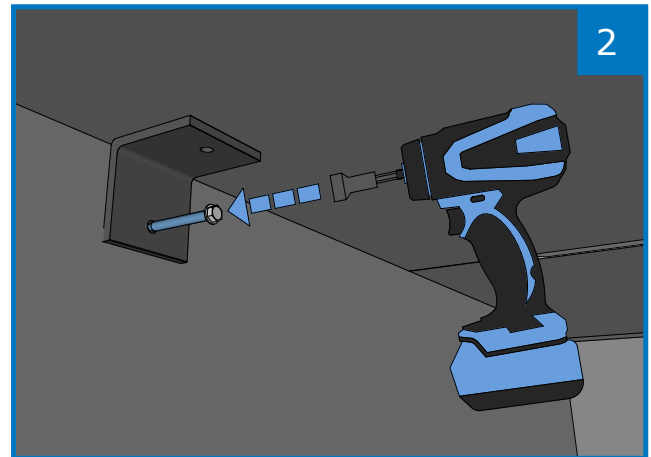


- Completed setting of treads

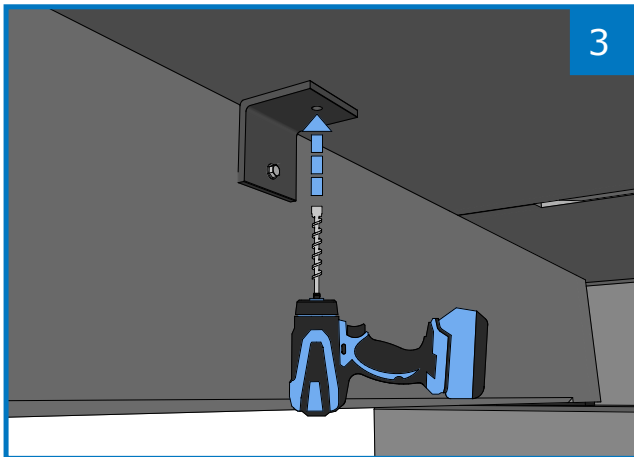
Tread to Beam Clip Angle Connection



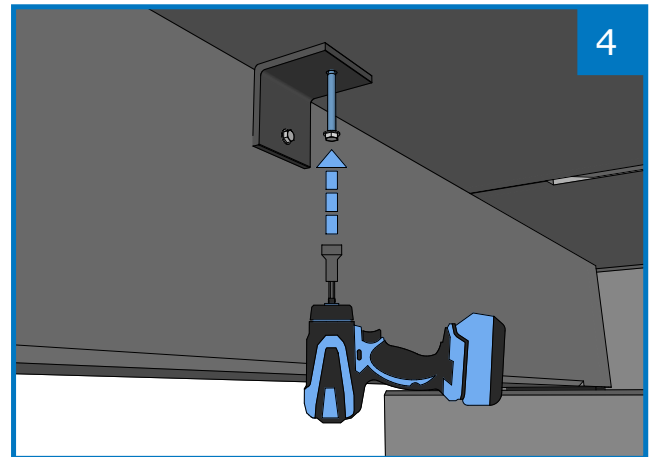
•Drill through hole in clip angle into side of beam



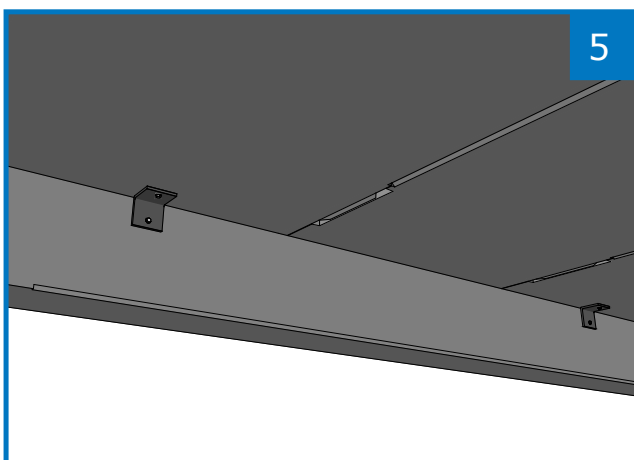
•Install bolt through clip angle hole



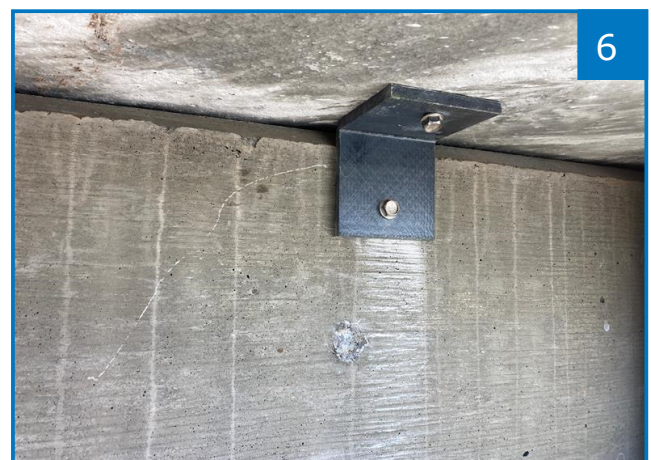
•Drill through hole in clip angle into tread



•Install bolt through clip angle hole

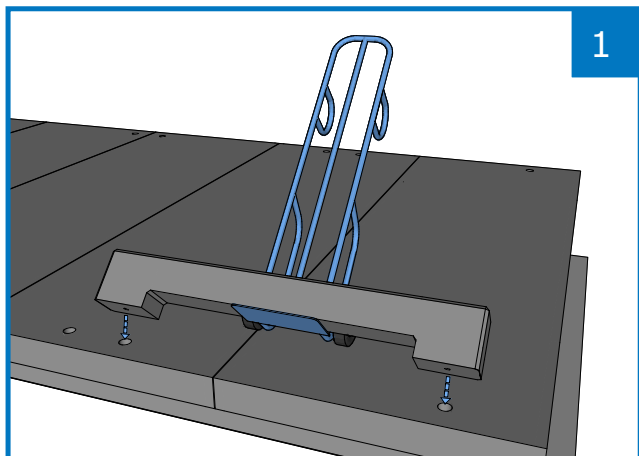


•Ensure both bolts are secured

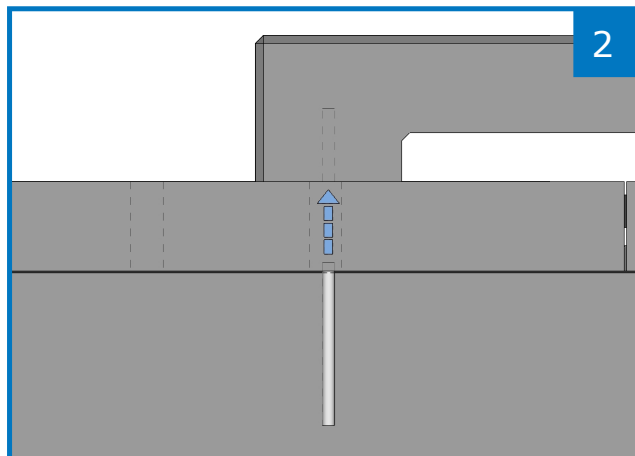


•Completed tread to beam clip angle connection

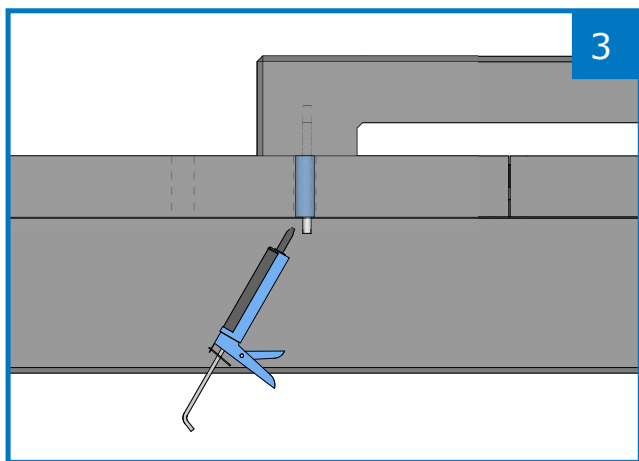
Curb To Tread



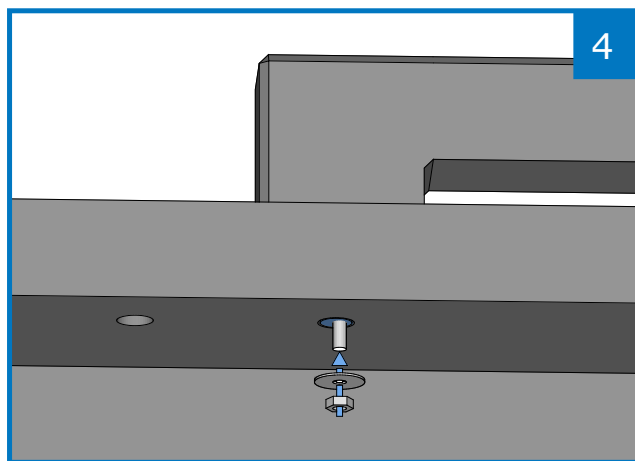
•Set curb in line with preformed holes



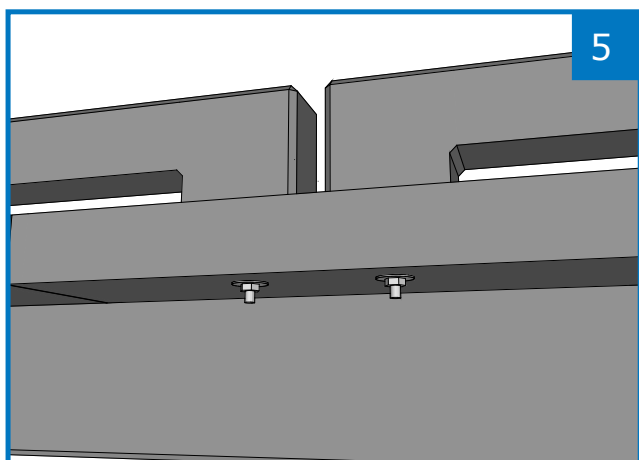
•Thread rod into insert in curb



•Fill preformed hole void with Sikaflex 11 FC



•Place oversized washer and nut on rod

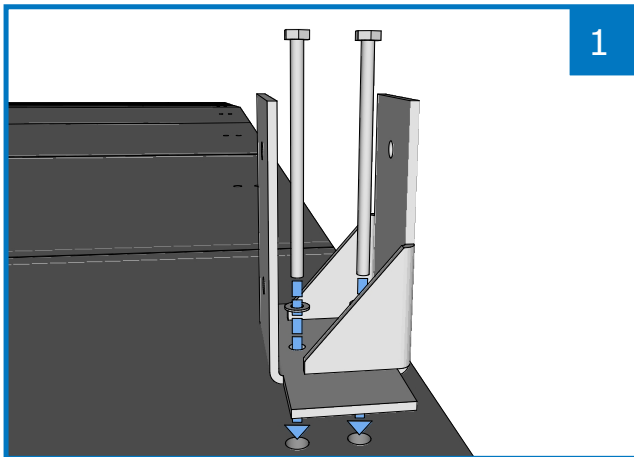


•Tighten nut and add sikaflex in void if needed

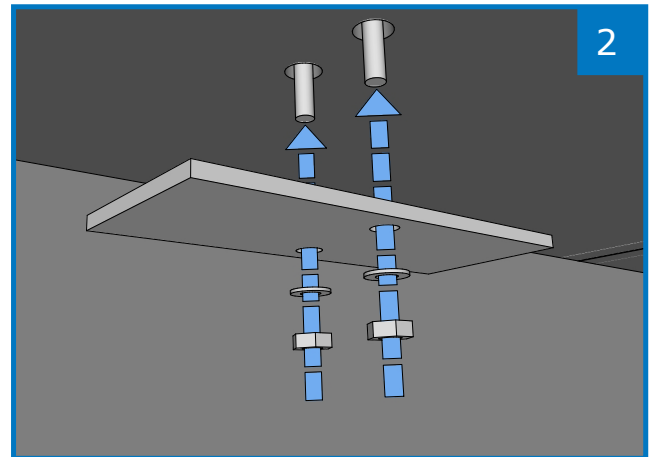


•Completed curb to tread connection

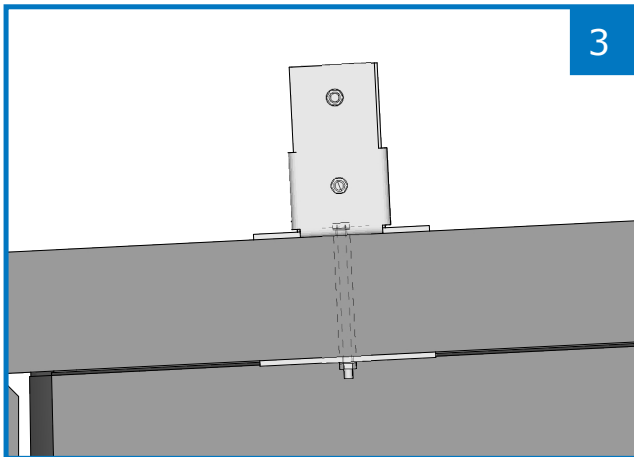
Bracket to Tread & Post Connection



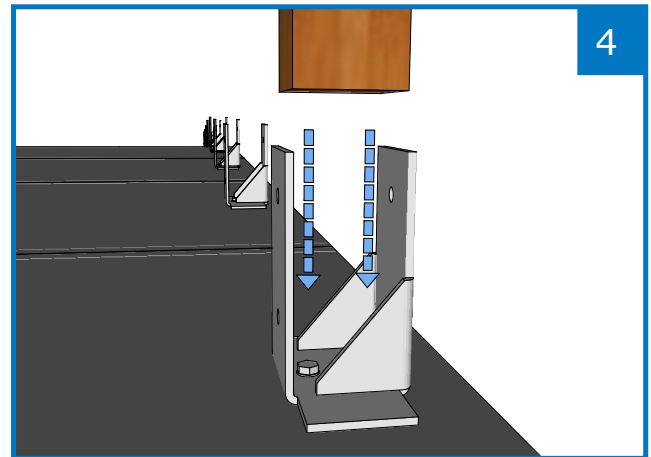
- Set bracket in line with preformed holes
- Place bolts through holes in bracket and tread



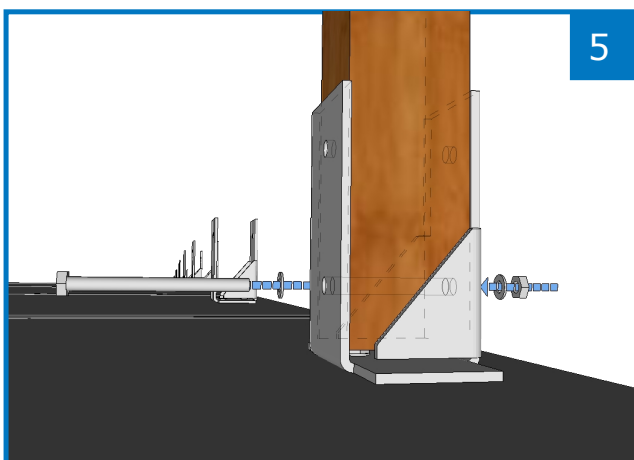
- Secure through bolts with nuts and washers



- Completed bracket to tread connection



- Set timber post in bracket



- Drill horizontal holes in post for bracket connection
- Place bolts through holes
- Secure with nuts and washers



- Completed timber post to bracket connection

Patching

Materials Needed:

- Chisel
- Trowel
- Water
- Patch material provided by PermaTrak
- Weld-Crete (blue label) or equivalent

*Note – It is recommended that a small hidden area be tested first before proceeding with patching the designated area. This compound shall be used in conjunction with other components for an approved patch repair. Bonding agent, water and tools are NOT included with the color and texture materials. The patch design shall be tested with one-part cement (add two parts sand for larger spalls) and pigment. Make three samples per mixing procedure.

Mixing Procedure:

The patch design shall be tested with one-part cement (add two parts sand for larger spalls) and pigment. Make three samples:

Sample 1: ¼ teaspoon of pigment

Sample 2: ½ teaspoon of pigment

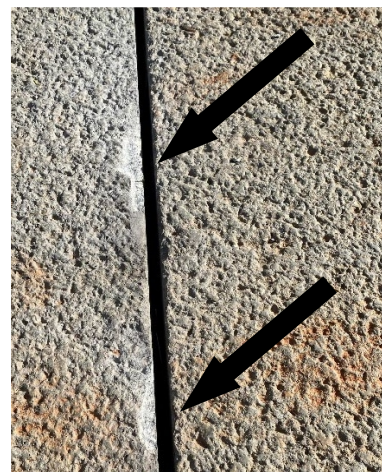
Sample 3: ¾ teaspoon of pigment

Mix thoroughly then add water until it reaches the desired consistency. Add to hidden area, then wait until it is fully dry to choose the best patch design for your PermaTrak boardwalk.

Patching Procedure:



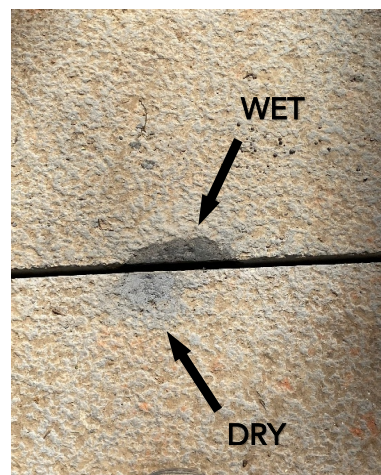
- PermaTrak patching kit
- Delivered to site



- Chisel out loose concrete
- Clean debris way from patch area
- Add Weld-Crete to area



- Use best sample, patch spall
- Allow to set for 15-20 minutes
- Apply liner piece to spalled area



- Completed patch