



***Silca System® Taking Outdoor
Living to New Heights!***

Manufacturer's Recommendations – Installation Guide

- Always remember to use appropriate safety gear.
- Remove all flooring, timber or composite decking etc. from existing deck. (Renovation of existing deck)
- CAUTION: Have a qualified person inspect all footings, piles, bearers and joists for compliance to the relevant local building code.
- CAUTION: Make sure the stringer is bolted securely through a corresponding structural member on the house.
- Check joists are at 400mm centres and are **dead flat**, check with a straightedge and adjust accordingly.

Materials

- For materials you will need 65mm -75mm deck screws with a countersunk head.
- Make sure they are coated deck screws to prevent rust in the treated deck frame.
- If you choose to do an installation using paver sand you will also need landscape fabric and paver jointing sand (polymeric sand)

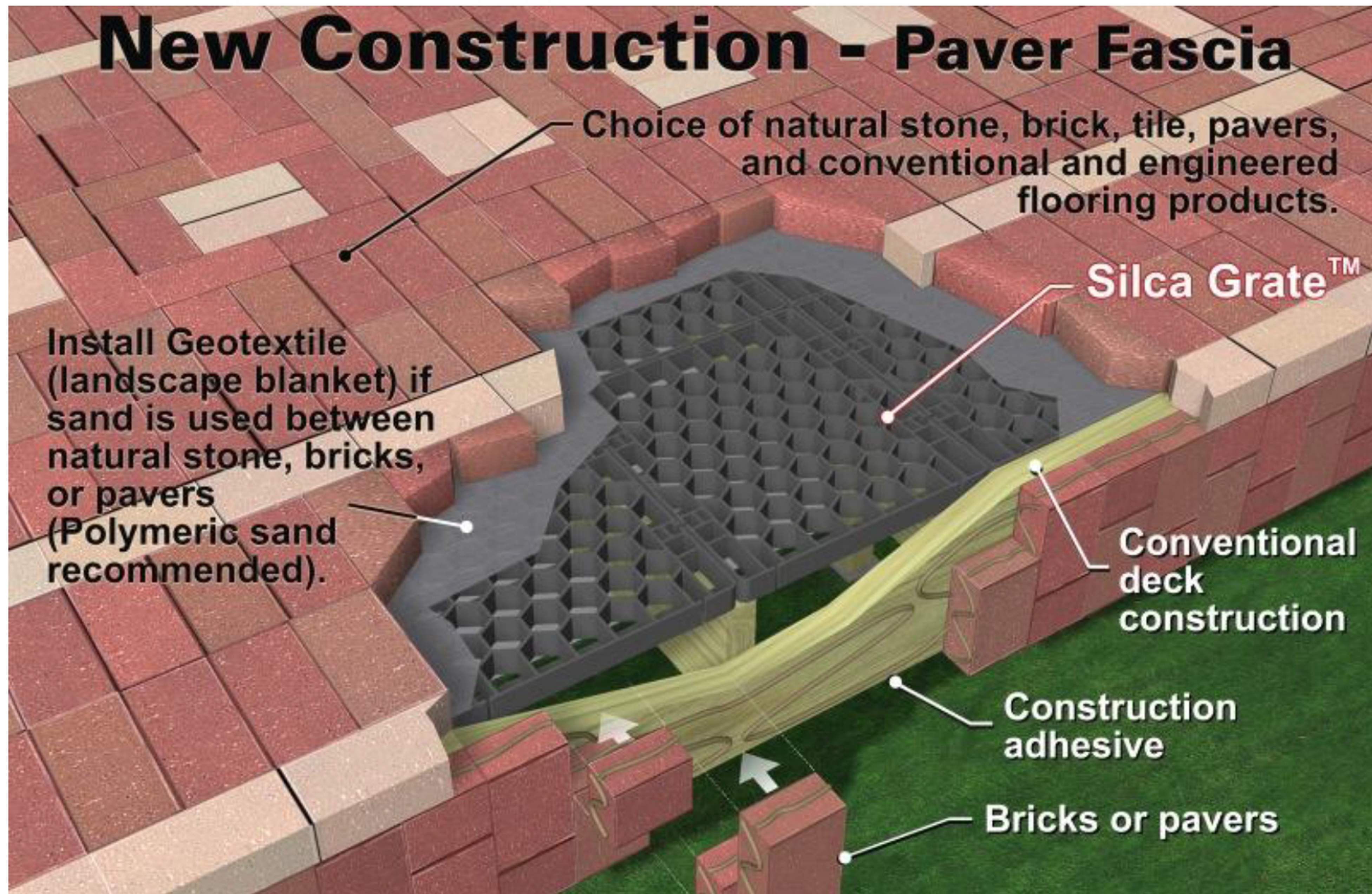


Tools

- For tools you'll need all the typical tools that you would need building any deck.
- Level, measuring tape, pencil, string line etc.
- You will also need a drill or power screw driver and a circular saw or table saw.

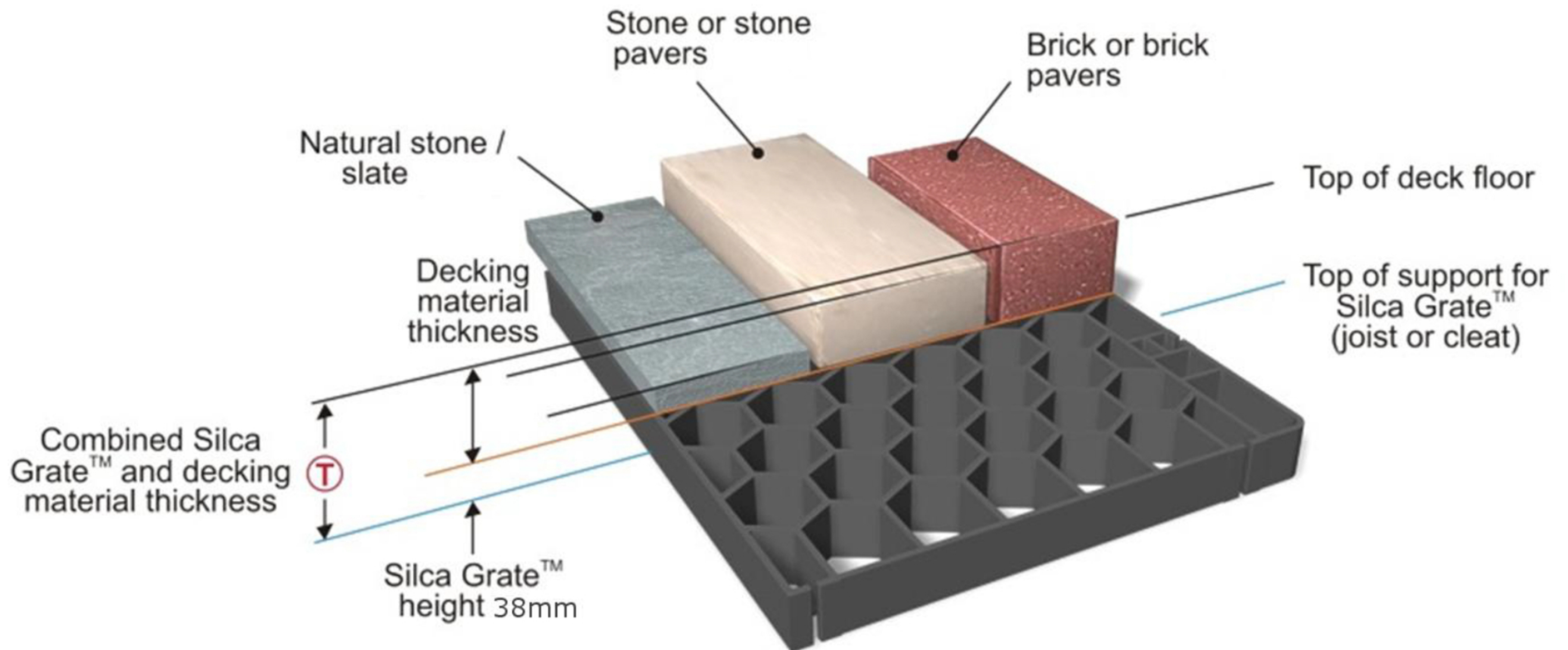


Instructions for Adding SilcaGrate to a New Deck Construction

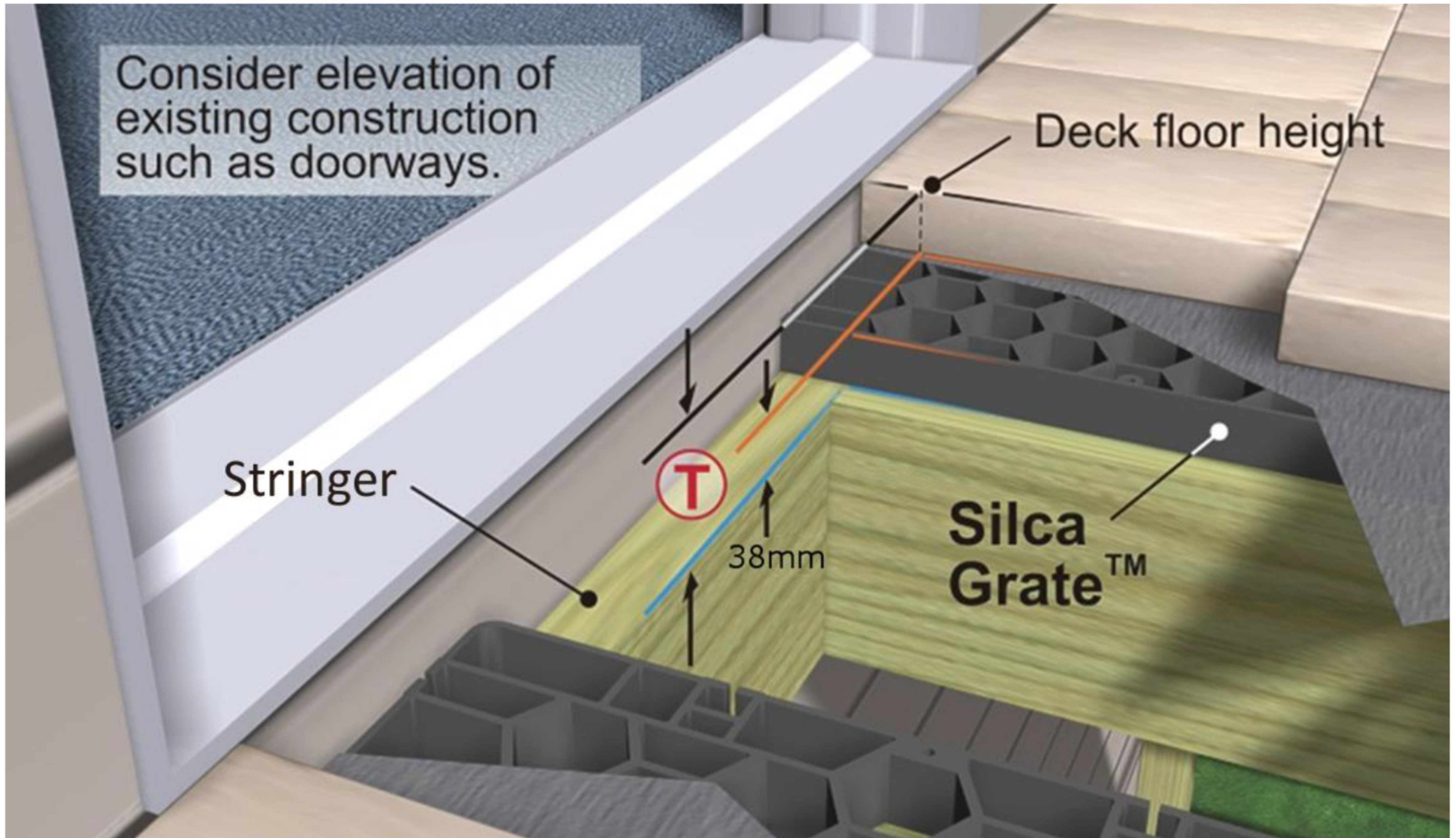


Preparation

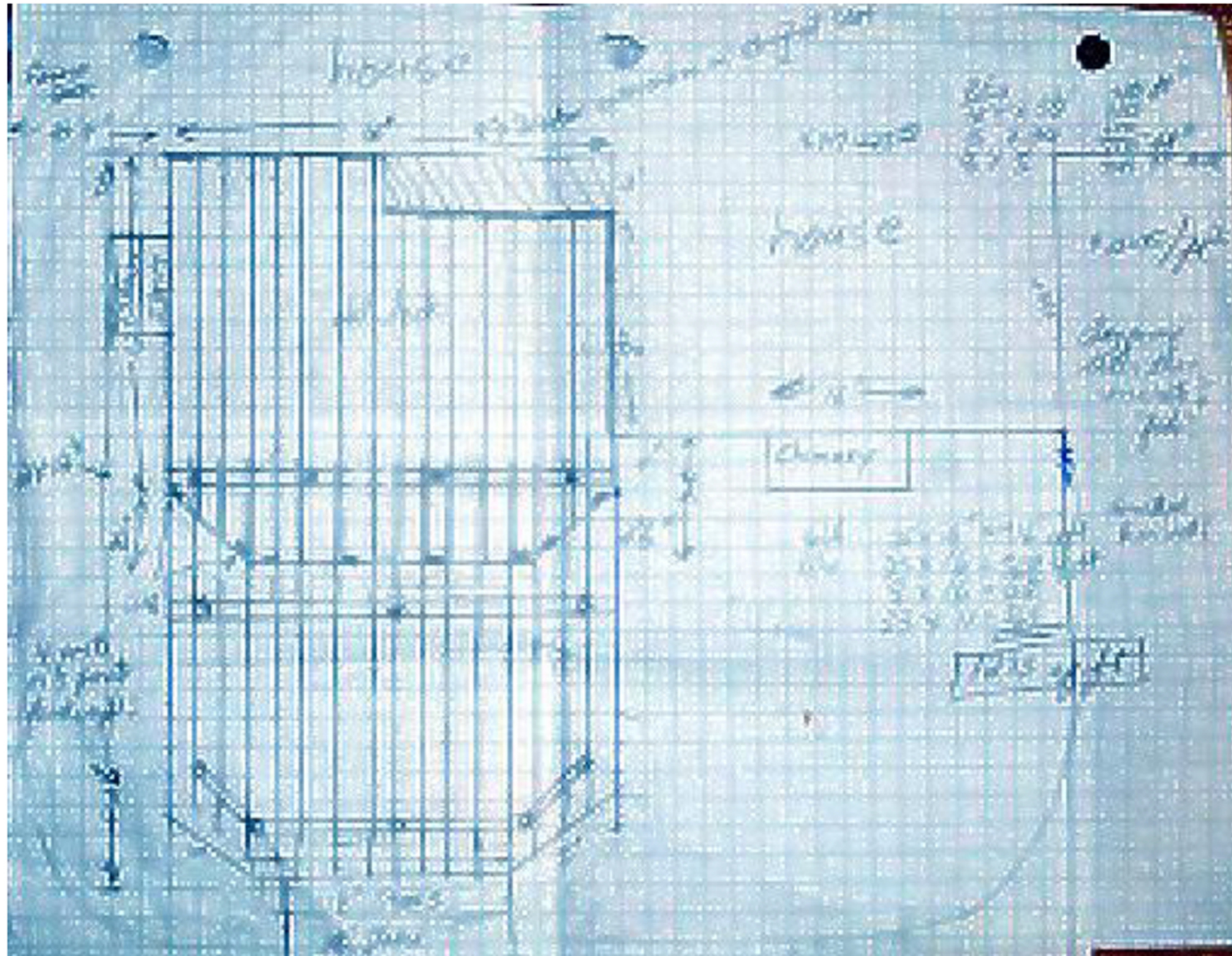
- Establish finished paving level.
- Ensure the paving you select is suitable, of the same or similar thickness (we recommend over 14mm) and the underside is flat or consistent to prevent rocking.
- Subtract thickness of paving material then subtract 38mm for SilcaGrate thickness. This will determine the top of the joist level



- Establish finished paving level.
- Allow for existing constraints such as doorway thresholds, to comply with local building code

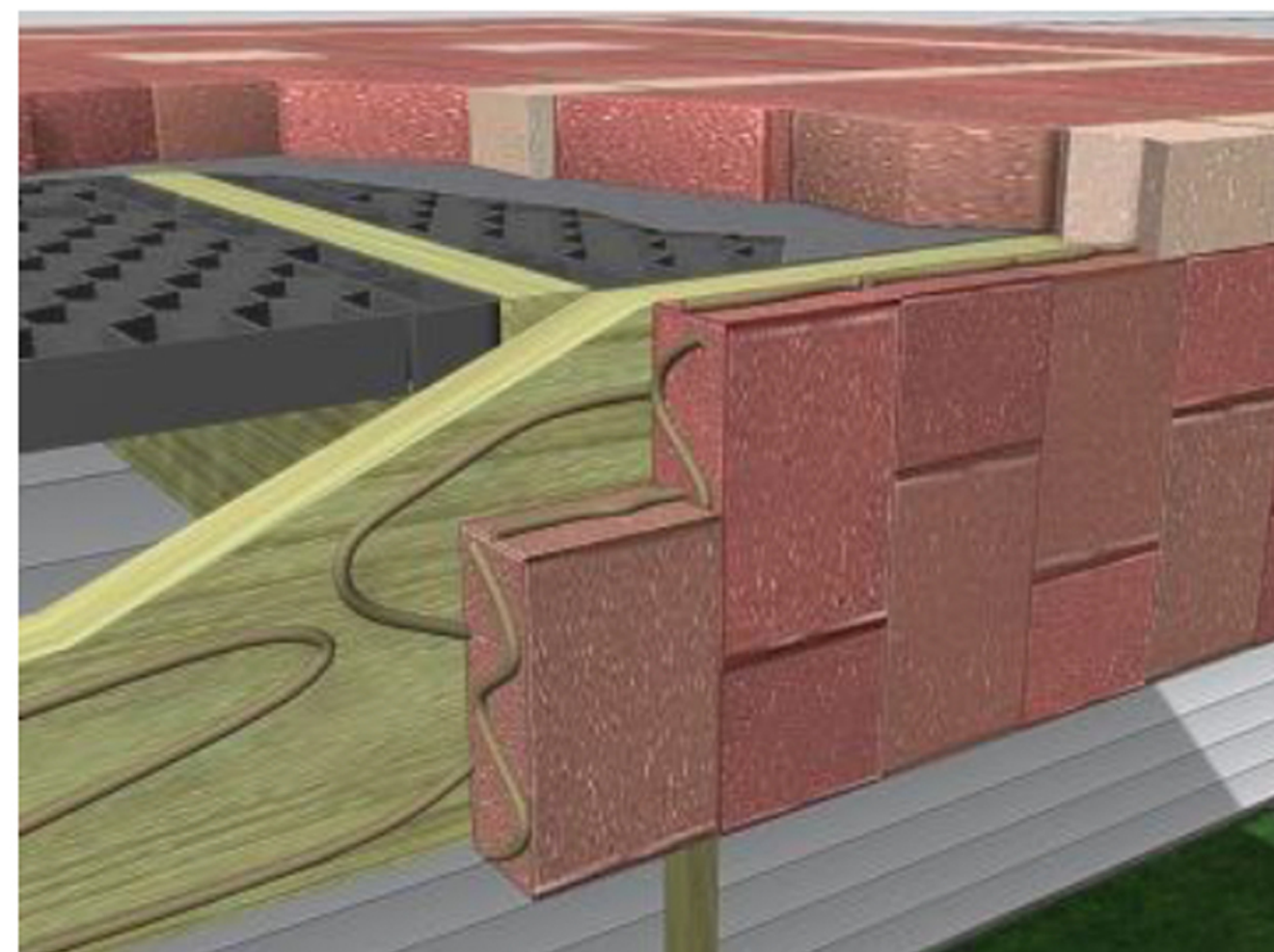
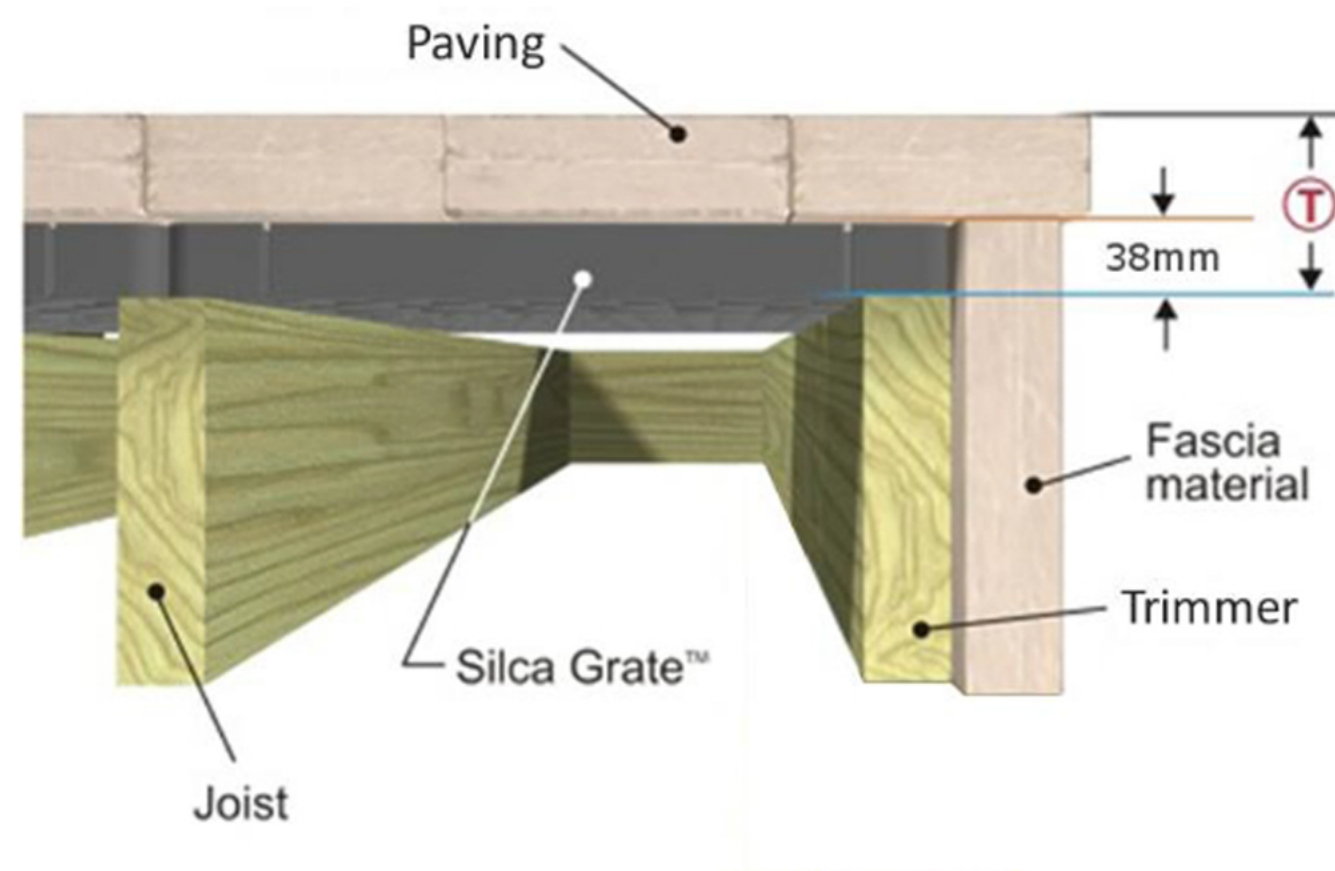


- ## New Construction



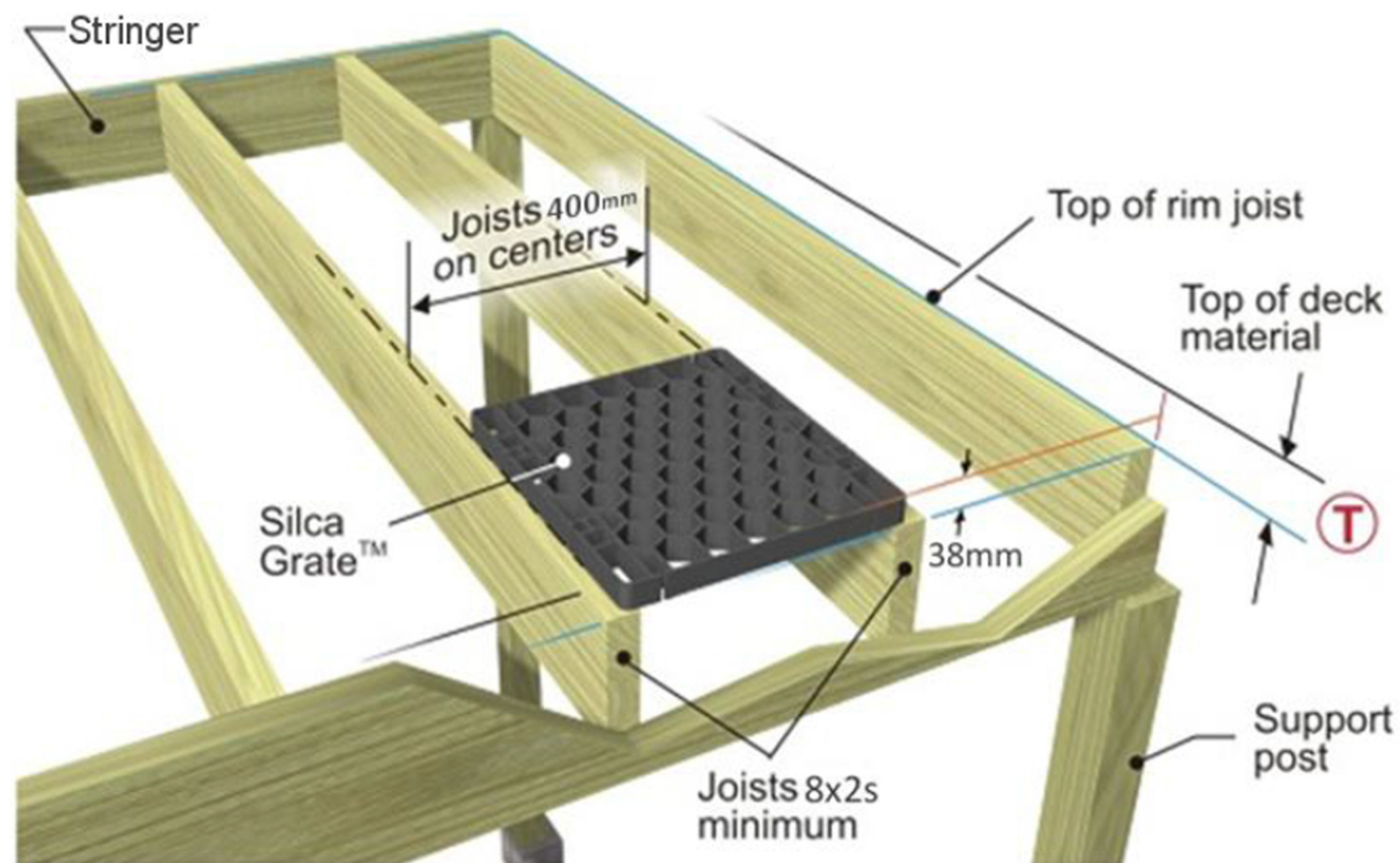
Choose Border Type e.g

- Timber Fascia
- Natural stone, pavers, tile, etc.
- Cover trimmer joist with aluminum system or similar



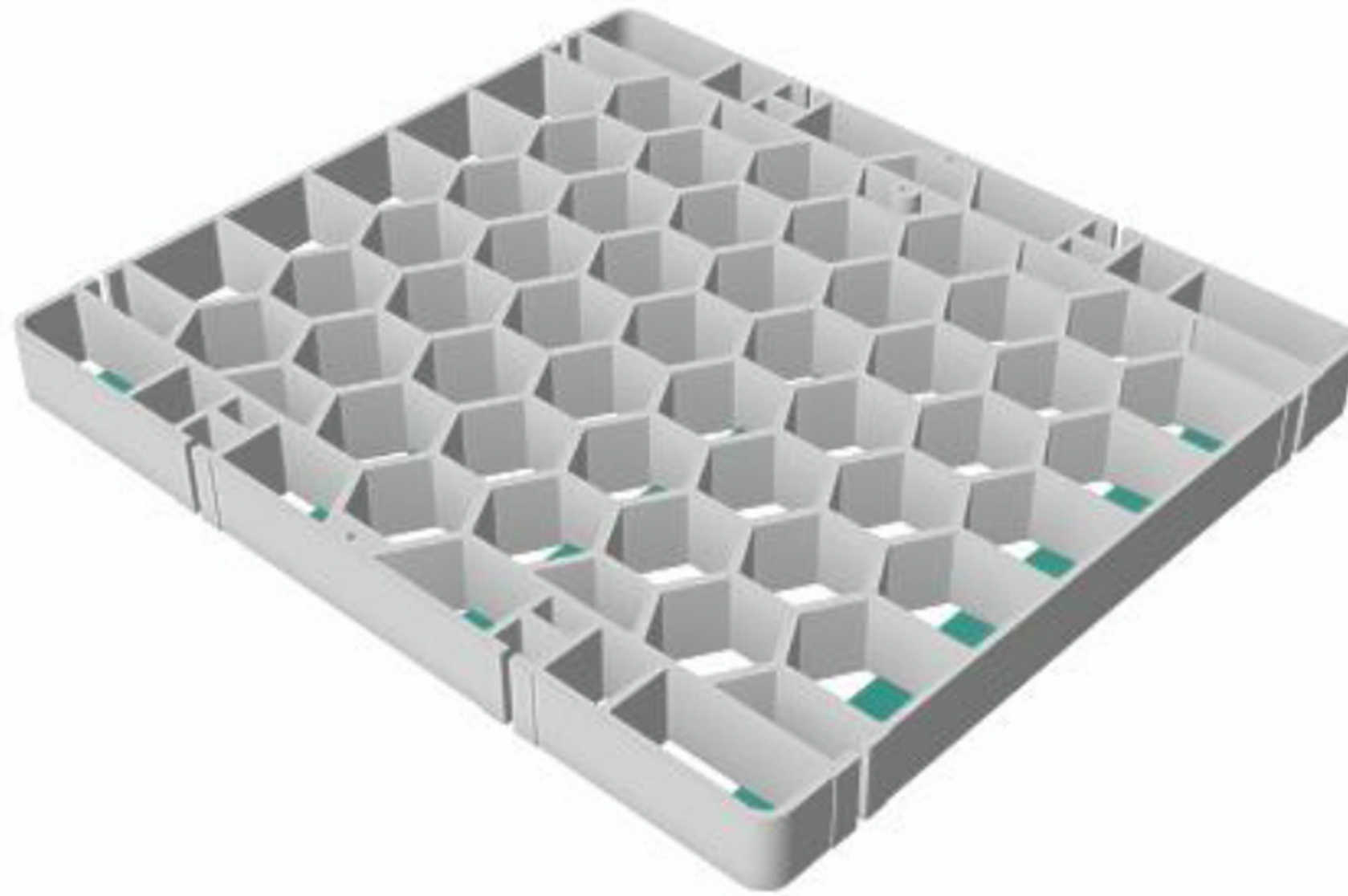
Deck Construction

- Make plan of layout and pattern of paving materials
- (e.g. natural stone, paver stone, brick or tile).
- Build your deck substructure with joists placed at 400mm centres. Make sure joists are dead flat. We recommend KD (Kiln Dried) exterior use treated H3.2 timber. (refer to joist span/paver thickness tables)

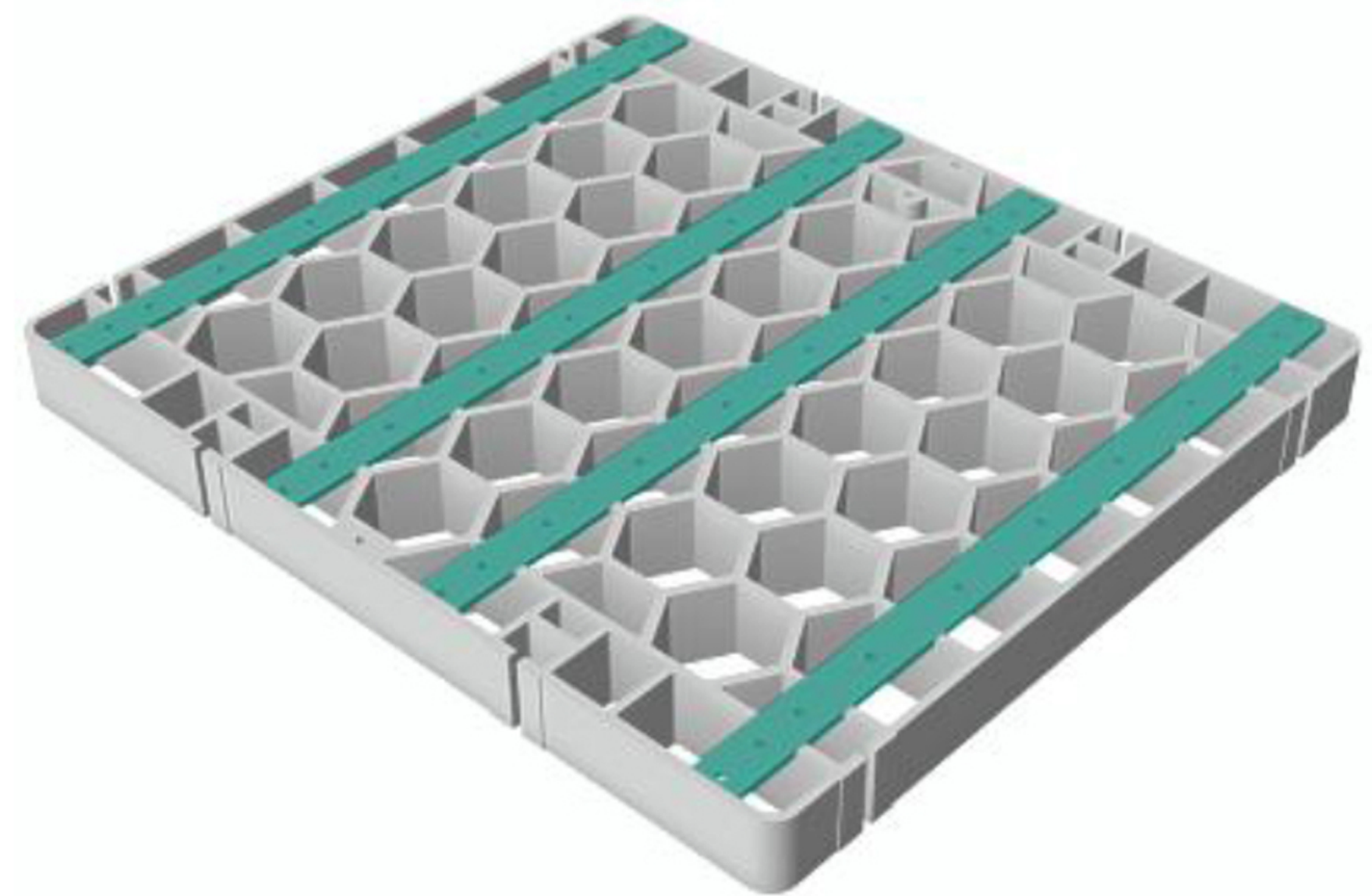


SilcaGrate Orientation

- Before placing SilcaGrate on deck joists be sure reinforcement straps face down.



YES



NO

SilcaGrate Placement

- Place SilcaGrate on deck joists. Staggering grate joints improves overall strength of installation (Staggering optional)



SilcaGrate Attachment

- Attach Silca Grates to joists using 6 deck screws per grate



Complete SilcaGrate Installation

- Install Silca Grate over desired area.



Install Geotextile/Landscape Blanket (Optional)

- Install geotextile/landscape blanket over SilcaGrates if polymeric sand is to be used in construction.



Test for Fit and Paver/tile install

- Now is the best time to test install your choice of paving to check for pattern and material fit and trim.

Depending on your paver choice and application there are several solutions for you to choose from.

1) Glue fix the tiles/pavers direct to the Silca grates using a suitable construction adhesive either with gaps for drainage or without gaps if the deck has fall. Or both, up to you. Spot fix the adhesive around the screw areas on the grates, this provides a good key for the adhesive. Place down pavers using spacers and strings to keep straight. A 3mm spacer is a nice fine gap yet still allows water to drain and is regarded as a permeable surface. Allow adhesive to fully cure before removing spacers or walking on finished surface.

2) lay down a geotextile cloth on top of the grates then lay your pavers and bind by sweeping in a polymeric sand (cement based sand) or grouting. There are more flexible grouts these days so cracking has not been an issue. Even permeable grouts so water can drain through without the need for fall. This is up to your design preferences.

3) if the pavers are heavy enough e.g. people have used 1mx1mx60mm concrete cast slabs, a simple dry but lay can suffice and will stay put under their own weight. Again, design preference as a grout line may still be required to hide deviation in paver gauge, square etc.



Complete Installation of Decking Material



Fill All Joints of Paving Material with
Polymeric Sand* (If required)



Polymeric Sand Application Tips

- Check weather forecast to allow for 12 hours of curing time without precipitation.
- On a perfectly 100% dry surface pour Polymeric sand into all joints.
- Use a broom to ensure all joints are filled with sand.
- Excess sand on the surface of the paving material can be removed using a leaf blower, LIGHTLY. Be sure all joints remain filled with sand.
- Lightly wet the polymeric sand and entire paving surface using a garden hose soft sprayer or mister. Be sure all joints are saturated, not flooded.
- Repeat wetting 3 times, then use a leaf blower to blow the excess water and slurry off the surface.
- For more details please refer to manufacturers specifications.

Enjoy Your New Deck



New Construction

Additional Notes

- The pictorials included in this booklet are a graphic representation and guide only.
- Please refer to your local building code and/or a qualified representative for all deck structure design and construction.
- Do not allow SilcaSystem units to be exposed to any acids, solvents or their vapours.
- Only tighten screws to the firm stage and do not over tighten. (this can damage the countersink and compromise the grate)
- SilcaGrate shall be installed in accordance with these Manufacturer's Recommendations.
- SilcaSystem or MerxPacificLtd will not be held liable for any variation to these recommendations.