

Vertical Shore (metal)

Scope

This document details the method of construction of a metal (Paratech) vertical shore, and describes the capacity and limitations of use.

Description

The vertical shore consists of a timber header and sole plate with two or more metal struts used to provide the load bearing capacity between the two.

Use

- Stability: Class 2 shore.
- The shore is used for providing vertical support.
- Vertical shores can be used individually to give initial risk reduction or can be tied together to form more stable Class 3 systems.
- Vertical shores can be used to stabilise ceilings and floors, and also replace missing or damaged walls or columns.

Construction - Components

All timber is C16 Grade or higher structural timber. All dimensions are nominal.

Header and sole plate	100mm x 100mm for undamaged concrete floors 200mm x 100mm for flexible loads x length required
Cross bracing	150mm x 50mm as required
Metal struts	As required
Extensions	As required
Base plates	As required: fixed, 20° swivel or 90° swivel
Nails and fixings	As required

Date	Status	Document Number	Version	Page
October 2006	Completed	ND_USAR_SOP_SH0017	1.0	Page 1 of 3

Construction - Assembly

1. Survey area and determine the best way to mitigate the hazard and damage.
2. Clear debris from the area to be shored.
3. Measure the space to be shored.
4. Cut header and sole plate to length.
5. Select appropriate metal struts and extensions.
6. Select appropriate base plates.
7. Construct shore as much as possible in a safe area.
8. Erect the shore in the predetermined spot.
9. Cross brace as required.
10. Secure the shore to floor and ceiling using appropriate fixings.

Capacity and Limitations

- The capacity of the shore will be determined by the number, type and length of struts that are used, and the bearing area of the timber/base plate connection.
- Shorers should always work to the 4:1 scale when determining the struts required to safely support the load.
- The header and sole plate should be placed across the floor and ceiling joists. If the joists run at 90° to the header or sole plate, then spreaders of the same dimensions as the header and sole plate will have to be used.
- The two types of strut (Grey and Gold) can be used side by side in the same shore but must not be used together in the same strut. When this is the case then the load bearing capacity of the shore must be worked out using the least capacity strut.
- Maximum extensions permitted:
 - Grey – 2 extensions to a maximum of 900mm
 - Gold – 1 extension
- The distance between the strut and the end of the header should be a maximum of 450mm and a minimum of 300mm.
- The load must be supported as gently as possible. On no account should the shore have a pushing effect on the structure.
- This equipment should only be operated by suitably trained personnel.

Date	Status	Document Number	Version	Page
October 2006	Completed	ND_USAR_SOP_SHO017	1.0	Page 2 of 3

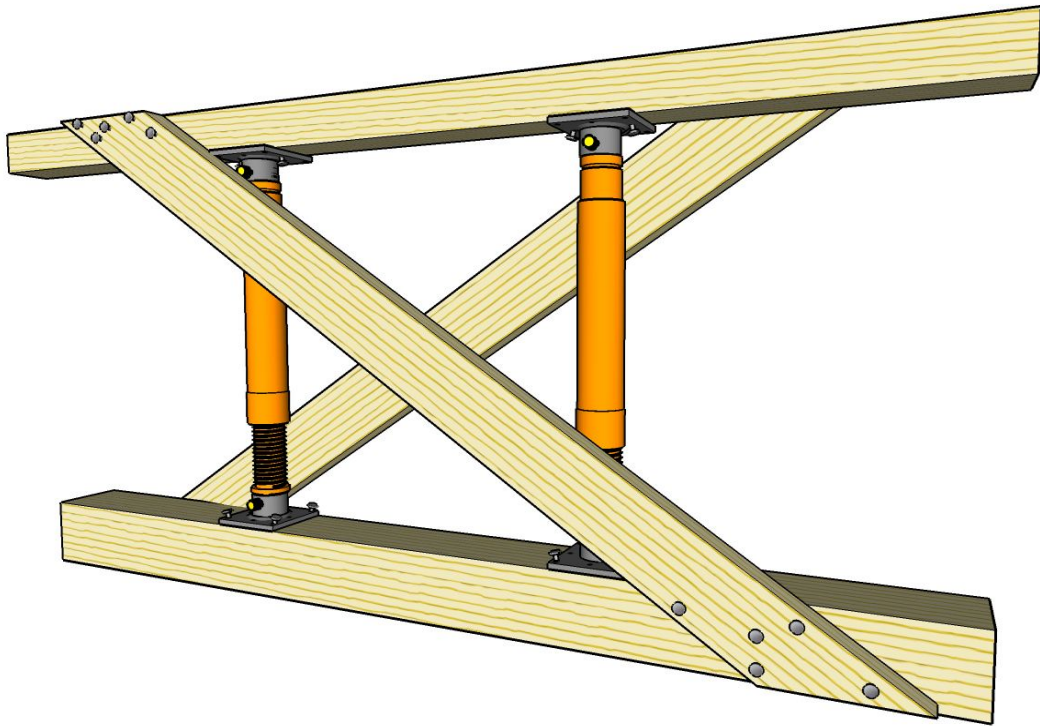


Figure 1 [SOP_SHO017]

References
Paratech Manual

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Date	Status	Document Number	Version	Page
October 2006	Completed	ND_USAR_SOP_SHO017	1.0	Page 3 of 3