

IDS

LOAD DECK SYSTEMS
LIMITED



G-DECK™ ©

INTRODUCTION

The G-Deck load deck system is a high strength, low cost access platform which is quick to erect, durable and flexible enough to meet your site access needs. Safety is a priority and G-Deck has been subjected to stringent testing and analysis to prove its load carrying capabilities.



The G-Deck load deck system is a flexible access decking system designed to meet a variety of end user needs. The system provides an integrated working platform with handrail option; this can be erected at a range of heights from 0.8m up to 3.6m. The deck has been shown to accommodate imposed loads up to 5.7kN/ m² or 580 Kg/ m² which provides for a wide range of uses on site.

The deck can be erected by using a simple mallet by a two man team at a rate of up to 50 square metres per hour. Critical components positively lock into place for maximum safety and security.

The corrosion protection system enhances durability and enables G-Deck to withstand the weather, providing an extended service life without any reduction in its strength.



SAFETY SYSTEM

G-Deck enhances the safety of projects by providing a secure and stable working platform capable of resisting the required loads, and incorporating an easily fitted handrail which is positively locked in position

Load Deck Systems place a strong emphasis on safety, and the use of G-Deck can improve the safety aspects of a project, thanks to the careful design of the G-Deck System. The following strengths of the system directly impact on safety on site:

<i>Risk</i>	<i>G-Deck Consideration</i>
Manual Handling	Components are lightweight and suitable for repetitive manual handling without mechanical assistance.
Work at Heights	G-Deck provides a safe and stable working platform. Its load capacity makes it suitable for a wide range of access and construction tasks.
Access and Egress	Ladder gates are available for use with the system to provide protection from falls through the access points. These can be positioned on a free edge or incorporated within the platform footprint.
Edge Protection	Guardrails and edge protection are easily constructed at the deck edge using standard system components.

SYSTEM ACCREDITATION

G-Deck has been rigorously tested and checked against the relevant European standards for temporary works and access products.

G-Deck has been assessed in accordance with the requirements of BS EN 12811-1:2003 and BS EN 13374:2013, and materials used throughout the system comply with the requirements of BS EN 12811-2:2004. G-Deck has passed a rigorous physical testing regime specified by independent engineers and undertaken at a UKAS accredited laboratory.

G-Deck complies with BS EN 12811-1:2003 (Load Class subject to height) and BS EN 13374:2013 Barrier Class A

STATEMENT OF COMPLIANCE

Based on calculation and testing as noted above, when used in accordance with this guide G-Deck can accommodate the loading and platform height combination as shown in the table below.

G-Deck has been proven to be capable of accommodating a uniformly distributed load of 2.5kN/m^2 at a platform height of 1.8m or 3.6m. Through calculation and physical testing it has met the requirements of the following European design standards when used in accordance with this guide:

- BS EN 12811-1:2003 Load Class 3 at a platform height of 1.8m or 3.6m.
- BS EN 12811-1:2003 Edge Protection Requirements.
- BS EN 13374:2013 Barrier Class A.

SAFE WORKING LOADS

Based on calculation and testing as noted above, when used in accordance with this guide G-Deck can accommodate the loading and platform height combination as shown in the table below.

Platform Height	SWL	Max Post Load
800mm	5kN/m^2	5.3kN
1800mm	2.5kN/m^2	2.8kN
3600mm	2.5kN/m^2	2.8kN

NB – At 3600mm the platform must be braced into the surround structure as detailed in this guide.

INSTALLATION METHOD STATEMENTS

Method statements for erection and dismantling of the G-Deck system should be read with consideration of the specific site requirements and conditions. The procedures outlined are for guidance only and may need to be modified as a result of a specific site risk assessment

General Requirements

- ❖ Do not exceed the safe working loads stated in this guide.
- ❖ The base should be clean, free from debris, level, and must be capable of sustaining the load applied through the G-Deck support posts.
- ❖ It is recommended that loading of the infill panels is avoided.

Pre Installation Checks

- ❖ Each component should be inspected before being included in the deck assembly for signs of damage or fatigue. If in doubt, contact Load Deck Systems for further advice.
- ❖ Ensure all components are clean, free from debris and build of materials such as mortar spots or concrete overspills.

General Installation Guidance

- ❖ Installation should only be carried out by suitably trained personnel who are familiar with the assembly of the system and the contents of the current version of this guide.
- ❖ Current Health and Safety guidance must be followed, including guidance on the use of PPE and high visibility clothing.
- ❖ Where there is a risk of materials falling onto persons passing below whilst erecting the deck, suitable exclusion zones should be provided.
- ❖ Position ladders to avoid over-reaching and ensure they are secured at the top.

Completed G-Deck Checks

- ❖ G-Deck should be inspected by a competent individual prior to each use, and after any incidents of extreme weather or accidental loading/damage. The inspection should cover all aspects and components of the deck, and the results recorded on file.
- ❖ Any occurrence during the course of usage of G-Deck which raises a concern over safety should be reported to the individual responsible for the deck, and the necessary action taken to make the deck safe.

Warning

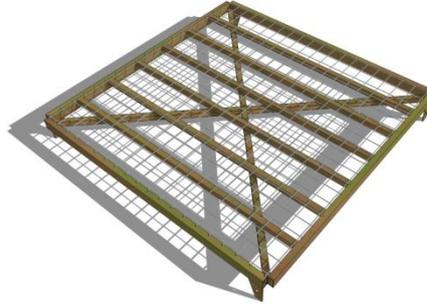
- Never allow untrained individuals to erect or modify the deck.
- Never remove or omit toe boards and guardrails where they are required.
- Never remove bracing members without consulting a suitably qualified individual.
- Never create gaps in the deck by removing platform units.
- Never leave access points unguarded.
- Never add sheeting or netting to the G-Deck structure.

COMPONENTS

Platform Units

Part: GD9 Weight: 12kG

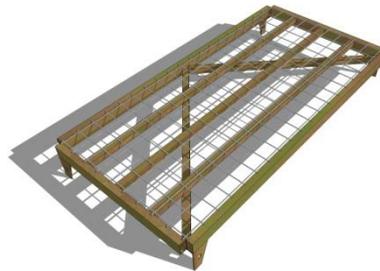
1000 mm x 1000 mm steel platform units used to form the working platform.



Platform Units

Part: GD8 Weight: 7kG

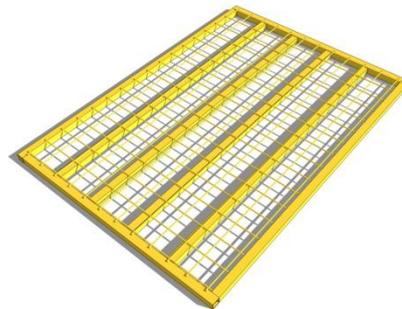
500 mm x 500 mm steel platform units used to form the working platform.



Make Up Panel

Part: GD10 Weight: 5kG

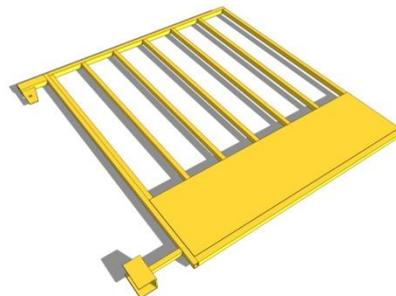
Used to infill gaps within the working platform if required.



Ladder Gate

Part: GD11 Weight: 12kG

The gate provides edge protection at points of access onto the working platform. Lightly spring loaded for positive closure to ensure the opening in the edge protection is permanently secured.

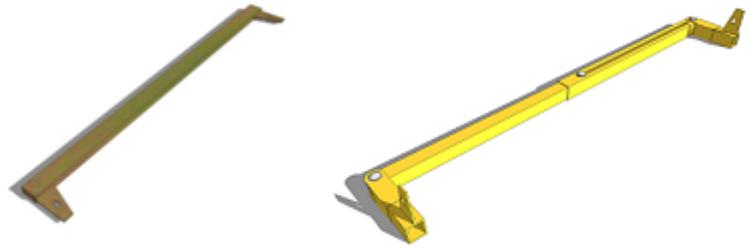


Handrail Section

Part: GD2, 3. Weight: 2kG

Horizontal hand railing sections easily inserted into the handrail posts to create a safe and secure edge protection barrier. 500mm & 1000mm

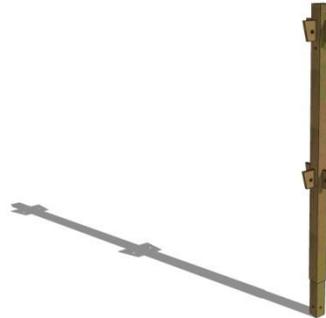
GD19: Adjustable rail version



Handrail Posts

Part: GD17 Weight: 4.5kG

Vertical posts designed to extend the top of the legs to support the handrail sections.



Support posts

Part: GD4,5,6,7. Weight: 3.5 & 7kG

These vertical posts with modular tool-free connections allows for required platform height to be easily achieved or adjusted if required.

800mm, 1000mm, 1500mm, 1800mm, 2000mm, 3000mm

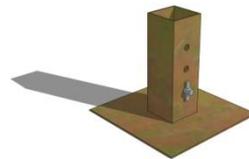


Leg base, plate & pin

Part: GD1 Weight: 1kG

These vertical posts with modular tool-free connections allows for required platform height to be easily achieved or adjusted if required.

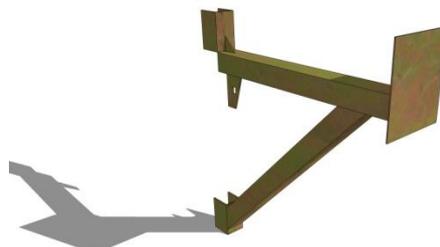
800mm, 1000mm, 1800mm



Ladder bracket

Part: GD12 Weight: 3kG

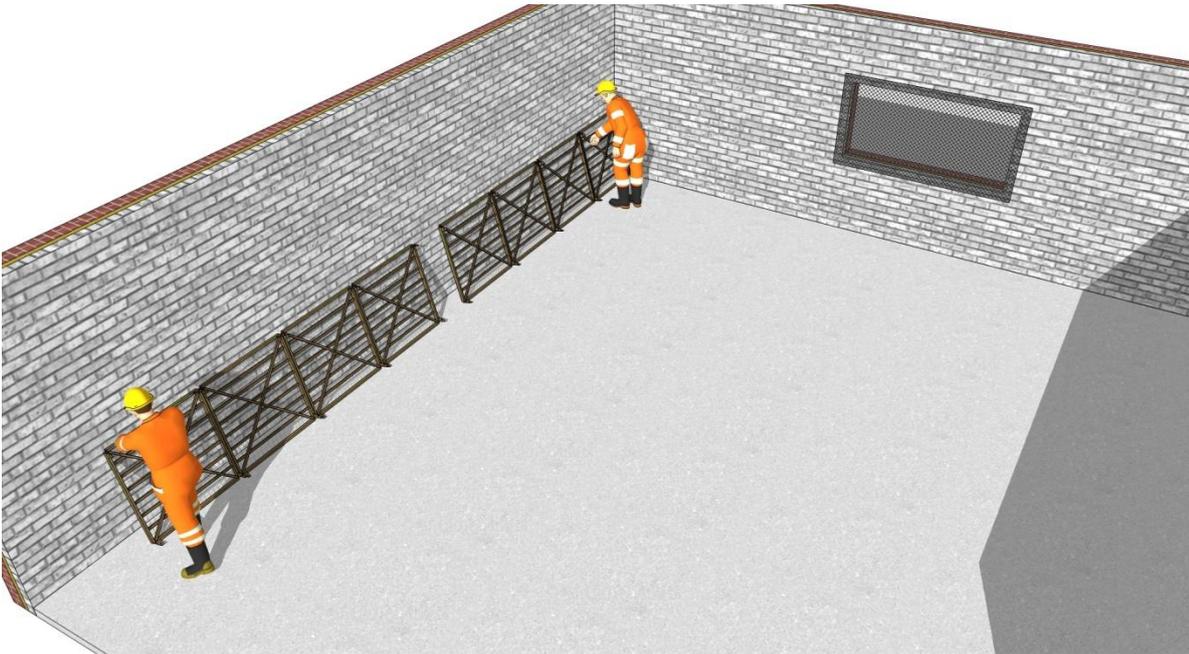
The ladder bracket allows a ladder to be secured safe for entering at certain heights.



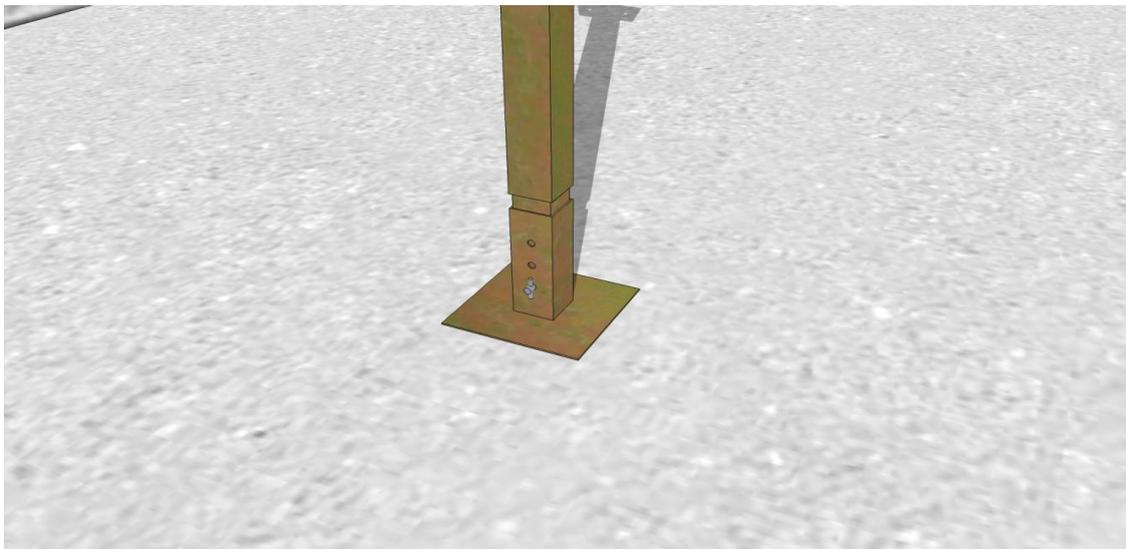
INSTALLATION AS A CRASH DECK AT 1.8M

This method Statement is for the erection of G-Deck within an enclosed structure.

1. Review the information provided on the previous sheet of this guide.
2. Check the equipment that has been ordered is sufficient and suitable for the area in which the deck is to be erected.
3. Move adequate components to a point furthest away from the access location. From this point the deck will be built back towards the access.
4. Lay out the platform units against one wall to check the setting out. Gaps less than 400mm should be left in the centre of the deck, to be covered using make up panels as the platform is erected. Gaps of 500mm can be accommodated using the half width platform units in the required locations.



5. Fit the adjustable bases to four posts and level as required, locking the posts to the bases using pins and clips.

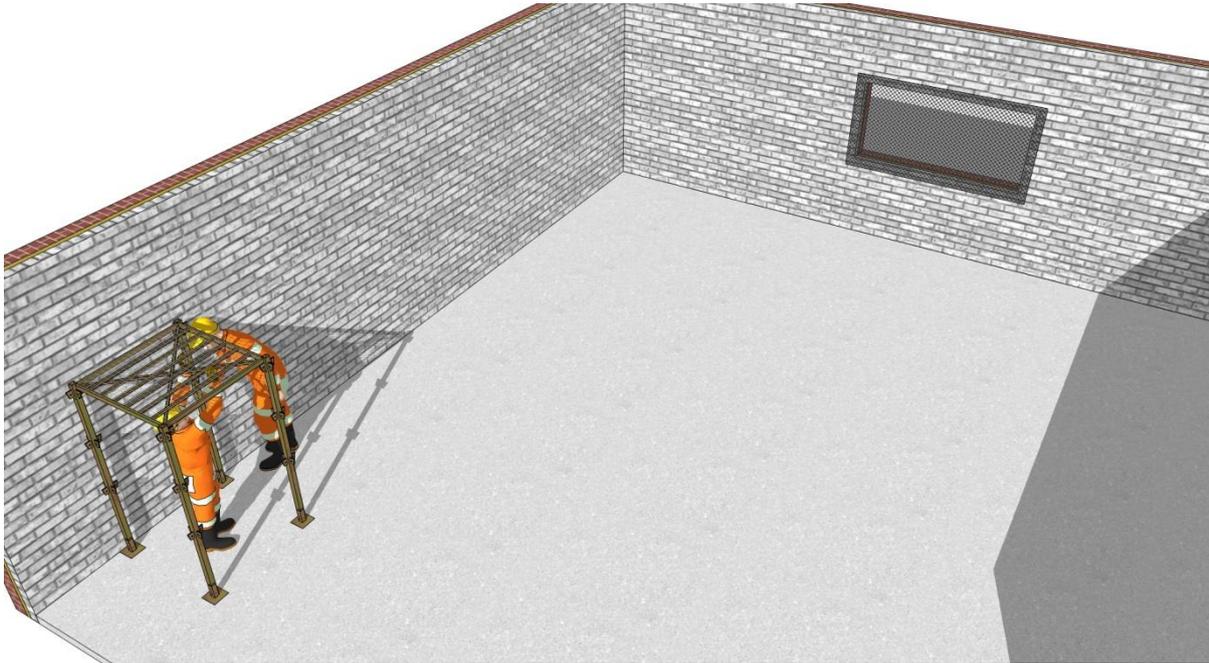


6. Stand two posts upright and insert a platform into the connections at 1.8m.



7. Tilt two posts slightly to allow the connector plates to engage, and fit to the remaining corners of the platform at 1.8m.





8. Repeat Step five with two posts.

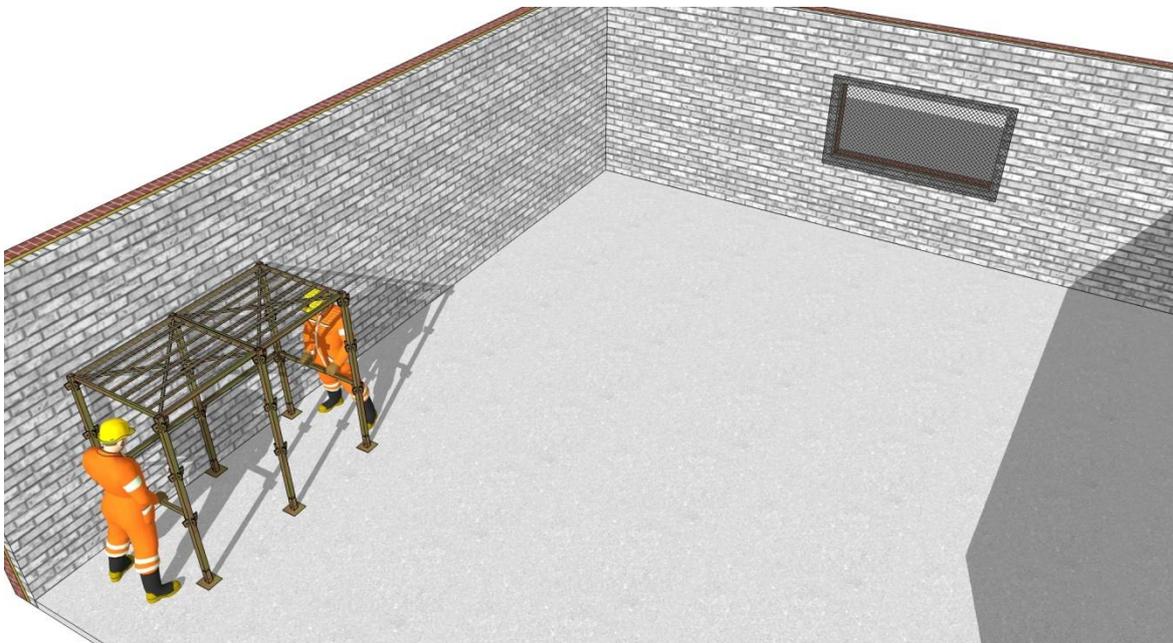
9. Insert a platform at 1.8m into two free connector plates on the posts already erected.



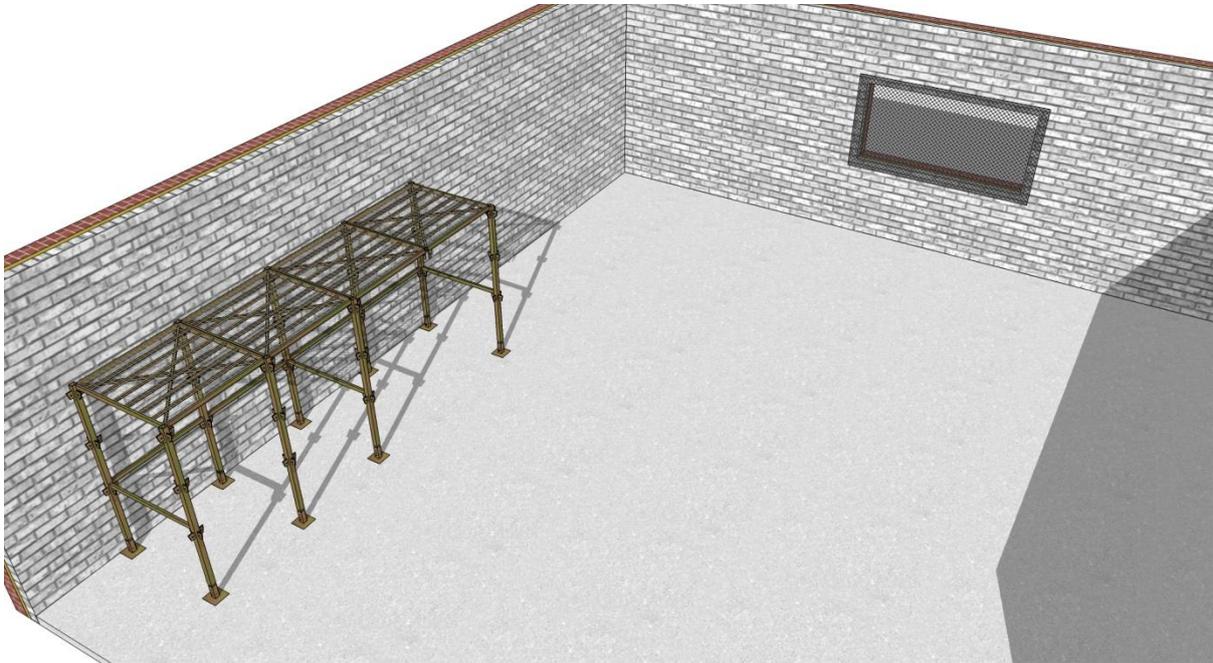
10. Repeat step 7.



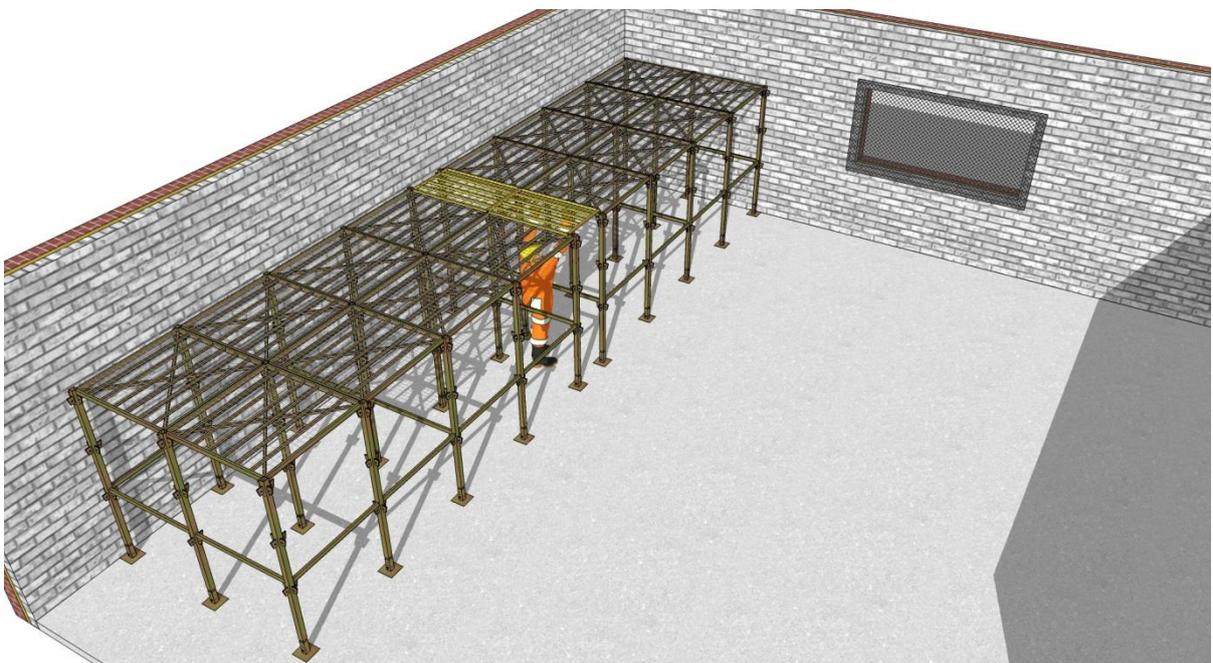
11. Install horizontal braces at 2m centres at 1.0m level and secure with a mallet.



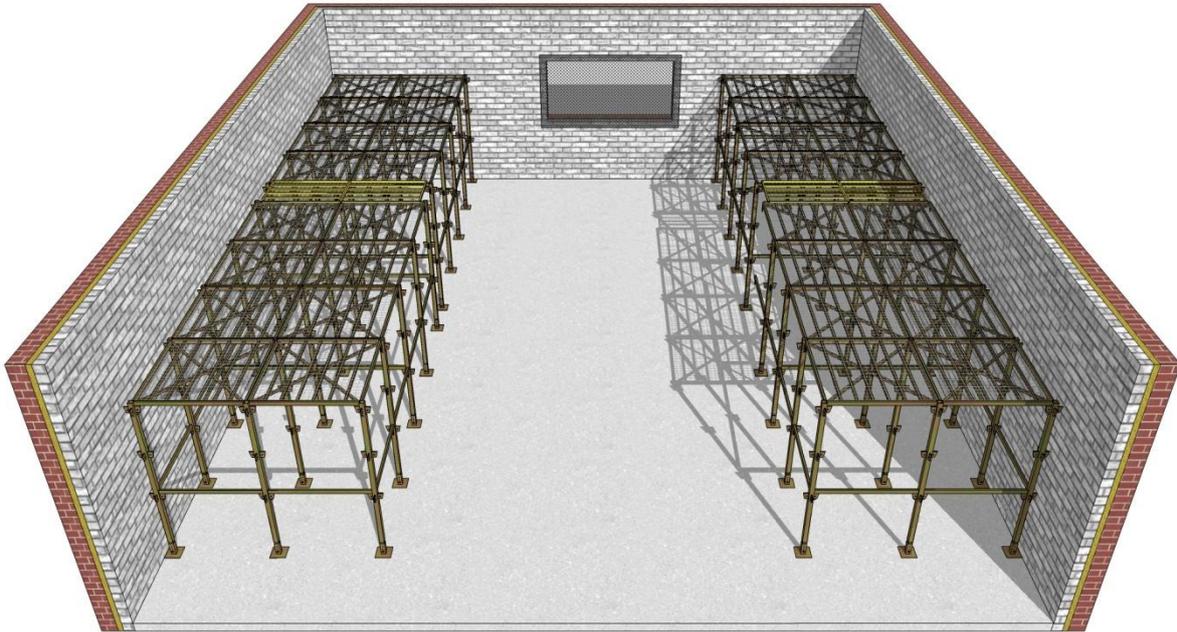
12. Continue the sequence of levelling two posts, adding a platform, then inserting the posts. When the end wall is reached, use a half width platform unit if necessary. Work back parallel to the run of G-Deck already erected using the method described to create a two metre depth of G-Deck.



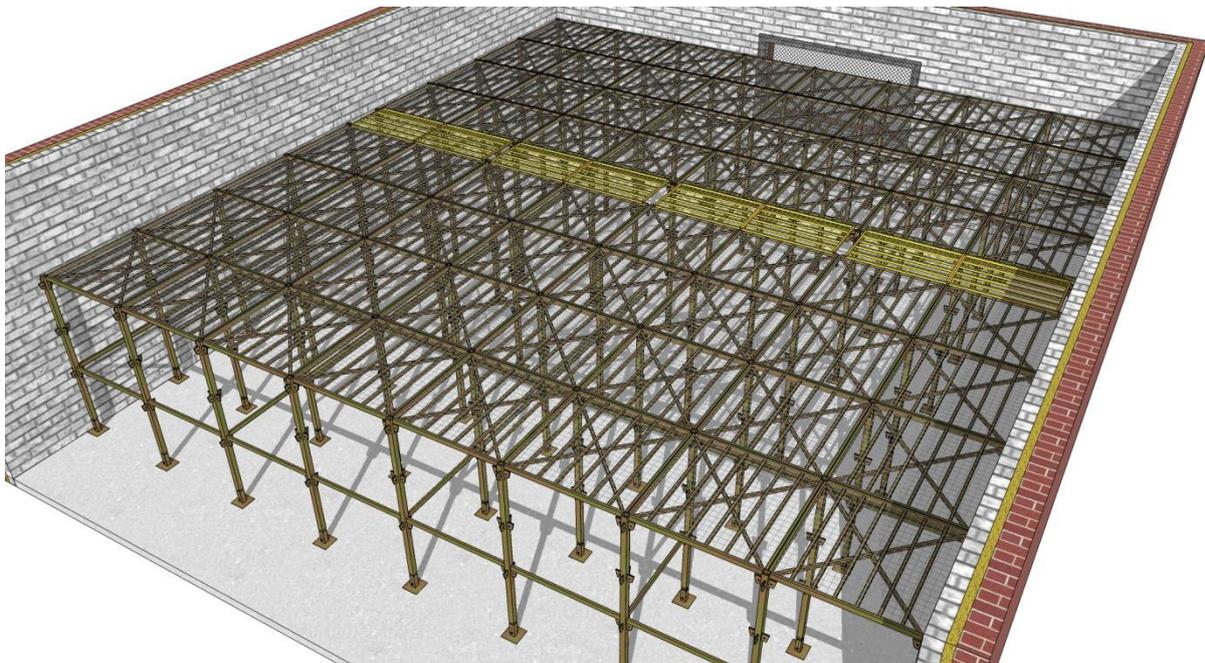
13. Install horizontal brace across the face of the completed deck at 1.0m level and secure in place with a firm hammer blow.
14. If the geometry dictates a gap in the centre of the run (see Step 4), lay an infill unit over the gap and securely attach it to the adjacent platforms using appropriate ties.



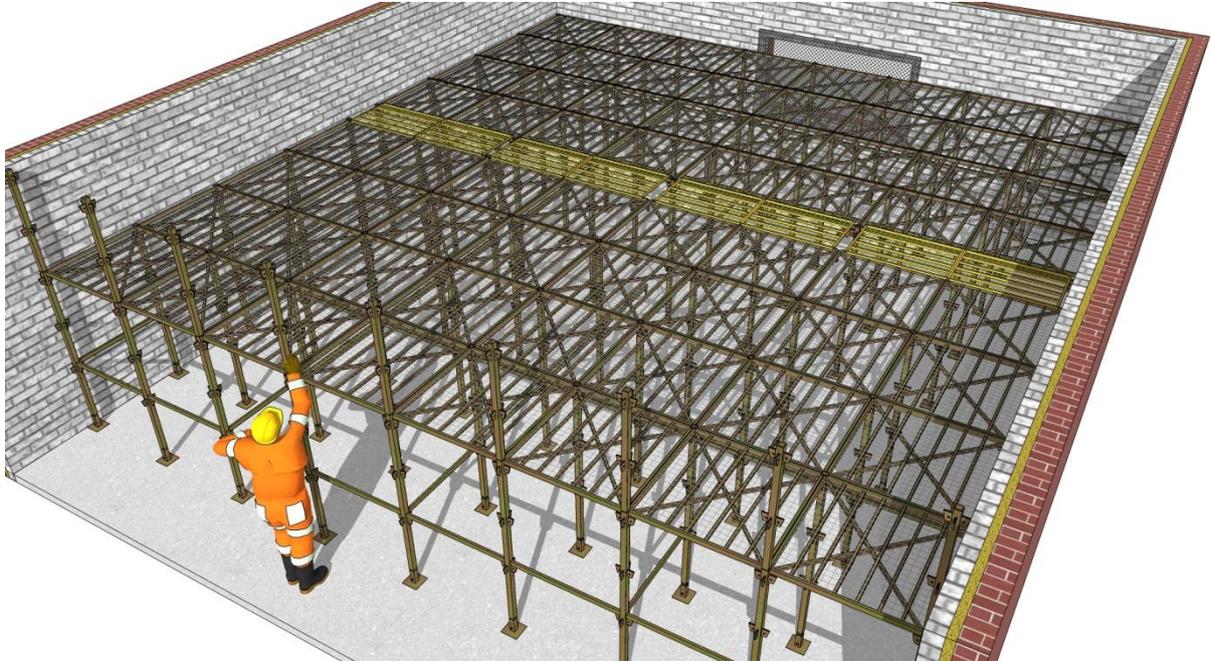
15. Repeat the process, starting from the opposite wall.



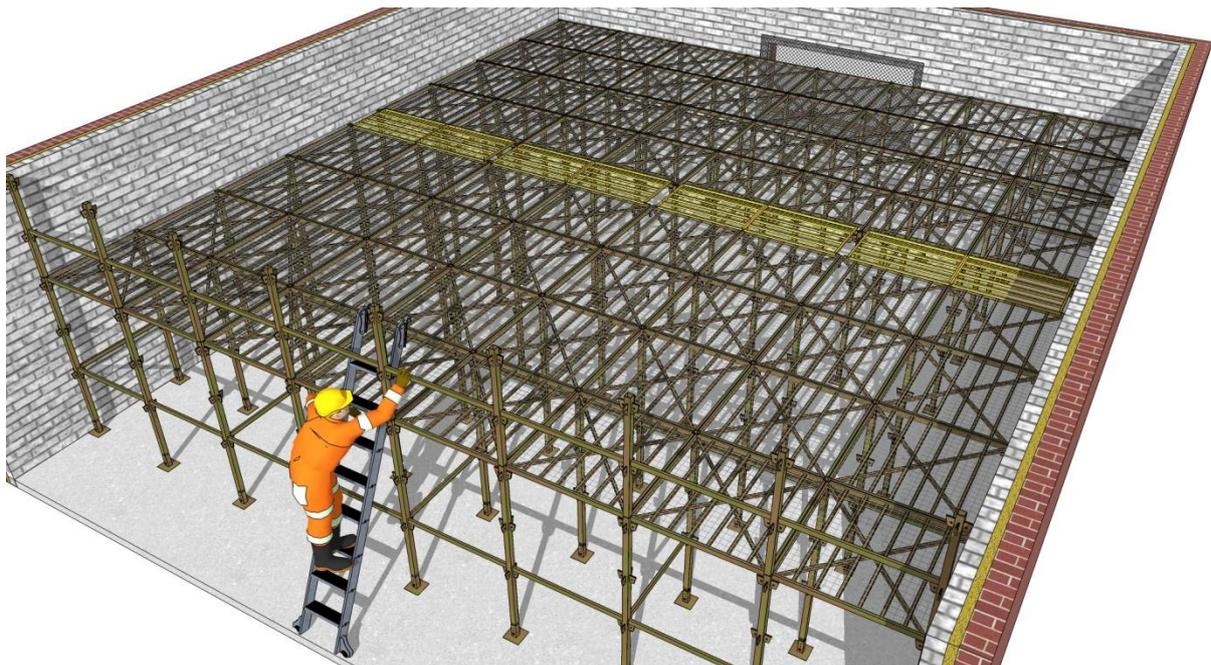
16. When a two meter depth is completed and braced, proceed as above, alternating sides until the platform meets in the middle. If a gap is present, use infill units as described in Step 12.

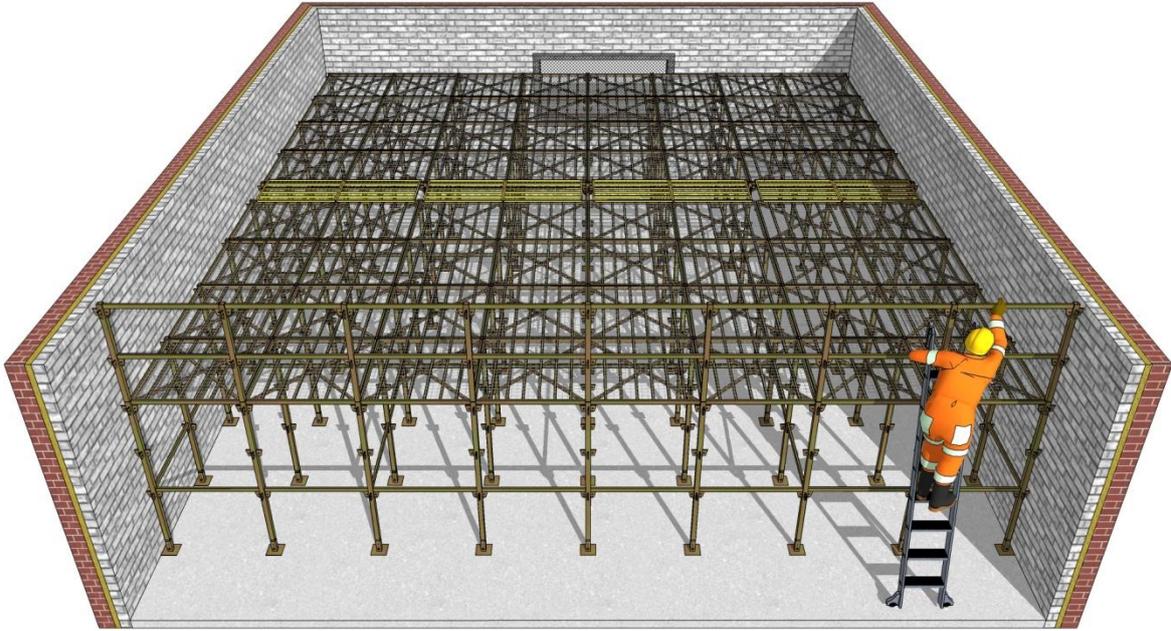


17. If there is a free edge to the deck where edge protection is required, insert handrail posts into the top of the main posts at the required locations and secure using pins and clips.

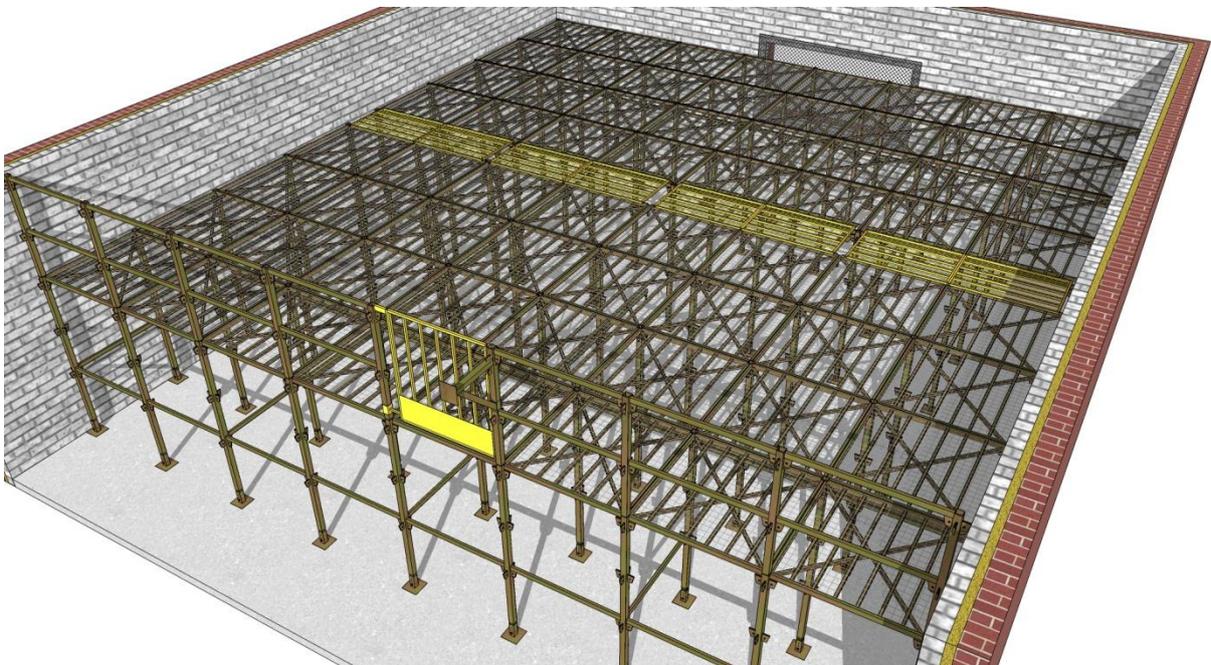


18. Secure ladders to the edge of the deck and insert the horizontal braces that form the guardrails into the connectors on the handrail posts and secure with pins and clips. Relocate the ladders and repeat as necessary.

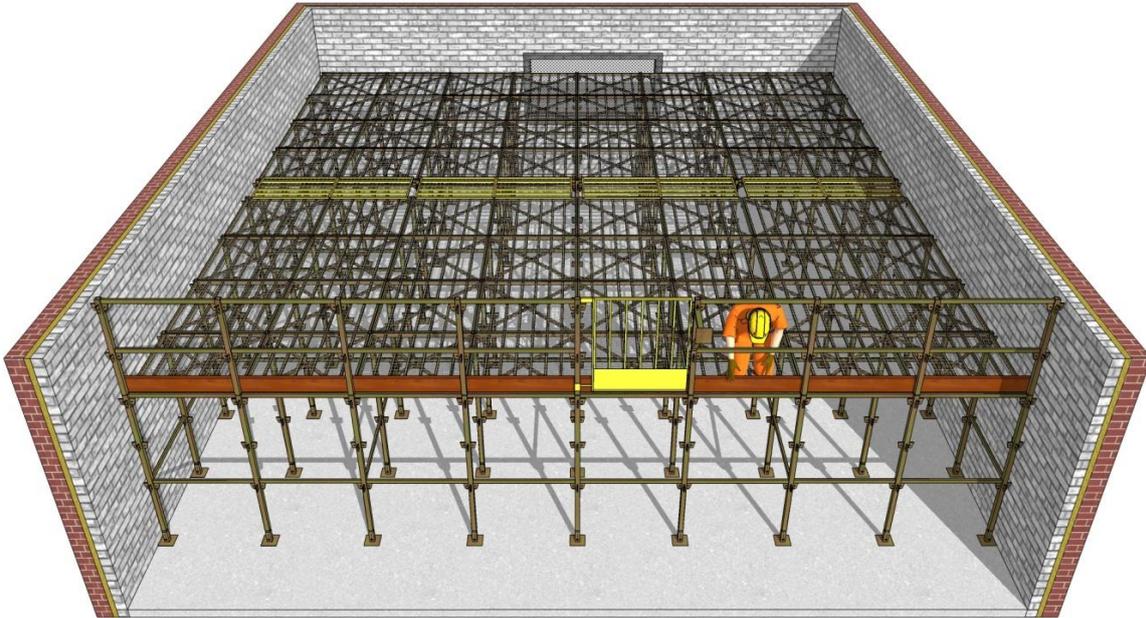




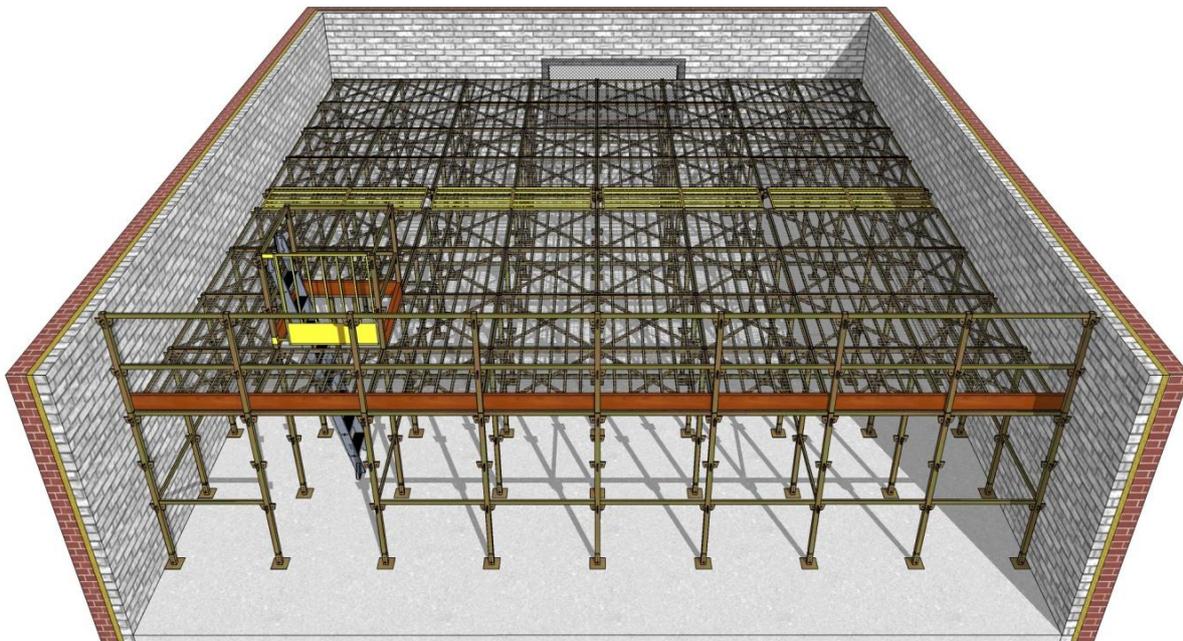
19. If access is to be gained from the free edge, fit an access gate into one bay from secured ladders, and install a ladder access bracket at the corresponding location, securing all components with pins and clips. Secure the access ladder to the bracket.



20. Fit timber toe boards if required and secure using toe board brackets. The deck is now ready for use subject to a final inspection.



21. If access is to be gained from beneath the deck, omit one platform unit and erect four handrail posts as described in Step 15.
22. Use a secured ladder to install the horizontal guardrails and access gate.
23. Secure the ladder in the final position.



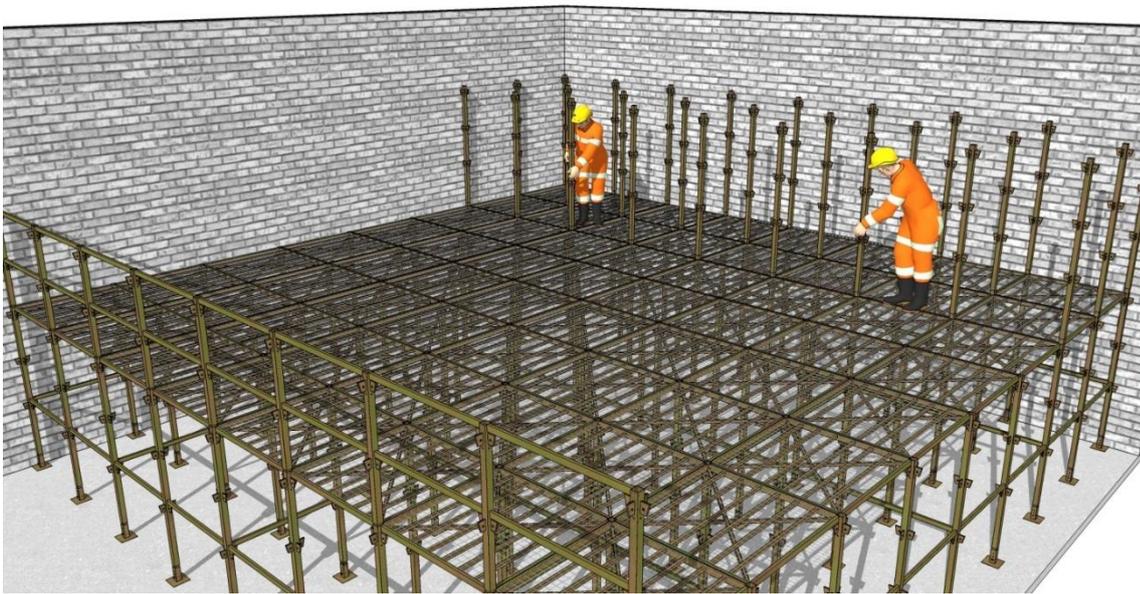
24. The deck is ready for use subject to a final inspection.

RAISING THE CRASH DECK TO 3.6M

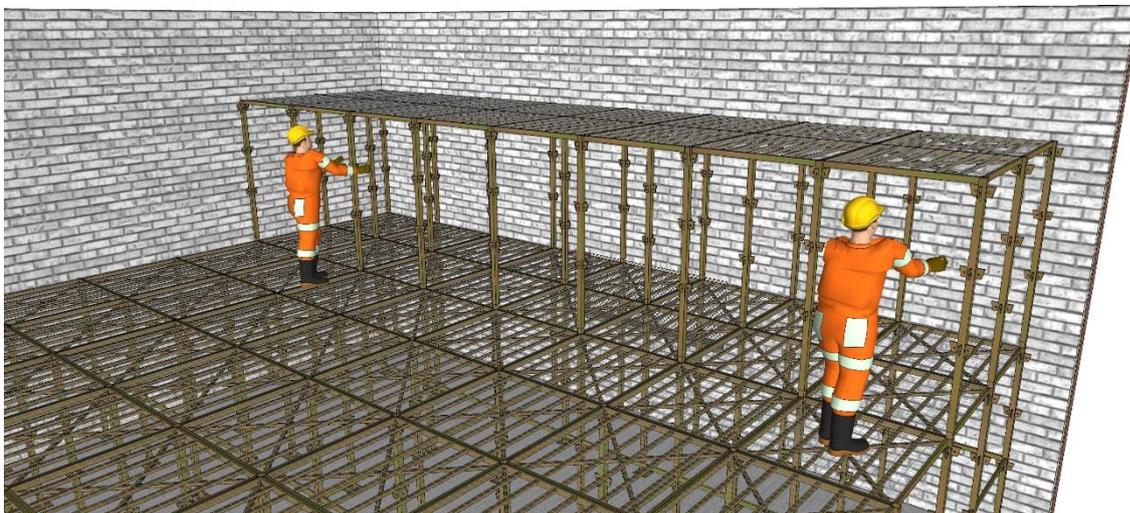
A method statement detailing the raising a deck of 1.8m within an enclosed structure to a height of 3.5m.

Note in the following illustrations the side wall is omitted for clarity.

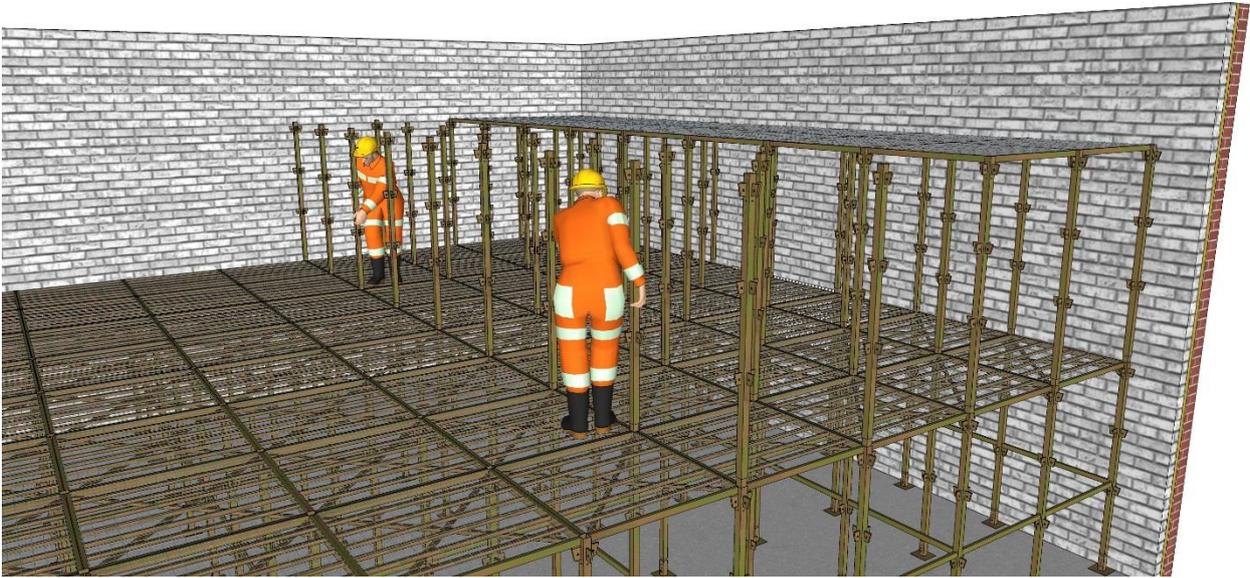
1. Review the general information relating to method statements provided at the beginning of this section. Use of the deck should be restricted to those raising the level until the operation is complete. Note that more floor panels are necessary than those required for the plan area due to the erection method. The side wall is omitted from the illustrations for clarity.
2. Working from the existing platform, install 1.8m posts into the top of the existing posts across a 2 metre width of deck. Where applicable remove toe boards in this area.



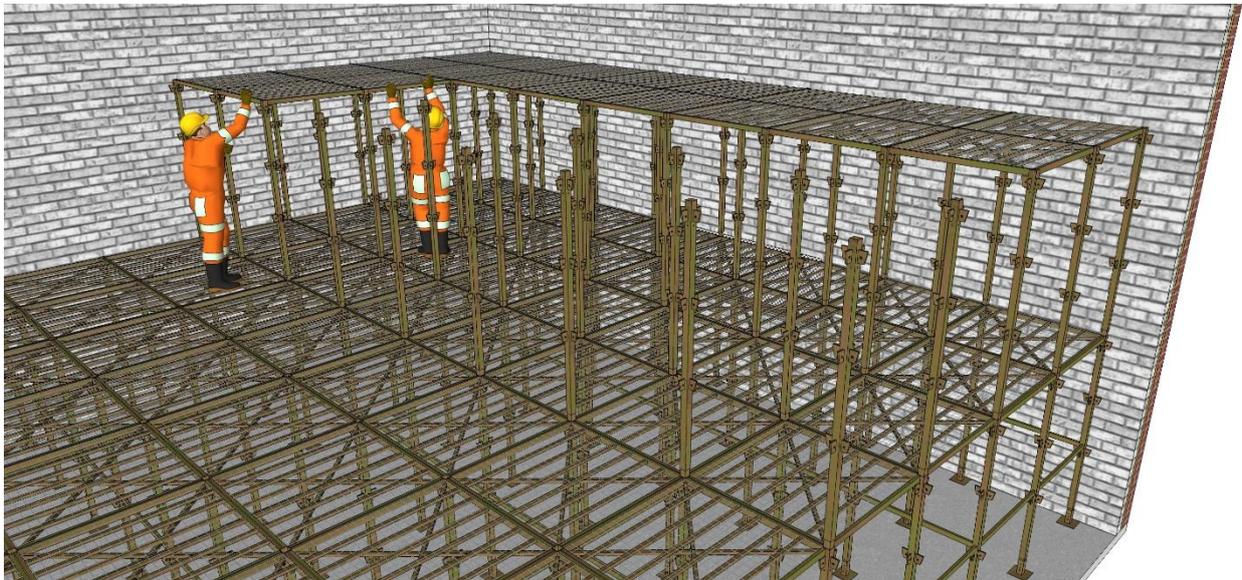
3. Install platform units onto the posts erected in Step 2 and secure into place.



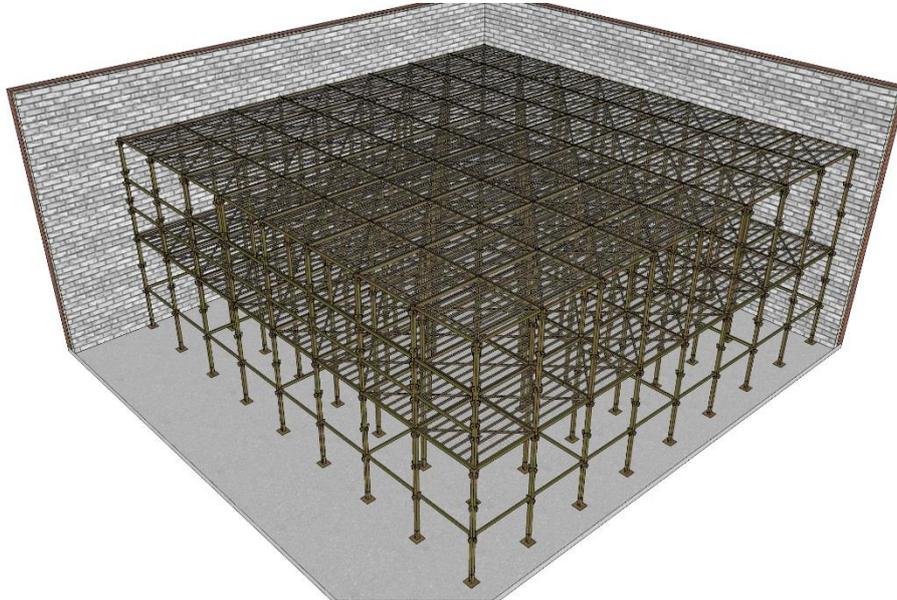
4. Install 1.8m posts into the top of the existing posts over the next two metre width of deck.



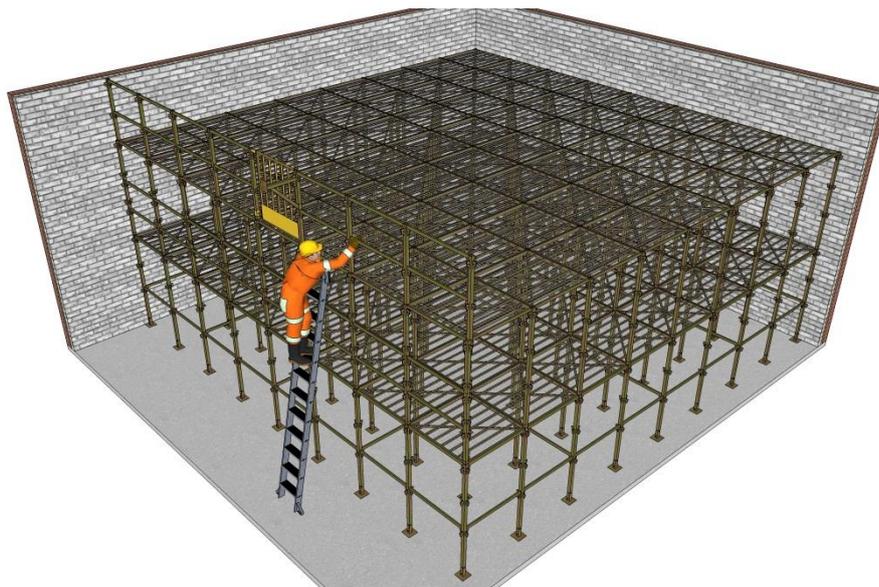
5. Install platform units to the additional posts.



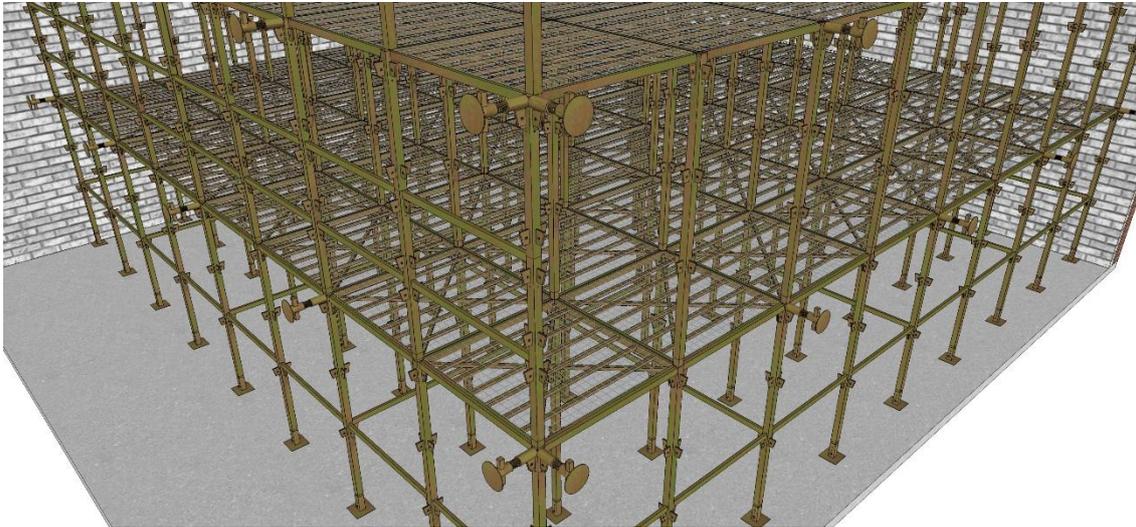
6. Continue adding posts and platform units until the required area is complete.



7. Where protection is required to a free edge of the 3.6m deck, install handrails from secured ladders as previously described.

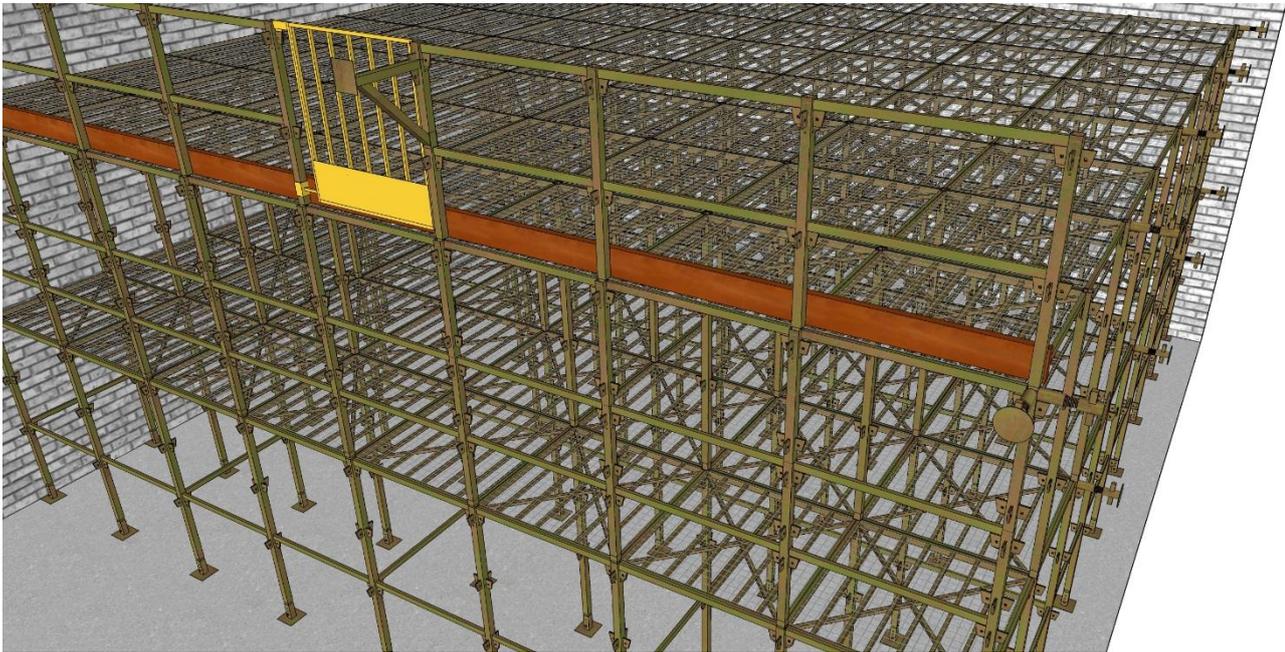


8. Install the wall fixing bracket at heights of 1.8m and 3.6m to every horizontally braced post. Turn the threaded portion of the bracket to secure the deck against the surrounding structure.



9. Access can be gained from within the deck area or from a free edge using an access ladder and gate. The method of installation is as previously described.
10. Alternatively access can be made by using the remaining 1.8 metre high platform as an intermediate level.
11. Ensure that the layout of bracing allows for deck access or emergency access if required.

12. If toe boards are required install from the 3.6m deck level.



13. The deck is ready for use subject to a final inspection.

INSTALLATION AS A LINEAR DECK AT 0.80M

Method Statement for erecting a linear deck against an existing structure.

1. Review the general information relating to method statements provided at the beginning of this section.
2. Check the equipment that has been ordered is sufficient and suitable for the length of deck to be erected.
3. Fit the adjustable bases to three 1.8m posts and one 0.8m post, and level as required, locking the posts to the bases using pins and clips.
4. Stand two 1.8m posts upright at the end of the run of deck. Insert a platform into the connections at 0.75m.



5. Tilt the remaining two posts slightly to allow the connector plates to engage, and fit to the remaining corners of the platform. Use the 0.8m post against the face of the existing structure.



6. Working from the ground level insert the horizontal brace members which form the guardrails in the connections at 1.25m and 1.75m on front and side faces. Secure in place using pins and clips.



7. Fit the adjustable bases to one 1.8m post and one 0.8m posts and level as required, locking in place using pins and clips.
8. Insert a platform unit into the free connections on the previously erected posts.



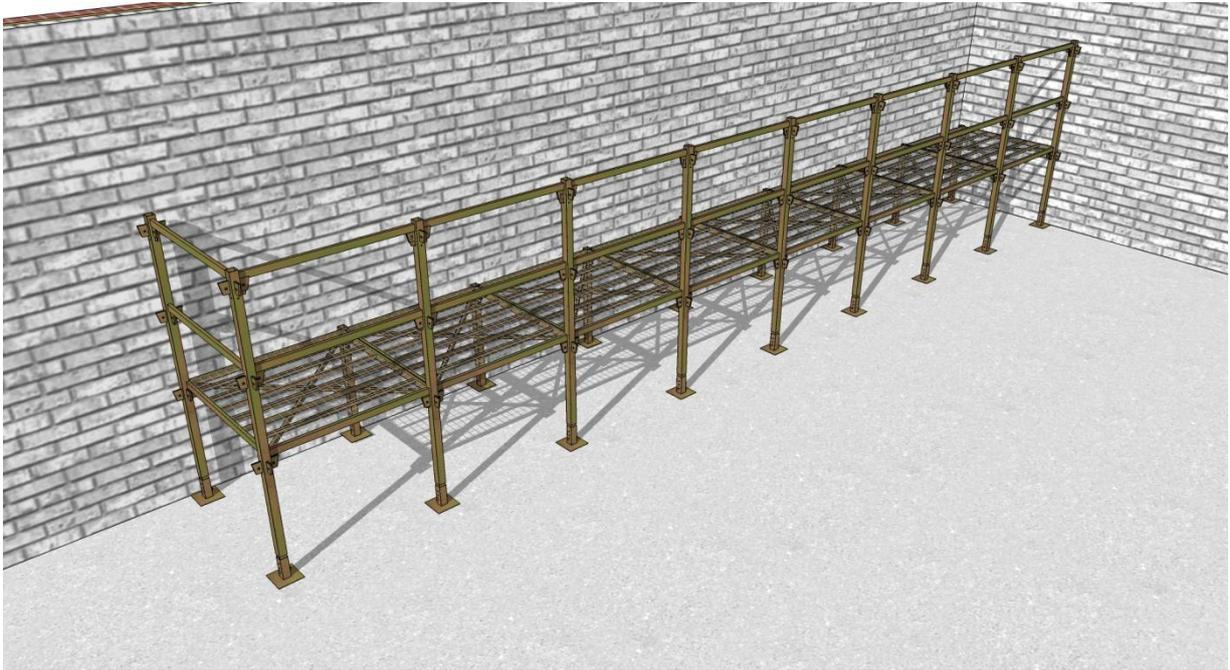
9. Tilt the two posts assembled in Step 7 slightly to allow the connectors to engage, and fit to the platform, securing with pins and clips.



10. Working from ground level up, insert the guardrails to the front face into the connectors at 1.25m and 1.75m, securing with pins and clips.



11. Repeat Steps 7 to 10 to complete the length of deck as necessary. Fix guardrails to protect the free end of the deck as previously described.



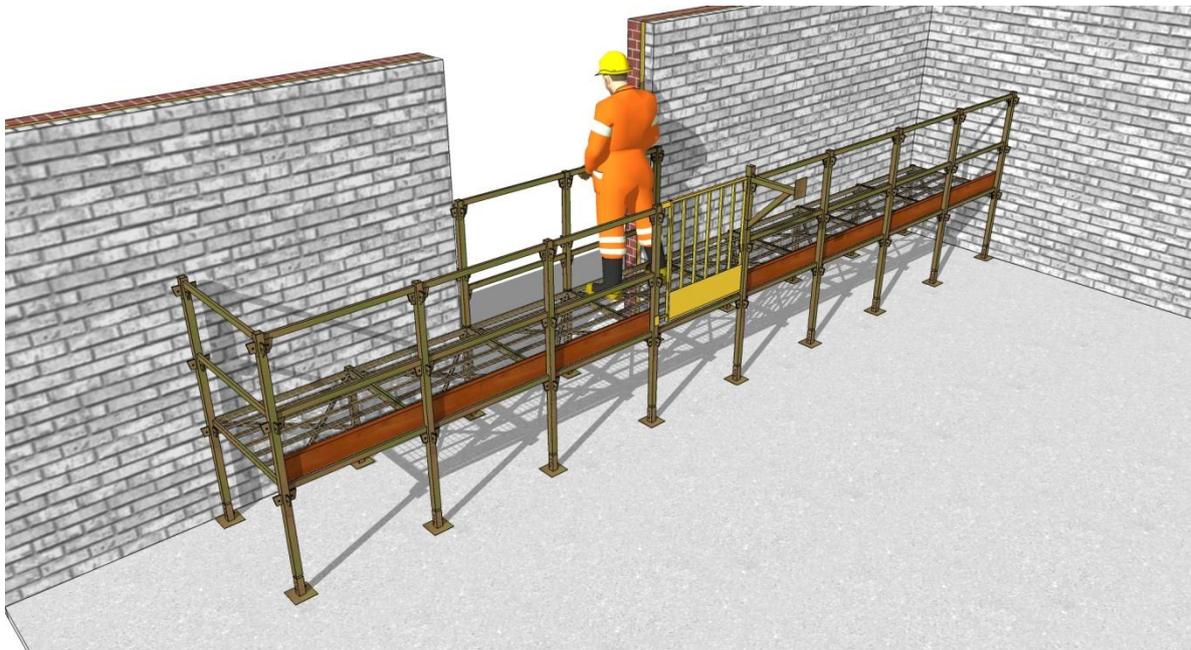
12. At the required access location, omit the guardrails and, working from ground level, provide an access gate secured with pins and clips.



13. If access to the deck is by ladder, fix a ladder access bracket secured with pins and clips and secure an appropriate ladder to the bracket.
14. Fit timber toe boards if required and secure using toe board brackets.



15. If there are gaps in the supporting structure and it is considered necessary to provide edge protection as a result of a risk assessment, install handrail posts to the inner legs and guardrails as described in Step 10.



16. The deck is now ready for use subject to a final inspection.

DISMANTLING THE DECK

Method Statement for dismantling a completed G-Deck

- ❖ Reverse the procedures outlined previously to safely dismantle the deck. Be aware of the following:
- ❖ Access to the deck during its removal should be limited to the individual's responsible for doing so.
- ❖ Only operatives who are familiar with the erection of G-Deck should be responsible for its removal.
- ❖ All material and debris should be removed from the deck prior to dismantling.
- ❖ Components such as toe boards and upper posts should be removed from the deck as dismantling proceeds to avoid excessive localised loadings.
- ❖ Components should be handled so as to avoid damage during dismantling. Throwing components to the ground is likely to cause damage to either their structure or finishes, shortening service life or rendering them unsafe for use.
- ❖ Once removed components should be neatly stacked ready for removal from site.

Basket style stillages for braces, feet etc.



Brace style stillages for deck panels and legs





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