





Physical GMR #:	1	Compliance Area:	Fall Prevention
GMR Subsection:	7. Scaffolds, Temporary Works and Working Platforms		
How to comply with this GMR:			
	GMR 1.7 Scaffolds, Temporary Works and Working Platforms		
1	Scaffolding system should be used in preference to tube and fitting components.		
2	Calculations and drawings must be prepared for checking and constructing the temporary works		
3	Mobile scaffolds must have all braces, access ladders etc as per manufacturer's instructions.		
4	Scaffold erection practices must be carried out to eliminate the risk of any fall.		
5	Design and certification of erection must be checked by a competent person.		
6	Mobile scaffolds must be tagged as suitable for use by competent person (over 2m working deck).		
7	A frames must only be used for single lift and fitted with brick guards.		
8	Trestles must only be used for up to 1 metre high for short duration finishing trades		
9	SPLIT level decks are not allowable on mobile scaffolds.		
10	Swing stages must have daily checks including roof rig and have tamper proof attachments.		
11	All loading platforms and edge protection must have guards and an approved SWMS		
12	Scaffolds must be inspected weekly and a maintenance schedule maintained by the scaffolding company		
			
Aluminium mobile scaffold compliant with the appropriate standards		Mobile scaffold access system	
			
False work with a full deck to allow installation of form work from below. NOTE: This will require full decks at 2m for installation		Stair access to formwork decks should have chainmesh enclosure	

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Scaffold erection in 1m lifts



Mid Platform for scaffold erection



Brick guards and handrails in Brickies "A" Frames
(single lift only)



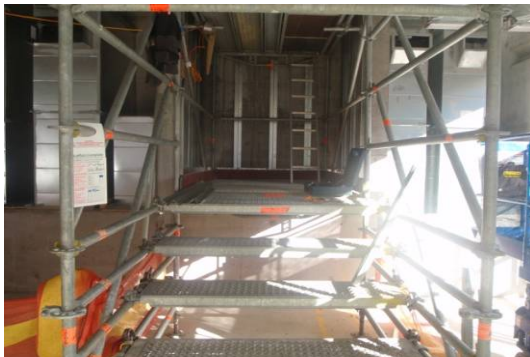
Brick guards and handrails in Brickies "A" Frames



Mobile scaffold with stair access



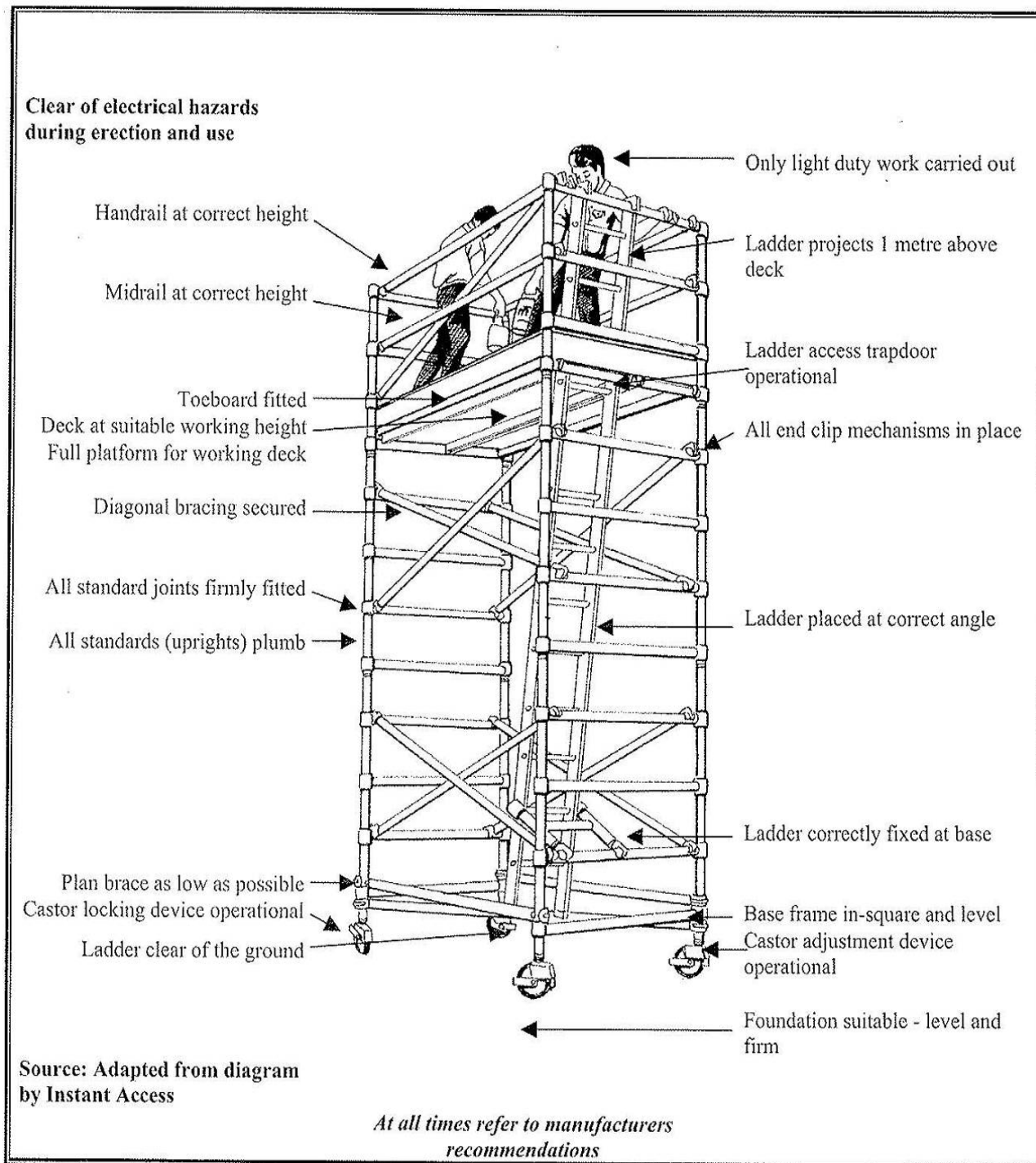
Access scaffold for loading / unloading flatbed vehicles



NOTE:

- 3 times the minimum width base is the maximum height before outriggers are required (as a rule of thumb). Except where the scaffold is less than 1.2m in width, then it should be a 2 to 1 ratio.
- Where outriggers are required, they should be put in place once the first lift is built.
- Scaffolds must be erected and dismantled that eliminates the risk of falling

Check-list for Lightweight Aluminium Mobile Scaffolds



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Further information:

1.0 Introduction**Scaffolding Fixed**

In developing Safe Work Method Statements for the safe erection of scaffolding, the relevant supervisors and scaffolders should be consulted and industry guidelines reviewed.

A scaffold certification (e.g. Scaff tag) tag system should be used on all scaffolds and must be used over 4m high. This system will provide a fit for use confirmation by a competent person on a weekly basis as a minimum or as the situation changes.

NOTE: Scaffolding Systems should be kept separate. Mixing of different scaffold systems needs to be signed off by a qualified person (note; manufacturer/structural engineer needs to certify that this is acceptable).

2.0 At Design

The Lend Lease EH&S system aims to eliminate hazards or if this is not possible, to minimise the risk. Therefore the first step should be to ensure the scaffolding design is reviewed in the "Risk and Opportunity at Design" for opportunities to eliminate the potential hazards. Where the risks cannot be eliminated the team should consider re-assessing it in the project risk assessment.

Qualified persons (ie Structural Engineer) with knowledge/experience in scaffolding must design and certify special class scaffolding eg: cantilevered and counterbalanced scaffolding, scaffolding lifted into position, drop scaffolding, scaffolding sheeted with mesh or signage, any special load conditions, etc.

Calculations and drawings should be prepared to a standard and quality that allows the proper checking of the design and clearly communicates the requirements to those checking and constructing the temporary works.

Designs shall ensure that vertical members are not eccentrically loaded (unless this has been specifically identified and allowed for in the design). Maximum calculated leg loads shall be stated on all drawings. Wind loading, including on any vertical netting or cladding fixed to the false work needs to be clearly identified in the design drawings and calculations by the designer, and take into account local wind speeds that may be above those normally allowed for by manufacturers and designers.

Project teams need to also ensure at tender scaffolding companies has have a robust inspection and test process covering scaffolding components being sent out and returned to ensure the integrity of the scaffolding components.

NOTE: Once designed, a competent qualified scaffolder is able to certify that the installation is in accordance with the design and safe for use.

3.0 Erecting and Dismantling

Persons erecting scaffolding over 4m in height shall hold a high risk licence (refer to section 10)Where there is a risk of a person falling 4 metres or more which includes building edge and atriums, the persons performing the work must be instructed, trained (evidence to be provided) and adequate supervision maintained to build it to the manufacturer's instructions/Australian Standards for the appropriate load (i.e.: light, medium, heavy or special duty).

The Scaffolding Company or the Company requiring the scaffolding must submit to Lend lease the type of scaffolding to be built (i.e.: light, medium, heavy or special duty), the platform loading and a risk assessment identifying all the risks associated with the scaffolding installation, future alterations and dismantling.

The SWMS for erection / dismantling should include as a minimum;

- Steps for erecting and dismantling the scaffolding that ensures persons are not at risk from falling;
- Location of access bays (as agreed with Lend Lease Site Team);

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- Type and location of ties to the structure (where applicable);
- Personal and other safety equipment to be used by scaffolders;
- Ways of passing, lifting or lowering equipment.

4.0 Fall prevention

The scaffolders should carry out their work in such a manner that will not expose them to a fall.

- Scaffolds must be erected and dismantled that eliminates the risk of falling
- A fully decked platform must be installed every 2m and not be rotated (except by exception by design). Be aware of condition of laminated or timber planks and check for rot;
- Any load bearing or major perimeter scaffold must have a design drawing certified by a qualified engineer;
- Access bay and ladders will be used at all times while moving from deck to deck and ladders should be tied off properly. The climbing up and down of standards, as an access will not be permitted;
- All lap boards or bridging planks to be tied down. All braces and ties to be installed as per AS1576 or manufacturers instruction, and must be fitted as scaffolding is being build. Work Platform to have full deck of boards, handrail, mid-rails, kickboard as a minimum;
- "Scaffolding Incomplete Signs" are to be used at all times while altering, building, dismantling scaffolding. Scaffolding Complete Sign Offs' to be signed by Scaffolding Company Supervisor / competent person and Lend lease Foreman. Daily/weekly Checks of Scaffolding, by Certified Scaffolder, may be required. Scaffolding should only be used and installed as per Manufacturers Specifications. Scaffolder competency certificates or trainee log books are to be sighted by Lend lease before scaffolder start on site. (NOTE: Ratio of ticketed scaffolders to log book / trainee workers should be a minimum 2 ticketed: 1 logbook – maximum). Note: trainee should not be on a log book for more than 12 months.
- All fixed scaffolds where personnel are below are to have mesh and shade cloth installed vertically;
- Mobiles scaffolds – All mobiles over 2m to working deck will have:
 - Lockable wheels, internal ladder access, kickboards, handrails at 1m off the working deck and mid-rails (note split level decks are not accepted).
 - Are to have a Mobile Equipment Tag (MET) attached and inspected at least weekly by competent person to ensure that all components are in place.

5.0 Other scaffolding requirements

To reduce the risk of injury the following requirements should be undertaken

- Barricade the area and place signs, before erecting, alterations, repairs, additions and dismantling scaffolding, to ensure access is only for authorised scaffolders;
- Make the barricaded area large enough (agree on the size with Lend Lease Site Manager) to store necessary equipment;
- Position barricades and signs to prevent access by persons other than scaffolders;
- When working with scaffolding equipment, the scaffolder must mark any defective equipment with paint or tags and have the defective material removed from site immediately;
- The scaffolders must fully complete one lift before the next lift begins, unless agreed otherwise with Lend lease Site Team. Position face, sectional bracing and (if applicable) ties (as shown on the drawings provided by the competent person) progressively while putting up the scaffolding. To dismantle do the above in reverse;
- Place excess equipment in pallets and stack where agreed with Lend lease Site Team. Remove excess equipment promptly from site;
- Do not overload scaffolding by stacking equipment/material on it and do not store scaffolding

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components on finished scaffolding;

The Scaffolder's Site Supervisor or a person he/she nominates (holding a High Risk Licence) is to inspect the scaffolding after any structural alteration and at least once a week. The person inspecting must check that the scaffolding still complies with all the requirements set out under the Australian Standard or manufacturers specifications. Following the inspection the licenced person must complete and sign an inspection certificate or manufacturers tags including a referenced documented inspection report outlining any defects or rectification work undertaken. This is to certify that the scaffolding is in good condition and safe to work on.

- A maintenance schedule must be maintained by the scaffolding company to identify and record areas of scaffold that have been inspected, rectified and signed for safe use.
- When scaffolding and scaffolding stairs access is erected for demolition purposes (the preferred containment requirement) shall be Chain Wire Mesh (50 x 50 2.5mm) and Shade Cloth or equivalent proprietary system secured to the outside of the scaffolding to contain debris within scaffold and stairs access structures. The chain wire mesh shall be secured top and bottom and in both directions @ 1.0m centres (max) to capable structural elements of the scaffold i.e. standards / ledgers / rails (where possible secure with plastic cable ties). Shade cloth shall be on the inside of the chain wire mesh, and lap joints are to be at least 150mm vertically and horizontally. Debris shall not be permitted to build up and housekeeping of the decks MUST ensure that SWL restrictions are complied with. (Further requirements are found in Sec 1.5.1.7 of AS 2601 Demolition of Structures).
- Chain Wire Mesh (50x50 2.5mm) or equivalent proprietary system shall be used to contain building materials and debris within scaffold and scaffolding stairs access structures where a risk assessment identifies such controls are required (i.e formwork, façade, etc). The mesh shall be secured on the inside of the scaffolding, top and bottom and in both directions at 1.0m centres (max) to capable structural elements of the scaffold i.e. standards / ledgers / rails (where possible secure with plastic cable ties). Shade cloth shall be on the inside of the chain wire mesh, and lap joints are to be at least 150mm vertically and horizontally. Debris shall not be permitted to build up and housekeeping of the decks MUST ensure that SWL restrictions are complied with. (Further guidance can be found in Sec 8.10 of AS 4576 Guide to Scaffolding)
- Scaffoldings will be inspected weekly by the safety committee / weekly GMR walk. Consideration needs to be given to safe working loads.
- All scaffolds higher than 1.2 m will have 900mm to 1.1m high handrail, and internal access where practicable (e.g. ladder) and lockable castor wheels.
- Where A frame scaffolds are used, they are not to be used above a single lift and must be fitted with a handrail and secured mesh screen.

6.0 Trestle scaffolding for Bricklaying and Gyprock works

- A frame must only be used for single lifts and fitted with brick guards.
- Trestles must only be used internally for up to 1 metre high for short duration finishing trades.

7.0 Access

- Stair access that is suitable and safe shall be provided where persons manually handle tools and materials to work areas. (Refer to Section 5, dot point 10 and 11.)
- Secured ladders should be provided to temporary work areas protruding 1m above platform; as per GMR 1.8.
- Clearly defined and clean access ways, use of barricading and signage to restrict access to unsafe areas or where overhead hazards exist.

8.0 Responsibilities

Scaffolding Company Supervisors or Subcontractor Supervisor must ensure:

- Each employee holds a High Risk Licence for Scaffolding (refer below for high risk information;
- That a trainee scaffolder works under the strict supervision of a person holding a High Risk Licence for

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- Scaffolding and complete the required logbook Minimum ratio is 3 ticketed to 1 logbook operator;
- Train and instruct each member of the team (before starting) on the SWMS for erecting, dismantling, and altering (where applicable) scaffolding;
- Confirm in writing to Lend lease Site Management that all team members understand the SWMS;
- All team members will follow the SWMS and any team members not following the SWMS will be reprimanded;
- The scaffolding is checked regularly as agreed in the safe work procedure, at least once per week and every time the scaffolding is adjusted or repaired .

9.0 Loading Platforms

- Loading platforms will be proprietary type and certified by a structural engineer including sign off on location.
- Ensure that suitable SWMS is in place for removing / installing platforms and when opening gates.
- Loading platforms are installed by a person who is the holder of the appropriate certificate of competency.
- All operators are trained in fall prevention awareness and are to wear the appropriate PPE for the task.
- Loading platform gates will be locked at all times.

10.0 High Risk Licence Classes

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(*scaffolding work* means erecting, altering or dismantling a temporary structure that is or has been erected to support a platform and from which a person or object could fall more than 4 metres.)

Item	Class of high risk work	Description of class
1	Basic scaffolding	Scaffolding work involving: <ul style="list-style-type: none"> (a) modular or pre-fabricated scaffolds; or (b) cantilevered materials hoists with a maximum working load of 500 kilograms; or (c) ropes; or (d) gin wheels; or (e) safety nets and static lines; or (f) bracket scaffolds (tank and formwork)
2	Intermediate scaffolding	(1) Scaffolding work included in the class of Basic scaffolding. (2) Scaffolding work involving: <ul style="list-style-type: none"> (a) cantilevered crane loading platforms; or (b) cantilevered scaffolds; or (c) spur scaffolds; or (d) barrow ramps and sloping platforms; or (e) scaffolding associated with perimeter safety screens and shutters; or (f) mast climbing work platforms; or

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3	Advanced scaffolding	(g) tube and coupler scaffolds (including tube and coupler covered ways and gantries)
		(1) Scaffolding work included in the class of Intermediate scaffolding
		(2) Scaffolding work involving:
		(a) hung scaffolds, including scaffolds hung from tubes, wire ropes or chains; or
		(b) suspended scaffolds

Associated Documents	Resources / suppliers
Mobile equipment tag – BlueBook	Australian Standard (and Attachments), www.standards.com.au
	(other relevant standards AS 4576 Guide for Scaffolders, AS 1576 Scaffolding, AS 1576.1 Scaffolding - General Requirements, AS 1576.2 Scaffolding - Couplers and Accessories, AS 1576.3 Scaffolding - Prefabricated and Tube-and-Coupler Scaffolding and AS 1576.4 Scaffolding - Suspended Scaffolding)
	NSW Workcover policy paper on scaffolds