**WORKING AT HEIGHT – SPECIFICATION AND SAFETY REQUIREMENTS ASSESSMENT SYSTEM SCAFFOLD TIMBER FRAME BUILD**

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| **Operating business** |  |
| **Development name** |  |

**Part 1. Specify Property Type**

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| --- | --- | --- | --- |
| **Name of property type** |  | **Number of storeys** |  |

**Part 2. Types of Work and Access Requirements – Please Consult Ground Levels and Property Designs**

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| **Work Activity** | **Working at height arrangements**  **(to be read in conjunction with the working at height standards)** | **Specific control measures** | **Remarks/ additional site specific control measures** |
| Raised Foundations | Foot scaffold, if required. | Risk Assessment 1a – Independent System Scaffold |  |
| Erection of Scaffold | Persimmon Operating Businesses must ensure that:   1. All scaffold arrangements are set out in Terms & Conditions and Scaffold Specifications; 2. A scaffolder prestart meeting is arranged and terms set out in the minutes. 3. A copy of the manufacturers erection manual is kept on site. 4. Scaffold designs are to be provided by scaffold contractor as per local arrangements. 5. System scaffold is erected in line with the manufacturers guidance and assembly manual. | Risk Assessment 1a – Independent System Scaffold Risk Assessment  Risk Assessments 48 - Use of un-extended bandstand trestles.  Manufacturers / suppliers scaffold installation manual  Refer to use of NASC guidance SG4:15 Preventing Falls in Scaffolding Operations. |  |
| Erection of External Ground Floor Timber Frame Panels | Initially, the default setting is that the scaffold should be erected on three sides to allow loading of timber kit panels by telehandler.  Following the erection of the ground floor panels, the system scaffold front elevation can then be installed, to include first floor guard rails, brick guards etc to allow floor joists and flooring to be installed.  The decking system should also be installed at this point to prevent falls internally. | Space4 Standard Operations (where applicable)  Decking system or birdcage Scaffold platform installed as per manufacturer’s instructions.  Care should be taken during scaffold design and erection to provide a removable area at the doorways to allow for access and loading of internal materials during construction (eg plasterboard etc) |  |
| First floor/Intermediate floor joists and Flooring  (for Ceiling heights up to 2.7m)  First floor / Intermediate floor joists and Flooring (Continued)  (for Ceiling heights up to 2.7m) | Primarily, all panel head binders, and timber joists will be fixed in place from the scaffold.  System scaffold hop ups are to be fixed at a suitable height to permit safe working.  When installing individual joists ( as opposed to flooring cassettes), internal Fall prevention / protection will be provided by using the following options:  **Decking or scaffold birdcage**  Safety Decking System/ Birdcage Scaffold (Fall Prevention) is installed to specification prior to any work commencing. This is checked and signed off by installer and site manager before first use.  The platform must cover the complete area of floor. It must be confirmed that the decking system is complete and stable prior to work commencing:  **NOTE:**   1. Decking system must only be installed by a suitably competent installer in possession of an appropriately endorsed CSCS card. 2. Decking system must **NOT** be loaded with materials. 3. Internal partition timber panels which have not been fitted, must be left in a condition which does not impede safe installation of the decking system (eg, they could be stacked, upright in one corner of the plot) 4. Maximum fall distance from external working platform or hop up, to inner platform must not exceed 900mm. 5. Suitable assessment must be undertaken regarding propping of joists where Safety Decking or Scaffold Birdcages are utilised on upper floors. 6. A scaffold design must be supplied for the birdcage, if this method is used   To prevent a fall in stairwell area, a sacrificial joist system to be installed at time of floor installation and covered over using flooring - in accordance with manufacturer’s designs. If this is not suitable, other methods may be used following plot specific risk assessment. | Decking system or birdcage Scaffold platform installed as per manufacturers instructions.  Risk Assessment 18 – Installing timber joists  Risk Assessment 19 – Installing lintels and RSJs.  Decking system or birdcage Scaffold platform installed as per manufacturers instructions |  |
| Risk Assessment 18 – Installing timber joists  Risk Assessment 19 – Installing lintels and RSJs. |  |
| Non-standard Joists/Flooring (Ceiling heights greater than 2.7m) | Where higher ceiling heights and bespoke property designs influence potential fall heights a plot specific assessment is to be carried out to identify additional suitable controls such as, birdcage scaffold or Safety deck. | Risk Assessment 1a – Independent system Scaffolding;  Risk Assessment 18 – Installing timber joists  Decking systems as per manufacturers / installers guidance and RAMS |  |
| Erection of External Upper Floor Timber Frame Panels | After the flooring is fixed to timber joists, first floor external wall panels can be loaded onto the first floor by temporarily removing front scaffold guard rails. This must only be carried out by a scaffolder, and is subject to separate assessment utilising recognised methodology (see attached guidance)  Once the external panels are partially erected , internal panels can be lifted using the same method.  External wall panels can then be finish erected  At all stages an assessment / inspection of hop up heights and locations must be carried out to ensure correct height for safe working.  Internal double guardrails must remain in place at all times unless removed for access to immediate work area. After use, they must be replaced.  System Scaffold can then be completed to roof height.  After external wall panels have been erected, system scaffold remains in place for roof truss fitting.  The fall prevention / Protection system can now also be moved into the upper floor area in readiness for truss installation.  Internal partition timber panels which have not been fitted, must be left in a condition which does not impede safe installation of the decking system. | See Attached Guidance “ Removal of System Guardrails” |  |
| Installation of Main Roof Trusses | Primarily Installation of trusses are carried out from the working Platform (System Scaffold).  Fall prevention / Protection is similar to the installation of the first floor joist arrangements detailed above.  The installation of timber trusses can be effected using various methodologies dependant on size/weights, local environmental restrictions, lift heights,  Generally, trusses will be lifted onto the wall plate or temporarily onto the working platform by mechanical means. Typically either by :   1. Crane – managed lift or full contract 2. Suspended load on telehandler – using lifting straps or chains 3. Lifted on forks ( normal or extended forks) | Risk Assessment 1a – Independent system Scaffolding;  Risk Assessment 6 – Install. of roof trusses;  Risk Assessment 46 – Working on roofs:  Risk Assessment 47 – Work in and around Stairwells; As per specific method statement  Joiner / Kit erector RAMS  Decking systems as per manufacturers / installers guidance and RAMS  Guidance on lifting trusses using telehandler forks ( attached) |  |
| Installation of spandrel panels (where applicable) | **Spandrel Panels** are structural panels used as a separating wall for semi detached or terraced house types. (Party Walls)  Depending on the house type and kit supplier, these are supplied fully built and sheeted with plasterboard, complete with lifting straps, or in separate parts for assembly on site.  They would normally be installed after the roof trusses have been fixed in place | See Installation guidance “Raising & Installing Spandrel Panels on Timber framed Plots” (Attached) |  |
| Detached garage walls (traditional build) | Generally, detached garages are built using traditional build methods – i.e. no timber frame. This may change when they are used temporarily as a sales centre.  Working Platform (Independent Scaffold) built externally  Fall prevention / Protection, safety decking system installed internally to specification as required when working platform height exceeds 600mm. This is to be checked and signed off by installer and site manager prior to work commencing.  Ensure bags are kept free from debris at all times. | Risk Assessment 1a – Independent system Scaffolding;  Decking systems as per manufacturers / installers guidance and RAMS  Bricklayer contractor RAMS |  |
| Roof Tiling / Slating | All Fall protection / prevention systems must remain in place until roof tillers have completed felt and batten works. A documented check must be carried out before use, between trades changing.  Suitable edge protection to be in place, on gable ends and pediment projections for roofers whilst working on roofs.  Dependent upon the size and pitch of the roof, , this may be achieved by the installation of handrails parallel to the roof pitch leaving table lifts in place, or a combination of both Dependant on assessment.  Certain roof configurations with pediment roofs require installation of girder trusses and/or diminishing trusses or hips. This may require the installation of an additional lightweight working platform approximately 450mm below the wall plate for access only. | Risk Assessment 1a – Independent system Scaffolding;  Decking systems as per manufacturers / installers guidance and RAMS  As per Joiners Method Statement; Roofers method statement;  Roofing Contractors RAMS |  |
| Garage Roof | Working Platform (Independent system Scaffold)  See Internal Fall Prevention/Protection measures detailed above, installed to specification prior to any work commencing, checked and signed off by installer and site manager.  Suitable edge protection to be in place on gable ends, for roofers whilst working on roofs, where required. | Risk Assessment 1a – Independent system Scaffold.  Risk Assessment 6 – Install. of roof trusses.  Risk Assessment 46 – Working on roofs.  Decking systems as per manufacturers / installers guidance and RAMS  As per Joiners Method Statement; Roofers method statement;  Roofing Contractors RAMS |  |
| Brick laying the outer skin for plots, garages, garages and retaining walls. | The bricklayers will have a scaffold working platform to work safely off at all levels. Brick guards will be fitted.  A loading bay will be supplied and a rubbish chute or skip bay to remove materials  Drop down or hop up brackets are acceptable up to 500mm, toe boards should be fitted if there is a risk of falling materials. If hop ups are installed then an additional guardrail on the outer part of the scaffold will be required.  Un-extended band stands may be used at ground level only. | Risk Assessment 1a – Independent system Scaffolding;  Risk Assessment 4 – Use of abrasive wheels and cutting disks;  Risk assessment 5 – Bricklayers and bricklaying operations;  Risk assessment 48 – Use of un-extended bandstand trestles. |  |
| Low Level Roof | Working Platform (Independent system Scaffold)  See Internal Fall Prevention/Protection measures detailed above, installed to specification prior to any work commencing, checked and signed off by installer and site manager.  Additional, suitable edge protection may be required, dependent upon roof size and location in relation to main roof or surrounding walls.  Additional arrangements must be made for the final dressing of the lead flashings and ( if required ) sealant application. | Risk Assessment 1a – Independent system Scaffold.  Risk Assessment 6 – Installation of roof trusses  Risk Assessment 46 – Working on roofs:  Decking systems as per manufacturers / installers guidance and RAMS  As per Joiners Method Statement; Roofers method statement;  Roofing Contractors RAMS |  |
| Porch Roof | Low level working platform – system scaffold.  Existing Scaffold can be used, or dismantled then re erected for Porch roof construction.  When working on some house type porches and low level “wrap around” roofs, the addition of an internal working platform or fall protection system is required  Additional arrangements must be made for the final dressing of the lead flashings and (if required) sealant application. | Decking systems as per manufacturers / installers guidance and RAMS  as per Joiners Method Statement; Roofers method statement;  Roofing Contractors RAMS Joiners, Roofers, Plumbers and Sealant application contractor RAMS |  |
| Dormer Roof | Working Platform (Independent system Scaffold)  Safety Decking system may require to be installed to specification prior to any work commencing, checked and signed off by installer and site manager before first use.  Suitable edge protection to be in place may be required. | Risk Assessment 1a – Independent system Scaffolding;  Safety decking as per installers RAMS  Risk Assessment 6 – Installation of roof trusses;  Risk Assessment 46 – Working on roofs:  For a Room in the Roof 2.5/ 3 Stories, when using roof cassettes, the guidance for vertical or horizontal panels must be followed. |  |
| Chimney | Working Platform (Independent system Scaffold)  Dependant on the location of the chimney, special scaffold arrangements and designs may be required and should be assessed as per individual house types | Risk Assessment 1a – Independent system Scaffolding; |  |
| Removal of fall protection systems from upper floors | Removal of Decking Systems may require the use of a trap door for access to the upper floors or a suitably placed window can be temporarily removed to facilitate removal via the scaffold  If required a site / plot specific assessment must be undertaken in consultation with the installer/ joiner | Risk Assessment 1a – Independent system Scaffolding;  Decking systems as per manufacturers / installers guidance and RAMS.  As per Joiners Method Statement; Roofers method statement. |  |
| Scaffold Access arrangements | Access to all system scaffold platforms is gained via a ladder or stair tower.    The ground for the tower and ladder base must be suitably prepared to reduce trip hazards and provide a firm footing.  The access bay or tower is to be delineated from the scaffold platform with barriers and/or gates  External ladders are only to be used only to gain access to the base lift if required  Where it is impractical to have ladder bays to ground level, then a short external mounted ladder can be acceptable to gain access to the first platform ( base lift), whilst ensuring a suitable swing gate is fitted  Whilst stair access is preferable, ladder access is permissible for general 2 and 2.5 storey construction, however where this is the case, there must be suitable arrangements in place for lifting tools up onto the platforms.  Where there are long terrace blocks of 2.5 storey properties, then stair access should be used for the main access instead of ladders. Additional emergency routes from the scaffold platforms however, can be ladders.  Due to the confines of a standard access tower, ladders and stairs should be installed on every platform to maintain a 75 degree rake and reduce risk of injury. Ground to top lift ladders are generally not acceptable on system scaffolds.    Wherever possible internal (working platform) ladder access with protected trap door should be restricted to table lifts or where all other options have been exhausted.  If this is not possible, an assessment should be made to identify alternative access arrangements (additional bay sizes, stairs etc) | Risk Assessment 1 – Independent system Scaffolding.  When ladder boards/locks are used, they must fully cover the runs on the ladders.  It is imperative that the site management check that all ladder or staircase access is lock off prior to the site closing each day. |  |
| Securing of Access | Suitable means of securing access must be utilised for when scaffolds are not in use or the site is closed. This may include the removal of ladders, or the use of lockable ladder boards.  Ladders should be removed during long periods of site close down, such as long holiday closedowns. | Risk Assessment 1 –Independent scaffold |  |
| Waste Removal | On assessment, suitable means to remove waste from scaffolds must be utilised. This may include the use of waste chutes, or skip bays.  Materials must not be thrown from scaffolds! | Risk Assessment 1a – Independent system Scaffolding; |  |
| Rainwater and plumbing Goods | Wherever possible the system scaffold is to be used for the installation of Gutters, flashings, rainwater and other external pipes work.  If this is not possible, MEWP or light access scaffold tower to be erected by a trained and qualified operative.  Scaffold tower to be checked and signed off by site manager.  Ladders are generally considered unsuitable for fitting rainwater down pipes | Risk Assessment 1a – Independent system Scaffold Erection, Alteration and Dismantling;  Risk Assessment 39 – Use of mobile towers:  Risk Assessment 44 – Working with MEWPs.  Plumber contractor RAMS |  |
| Rendering | System scaffold is to be used for the application of render and roughcasting.  A sufficient practical working gap can be left between the wall and the hop up / platform to allow roughcasting works (normally not exceeding 250mm but subject to the provisions given in the roughcasting contractors RAMS)  Internal handrails are to be left in place at all times until actual operations are taking place. Handrails must be re installed when rendering is complete,  Only competent operatives are to remove handrails, when it is safe to do so.  Pre-render scaffold inspection to be signed off by render contractor as well as standard inspection by scaffolder and site manager. | Risk Assessment 1a – Independent system Scaffold Erection, Alteration and Dismantling.  Risk Assessment 10 – Working with wet concrete, wet cement and mortar products.  Render / roughcasting contractor RAMS |  |
| Other timber Features/Hanging tiles | Independent system Scaffold or MEWP | Risk Assessment 1a – Ind. system Scaffold  Risk Assessment 44 – Working with MEWPs  Task Specific RA or Contractor RAMS. |  |
| Pointing Up | Independent system Scaffold or MEWP | Risk Assessment 1a – Independent system Scaffold  Risk Assessment 44 – Working with MEWPs.  Bricklayer or Customer Care RAMS |  |
| Lead-work / Flashing | Independent system Scaffold or MEWP | Risk Assessment 1a – Ind. system Scaffold  Risk Assessment 46 – Working on roofs:  Plumber RAMS |  |
| Windows | Independent system Scaffold. Windows normally fitted externally from the scaffold , prior to brickwork.  Site manager must ensure hop ups are suitably adjusted prior to installation date. | Risk Assessment 1a – Ind. system Scaffold  Risk Assessment 25 – Installation of windows and glazing; See window fitters risk assessment  Window Fitter RAMS |  |
| Sealants / Mastic | Use existing system scaffold where possible until dismantled  Windows above low-level roofs to be completed from scaffold prior to roof covering.  If system scaffold is unavailable or dismantled then a MEWPS or light access tower can be used, when erected by a suitably trained person.  Ladders can be used subject to contractor RAMS if suitably secured or footed, providing the user can maintain 3 points of contact at all times.. | Risk Assessment 1a – Ind. system Scaffold  Risk Assessment 34 – Use of ladders;  Risk Assessment 39 – Use of mobile towers:  Risk Assessment 44 – Working with MEWPs:  Risk Assessment 46 – Working on roofs:,  See sealant contractor Risk assessment |  |
| Alarm Systems | Use existing independent scaffold, MEWP, Aluminium scaffold tower .  Ladders can be used subject to contractor RAMS if suitably secured or footed, providing the user can maintain 3 points of contact at all times. | Risk Assessment 1a – Ind. system Scaffold  Risk Assessment 34 – Use of ladders;  Risk Assessment 39 – Use of mobile towers:  Risk Assessment 44 – Working with MEWPs:  Risk Assessment 46 – Working on roofs:,  Alarm Installer RAMS |  |
| Stairwell Working | Permanent stairs should be fitted as soon as possible after the plot is watertight. On 2.5/3 storey properties, due to the build program, the use of a temporary stair system should be considered, to assist access until the permanent stair is fitted.  When fitting the 2nd /3rd staircase the stair opening below the flight that is being fitted must be covered over to prevent a fall.  Ensure temporary guardrails are in place, until permanent guardrails are fitted.  Where unsupported joists become apparent on fitting of stairs, a suitable propping system must be employed, until bulkhead/supporting stud wall can be constructed.  Alternatively, balustrades, banisters and bulkheads can be installed at the same time as the staircases.  Care needs to be taken if balustrades are later removed temporarily for painting, and additional controls need to be in place such as post and rails etc, subject to specific risk assessment.  Suitable stairwell working platform system (e.g. Oxford system) to be installed during Ames taping, plastering and painting operations. This may include:  a. The use of proprietary access platforms:  b. Refitting of sacrificial joists and flooring:  c. Use of secured “Youngmans” boards to provide a suitable working platform and remove fall hazard.  On assessment, some property types may require a bespoke decking system.  Where these are considered unsuitable then a system scaffold or light access tower can be used, subject to design and assessment. | Risk Assessment 47 – Work around and in stairwells;  Risk Assessment 48 – Use of un-extended bandstand trestles |  |
| Cleaning | Where practicable, all windows to be fitted with easy-clean hinges for internal cleaning. Remove film from PVC facia and clean soffits, gutters and down-comers from independent scaffold, MEWP, aluminium tower or ladders fitted with stabilisation device and harness. Brickwork Cleaning by use of extended easy-reach wash system. | Risk Assessment No 1 – Independent Tube & Fitting Scaffold.  Risk Assessment 34 – Use of ladders;  Risk Assessment 39 – Use of mobile towers:  Risk Assessment 44 – Working with MEWPs:  Risk Assessment 46 – Working on roofs:,  See contractor Risk assessment |  |
| Other |  |  |  |

**Part 3. Type of External Scaffold Required (see also property design drawings)**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Independent | Putlog | System |
| General Purpose (2 kN/m2) |  |  |  |
| Heavy Duty (3 kN/m2) | For Loading Bays |  |  |

**Part 4. Scaffold Design & Access/Egress**

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| --- | --- | --- | --- | --- |
|  | | | (✓or X) | If X date expected |
| Scaffold designs/TG20:21 compliant sheets available | | |  |  |
| Safe system of work received from Scaffold Contractor | | |  |  |
| Ground Composition details | | |  |  |
| Waste removal arrangements waste chutes or skip bays | | |  |  |
| Dismantling arrangements | | |  |  |
| **Type of Access/Egress to be used** | **Tick** | **Recommended Guidance Scaffold Access/Egress** | | |
| 1. Staircases |  | For apartment blocks/runs of 4 or more 3+ storey properties | | |
| 1. Ladder Access Bays with single lift ladders |  | For 2.5/ 3 storey detached/semi-detached properties | | |
| 1. Ladder Access Bays with multiple lift ladders |  |
| 1. Internal ladder access with protected trap |  |
| 1. Pole ladder external access using safety gate |  | For detached/semi-detached 2.5 storey properties. | | |

**✓\*** Tick where applicable

**Part 5. Loading Requirements of External Scaffold (see also property design specification)**

|  |  |  |  |
| --- | --- | --- | --- |
| **Indicate Loading Requirements for Scaffold ✓ or X** | | | |
| Max. weight to be placed on Loading Bay |  | Total Number of Loading Bays Required |  |

**Part 6. Type of Scaffold Contract**

|  |  |  |
| --- | --- | --- |
| **Indicate Type of Scaffold Contract (✓ or X)** | | |
| Supply and Fit Sub-Contractor | Labour Only Sub-Contractor | Directly Employed |
| **✓** |  |  |

**Note:** For the purpose of scaffold contracts a one-man self-employed/labour only person should be regarded as subcontract.

**Part 7. Inspection Regime Requirements (✓)**

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| --- | --- | --- | --- |
| **Hand-over/Inspection Required** | **Direct Employee** | **Sub-contractor** | **Site Manager** |
| Hand-over procedure |  | Scaffold Supervisor | Site Manager |
| Component Inspection prior to erection |  | Scaffold Supervisor | Site Manager |
| Before first use |  | Scaffold Supervisor | Site Manager |
| Substantial Alteration Inspection |  | Scaffold Supervisor | Site Manager |
| Adverse weather condition / situations |  | Scaffold Supervisor | Site Manager |
| 7 Day Inspection |  | Scaffold Supervisor | Site Manager |

**Part 8. Competency and Training Requirements – Site Manager to complete details on Site Induction Forms**

**Part 9. Additional Comments/Notes**

This assessment should be read in conjunction with the requirements detailed in TG20;21, SG4:10 and the HBF Scaffold Specification Template together with associated trade specifications and site specific information i.e. traffic management plans, lifting plans etc.

**Directors Responsible For Completing the Assessment**

|  |  |
| --- | --- |
| **Name(s)** |  |
| **Signature** |  |
| **Date** |  |