Staging & Structure Build Method Statement

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Erecting and Dismantling All Structures

A.O. General

A.O.1. ***This method statement is the set of standing instructions to be applied when erecting and dismantling all types of structure. It applies to all sub-contractors of A-TECH Event Services, except where a task is shown as the specific responsibility of the crew chief***

Before Starting Construction

B.O.1. The Crew Chief must ensure:

B.O.1.1. That he has on-site the specifications, drawings and method statements appropriate to the job in hand in addition to his logbook.

B.O.1.2. Designated areas for unloading construction and storage have been marked out by the Client.

B.O.1.3. That all crew present have the correct safety and personal protection gear.

B.O.1.4. That tools and rigging gear are in good condition.

B.O.1.5. That any forklift truck to be in safe condition and has adequate fuel.

B.1. Crew Chief will brief the crew, according to the Briefing Check List, including reminders of any hazards specific to the site or work to be undertaken.

B.2. Safety is paramount. It is the responsibility of all crew to put the Health and Safety at Work policy into practice.

B.3. Mark out the front line of stage and/or other structures and measure approximate depth. The Crew Chief will obtain confirmation of position from The Client.

B.4. Assess ground surface condition and levels.

B.5. The Crew Chief will decide which bays or sections are to be built first, depending upon ground conditions.

B.6. In the course of erection, check all components for functional damage. Reject any components that show any dents, cracks, bending deformities or significant rusting/corrosion. Do not use such components, but follow the “Damaged Equipment” procedure as a para. F.22.

Erect the Structure according to the appropriate Method Statement

Staging & Structure Build Method Statement

After main Construction Work is Complete

D.0. Mark the front edge of the stage with white tape. This should be carried out even if The Client indicates that this is not required.

D.1. The structure is cleared of all extraneous materials. Surplus items must be stored in the designated storage area or otherwise so that they do not present a hazard to user of the structure.

D.2. Crew Chief to supervise the following checks:

D.2.1. Each base screw jack is correctly under load.

D.2.2. Secure fixing of scaffold clips and wedges.

D.2.3. No surplus materials lying on or in the vicinity of the structure, with particular attention to adjacent areas of grass to which they may have access.

D.3. Crew Chief to personally carry out the following checks:

D.3.1. Visual inspection to identify any untoward ground settlement.

D.3.2. Bracing Pattern.

D.3.3. Ramps and steps are correctly erected and well fixed structure.

D.3.4. All handrails, including those to ramps and steps are sturdily fixed without sharp protrusions.

D.3.5. Decking, ramp surface and steps treads are free of anything that may cause someone to trip or slip.

D.4. Crew Chief to mark his log appropriately as the checks are completed.

D.5. Crew Chief explains any apparent hazards to The Client, hands the structure over to The Client and obtains The Client's signature on the job completion form.

D.5.1. Components are sorted into their appropriate container. Any damaged components must be separated and dealt with according to para. F.21

D.5.2. The site is checked, particularly where grass may be concealing components.

D.6. If any item of equipment is seen to be damaged, it must not be used or stored with undamaged items. It must be placed in a "damage" stillage and the Crew Chief informed of each occurrence. The Crew Chief must note each damaged item in his log, showing whether the damage occurred on his site or whether the item was damaged on delivery.

D.7. The Crew Chief may instruct work to proceed at variance with the above, providing that he logs each and every variance, together with his reasons for the variance.

Orbit Roof Structures

E.0. General

E.0.1. This Method Statement is the set of standing instructions for erecting and dismantling the type of structure shown in the title. It applies to all sub-contractors of A-TECH Event Services, except where a task is shown as the specific responsibility of the Crew Chief.

E.1. Mark out, fix and secure structure base plates.

E.2. Position and fix under-stage roof support complete with suitable base pads.

E.3. Fix diagonal support bracing and restraint straps and fix any addition kintiledge required.

E.4. Construct aluminium pick-up tower.

E.5. Stabilise pick-up tower with out rigging and guys.

E.6. Construct arch girders on stage or designated work area.

E.7. Crew Chief to check assembly of pick-up tower and arch girders.

E.8. Position arch legs against structure base plates and secure.

E.9. Attach rigging bridle to arch girder.

E.10. Rig lifting rope through pulley block in pick-up tower and secure to rigging bridle.

E.11. Attach free end of lifting rope winching mechanism.

E.12. Crew Chief to check rope attachments.

E.13. Winch arch girder to a vertical position and fix to base plates, Secure the apex of the arch girder to the pick-up tower.

E.14. All arch girders used in the structure will be raised in a similar manner and supported with restraining ropes.

E.15. Two qualified technicians affix purlins by supporting themselves on the main arch girders and securing themselves by rope and harness when static. The purlins are lifted into position when handling lines and bolted to the main arch girders.

E.16. On the D-end sections of the Orbit structure the half-arch girders are fixed to the base plates then bolted to the fishplate at the apex of the base plates then bolted to the fishplate at the apex of the structure.

E.17. Any necessary diagonal bracing is fixed to the roof structure.

E.18. Crew Chief to check structure, under-stage support/restraint and fixings before any roof fabric is installed.

E.19. The roof sheets are formed of polyester woven fabric with kader edges. Four technicians starting at one side of the structure install the main bay sheets, locating the kader at the open end of the luff groove and pulling the sheets over the apex of the structure and back level the other side.

E.20. D-ends sheets are feeding down from the apex to base level.

E.21. The D-end cap is positioned over the fishplate at the plate at the peak of the D-end and fastened down.

E.22. Final weatherproofing and tensioning is undertaken.

E.23. Crew Chief must undertake a final inspection of the Orbit structure.

E.24. Dismantling is achieved by reversing the above procedure subject to:

E.24.1. Removal of the main bay sheets is normally achievable from ground level without the need for crew to follow the sheets over the structure.

E.24.2. Where a structure has been on a site for an extended period the sheeting may need to be cut alongside the kader. This must be carried out by a competent technician, working with the correct safety equipment.

Stage Construction – Black Deck System.

F.0. General.

F.0.1. This Method Statement is the set of standing instructions for erecting and dismantling the type of structure shown in the title. It applies to all sub-contractors of A-TECH Event Services, except where a task is shown as the specific responsibility of the Crew Chief.

F.1. Crew Chief to brief the crew, including reminders of any special hazards.

F.2. Mark front line of stage and measure approximate depth. The Crew Chief will obtain confirmation of the position from the Client.

F.3. Assess ground surface condition and levels.

F.4. In the course of erection, check components for functional damage. Reject any components that show any dents, cracks, bending deformities or significant rusting/corrosion. Do not use such components, but follow the “Damaged Equipment” procedure as a para. F.21.

F.5. The Crew Chief will decide the type of base pads to be used, depending upon ground conditions. All base pads should be aligned square with the stage perpendicular to the steel standards.

F.6. Place base pads for the first bay and erect vertical and horizontal steel sub-structure for the first bay using plan braces. When this bay is confirmed square and level, hammer tight the wedges on this bay.

F.7. Note that where a base jack is extended beyond 300mm then addition adjustable bracing must be used in accordance with normal GKN-Kwikform bracing practice.

F.8. Complete the front run of bays to the width of the structure, using temporary plan braces where necessary. Level each bay and apply any diagonal bracing before proceeding to the next bay.

F.9. When first run is complete check that all wedges are hammered tight then confirm the alignment of this whole run.

F.10. Add the decking components to the first run, laying the decking sheets in place. Confirm that the decking aligns correctly.

F.11. Base out and erect the remainder of the structure, including decking components and bracing, proceeding one bay at a time across the width of the structure. Bays must be levelled, braced and wedges tightened as each bay is erected.

F.12. When all decking sheets are in place, locate and tighten the deck retaining plates.

F.13. When the decking is complete, erect any specified ramps and /or steps.

F.14. Mark the front edge of the stage with white tape. This should be carried out even if The Client indicates that this is not required.

F.15. The structure is cleared of all extraneous materials. Surplus items must be stored in the designated storage area or otherwise so that they do not present a hazard to users of the structure.

F.16. Crew Chief to supervise the following checks:

F.16.1. Each base screw jack is correctly under load.

F.16.2. Secure fixing of scaffold clips and wedges.

F.16.3. No surplus materials lying on or in the vicinity of the structure, with particular attention to adjacent areas of grass to which the public may have access.

F.17. Crew Chief to personally carry out the following checks:

F.17.1. Visual inspection to identify any untoward ground settlement.

F.17.2. Bracing pattern.

F.17.3. Ramps and steps are correctly erected and well fixed to main structure.

F.17.4. All handrails, including those to ramps and steps are sturdily fixed without sharp protrusions.

F.17.5. Decking, ramp surface and step treads are free of anything that may cause some one to trip or slip.

F.18. Crew Chief to mark his log appropriately as the above checks are completed.

F.19. Crew Chief explains any apparent hazards to the Client, hands the structure over to the Client and obtains The Client's signature on the Job Completion form.

F.20. Dismantling takes place in the following sequence:

F.20.1. Deck retaining plates and decking panels are removed.

F.20.2. Steel sub-structure is dismantled and removed bay by bay.

F.20.3. Components are sorted into their appropriate container. Any damaged components must be separated and dealt with according to para.F.22.

F.20.4. The site is checked, particularly where grass may be concealing components.

F.21. If any item of equipment is seen to be damaged, it must not be used or stored with undamaged items. It must be placed in a "damage" stillage and the Crew Chief informed of each occurrence. The Crew Chief must note each damaged item in his log, showing whether the damage occurred on his site or whether the item was damaged on delivery.

F.22. The Crew Chief may instruct work to proceed at variance with the above, providing that he logs each and every variance, together with his reasons for the variance.

Staging & Structure Build Method Statement

Towers and Similar Scaffolding Structures

G.0. General

G.0.1. This Method Statement is the set of standing instructions for erecting and dismantling the type of structure shown in the title. It applies to all sub-contractors of A-TECH Event Services, except where a task is shown as the specific responsibility of the Crew Chief.

G.1. Crew Chief to brief the crew, including reminders of any special hazards.

G.2. Mark front line of stage and measure approximate depth. The Crew Chief will obtain confirmation of the position from the Client.

G.3. Assess ground surface condition and levels.

G.4. In the course of erection, check components for functional damage. Reject any components that show any dents, cracks, bending deformities or significant rusting/corrosion. Do not use such components, but follow the "Damaged Equipment" procedure as in para. F.22.

G.5. The Crew Chief will decide the type of base pads to be used, depending upon ground conditions. All base pads should be aligned square with the stage perpendicular to the steel standards.

G.6. Place base pads for the first bay and erect vertical and horizontal steel sub-structure for the first bay using plan braces. When this bay is confirmed square and level, hammer tight the wedges on this bay.

G.7. Note that where a base jack is extended beyond 300mm then addition adjustable bracing must be used in accordance with normal GKN-Kwikform bracing practice.

G.8. Complete the front run of bays to the width of the structure, using temporary plan braces where necessary. Level each bay and apply any diagonal bracing before proceeding to the next bay.

G.9. When first run is complete check that all wedges are hammered.

G.10. If a structure is to exceed 6m in height, temporary working platforms will be erected to enable crew to pass up components.

G.11. If a structure is to exceed 8m in height, a forklift will be used wherever possible to raise components to the working level or temporary platform, as appropriate.

G.12. When the steel-work and decking are complete, erect any specified ramps and/or steps.

G.13. Fix the roof support tubes in position and check the tightness of fittings.

G.14. Remove any temporary working platforms.

G.15. ***Crew Chief to check current wind speed and wind forecast and follow A-TECH Event Services Wind policy proir to fixing any sheeting to the tower.***

G.16. ***Provided that wind conditions allow (taking into account ballast provided), roof and side sheets are to be fitted.***

G.17. The structure is cleared of all extraneous materials. Surplus items must be stored in the designated storage area or otherwise so that they do not present a hazard to users of the structure.

G.18. Crew Chief to supervise the following checks:

G.18.1. Each base screw jack is correctly under load.

G.18.2. Secure fixing of scaffold clips and wedges.

G.18.3. No surplus materials lying on or in the vicinity of the structure, with particular attention to adjacent areas of grass to which the public may have access.

G.19. Crew Chief to personally carry out the following checks:

G.19.1. Visual inspection to identify any untoward ground settlement.

G.19.2. Bracing pattern.

G.19.3. Ramps and steps are correctly erected and well fixed to main structure.

G.19.4. All handrails, including those to ramps and steps are sturdily fixed without sharp protrusions.

G.19.5. Decking, ramp surface and step treads are free of anything that may cause some one to trip or slip.

G.20. Crew Chief to mark his log appropriately as the above checks are completed.

G.21. Crew Chief explains any apparent hazards to the Client, hands the structure over to the Client and obtains The Client's signature on the Job Completion form.

G.22. Dismantling takes place in the following sequence:

G.22.1. Deck retaining plates and decking panels are removed.

G.22.2. Steel sub-structure is dismantled and removed bay by bay.

G.22.3. Components are sorted into their appropriate container. Any damaged components must be separated and dealt with according to para.F.22.

G.22.4. The site is checked, particularly where grass may be concealing components.

G.23. ***If any item of equipment is seen to be damaged, it must not be used or stored with undamaged items. It must be placed in a "damage" stillage and the Crew Chief informed of each occurrence. The Crew Chief must note each damaged item in his log, showing whether the damage occurred on his site or whether the item was damaged on delivery.***

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British Standard, DIN and ISO Standards
BS 302-1/2 Stranded steel wire ropes
BS 463 Specification for sockets for wire ropes
BS 464 Specification for thimbles for wire ropes
BS 1139 Metal scaffolding
BS 1290 Specification for wire rope slings and sling legs for general lifting purposes
BS 2853 Specification for the design and testing of steel overhead runway beams
BS 3032 Specification for high tensile steel shackles
BS 3243 Specification for hand operated chain blocks
BS 3481 Flat lifting slings - Part 2: Specification for flat woven webbing slings made of man-made fibre for general service
BS 3551 Specification for alloy steel shackles
BS 4278 Specification for eyebolts for lifting purposes
BS 4429 Specification for rigging screws and turnbuckles for general engineering, lifting purposes and pipe hanger applications
BS 4898 Specification for chain lever hoists
BS 4942 Short link chain for lifting purposes
BS 5281 Specification for ferrule-secured eye terminations for wire rope
BS 5950 Structural use of steelwork in building
BS 6166 Lifting slings – Part 3: Guide to the selection and safe use of lifting slings for multi-purposes
BS 6399 Loading for buildings
BS 6570 Code of practice for the selection care and maintenance of steel wire ropes
BS 6668–1/2 Textile lifting slings - Part 1: Specification for lifting slings for general service made from certain natural and man-made fibre ropes. Textile lifting slings - Part 2: Specification for round slings made of man-made fibre for general service.
BS 6994 Specification for steel shackles for lifting and general engineering purposes grade 4 (M).
BS 7035 Code of practice for socketing of stranded steel wire rope
BS 7121–1/2 Code of practice for the Safe Use of Cranes
BS EN 292-2 Safety of Machinery; Basic concepts, general principles for design - Part 2: Technical principles and specifications
BS EN 418 Safety of machinery – Emergency stop equipment, functional aspects. Principles for design.
BS EN 698 Fibre ropes for general service - Manila and sisal
BS EN 701 Fibre ropes for general service - General specification
BS EN 795 Protection against falls from a height, anchor devices, requirements and testing.
BS EN 818-2 Short link chain for lifting purposes – Safety - Part 2: Medium tolerance chain for chain slings - Grade 8.
BS EN 1261 Fibre ropes for general service - Hemp
BS EN 1677-1 Components for slings – Safety – Forged steel components - Grade 8.
BS EN 1677-2 Components for slings – Safety – Forged steel lifting hooks with latch - Grade 8
BS EN 1677-4 Components for slings – Safety – Links - Grade 8
BS EN 12275 Mountaineering equipment – Connectors – safety requirements and tests
BS EN 25817 Arc-welded joints in steel – Guidance on quality levels for imperfections
BS EN 30042 Arc-welded joints in aluminium and its weldable alloys. Guidance on quality levels for imperfections

BS EN 60204 Safety of machinery. Electrical equipment of machines - Part 1: Specification for general requirements
DIN 1142 Wire rope grips for rope terminations to meet safety requirements DIN 15315 Symmetrical wedge sockets for wire ropes
BS 3810 Part 5: Terms used in connection with lifting tackle
BS 3810 Part 6: Terms used in connection with pulley block
BS 5950 Structural use of steel
BS 6399 Loadings on buildings
BS 8118 Structural use of aluminium
DIN 1142 Wire rope grips
DIN 15315 Wedge socket (Elevator type, for wire rope termination)

Fall Arrest Equipment Standards
EN 361 Harness for fall arrest
EN 355 Energy (shock) absorbers for industrial use
EN 360 Retractable line fall arrestors
EN 362 Connectors (karabiners) for industrial use
EN 354 Lanyards
EN 363 Complete fall arrest systems
EN 353-1 Fall arrestors on a rigid anchorage line/rail
EN 353-2 Fall arrestors on a flexible rigid anchorage line/rope
EN 795 Anchors for fall arrest, Types A,B,C,D

Work Positioning Equipment
EN 358 Sit harnesses
EN 358 Lanyards for work positioning (pole straps, etc)
EN 341 Descenders
EN 567 Rope clamps (ascenders, etc)
EN 12278 Pulleys
EN 1891 Ropes for “industrial” rope access and climbing

Helmets
EN 397 Construction industry safety helmets
EN 12492 Mountaineering helmets