

# **SPECIFICATION**

for

## **STREATHAM COMMON PLAYGROUND**

for

## **LONDON BOROUGH OF LAMBETH**

**21<sup>st</sup> March 2017**

**WILLIAM G. DICK PARTNERSHIP LLP  
Thornton House, Thornton Road, London SW19 4NG**

## **INDEX**

### **Section No.**

1. Preliminaries
2. Specifications  
- Chris Blandford Associates specification and Play Equipment installation.
3. Schedule of Works
  - 3/1 Site Clearance/Demolition
  - 3/2 Hard Landscaping
  - 3/3 Soft Landscaping
  - 3/4 Play Equipment
  - 3/5 Furniture/Fencing
  - 3/6 Drainage
4. Specialist Domestic Subcontractors
  - Mechanical and Electrical Services –Irrigation system
5. Provisional Sums and Dayworks
- GS General Summary

## **Appendices**

Appendix 'A'	Tender Drawings
Appendix 'B'	Pre-Construction Information
Appendix 'C'	Draft Contract Conditions
Appendix 'D'	Surveys

**SECTION NO. 1**

**PRELIMINARIES**

**JCT335A10 PROJECT PARTICULARS****110 THE PROJECT**

- Name: Streatham Common Play Area
- Nature: Hard and soft landscaping, new play equipment and associated works.
- Location: Streatham Common.
- Length of contract: 14 weeks (Contractors are invited to offer an alternative, lower, programme)

**120 EMPLOYER (CLIENT)**

- Name: London Borough of Lambeth.
- Address: 4<sup>th</sup> Floor Blue Star House, 234-244 Stockwell Road, London SW9 9SP.
- Contact: Caroline Streeks.
- Telephone: 0207 926 0392.
- E-mail: [CStreeks@lambeth.gov.uk](mailto:CStreeks@lambeth.gov.uk)

**130 PRINCIPAL CONTRACTOR (CDM)**

- Name: \_\_\_\_TBA\_\_\_\_.
- Address: \_\_\_\_\_.
- Contact: \_\_\_\_\_.
- Telephone: \_\_\_\_\_.
- E-mail: \_\_\_\_\_.

**140 CONTRACT ADMINISTRATOR**

- Name: Chris Blandford Associates
- Address: Woolyard, 52 Bermondsey Street, London SE1 3UD
- Contact: Rupali Bhat/Phillip Porter
- Telephone: 020 7089 6480
- E-mail: [RBhat@cbastudios.com](mailto:RBhat@cbastudios.com)

**150 PRINCIPAL DESIGNER**

- Name: Chris Blandford Associates
- Address: Woolyard, 52 Bermondsey Street, London SE1 3UD
- Contact: Rupali Bhat
- Telephone: 020 7089 6480
- E-mail: [RBhat@cbastudios.com](mailto:RBhat@cbastudios.com)

**160 QUANTITY SURVEYOR**

- Name: William G. Dick Partnership LLP
- Address: Thornton House, Thornton Road, London SW19 4NG
- Contact: Ken Howard
- Telephone: 020 7407 7330.
- E-mail: [ken.howard@williamgdick.co.uk](mailto:ken.howard@williamgdick.co.uk)

**180 LANDSCAPE ARCHITECT**

- Name: Chris Blandford Associates
- Address: Woolyard, 52 Bermondsey Street, London SE1 3UD
- Contact: Rupali Bhat
- Telephone: 020 7089 6480
- E-mail: [RBhat@cbastudios.com](mailto:RBhat@cbastudios.com)

## **JCT335A11 TENDER AND CONTRACT DOCUMENTS**

### **110 TENDER DRAWINGS**

- The tender drawings are: As Appendix A.

### **120 CONTRACT DRAWINGS**

- The Contract Drawings: The same as the tender drawings.

### **160 PRECONSTRUCTION INFORMATION**

- Format: The Preconstruction information is described in these preliminaries in Section A34. It refers to information given elsewhere in the preliminaries and other tender documents.

### **180 OTHER DOCUMENTS**

- Inspection: Drawings and other documents relating to the Contract but not included in the tender documents may be seen by appointment during normal office hours at the office of N/A.
- The documents include: None at present.

## **JCT335A12 THE SITE/ EXISTING BUILDINGS**

### **110 THE SITE**

- Description: Refer to drawing SCP-CBA-1-GF-M2-L-0010A and 0011A and PCI (Appendix B).

### **120 EXISTING BUILDINGS ON/ ADJACENT TO THE SITE**

- Description: Refer to drawing\_ SCP-CBA-1-GF-M2-L-0010A and 0011A and PCI (Appendix B).

### **140 EXISTING UTILITIES AND SERVICES**

- Drawings: (Information shown is indicative only): SCP-CBA-1-GF-M2-L-0010A and 0011A and PCI (Appendix B).
- Other information: Surveys (Appendix D)

### **160 SOILS AND GROUND WATER**

- Information: Included in the tender documents.

### **170 SITE INVESTIGATION**

- Report: Included in the tender documents.

### **180 HEALTH AND SAFETY FILE**

- Availability for inspection: The Health and Safety File for the site is included in Appendix B
- Other documents: \_\_\_\_\_.
- Arrangements for inspection: \_\_\_\_\_.

### **200 ACCESS TO THE SITE**

- Description: Refer to drawing SCP-CBA-1-GF-M2-L-0010A and 0011A and PCI (Appendix B).
- Limitations: The site must be securely locked out of hours to avoid access by the Public. Note the Contractor is to have a 4 week mobilisation period prior to starting works on 4<sup>th</sup> September 2017. No access within the actual play area before this date, due to summer holidays. There is potential to set up a site compound outside the site boundary if required.

### **210 PARKING**

- Restrictions on parking of the Contractor's and employees' vehicles: No parking except by arrangement.

### **220 USE OF THE SITE**

- General: Do not use the site for any purpose other than carrying out the Works.
- Limitations: SCP-CBA-1-GF-M2-L-0010A and 0011A and PCI (Appendix B). Any vehicles moving on the common must adhere to a speed limit of 5 mph, and a Banksman must be available to see safe movement of vehicles in and out of the site and across the common.



**230 SURROUNDING LAND/ BUILDING USES**

- General: Adjacent or nearby uses or activities are as follows: Park, public rights of way, Lambeth Park staff using adjacent storage building and main A23.

**240 HEALTH AND SAFETY HAZARDS**

- General: The nature and condition of the site/ building cannot be fully and certainly ascertained before it is opened up. However the following hazards are or may be present: Appendix B.
- Information: The accuracy and sufficiency of this information is not guaranteed by the Employer or the Employer's representative. Ascertain if any additional information is required to ensure the safety of all persons and the Works.
- Site staff: Draw to the attention of all personnel working on the site the nature of any possible contamination and the need to take appropriate precautionary measures.

**250 SITE VISIT**

- Assessment: Ascertain the nature of the site, access thereto and all local conditions and restrictions likely to affect the execution of the Works.
- Arrangements for visit: The site is accessible and open to the Public. The Public toilets are closed and you need to make arrangements to visit via Caroline Streeks of LB of Lambeth.

**JCT335A13 DESCRIPTION OF THE WORK****110 PREPARATORY WORK BY OTHERS**

- Works: Carried out under a separate contract and completed before the start of work on site for this Contract.
- Description: Tree pruning and canopy lifting of trees..

**120 THE WORKS**

- Description: Complete refurbishment of hard and soft landscaping within the curtilage of the site, together with the renewal of play equipment and furniture. Associated repair works and refurbishment. There may be a requirement for soft planting/turfing to be carried out during the official planting season, and this is to be done as early in the programme as possible with a minimum 4 to 6 weeks bedding in period for the turf. The ideal time for turfing is October/early November. Contractors are to submit proposals in this regard.

**130 WORK BY OTHERS CONCURRENT WITH THE CONTRACT**

- Description: None.

**140 COMPLETION WORK BY OTHERS**

- Description: None.

**JCT335A20 JCT INTERMEDIATE BUILDING CONTRACT WITH CONTRACTOR'S DESIGN (ICD)****INTERMEDIATE BUILDING CONTRACT WITH CONTRACTOR'S DESIGN (ICD)**

- The Contract: JCT Intermediate Building Contract with Contractor's Design 2016 Edition
- Requirement: Allow for the obligations, liabilities and services described.
- See Appendix C for draft contract requirements. If there is a requirement for planting beyond PC, we may select a Sectional Completion requirement for this purpose. To be discussed at post tender stage.

**EXECUTION**

- The Contract: Will be executed as a deed.

**CONTRACT GUARANTEE BOND**

- Contract Guarantee Bond: Allow in the tender for the provision of a 10% performance bond.

## **JCT335A30 TENDERING/ SUBLETTING/ SUPPLY**

### **MAIN CONTRACT TENDERING**

#### **110 SCOPE**

- General: These conditions are supplementary to those stated in the Invitation to Tender and on the form of tender.

#### **145 TENDERING PROCEDURE**

- General: In accordance with NBS Guide to Tendering for Construction Projects.
- Errors: Correction of errors is to apply.

#### **160 EXCLUSIONS**

- Inability to tender: Immediately inform if any parts of the work as defined in the tender documents cannot be tendered.
- Relevant parts of the work: Define those parts, stating reasons for the inability to tender.

#### **170 ACCEPTANCE OF TENDER**

- Acceptance: No guarantee is offered that any tender will be recommended for acceptance or be accepted, or that reasons for non acceptance will be given.
- Costs: No liability is accepted for any cost incurred in the preparation of any tender.

#### **190 PERIOD OF VALIDITY**

- Period: After submission or lodgement, keep tender open for consideration (unless previously withdrawn) for not less than - See ITT.
- Date for possession/ commencement: See section A20.

### **PRICING/ SUBMISSION OF DOCUMENTS**

#### **210 PRELIMINARIES IN THE SPECIFICATION**

- Measurement rules: Preliminaries/ General Conditions have not been prepared in accordance with NRM.

#### **220 PRICING OF PRELIMINARIES**

- Abbreviations: The following have been used:
  - F = Fixed charge item.
  - TR = Time related charge item.

**250 PRICED DOCUMENTS**

- Alterations: Do not alter or qualify the priced documents without written consent. Tenders containing unauthorised alterations or qualifications may be rejected.
- Measurements: Where not stated, ascertain from the drawings.
- Deemed included: Costs relating to items, which are not priced, will be deemed to have been included elsewhere in the tender.
- Submit: With tender.

**300 QUANTITIES IN THE PRICED DOCUMENT**

- Quantities: Where included in the priced document, these have not been prepared in accordance with SMM7/ NRM2
- All items, descriptions and measurements not prepared in accordance with SMM7/ NRM2: Must be priced taking account of the information given elsewhere in the tender documents, including for all associated and ancillary work shown or clearly apparent as being necessary for the complete and proper execution of the work.

**310 TENDER**

- General: Tenders must include for all work shown or described in the tender documents as a whole or clearly apparent as being necessary for the complete and proper execution of the Works.

**440 CONTRACT SUM ANALYSIS**

- Content of the Analysis: A breakdown of the Contract Sum into at least the following categories: As section 3.
- Fully priced copy: Submit with tender.

**480 PROGRAMME**

- Programme of work: Prepare a summary showing the sequence and timing of the principal parts of the Works and periods for planning and design. Itemize any work which is excluded.
- Submit: With tender.

**490 INFORMATION RELEASE SCHEDULE**

- Compatibility with programme: At the same time as submitting the proposed programme or summary, confirm that it is compatible with the Information Release Schedule.
- Alternative proposals: If any part of the programme is not compatible with the Schedule submit alternative proposals and reasons for varying the times for release of information.

**500 TENDER STAGE METHOD STATEMENTS**

- Method statements: Prepare, describing how and when the following is to be carried out: The works.
- Statements: Submit With tender.

**510 ALTERNATIVE METHOD TENDERS**

- General: In addition to and at the same time as tendering for the Works as defined in the tender documents, alternative methods of construction/ installation may be submitted for consideration. Alternatives, which would involve significant changes to other work, may not be considered.
- Alternative tenders: Such alternatives will be deemed to be alternative tenders and each must include a complete and precise statement of the effects on cost and programme.
- Safety method statement: Carry out a health and safety risk assessment for each alternative and where appropriate provide a safety method statement suitable for incorporation in the Health and Safety Plan.
- Full technical data: Submit for each alternative together with details of any consequential amendments to the design and/ or construction of other parts of the Works.
- Submit: With tender.

**515 ALTERNATIVE TIME TENDERS**

- General: In addition to and at the same time as tendering based upon the date or period specified in section A20, an alternative tender based upon a different date for completion or period may be submitted. It is suggested that this should be a lesser period than the suggested 14 weeks.
- Date for completion: If any such tender is accepted the date for completion inserted in the Contract will be the date stated in the alternative tender or determined from the period stated in the alternative tender.

**520 DESIGN DOCUMENTS**

- Scope: Include the following in the Contractor's Proposals:
  - Design drawings: Drainage and Irrigation systems.
  - Technical information: \_\_\_\_\_.
- Submit: With tender.

**530 SUBSTITUTE PRODUCTS**

- Details: If products of different manufacture to those specified are proposed, submit details with the tender giving reasons for each proposed substitution. Substitutions, which have not been notified at tender stage, may not be considered.
- Compliance: Substitutions accepted will be subject to the verification requirements of clause A31/200.

**540 QUALITY CONTROL RESOURCES**

- Statement: Describe the organisation and resources to control the quality of the Works, including the work of subcontractors.
- QA staff: Identify in the statement the number and type of staff responsible for quality control, with details of their qualifications and duties.
- Submit: \_\_\_\_\_.

## 550 HEALTH AND SAFETY INFORMATION

- Content: Describe the organisation and resources to safeguard the health and safety of operatives, including those of subcontractors, and of any person whom the Works may affect.
- Include:
  - A copy of the contractor's health and safety policy document, including risk assessment procedures.
  - Accident and sickness records for the past five years.
  - Records of previous Health and Safety Executive enforcement action.
  - Records of training and training policy.
  - The number and type of staff responsible for health and safety on this project with details of their qualifications and duties.
- Submit: \_\_\_\_\_.

## 570 OUTLINE CONSTRUCTION PHASE HEALTH AND SAFETY PLAN

- Content: Submit the following information within one week of request:
  - Method statements on how risks from hazards identified in the pre-construction information and other hazards identified by the contractor will be addressed.
  - Details of the management structure and responsibilities.
  - Arrangements for issuing health and safety directions.
  - Procedures for informing other contractors and employees of health and safety hazards.
  - Selection procedures for ensuring competency of other contractors, the self-employed and designers.
  - Procedures for communications between the project team, other contractors and site operatives.
  - Arrangements for cooperation and coordination between contractors.
  - Procedures for carrying out risk assessment and for managing and controlling the risk.
  - Emergency procedures including those for fire prevention and escape.
  - Arrangements for ensuring that all accidents, illness and dangerous occurrences are recorded.
  - Arrangements for welfare facilities.
  - Procedures for ensuring that all persons on site have received relevant health and safety information and training.
  - Arrangements for consulting with and taking the views of people on site.
  - Arrangements for preparing site rules and drawing them to the attention of those affected and ensuring their compliance.
  - Monitoring procedures to ensure compliance with site rules, selection and management procedures, health and safety standards and statutory requirements.
  - Review procedures to obtain feedback.

**590 SITE WASTE MANAGEMENT PLAN**

- Person responsible for developing the Plan: The Contractor.
- Content: Include details of:
  - Principal Contractor for the purposes of the plan
  - Location of the site.
  - Description of the project.
  - Estimated project cost.
  - Types and quantities of waste that will be generated.
  - Resource management options for these wastes including proposals for minimization/ reuse/ recycling.
  - The use of appropriate and licensed waste management contractors.
  - Record keeping procedures.
  - Waste auditing protocols.
- Additional requirements: \_\_\_\_\_.
- Submit with tender.

**595 ENVIRONMENTAL POLICY**

- Employer's Environmental Policy:
  - Location: See A11/180.
  - Evidence of compliance: Submit: \_\_\_\_\_.
- Project Environmental Management System: Develop a system compatible with the Employer's policy.
  - Format: \_\_\_\_\_.
  - Specific Requirements: \_\_\_\_\_
  - Submit: \_\_\_\_\_.
- Supporting information: Supply as necessary, including:
  - Information: \_\_\_\_\_.
  - Format: \_\_\_\_\_.
  - Submit: \_\_\_\_\_.

**599 FREEDOM OF INFORMATION**

- Records: Retain, make available for inspection and supply on request information reasonably required to allow response to requests made under the provisions of the Freedom of Information Act.
- Determination: Submit requests received. Do not supply information to anyone other than the project participants without express written permission.
- Confidentiality: Maintain at all times.



## **SUBLETTING/ SUPPLY**

### **630 DOMESTIC SUBCONTRACTS**

- General: Comply with the Construction Industry Board 'Code of Practice for the selection of subcontractors'.
- List: Provide details of all subcontractors and the work for which they will be responsible.
- Submit: \_\_\_\_\_.

### **640 'LISTED' DOMESTIC SUBCONTRACTORS**

- General: The work listed below and described in the Contract Documents must be carried out by persons identified in a list as provided for in clause A30/645:
  - The work: Play equipment.
  - Enter into a contract with one of the following: The named suppliers/installers in the tender document or other equal and approved companies.

### **645 'LISTED' DOMESTIC SUBCONTRACTORS**

- General: Contract Documents provide that certain work must be carried out by a person of the Contractor's choice selected from a list of not less than three persons given therein.
- The selected person: Will become a subcontractor as provided for in the Contract Condition for Subletting.
- Additions to lists:
  - The Employer or Employer's representative may, but only with the consent of the Contractor which shall not be unreasonably withheld, add additional person(s) to the list at any time prior to the execution of a binding subcontract agreement.
  - The Contractor may, but only with consent, which will not be unreasonably withheld, add additional persons to the list and must, if requested, submit (in an approved form) evidence of the suitability of such additional person(s). Wherever possible, submissions for addition of person(s) must be made, and consent obtained, before return of the tender. When any submission for addition of person(s) is made with the tender the consequences, if any, to the tender price compared to the use of the listed persons are to be made clear or the tender will be treated as qualified.
- Shortage of names: If at any time prior to execution of a binding subcontract agreement less than three persons named in the list (including any persons added as provided above) are able and willing to carry out the relevant work, give notice without delay. The Employer will then forthwith add the names of other persons as provided above so that the list comprises not less than three such persons, or confirm that no names will be added. If the Employer fails to do either within one week of the Contractor's notification the Contractor, who may subcontract in accordance with the Contract, must carry out the work.
- Agreement: Before the start of work to which the list relates enter into a binding subcontract agreement and confirm that this has been done, giving the name of the selected subcontractor.

## **JCT335A31 PROVISION, CONTENT AND USE OF DOCUMENTS**

### **DEFINITIONS AND INTERPRETATIONS**

#### **110 DEFINITIONS**

- Meaning: Terms, derived terms and synonyms used in the preliminaries/ general conditions and specification are as stated therein or in the appropriate British Standard or British Standard glossary.

#### **120 COMMUNICATION**

- Definition: Includes advise, inform, submit, give notice, instruct, agree, confirm, seek or obtain information, consent or instructions, or make arrangements.
- Format: In writing to the person named in clause A10/140 unless specified otherwise.
- Response: Do not proceed until response has been received.

#### **130 PRODUCTS**

- Definition: Materials, both manufactured and naturally occurring, and goods, including components, equipment and accessories, intended for the permanent incorporation in the Works.
- Includes: Goods, plant, materials, site materials and things for incorporation into the Works.

#### **135 SITE EQUIPMENT**

- Definition: All appliances or things of whatsoever nature required in or about the construction for completion of the Works but not materials or other things intended to form or forming part of the Permanent Works.
- Includes: Construction appliances, vehicles, consumables, tools, temporary works, scaffolding, cabins and other site facilities.

#### **140 DRAWINGS**

- Definitions: To BSRIA BG 6 A design framework for building services. Design activities and drawing definitions.
- CAD data: In accordance with BS 1192.

#### **145 CONTRACTOR'S CHOICE**

- Meaning: Selection delegated to the Contractor, but liability to remain with the specifier.

#### **150 CONTRACTOR'S DESIGN**

- Meaning: Design to be carried out or completed by the Contractor and supported by appropriate contractual arrangements, to correspond with specified requirements.

#### **155 SUBMIT PROPOSALS**

- Meaning: Submit information in response to specified requirements.

## 160 TERMS USED IN SPECIFICATION

- Remove: Disconnect, dismantle as necessary and take out the designated products or work and associated accessories, fixings, supports, linings and bedding materials. Dispose of unwanted materials. Excludes taking out and disposing of associated pipework, wiring, ductwork or other services.
- Fix: Receive, unload, handle, store, protect, place and fasten in position and disposal of waste and surplus packaging including all labour, materials and site equipment for that purpose.
- Supply and fix: As above, but including supply of products to be fixed. All products to be supplied and fixed unless stated otherwise.
- Keep for reuse: Do not damage designated products or work. Clean off bedding and jointing materials. Stack neatly, adequately protect and store until required by the Employer/ Purchaser or for use in the Works as instructed.
- Make good: Execute local remedial work to designated work. Make secure, sound and neat. Excludes redecoration and/ or replacement.
- Replace: Supply and fix new products matching those removed. Execute work to match original new state of that removed.
- Repair: Execute remedial work to designated products. Make secure, sound and neat. Excludes redecoration and/ or replacement.
- Refix: Fix removed products.
- Ease: Adjust moving parts of designated products or work to achieve free movement and good fit in open and closed positions.
- Match existing: Provide products and work of the same appearance and features as the original, excluding ageing and weathering. Make joints between existing and new work as inconspicuous as possible.
- System: Equipment, accessories, controls, supports and ancillary items, including installation, necessary for that section of the work to function.

## 170 MANUFACTURER AND PRODUCT REFERENCE

- Definition: When used in this combination:
  - Manufacturer: The firm under whose name the particular product is marketed.
  - Product reference: The proprietary brand name and/ or reference by which the particular product is identified.
- Currency: References are to the particular product as specified in the manufacturer's technical literature current on the date of the invitation to tender.

## 200 SUBSTITUTION OF PRODUCTS

- Products: If an alternative product to that specified is proposed, obtain approval before ordering the product.
- Reasons: Submit reasons for the proposed substitution.
- Documentation: Submit relevant information, including:
  - manufacturer and product reference;
  - cost;
  - availability;
  - relevant standards;
  - performance;
  - function;
  - compatibility of accessories;
  - proposed revisions to drawings and specification;
  - compatibility with adjacent work;
  - appearance;
  - copy of warranty/ guarantee.
- Alterations to adjacent work: If needed, advise scope, nature and cost.
- Manufacturers' guarantees: If substitution is accepted, submit before ordering products.

## 210 CROSS REFERENCES

- Accuracy: Check remainder of the annotation or item description against the terminology used in the section or clause referred to.
- Related terminology: Where a numerical cross-reference is not given the relevant sections and clauses of the specification will apply.
- Relevant clauses: Clauses in the referred to specification section dealing with general matters, ancillary products and execution also apply.
- Discrepancy or ambiguity: Before proceeding, obtain clarification or instructions.

## 220 REFERENCED DOCUMENTS

- Conflicts: Specification prevails over referenced documents.

## 230 EQUIVALENT PRODUCTS

- Inadvertent omission: Wherever products are specified by proprietary name the phrase 'or equivalent' is to be deemed included.

**240 SUBSTITUTION OF STANDARDS**

- Specification to British Standard or European Standard: Substitution may be proposed complying with a grade or category within a national standard of another Member State of the European Community or an international standard recognised in the UK.
- Before ordering: Submit notification of all such substitutions.
- Documentary evidence: Submit for verification when requested as detailed in clause A31/200. Any submitted foreign language documents must be accompanied by certified translations into English.

**250 CURRENCY OF DOCUMENTS AND INFORMATION**

- Currency: References to published documents are to the editions, including amendments and revisions, current on the date of the Invitation to Tender.

**260 SIZES**

- General dimensions: Products are specified by their co-ordinating sizes.
- Timber: Cross section dimensions shown on drawings are:
  - Target sizes as defined in BS EN 336 for structural softwood and hardwood sections.
  - Finished sizes for non-structural softwood or hardwood sawn and further processed sections.

**DOCUMENTS PROVIDED ON BEHALF OF EMPLOYER****410 ADDITIONAL COPIES OF DRAWINGS/ DOCUMENTS**

- Additional copies: Issued free of charge.

**410 ADDITIONAL COPIES OF DRAWINGS/ DOCUMENTS**

- Additional copies: Issued on request and charged to the Contractor.

**440 DIMENSIONS**

- Scaled dimensions: Do not rely on.

**450 MEASURED QUANTITIES**

- Ordering products and constructing the Works: The accuracy and sufficiency of the measured quantities is not guaranteed.
- Precedence: The specification and drawings shall override the measured quantities.

**460 THE SPECIFICATION**

- Coordination: All sections must be read in conjunction with Main Contract Preliminaries/ General conditions.

## **DOCUMENTS PROVIDED BY CONTRACTOR/ SUBCONTRACTORS/ SUPPLIERS**

### **510 DESIGN AND PRODUCTION INFORMATION**

- Master programme: Make reasonable allowance for completing design/ production information, submission (including information relevant to the CDM Regulations), comment, inspection, amendment, resubmission and re-inspection.
- Design/ production information: Submit two copies, one could be returned with comments and this will be deemed to be a direction, notice or instruction under the Contract. Ensure that any necessary amendments are made without delay and resubmit unless it is confirmed that it is not required.
- Contractor's changes to Employer's Requirements: Support request for substitution or variation with all relevant information.
- Employer's amendments to Employer's Requirements: If considered to involve a variation, which has not already been acknowledged as a variation, notify without delay (maximum period 7 days), and do not proceed until instructed. Claims for extra cost, if made after it has been carried out, may not be allowed.
- Final version of design/ production information: Submit \_\_\_\_\_.

### **550 NAMED SUBCONTRACTORS: DESIGN AND PRODUCTION INFORMATION**

- General: Certain Subcontractors are/ will be required to provide design/ production information during the contract as described in the Conditions of Contract, clause 3.7.
- Master programme: Make reasonable allowance, based on information in section A30, for completing design/ production information, checking, submission (including information relevant to the CDM Regulations), comment, inspection, amendment, resubmission and re-inspection.
- Information from Subcontractors:
  - Obtain in time to meet the programme and in accordance with NAM/T where applicable.
  - Check dimensions are correct, account is taken of all related work, and construction is practicable. Note any comments on one copy of the design/ production information, then submit with the required number of additional unmarked copies. Such checking will not relieve the CA or the Subcontractors of their respective responsibilities for design, co-ordination and documentation.
- Inspection and comments: One copy will be marked and returned to Contractor. This will not relieve the Subcontractors of their responsibility for design and documentation. Ensure that any necessary amendments are made without delay and resubmit unless it is confirmed that it is not required.
- Final version of information: Distribute copies to all affected Subcontractors and others and keep one copy on site.
- Submit \_\_\_\_\_.

**600 CONTRACTOR'S DESIGN INFORMATION**

- General: Complete the design and detailing of parts of the Works as specified.
- Provide:
  - Production information based on the drawings, specification and other information.
  - Liaison to ensure coordination of the work with related building elements and services.
- Master programme: Make reasonable allowance for completing design/ production information, submission (including information relevant to the CDM Regulations), comment, inspection, amendment, resubmission and re-inspection.
- Information required: \_\_\_\_\_.
  - Format: \_\_\_\_\_.
  - Number of copies: \_\_\_\_\_.
- Submit: Within one week of request.

**610 PRODUCTION INFORMATION**

- Contractor/ Domestic subcontractor provide: \_\_\_\_\_.
- Submit:
  - For comment and make any necessary amendments.
  - Sufficient copies of final version for distribution to all affected parties.

**620 AS BUILT DRAWINGS AND INFORMATION**

- Contractor designed work: Provide drawings/ information:  
\_\_\_\_\_.
- Submit: At least two weeks before date for completion.

**630 TECHNICAL LITERATURE**

- Information: Keep on site for reference by all supervisory personnel:
  - Manufacturers' current literature relating to all products to be used in the Works.
  - Relevant British, EN or ISO Standards.

**640 MAINTENANCE INSTRUCTIONS AND GUARANTEES**

- Components and equipment: Obtain or retain copies, register with manufacturer and hand over on or before completion of the Works.
- Information location: In Building Manual.
- Emergency call out services: Provide telephone numbers for use after completion. Extent of cover:  
\_\_\_\_\_.

**850 ELECTRONIC DATA INTERCHANGE (EDI)**

- Data: Types and classes of communication: \_\_\_\_\_.
- Parties: Between: \_\_\_\_\_.
- Requirements: \_\_\_\_\_.



## **JCT335A32 MANAGEMENT OF THE WORKS**

### **GENERALLY**

#### **110 SUPERVISION**

- General: Accept responsibility for coordination, supervision and administration of the Works, including subcontracts.
- Coordination: Arrange and monitor a programme with each subcontractor, supplier, local authority and statutory undertaker, and obtain and supply information as necessary for coordination of the work.

#### **115 CONSIDERATE CONSTRUCTORS SCHEME**

- Registration: Before starting work, register the site and pay the appropriate fee:
- Contact:
  - Address: Considerate Constructors Scheme Office, PO Box 75, Great Amwell, Ware, Hertfordshire, SG12 0YX.
  - Tel. 01920 485959.
  - Fax. 01920 485958.
  - Free phone 0800 7831423
  - Web. [www.ccscheme.org.uk](http://www.ccscheme.org.uk)
  - E mail. [enquiries@ccscheme.org.uk](mailto:enquiries@ccscheme.org.uk)
- Standard: Comply with the Scheme's Code of Considerate Practice.
  - Minimum compliance level: \_\_\_\_\_.

#### **118 FREIGHT VEHICLE SAFETY REQUIREMENTS**

- Vehicle equipment: Ensure that all freight vehicles have the following:
  - Audible alert to other road users to the planned movement of the vehicle when the vehicle's indicators are in operation.
  - Prominent signage at the rear of the vehicle to warn cyclists of the dangers of passing the vehicle on the inside.
  - Properly adjusted class VI mirror/s or Fresnel lens to eliminate the near side blind spot.
  - Side under run guards.
- Driver training:
  - Drivers must be trained on vulnerable road user safety through an approved course and hold a current valid Certificate of Competence.
  - Drivers must have a valid driving licence and be legally able to drive the vehicle.
- Registration Scheme membership: Submit evidence of registration with and accreditation to the Freight Operator Registration Scheme (FORS)
- Level of accreditation: \_\_\_\_\_.
- Submittal date: \_\_\_\_\_.

## 120 INSURANCE

- Documentary evidence: Before starting work on site submit details, and/ or policies and receipts for the insurances required by the Conditions of Contract.

## 130 INSURANCE CLAIMS

- Notice: If any event occurs which may give rise to any claim or proceeding in respect of loss or damage to the Works or injury or damage to persons or property arising out of the Works, immediately give notice to the Employer, the person named in clause A10/140 and the Insurers.
- Failure to notify: Indemnify the Employer against any loss, which may be caused by failure to give such notice.

## 140 CLIMATIC CONDITIONS

- Information: Record accurately and retain:
  - Daily maximum and minimum air temperatures (including overnight).
  - Delays due to adverse weather, including description of the weather, types of work affected and number of hours lost.

## 150 OWNERSHIP

- Alteration/ clearance work: Materials arising become the property of the Contractor except where otherwise stated. Remove from site as work proceeds.

## PROGRAMME/ PROGRESS

### 210 PROGRAMME

- Master programme: When requested and before starting work on site, submit in an approved form a master programme for the Works, which must include details of:
  - Design, production information and proposals provided by the Contractor/ Subcontractors/ Suppliers, including inspection and checking (see section A31).
  - Planning and mobilization by the Contractor.
  - Earliest and latest start and finish dates for each activity and identification of all critical activities.
  - Running in, adjustment, commissioning and testing of all engineering services and installations
  - Work resulting from instructions issued in regard to the expenditure of provisional sums (see section A54)
  - Work by or on behalf of the Employer and concurrent with the Contract (see section A50). The nature and scope of which, the relationship with preceding and following work and any relevant limitations are suitably defined in the Contract Documents.
- Exclusions: Where and to the extent that the programme implications for work which is not so defined are impossible to assess, the Contractor should exclude it and confirm this when submitting the programme.
- Submit: \_\_\_\_\_.

**230 SUBMISSION OF PROGRAMME**

- Further information: Submission of the programme will not relieve the Contractor of the responsibility to advise of the need for further drawings or details or instructions in accordance with the Contract.

**240 COMMENCEMENT OF WORK**

- Notice: Before the proposed date for commencement of work on site give minimum notice of 1 week.

**250 MONITORING**

- Progress: Record on a copy of the programme kept on site.
- Avoiding delays: If any circumstances arise which may affect the progress of the Works submit proposals or take other action as appropriate to minimize any delay and to recover any lost time.
- Key Performance Indicators:
  - Details: \_\_\_\_\_.
  - Record progress against each of the KPIs. If performance against KPI falls short of target, submit proposals for remediation.

**260 SITE MEETINGS**

- General: Site meetings will be held to review progress and other matters arising from administration of the Contract.
- Frequency: TBA, but assume fortnightly.
- Location: Site.
- Accommodation: Ensure availability at the time of such meetings.
- Attendees: Attend meetings and inform subcontractors and suppliers when their presence is required.
- Chairperson (who will also take and distribute minutes): CA.

**265 CONTRACTOR'S PROGRESS REPORT**

- General: Submit a progress report at least 3 days before the site meeting.
- Content: Notwithstanding the Contractor's obligations under the Contract the report must include:
  - A progress statement by reference to the master programme for the Works.
  - Details of any matters materially affecting the regular progress of the Works.
  - Subcontractors' and suppliers' progress reports.
  - Any requirements for further drawings or details or instructions to fulfil any obligations under the Conditions of Contract.

**270 CONTRACTOR'S SITE MEETINGS**

- General: Hold meetings with appropriate subcontractors and suppliers shortly before main site meetings to facilitate accurate reporting of progress.

**280 PHOTOGRAPHS**

- Number of locations: To be agreed with CA.
- Frequency of intervals: \_\_\_\_\_.
- Image format: \_\_\_\_\_.
- Number of images from each location: \_\_\_\_\_.
- Other requirements: \_\_\_\_\_

**285 PARTIAL POSSESSION BY EMPLOYER**

- Clause 2.25 of Conditions of Contract: Ensure all necessary access, services and other associated facilities are also complete.

**290 NOTICE OF COMPLETION**

- Requirement: Give notice of the anticipated dates of completion of the whole or parts of the Works.
- Associated works: Ensure necessary access, services and facilities are complete.
- Period of notice (minimum): 2 weeks.

**310 EXTENSIONS OF TIME**

- Notice: When a notice of the cause of any delay or likely delay in the progress of the works is given under the contract, written notice must also be given of all other causes which apply concurrently.
- Details: As soon as possible submit:
  - Relevant particulars of the expected effects, if appropriate, related to the concurrent causes.
  - An estimate of the extent, if any, of the expected delay in the completion of the Works beyond the date for completion.
  - All other relevant information required.

**CONTROL OF COST****410 CASH FLOW FORECAST**

- Submission: Before starting work on site, submit a forecast showing the gross valuation of the Works at the date of each Interim Certificate throughout the Contract period. Base on the programme for the Works.

**420 REMOVAL/ REPLACEMENT OF EXISTING WORK**

- Extent and location: Agree before commencement.
- Execution: Carry out in ways that minimize the extent of work.

**430 PROPOSED INSTRUCTIONS**

- Estimates: If a proposed instruction requests an estimate of cost, submit without delay and in any case within seven days.
- Include:
  - A detailed breakdown of the cost, including any allowance for direct loss and expense.
  - Details of any additional resources required.
  - Details of any adjustments to be made to the programme for the Works.
  - Any other information as is reasonably necessary to fully assess the implications of issuing such an instruction.
- Inability to comply: Inform immediately if it is not possible to comply with any of the above requirements.

**440 MEASUREMENT**

- Covered work: Give notice before covering work required to be measured.

**450 DAYWORK VOUCHERS**

- Before commencing work: Give reasonable notice to person countersigning daywork vouchers.
- Content: Before delivery each voucher must be:
  - Referenced to the instruction under which the work is authorised.
  - Signed by the Contractor's person in charge as evidence that the operatives' names, the time daily spent by each and the equipment and products employed are correct.
- Submit: By the end of the week in which the work has been executed.

**470 PRODUCTS NOT INCORPORATED INTO THE WORKS**

- Ownership: At the time of each valuation, supply details of those products not incorporated into the Works which are subject to any reservation of title inconsistent with passing of property as required by the Conditions of Contract, together with their respective values.
- Evidence: When requested, provide evidence of freedom of reservation of title.

**475 LISTED PRODUCTS STORED OFF SITE**

- Evidence of Title: Submit reasonable proof that the property in 'listed items' is vested in the Contractor.
- Include for products purchased from a supplier:
  - A copy of the contract of sale and a written statement from the supplier that any conditions of the sale relating to the passing of property have been fulfilled and the products are not subject to any encumbrance or charge.
- Include for products purchased from a supplier by a subcontractor or manufactured or assembled by any subcontractor:
  - Copies of the subcontract with the subcontractor and a written statement from the subcontractor that any conditions relating to the passing of property have been fulfilled.

**480 LABOUR AND EQUIPMENT RETURNS**

- Records: Provide for verification at the beginning of each week in respect of each of the previous seven days.
- Records must show:
  - The number and description of craftsmen, labourers and other persons directly or indirectly employed on or in connection with the Works or Services, including those employed by subcontractors.
  - The number, type and capacity of all mechanical, electrical and power-operated equipment employed in connection with the Works or Services

## **JCT335A33 QUALITY STANDARDS/ CONTROL**

### **STANDARDS OF PRODUCTS AND EXECUTIONS**

#### **110 INCOMPLETE DOCUMENTATION**

- General: Where and to the extent that products or work are not fully documented, they are to be:
  - Of a kind and standard appropriate to the nature and character of that part of the Works where they will be used.
  - Suitable for the purposes stated or reasonably to be inferred from the project documents.

Contract documents: Omissions or errors in description and/ or quantity shall not vitiate the Contract nor release the Contractor from any obligations or liabilities under the Contract.

#### **120 WORKMANSHIP SKILLS**

- Operatives: Appropriately skilled and experienced for the type and quality of work.
- Registration: With Construction Skills Certification Scheme.
- Evidence: Operatives must produce evidence of skills/ qualifications when requested.

#### **130 QUALITY OF PRODUCTS**

- Generally: New. (Proposals for recycled products may be considered).
- Supply of each product: From the same source or manufacturer.
- Whole quantity of each product required to complete the Works: Consistent kind, size, quality and overall appearance.
- Tolerances: Where critical, measure a sufficient quantity to determine compliance.
- Deterioration: Prevent. Order in suitable quantities to a programme and use in appropriate sequence.

#### **135 QUALITY OF EXECUTION**

- Generally: Fix, apply, install or lay products securely, accurately, plumb, neatly and in alignment.
- Colour batching: Do not use different colour batches where they can be seen together.
- Dimensions: Check on-site dimensions.
- Finished work: Not defective, e.g. not damaged, disfigured, dirty, faulty, or out of tolerance.
- Location and fixing of products: Adjust joints open to view so they are even and regular.

**140 COMPLIANCE**

- Compliance with proprietary specifications: Retain on site evidence that the proprietary product specified has been supplied.
- Compliance with performance specifications: Submit evidence of compliance, including test reports indicating:
  - Properties tested.
  - Pass/ fail criteria.
  - Test methods and procedures.
  - Test results.
  - Identity of testing agency.
  - Test dates and times.
  - Identities of witnesses.
  - Analysis of results.

**150 INSPECTIONS**

- Products and executions: Inspection or any other action must not be taken as approval unless confirmed in writing referring to:
  - Date of inspection.
  - Part of the work inspected.
  - Respects or characteristics which are approved.
  - Extent and purpose of the approval.
  - Any associated conditions.

**160 RELATED WORK**

- Details: Provide all trades with necessary details of related types of work. Before starting each new type or section of work ensure previous related work is:
  - Appropriately complete.
  - In accordance with the project documents.
  - To a suitable standard.
  - In a suitable condition to receive the new work.
- Preparatory work: Ensure all necessary preparatory work has been carried out.

**170 MANUFACTURER'S RECOMMENDATIONS/ INSTRUCTIONS**

- General: Comply with manufacturer's printed recommendations and instructions current on the date of the Invitation to tender.
- Changes to recommendations or instructions: Submit details.
- Ancillary products and accessories: Use those supplied or recommended by main product manufacturer.
- Agrément certified products: Comply with limitations, recommendations and requirements of relevant valid certificates.



**180 WATER FOR THE WORKS**

- Mains supply: Clean and uncontaminated.
- Other: Do not use until:
  - Evidence of suitability is provided.
  - Tested to BS EN 1008 if instructed.

**SAMPLES/ APPROVALS****210 SAMPLES**

- Products or executions: Comply with all other specification requirements and in respect of the stated or implied characteristics either:
  - To an express approval.
  - To match a sample expressly approved as a standard for the purpose.

**220 APPROVAL OF PRODUCTS**

- Submissions, samples, inspections and tests: Undertake or arrange to suit the Works programme.
- Approval: Relates to a sample of the product and not to the product as used in the Works. Do not confirm orders or use the product until approval of the sample has been obtained.
- Complying sample: Retain in good, clean condition on site. Remove when no longer required.

**230 APPROVAL OF EXECUTION**

- Submissions, samples, inspections and tests: Undertake or arrange to suit the Works programme.
- Approval: Relates to the stated characteristics of the sample. (If approval of the finished work as a whole is required this is specified separately). Do not conceal, or proceed with affected work until compliance with requirements is confirmed.
- Complying sample: Retain in good, clean condition on site. Remove when no longer required.

**ACCURACY/ SETTING OUT GENERALLY****320 SETTING OUT**

- General: Submit details of methods and equipment to be used in setting out the Works.
- Levels and dimensions: Check and record the results on a copy of drawings. Notify discrepancies and obtain instructions before proceeding.
- Inform: When complete and before commencing construction.

**330 APPEARANCE AND FIT**

- Tolerances and dimensions: If likely to be critical to execution or difficult to achieve, as early as possible either:
  - Submit proposals; or
  - Arrange for inspection of appearance of relevant aspects of partially finished work.
- General tolerances (maximum): To BS 5606, tables 1 and 2.

**340 CRITICAL DIMENSIONS**

- Critical dimensions: Set out and construct the Works to ensure compliance with the tolerances stated.
- Location: Detailed on drawings.

**360 RECORD DRAWINGS**

- Site setting out drawing: Record details of all grid lines, setting-out stations, benchmarks and profiles. Retain on site throughout the contract and hand over on completion.

**SERVICES GENERALLY****410 SERVICES REGULATIONS**

- New or existing services: Comply with the Byelaws or Regulations of the relevant Statutory Authority.

**420 WATER REGULATIONS/ BYELAWS NOTIFICATION**

- Requirements: Notify Water Undertaker of any work carried out to or which affects new or existing services and submit any required plans, diagrams and details.
- Consent: Allow adequate time to receive Undertaker's consent before starting work. Inform immediately if consent is withheld or is granted subject to significant conditions.

**430 WATER REGULATIONS/ BYELAWS CONTRACTOR'S CERTIFICATE**

- On completion of the work: Submit (copy where also required to the Water Undertaker) a certificate including:
  - The address of the premises.
  - A brief description of the new installation and/ or work carried out to an existing installation.
  - The Contractor's name and address.
  - A statement that the installation complies with the relevant Water Regulations or Byelaws.
  - The name and signature of the individual responsible for checking compliance.
  - The date on which the installation was checked.

**435 ELECTRICAL INSTALLATION CERTIFICATE**

- Submit: When relevant electrical work is completed.
- Original certificate: To be lodged in the Building Manual.
- Certificate location: \_\_\_\_\_.

**445 SERVICE RUNS**

- General: Provide adequate space and support for services, including unobstructed routes and fixings.
- Ducts, chases and holes: Form during construction rather than cut.
- Coordination with other works: Submit details of locations, types/ methods of fixing of services to fabric and identification of runs and fittings.

## **450 MECHANICAL AND ELECTRICAL SERVICES**

- Final tests and commissioning: Carry out so that services are in full working order at completion of the Works.
- Building Regulations notice: Copy to be lodged in the Building Manual.

## **SUPERVISION/ INSPECTION/ DEFECTIVE WORK**

### **510 SUPERVISION**

- General: In addition to the constant management and supervision of the Works provided by the Contractor's person in charge, all significant types of work must be under the close control of competent trade supervisors to ensure maintenance of satisfactory quality and progress.
- Replacement: Give maximum possible notice before changing person in charge or site agent.

### **520 COORDINATION OF ENGINEERING SERVICES**

- Suitability: Site organisation staff must include one or more persons with appropriate knowledge and experience of mechanical and electrical engineering services to ensure compatibility between engineering and the Works generally.
- Evidence: Submit when requested CVs or other documentary evidence relating to the staff concerned.

### **530 OVERTIME WORKING**

- Notice: Prior to overtime being worked, submit details of times, types and locations of work to be done.
  - Minimum period of notice: 1 week.
- Concealed work: If executed during overtime for which notice has not been given, it may be required to be opened up for inspection and reinstated at the Contractor's expense.

### **540 DEFECTS IN EXISTING WORK**

- Undocumented defects: When discovered, immediately give notice. Do not proceed with affected related work until response has been received.
- Documented remedial work: Do not execute work which may:
  - Hinder access to defective products or work; or
  - Be rendered abortive by remedial work.

### **550 ACCESS FOR INSPECTION**

- Removal: Before removing scaffolding or other facilities for access, give notice of not less than 1 week.

**560 TESTS AND INSPECTIONS**

- Timing: Agree and record dates and times of tests and inspections to enable all affected parties to be represented.
- Confirmation: One working day prior to each such test or inspection. If sample or test is not ready, agree a new date and time.
- Records: Submit a copy of test certificates and retain copies on site.

**610 PROPOSALS FOR RECTIFICATION OF DEFECTIVE PRODUCTS/ EXECUTIONS**

- Proposals: Immediately any work or product is known, or appears, to be not in accordance with the Contract, submit proposals for opening up, inspection, testing, making good, adjustment of the Contract Sum, or removal and re-execution.
- Acceptability: Such proposals may be unacceptable and contrary instructions may be issued.

**620 MEASURES TO ESTABLISH ACCEPTABILITY**

- General: Wherever inspection or testing shows that the work, materials or goods are not in accordance with the contract and measures (e.g. testing, opening up, experimental making good) are taken to help in establishing whether or not the work is acceptable, such measures:
  - Will be at the expense of the Contractor.
  - Will not be considered as grounds for revision of the completion date.

**630 QUALITY CONTROL**

- Procedures: Establish and maintain to ensure that the Works, including the work of subcontractors, comply with specified requirements.
- Records: Maintain full records, keep copies on site for inspection, and submit copies on request.
- Content of records:
  - Identification of the element, item, batch or lot including location in the Works.
  - Nature and dates of inspections, tests and approvals.
  - Nature and extent of nonconforming work found.
  - Details of corrective action.

## **WORK AT OR AFTER COMPLETION**

### **710 WORK BEFORE COMPLETION**

- General: Make good all damage consequent upon the Works.

Temporary markings, coverings and protective wrappings: Remove unless otherwise instructed.

- Cleaning: Clean the Works thoroughly inside and out, including all accessible ducts and voids. Remove all splashes, deposits, efflorescence, rubbish and surplus materials.
- Cleaning materials and methods: As recommended by manufacturers of products being cleaned, and must not damage or disfigure other materials or construction.
- COSHH dated data sheets: Obtain for all materials used for cleaning and ensure they are used only as recommended by their manufacturers.
- Minor faults: Touch up in newly painted work, carefully matching colour and brushing out edges. Repaint badly marked areas back to suitable breaks or junctions.
- Moving parts of new work: Adjust, ease and lubricate as necessary to ensure easy and efficient operation, including doors, windows, drawers, ironmongery, appliances, valves and controls.

### **720 SECURITY AT COMPLETION**

- General: Leave the Works secure with, where appropriate, all accesses closed and locked.
- Keys: Account for and adequately label all keys and hand over to Employer with itemized schedule, retaining duplicate schedule signed by Employer as a receipt.

### **730 MAKING GOOD DEFECTS**

- Remedial work: Arrange access with CA.
- Rectification: Give reasonable notice for access to the various parts of the Works.
- Completion: Notify when remedial works have been completed.

## **JCT335A34 SECURITY/ SAFETY/ PROTECTION**

### **SECURITY, HEALTH AND SAFETY**

#### **110 PRECONSTRUCTION INFORMATION**

- Location: Integral with the project Preliminaries, including but not restricted to the following sections:
  - Description of project: Sections A10 and A11.
  - Client's consideration and management requirements: Sections A12, A13 and A36.
  - Environmental restrictions and on-site risks: Section A12, A35 and A34.
  - Significant design and construction hazards: Section A34.
  - The Health and Safety File: Section A37.

#### **120 EXECUTION HAZARDS**

- Common hazards: Not listed. Control by good management and site practice.
- Significant hazards: The design of the project includes the following:
  - Hazard: \_\_\_\_\_.
  - Precautions assumed: \_\_\_\_\_.
  - Specification reference: \_\_\_\_\_.
  - Drawing reference: \_\_\_\_\_.

#### **130 PRODUCT HAZARDS**

- Hazardous substances: Site personnel levels must not exceed occupational exposure standards and maximum exposure limits stated in the current version of HSE document EH40: Workplace Exposure Limits.
- Common hazards: Not listed. Control by good management and site practice.
- Significant hazards: Specified construction materials include the following:
  - Hazard: \_\_\_\_\_.
  - Material: \_\_\_\_\_.
  - Specification reference: \_\_\_\_\_.

#### **140 CONSTRUCTION PHASE HEALTH AND SAFETY PLAN**

- Submission: Present to the Employer/ Client no later than \_\_\_\_\_.
- Confirmation: Do not start construction work until the Employer has confirmed in writing that the Construction Phase Health and Safety Plan includes the procedures and arrangements required by the CDM Regulations.
- Content: Develop the plan from and draw on the Outline Construction Phase Health and Safety Plan, clause A30/570, and the Pre-tender Health and Safety Plan/ Preconstruction information.

**150 SECURITY**

- Protection: Safeguard the site, the Works, products, materials, and any existing buildings affected by the Works from damage and theft.
- Access: Take all reasonable precautions to prevent unauthorized access to the site, the Works and adjoining property.
- Special requirements: Ensure site is locked out of hours to avoid access by the Public.

**160 STABILITY**

- Responsibility: Maintain the stability and structural integrity of the Works and adjacent structures during the Contract.
- Design loads: Obtain details, support as necessary and prevent overloading.

**170 OCCUPIED PREMISES**

- Extent: Existing buildings will be occupied and/ or used during the Contract as follows: Adjacent storage and WC facilities. May be used by the Contractor but shared with LB Lambeth staff.
- Works: Carry out without undue inconvenience and nuisance and without danger to occupants and users.
- Overtime: If compliance with this clause requires certain operations to be carried out during overtime, and such overtime is not required for any other reason, the extra cost will be allowed, provided that such overtime is authorized in advance.

**190 LOCAL AUTHORITY RULES AND REGULATIONS**

- Compliance: Conform to the occupier's rules and regulations affecting the site.
- Copies:
  - Location: LB Lambeth.
  - Arrangements for inspection: \_\_\_\_\_.

**200 MOBILE TELEPHONES AND PORTABLE ELECTRONIC EQUIPMENT**

- Restrictions on use: None.

**210 EMPLOYER'S REPRESENTATIVES SITE VISITS**

- Safety: Submit details in advance, to the Employer or the person identified in clause A10/140, of safety provisions and procedures (including those relating to materials, which may be deleterious), which will require their compliance when visiting the site.
- Protective clothing and/ or equipment: Provide and maintain on site for the Employer and the person stated in clause A10/140 and other visitors to the site.

**220 WORKING PRECAUTIONS/ RESTRICTIONS**

- Hazardous areas: Operatives must take precautions as follows:
  - Work area: \_\_\_\_\_.
  - Precautions: \_\_\_\_\_.
- Permit to work: Operatives must comply with procedures in the following areas:
  - Work area: \_\_\_\_\_.
  - Procedures: \_\_\_\_\_.

**PROTECT AGAINST THE FOLLOWING****310 EXPLOSIVES**

- Use: Not permitted

**320 NOISE CONSENT BY LOCAL AUTHORITY**

- Consent: Granted by the Local Authority under Part III of the Control of Pollution Act relating to the Works providing the following conditions are met:

\_\_\_\_\_.

**330 NOISE AND VIBRATION**

- Standard: Comply with the recommendations of BS 5228-1, in particular clause 7.3, to minimize noise levels during the execution of the Works.
- Noise levels from the Works: Maximum level: \_\_\_\_\_ dB(A) when measured from \_\_\_\_\_.
- Equipment: Fit compressors, percussion tools and vehicles with effective silencers of a type recommended by manufacturers of the compressors, tools or vehicles.
- Restrictions: Do not use:
  - Percussion tools and other noisy appliances without consent during the hours of \_\_\_\_\_.
  - Radios or other audio equipment or permit employees to use in ways or at times that may cause nuisance.

**340 POLLUTION**

- Prevention: Protect the site, the Works and the general environment including the atmosphere, land, streams and waterways against pollution.
- Contamination: If pollution occurs inform immediately, including to the appropriate Authorities and provide relevant information.

**350 PESTICIDES**

- Use: Not permitted.

**360 NUISANCE**

- Duty: Prevent nuisance from smoke, dust, rubbish, vermin and other causes.
- Surface water: Prevent hazardous build-up on site, in excavations and to surrounding areas and roads.



**370 ASBESTOS CONTAINING MATERIALS**

- Duty: Report immediately any suspected materials discovered during execution of the Works.
  - Do not disturb.
  - Agree methods for safe removal or encapsulation.

**371 DANGEROUS OR HAZARDOUS SUBSTANCES**

- Duty: Report immediately suspected materials discovered during execution of the Works.
  - Do not disturb.
  - Agree methods for safe removal or remediation.

**375 ANTIQUITIES**

- Duty: Report immediately any fossils, antiquities and other objects of interest or value discovered during execution of the Works.
- Preservation: Keep objects in the exact position and condition in which they were found.
- Special requirements: \_\_\_\_\_.

**380 FIRE PREVENTION**

- Duty: Prevent personal injury or death, and damage to the Works or other property from fire.
- Standard: Comply with Joint Code of Practice 'Fire Prevention on Construction Sites', published by Construction Industry Publications and The Fire Protection Association (The 'Joint Fire Code').

**390 SMOKING ON SITE**

- Smoking on site: Not permitted.

**400 BURNING ON SITE**

- Burning on site: Not permitted.

**410 MOISTURE**

- Wetness or dampness: Prevent, where this may cause damage to the Works.
- Drying out: Control humidity and the application of heat to prevent:
  - Blistering and failure of adhesion.
  - Damage due to trapped moisture.
  - Excessive movement.

**420 INFECTED TIMBER/ CONTAMINATED MATERIALS**

- Removal: Where instructed to remove material affected by fungal/ insect attack from the building, minimize the risk of infecting other parts of the building.
- Testing: carry out and keep records of appropriate tests to demonstrate that hazards presented by concentrations of airborne particles, toxins and other micro organisms are within acceptable levels.

**430 WASTE**

- Includes: Rubbish, debris, spoil, surplus material, containers and packaging.
- General: Minimize production. Prevent accumulations. Keep the site and Works clean and tidy.
- Handling: Collect and store in suitable containers. Remove frequently and dispose off site in a safe and competent manner:
  - Non-hazardous material: In a manner approved by the Waste Regulation Authority.
  - Hazardous material: As directed by the Waste Regulation Authority and in accordance with relevant regulations.
- Recyclable material: Sort and dispose at a Materials Recycling Facility approved by the Waste Regulation Authority.
- Voids and cavities in the construction: Remove rubbish, dirt and residues before closing in.
- Waste transfer documentation: Retain on site.

**440 ELECTROMAGNETIC INTERFERENCE**

- Duty: Prevent excessive electromagnetic disturbance to apparatus outside the site.

**450 LASER EQUIPMENT**

- Construction laser equipment: Install, use and store in accordance with BS EN 60825-1 and the manufacturer's instructions.
- Class 1 or Class 2 laser equipment: Ensure laser beam is not set at eye level and is terminated at the end of its useful path.
- Class 3A and Class 3B laser equipment: Do not use without approval and subject to submission of a method statement on its safe use.

**460 POWER ACTUATED FIXING SYSTEMS**

- Use: Not permitted.

**470 INVASIVE SPECIES**

- General: Prevent the spread of species (e.g. plants or animals) that may adversely affect the site or Works economically, environmentally or ecologically.
- Special precautions: \_\_\_\_\_.
- Duty: Report immediately any suspected invasive species discovered during execution of the Works.
  - Do not disturb.
  - Agree methods for safe eradication or removal.

## **PROTECT THE FOLLOWING**

### **510 EXISTING SERVICES**

- Confirmation: Notify all service authorities, statutory undertakers and/ or adjacent owners of proposed works not less than one week before commencing site operations.
- Identification: Before starting work, check and mark positions of utilities/ services. Where positions are not shown on drawings obtain relevant details from service authorities, statutory undertakers or other owners.
- Work adjacent to services:
  - Comply with service authority's/ statutory undertaker's recommendations.
  - Adequately protect, and prevent damage to services: Do not interfere with their operation without consent of service authorities/ statutory undertakers or other owners.
- Identifying services:
  - Below ground: Use signboards, giving type and depth;
  - Overhead: Use headroom markers.
- Damage to services: If any results from execution of the Works:
  - Immediately give notice and notify appropriate service authority/ statutory undertaker.
  - Make arrangements for the work to be made good without delay to the satisfaction of service authority/ statutory undertaker or other owner as appropriate.
  - Any measures taken to deal with an emergency will not affect the extent of the Contractor's liability.
- Marker tapes or protective covers: Replace, if disturbed during site operations, to service authority's/ statutory undertakers recommendations.

### **520 ROADS AND FOOTPATHS**

- Duty: Maintain roads and footpaths within and adjacent to the site and keep clear of mud and debris.
- Damage caused by site traffic or otherwise consequent upon the Works: Make good to the satisfaction of the Employer, Local Authority or other owner.

### **530 EXISTING TOPSOIL/ SUBSOIL**

- Duty: Prevent over compaction of existing topsoil and subsoil in those areas which may be damaged by construction traffic, parking of vehicles, temporary site accommodation or storage of materials and which will require reinstatement prior to completion of the Works.
- Protection: Before starting work submit proposals for protective measures.

### **540 RETAINED TREES/ SHRUBS/ GRASSED AREAS**

- Protection: Preserve and prevent damage, except those not required.
- Replacement: Mature trees and shrubs if uprooted, destroyed, or damaged beyond reasonable chance of survival in their original shape, as a consequence of the Contractor's negligence, must be replaced with those of a similar type and age at the Contractor's expense.

## 550 RETAINED TREES

- Protected area: Unless agreed otherwise do not:
  - Dump spoil or rubbish, excavate or disturb topsoil, park vehicles or plant, store materials or place temporary accommodation within an area which is the larger of the branch spread of the tree or an area with a radius of half the tree's height, measured from the trunk.
  - Sever roots exceeding 25 mm in diameter. If unintentionally severed give notice and seek advice.
  - Change level of ground within an area 3 m beyond branch spread.
  - Refer to CBA drawing SCP-CBA-1-GF-M2-L-4001A for root protection
  - In accordance with BS 5837:2012

## 555 WILDLIFE SPECIES AND HABITATS

- General: Safeguard the following: \_\_\_\_\_.
- Protected habitats and species: Upon discovery immediately advise. Do not proceed until instruction is received.
- Education: Ensure employees and visitors to the site receive suitable instruction and awareness training.

## 560 EXISTING FEATURES

- Protection: Prevent damage to existing buildings, fences, gates, walls, roads, paved areas and other site features, which are to remain in position during execution of the Works.
- Special requirements: Existing curtilage fencing to remain.

## 570 EXISTING WORK

- Protection: Prevent damage to existing work, structures or other property during the course of the work.
- Removal: Minimum amount necessary.
- Replacement work: To match existing.

## 600 EXISTING FURNITURE, FITTINGS AND EQUIPMENT

- Protection: Prevent damage or move as necessary to enable the Works to be executed. Reinstall in original positions.
- Extent: Before work starts the Employer will remove all items other than the following: Existing benches, picnic tables, etc all of which may be retained for re-use.

**630 EXISTING STRUCTURES**

- Duty: Check proposed methods of work for effects on adjacent structures inside and outside the site boundary.
- Supports: During execution of the Works:
  - Provide and maintain all incidental shoring, strutting, needling and other supports as may be necessary to preserve stability of existing structures on the site or adjoining that may be endangered or affected by the Works.
  - Do not remove until new work is strong enough to support existing structure.
  - Prevent overstressing of completed work when removing supports.
- Adjacent structures: Monitor and immediately report excessive movement.
- Standard: Comply with BS 5975 and BS EN 12812.

**640 MATERIALS FOR RECYCLING/ REUSE**

- Duty: Sort and prevent damage to stated products or materials, clean off bedding and jointing materials and other contaminants.
- Storage: Stack neatly and protect until required by the Employer or for use in the Works as instructed.

## **JCT335A35 SPECIFIC LIMITATIONS ON METHOD/ SEQUENCE/ TIMING**

### **110 SCOPE**

- General: The limitations described in this section are supplementary to limitations described or implicit in information given in other sections or on the drawings.

### **120 DESIGN CONSTRAINTS**

- Details: \_\_\_\_\_.

### **130 METHOD/ SEQUENCE OF WORK**

- Specific Limitations: Include the following in the programme:

\_\_\_\_\_.

### **140 SCAFFOLDING**

- Scaffolding: Make available to subcontractors and others at all times.

### **160 USE OR DISPOSAL OF MATERIALS**

- Specific limitations: \_\_\_\_\_.

### **170 WORKING HOURS**

- Specific limitations: \_\_\_\_\_.

### **180 COMPLETION IN SECTIONS OR IN PARTS**

- General: Where the Employer is to take possession of any Section or part of the Works and such Section or part will, after its practical completion, depend for its adequate functioning on work located elsewhere on the site: Complete such other work in time to permit such possession to take place.
- Remainder of the Works: During execution, ensure that completed Sections or parts of the Works have continuous and adequate provision of services, fire precautions, means of escape and safe access.

## **JCT335A36 FACILITIES/ TEMPORARY WORK/ SERVICES**

### **GENERALLY**

#### **110 SPOIL HEAPS, TEMPORARY WORKS AND SERVICES**

- Location: Give notice and details of intended siting.
- Maintenance: Alter, adapt and move as necessary. Remove when no longer required and make good.

### **ACCOMMODATION**

#### **210 ROOM FOR MEETINGS**

- Facilities: Provide suitable temporary accommodation for site meetings, adequately heated and lit. The room may be part of the Contractor's own site offices.
- Furniture and Equipment: Provide table and chairs for 8 people.

#### **220 SITE ACCOMMODATION**

- Purpose: Contractors use.
- Facilities: Provide and obtain approval of suitable lockable temporary accommodation and facilities as follows:
  - Status: As part of the Contractor's own accommodation
  - Location: \_\_\_\_\_.
  - Floor area: \_\_\_\_\_.
  - Furniture and equipment: \_\_\_\_\_.
  - Temperature control: \_\_\_\_\_.
  - Lighting: \_\_\_\_\_.
  - Services: \_\_\_\_\_.
  - Sanitary facilities: \_\_\_\_\_.
  - Consumables: \_\_\_\_\_.
  - Attendance: \_\_\_\_\_.

**230 TEMPORARY ACCOMMODATION**

- Accommodation made available by the Employer: The following may be used for the duration of the Contract without charge provided that:
  - It is used solely for the purposes of carrying out the Works.
  - The use to which it is put does not involve undue risk of damage.
  - Any temporary adaptations are approved by or on behalf of the Employer before being carried out.
  - It is vacated on completion of the Works or determination of the Contract.
  - When vacated, its condition is at least equivalent to its condition at the start of the Contract.
- Description: Shared use of adjacent storage and WC's.
- Available services and facilities: \_\_\_\_\_.

**230 TEMPORARY ACCOMMODATION**

- Proposals for temporary accommodation and storage for the Works: Submit two weeks prior to starting on site.
- Details to be included: Type of accommodation and storage, its siting and the programme for site installation and removal.

**260 SANITARY ACCOMMODATION**

- Requirement: Provide sanitary accommodation for the Employer/ Purchaser, and other members of the consultant team, either separate or shared with the Contractor's supervisory staff. Maintain in clean condition and provide all consumables.



## TEMPORARY WORKS

### 310 ROADS

- Permanent roads, hard standings and footpaths on the site: The following may be used, subject to clause A34/520:
  - Details: Refer to site plan and PCI.
  - Restrictions on use: \_\_\_\_\_.
  - Protective or remedial measures: \_\_\_\_\_.

### 320 TEMPORARY WORKS

- Employer's specific requirements: Provide: refer to specification.

### 330 TEMPORARY PROTECTION TO EXISTING TREES/ VEGETATION

- Temporary protection: Provide before starting work in locations shown on drawings.
- Protective barriers and any other relevant physical protection measures: To BS 5837 and as shown on drawings.
- Design details of the proposed physical means of protection: As drawings.
- Areas of structural landscaping to be protected from construction operations: All trees to remain.
- Integrity of protection: Maintain for the duration of the Works. Remove on completion of the works and make good disturbed area.
- Refer to CBA drawing SCP-CBA-1-GF-M2-L-4001A.

### 340 NAME BOARDS/ ADVERTISEMENTS

- General: Obtain approval, including statutory consents, and provide a temporary name board displaying:
  - Title of project: \_\_\_\_\_.
  - Name of Employer: \_\_\_\_\_.
  - Names of Consultants: \_\_\_\_\_.
  - Names of Contractor and Subcontractors: \_\_\_\_\_.
  - Special requirements: \_\_\_\_\_.

## SERVICES AND FACILITIES

### 410 LIGHTING

- Finishing work and inspection: Provide temporary lighting, the intensity and direction of which closely resembles that delivered by the permanent installation.

**420 LIGHTING AND POWER**

- Supply: Electricity from the Employer's mains may be used for the Works as follows:
  - Metering: \_\_\_\_\_.
  - Point of supply: Adjacent storage facility.
  - Available capacity: \_\_\_\_\_.
  - Frequency: 50 Hz.
  - Phase: \_\_\_\_\_.
  - Current: Alternating.
- Continuity: The Employer will not be responsible for the consequences of failure or restriction in supply.

**430 WATER**

- Supply: The Employer's mains may be used for the Works as follows:
  - Metering: \_\_\_\_\_.
  - Source: \_\_\_\_\_.
  - Location of supply point: Adjacent storage facility.
  - Conditions/ Restrictions: \_\_\_\_\_.
- Continuity: The Employer will not be responsible for the consequences of failure or restriction in supply.

**440 TELEPHONES**

- Temporary on site telephone: Provide as soon as practicable after the start on site for joint use by the Contractor and Subcontractors and pay all charges.
- Responses: Make arrangements (e.g. an external bell) to ensure that incoming calls are answered promptly.

**440 MOBILE TELEPHONES**

- Direct communication: As soon as practicable after the start on site:
  - provide the Contractor's person in charge with a mobile telephone.
  - pay all charges reasonably incurred.

**440 TELEPHONES**

- Temporary on site telephone: Provide as soon as practicable after the start on site for joint use by the Contractor, Subcontractors and those acting on behalf of the Employer, and pay all charges reasonably incurred.
- Responses: Make arrangements (e.g. an external bell) to ensure that incoming calls are answered promptly.
- Employer's call charges: Allow for the cost of a modest number of calls made by those acting on behalf of the Employer.

**470 E-MAIL AND INTERNET FACILITY**

- General: As soon as practicable after the start on site provide a suitable e-mail facility on site, with a separate dedicated telephone line, for the use of the Contractor, Subcontractors and those acting on behalf of the Employer.
- Use on behalf of Employer: Allow for the cost of a reasonable number of transmissions made by those acting on behalf of the Employer.
- Peripherals: \_\_\_\_\_.

**510 TEMPERATURE AND HUMIDITY**

- Levels required by the Employer: Maintain the following:

\_\_\_\_\_.

**540 METER READINGS**

- Charges for service supplies: Where to be apportioned ensure that:
  - Meter readings are taken by relevant authority at possession and/ or completion as appropriate.
  - Copies of readings are supplied to interested parties.

**550 THERMOMETERS**

- General: Provide on site and maintain in accurate condition a maximum and minimum thermometer for measuring atmospheric shade temperature, in an approved location.

**560 SURVEYING EQUIPMENT**

- General: Provide on site and maintain in accurate condition: \_\_\_\_\_.

**570 PERSONAL PROTECTIVE EQUIPMENT**

- General: Provide for the sole use of those acting on behalf of the Employer, in sizes to be specified:
  - Safety helmets to BS EN 397, neither damaged nor time expired. Number required: As required
  - High visibility waistcoats to BS EN ISO 20471 Class 2. Number required: As required.
  - Safety boots with steel insole and toecap to BS EN ISO 20345. Pairs required: \_\_\_\_\_.
  - Disposable respirators to BS EN 149.FFP1S.
  - Eye protection to BS EN 166.
  - Ear protection - muffs to BS EN 352-1, plugs to BS EN 352-2
  - Hand protection - to BS EN 388, 407, 420 or 511 as appropriate.

## JCT335A37 OPERATION/ MAINTENANCE OF THE FINISHED WORKS

### GENERALLY

#### 110 THE BUILDING MANUAL

- Purpose: The Manual is to be a comprehensive information source and guide for owners and users of the completed Works. It should provide an overview of the main design principles and describe key components and systems to enable proper understanding, efficient and safe operation and maintenance.
- Scope:
  - Part 1: General: Content as clause 120.
  - Part 2: Fabric: Content as clause 130.
  - Part 3: Services: Content as clause 140.
  - Part 4: The Health and Safety File: Content as clause 150.
  - Part 5: Building User Guide: Content as clause 151.
- Responsibility: The Building Manual is to be produced by the Contractor and must be complete no later than 1 week prior to end of works on site.
- Information provided by others: Details: \_\_\_\_\_.
- Compilation:
  - Prepare all information for Contractor designed or performance specified work including as-built drawings.
  - Obtain or prepare all other information to be included in the Manual.
- Reviewing the Manual: Submit a complete draft. Amend in the light of any comments and resubmit. Do not proceed with production of the final copies until authorized.
- Final copies of the Manual:
  - Number of copies: \_\_\_\_TBA\_\_\_\_.
  - Format: \_\_\_\_\_.
  - Latest date for submission: 1 weeks before the date for completion stated in the contract.
- As-built drawings and schedules:
  - Number of copies: \_\_\_\_\_.
  - Format: \_\_\_\_\_.

#### 115 THE HEALTH AND SAFETY FILE

- Responsibility: Chris Blandford Associates
- Content: Obtain and provide the following information: O&M's, service information, Health and Safety File.
- Format: Hard/soft copies
- Delivery to: Chris Blandford Associates By (date): \_\_\_\_\_.

**115 HEALTH AND SAFETY INFORMATION**

- Content: Obtain and provide the following information: \_\_\_\_\_.
- Format: \_\_\_\_\_.
- Deliver to: \_\_\_\_\_ No later than: \_\_\_\_\_.

**120 CONTENT OF THE BUILDING MANUAL PART 1: GENERAL**

- Content: Obtain and Provide the following, including all relevant details not included in other parts of the manual:
- Index: list the constituent parts of the manual, together with their location in the document.
- The Works:
  - Description of the buildings and facilities.
  - Ownership and tenancy, where relevant
  - Health and Safety information – other than that specifically required by the Construction (Design and Management) Regulations.
- The Contract:
  - Names and addresses and contact details of all significant consultants, contractors, subcontractors, suppliers and manufacturers.
  - Overall design criteria.
  - Environmental performance requirements
  - Relevant authorities, consents and approvals.
  - Third party certification, such as those made by “competent” persons in accordance with the Building Regulations
- Operational requirements and constraints of a general nature:
  - Maintenance contracts and contractors.
  - Fire safety strategy for the buildings and the site. Include drawings showing emergency escape and fire appliance routes, fire resisting doors location of emergency alarm and fire fighting systems, services, shut off valves switches, etc.
  - Emergency procedures and contact details in case of emergency.
  - Other specific requirements: \_\_\_\_\_.
- Description and location of other key documents.
- Timescale for completion: \_\_\_\_\_.

### 130 CONTENT OF THE BUILDING MANUAL PART 2: BUILDING FABRIC

- Content: Obtain and Provide the following, including all relevant details not included in other parts of the manual:
  - Detailed design criteria, including:
    - Floor and roof loadings.
    - Durability of individual components and elements.
    - Loading restrictions.
    - Insulation values.
    - Fire ratings.
    - Other relevant performance requirements.
  - Construction of the building:
    - A detailed description of methods and materials used.
    - As-built drawings recording the construction, together with an index.
    - Information and guidance concerning repair, renovation or demolition/ deconstruction.
  - Periodic building maintenance guide chart.
  - Inspection reports.
  - Manufacturer's instructions index, including relevant COSHH data sheets and recommendations for cleaning, repair and maintenance of components.
  - Fixtures, fittings and components schedule and index.
  - Guarantees, warranties and maintenance agreements – obtain from manufacturers, suppliers and subcontractors.
  - Test certificates and reports required in the specification or in accordance with legislation, including:
    - Air permeability.
    - Resistance to passage of sound.
    - Continuity of insulation.
    - Electricity and Gas safety.
- 
- Other specific requirements: \_\_\_\_\_.
  - Timescale for completion: \_\_\_\_\_.

## 140 CONTENT OF THE BUILDING MANUAL PART 3: BUILDING SERVICES

- Content: Obtain and Provide the following, including all relevant details not included in other parts of the manual:
- Detailed design criteria and description of the systems, including:
  - Services capacity, loadings and restrictions
  - Services instructions.
  - Services log sheets.
  - Manufacturers' instruction manuals and leaflets index.
  - Fixtures, fittings and component schedule index.
- Detailed description of methods and materials used.
- As-built drawings for each system recording the construction, together with an index, including:
  - Diagrammatic drawings indicating principal items of plant, equipment and fittings
  - Record drawings showing overall installation
  - Schedules of plant, equipment, valves, etc. describing location, design performance and unique identification cross referenced to the record drawings.
  - Identification of services – a legend for colour coded services.
- Product details, including for each item of plant and equipment:
  - Name, address and contact details of the manufacturer.
  - Catalogue number or reference
  - Manufacturer's technical literature, including detailed operating and maintenance instructions.
  - Information and guidance concerning dismantling, repair, renovation or decommissioning.
- Operation: A description of the operation of each system, including:
  - Starting up, operation and shutting down
  - Control sequences
  - Procedures for seasonal changeover
  - Procedures for diagnostics, troubleshooting and fault finding.
- Guarantees, warranties and maintenance agreements – obtain from manufacturers, suppliers and subcontractors.
- Commissioning records and test certificates list for each item of plant, equipment, valves, etc. used in the installations – including:
  - Electrical circuit tests.
  - Corrosion tests.
  - Type tests.
  - Work tests.
  - Start and commissioning tests.
- Equipment settings: Schedules of fixed and variable equipment settings established during commissioning.
- Preventative maintenance: Recommendations for frequency and procedures to be adopted to ensure efficient operation of the systems

- Lubrication: Schedules of all lubricated items
- Consumables: A list of all consumable items and their source.
- Spares: A list of recommended spares to be kept in stock, being those items subject to wear and tear or deterioration and which may involve an extended delivery time when replacements are required.
- Emergency procedures for all systems, significant items of plant and equipment.
- Annual maintenance summary chart.
- Other specific requirements: \_\_\_\_\_.
- Timescale for completion: \_\_\_\_\_

#### **150 CONTENT OF THE BUILDING MANUAL PART 4: THE HEALTH AND SAFETY FILE**

- Content: obtain and provide the following, including all relevant details not included in other parts of the manual, including:
  - residual hazards and how they have been dealt with
  - hazardous materials used
  - information regarding the removal or dismantling of installed plant and equipment
  - health and safety information about equipment provided for cleaning or maintaining the structure;
  - the nature, location and markings of significant services,
  - information and as-built drawings of the structure, its plant and equipment

- 
- Information prepared by others: Details: \_\_\_\_\_.
  - Timescale for completion: \_\_\_\_\_.
  - Submit to: \_\_\_\_\_.

#### **151 CONTENT OF THE BUILDING MANUAL PART 5: THE BUILDING USER GUIDE**

- Content: Obtain and provide the following:
  - Building services information.

Emergency information.

Energy & environmental strategy.

Water use.

Transport facilities.

Materials & waste policy.

Re-fit/ re-arrangement considerations.

Reporting provision.

Training.

Links & references.

- Other specific requirements: \_\_\_\_\_.
- Timescale for completion: \_\_\_\_\_.



## 160 PRESENTATION OF BUILDING MANUAL

- Format: A4 size, plastics covered, loose leaf, four ring binders with hard covers, each indexed, divided and appropriately cover titled.
- Selected drawings needed to illustrate or locate items mentioned in the Manual: Where larger than A4, to be folded and accommodated in the binders so that they may be unfolded without being detached from the rings.
- As-built drawings: The main sets may form annexes to the Manual.

## 190 MAINTENANCE SERVICE

- Scope; provide a comprehensive maintenance service for the following items of plant and equipment: Include all planned preventative maintenance, as set out within the maintenance schedule and replacement of all consumable items

\_\_\_\_\_.

- Terms: \_\_\_\_\_.
- Commencement: \_\_\_\_\_.
- Duration: \_\_\_\_\_.

## 220 TRAINING

- Objective: Before Completion, explain and demonstrate to designated maintenance staff the purpose, function and operation of the installations including items and procedures listed in the Building Manual.
- Level of training \_\_\_\_\_.
- Time allowance: Include a minimum of \_\_\_\_\_ days.

## 230 SPARE PARTS

- General: Before Completion submit a priced schedule of spare parts that the Contractor recommends should be obtained and kept in stock for maintenance of the services installations.
- Content: Include in the priced schedule for:
  - Manufacturers' current prices, including packaging and delivery to site.
  - Checking receipts, marking and numbering in accordance with the schedule of spare parts.
  - Referencing to the plant and equipment list in Part 3 of the Building Manual.
  - Painting, greasing, etc. and packing to prevent deterioration during storage.
- Latest date for submission: \_\_\_\_\_.

## 250 TOOLS

- General: Provide tools and portable indicating instruments for the operation and maintenance of all services plant and equipment (except any installed under Named Subcontracts) together with suitable means of identifying, storing and securing.
- Quantity: Two complete sets.
- Time of submission: At completion.

**JCT335A40 CONTRACTOR'S GENERAL COST ITEMS: MANAGEMENT AND STAFF**

**110 MANAGEMENT AND STAFF**

- Cost significant items: \_\_\_\_\_.

**JCT335A41 CONTRACTOR'S GENERAL COST ITEMS: SITE ACCOMMODATION****110 SITE ACCOMMODATION**

- Details: Site accommodation required or made/ not made available by the Employer: See section A36.
- Cost significant items: \_\_\_\_\_.

**JCT335A42 CONTRACTOR'S GENERAL COST ITEMS: SERVICES AND FACILITIES****110 SERVICES AND FACILITIES**

- Details: Services or facilities required or made/ not made available by the Employer: See section A36.
- Cost significant items: \_\_\_\_\_.

**JCT335A43 CONTRACTOR'S GENERAL COST ITEMS: MECHANICAL PLANT**

**110 MECHANICAL PLANT**

- Cost significant items: \_\_\_\_\_.

**JCT335A44 CONTRACTOR'S GENERAL COST ITEMS: TEMPORARY WORKS****110 TEMPORARY WORKS**

- Details: Temporary works required or made/ not made available by the Employer: See section A36.
- Cost significant items: \_\_\_\_\_.

**JCT335A50 WORK/ PRODUCTS BY/ ON BEHALF OF THE EMPLOYER****110 WORK BY/ ON BEHALF OF EMPLOYER**

- Title: \_\_\_\_\_.
- Description of work: \_\_\_\_\_.
- Carried out by: \_\_\_\_\_.
- Attendance: Allow for the following additional to those reasonably required by the conditions of contract: \_\_\_\_\_.

**120 PRODUCTS PROVIDED BY/ ON BEHALF OF EMPLOYER**

- General: Details of such products are given in the work sections, for fixing as part of the contract. Use for no other purpose than the Works.
- Handling: Accept delivery, check against receipts and take into appropriate storage.
- Surplus products: Keep safe and obtain instructions.

## **SECTION NO. 2**

### **SPECIFICATIONS**

- Chris Blandford Associates specification and  
Play Equipment installation



London Borough of Lambeth

**STREATHAM COMMON PLAYGROUND**

50025801-E-SP01

Landscape Specification

TENDER

FEBRUARY 2017

# Table of Contents

Title		Page
C	Demolition/ Alteration/ Renovation	4
C20	Demolition	6
D	Groundwork	10
D20	Excavating and filling	12
E	In situ concrete/Large precast concrete	20
E10	Mixing/casting/curing in situ concrete	22
E20	Formwork for in situ concrete	27
M	Surface finishes	29
M40	Stone/concrete/quarry/ceramic tiling/mosaic	31
M60	Painting/clear finishing	33
N	Furniture/ Equipment	35
N91	External signage and interpretation	37
Q	Paving/Planting/Fencing/Site furniture	38
Q10	Kerbs/ edgings/ channels/ paving accessories	40
Q20	Granular sub-bases to roads/pavings	45
Q21	In situ concrete roads/ pavings/ bases	48
Q22	Asphalt roads/ pavings	50
Q23	Gravel/ Hogglin/ Woodchip/ Resin bound roads/ paving/ overlays	53
Q24	Interlocking brick/block roads/pavings	57
Q26	Special surfacings/ pavings for sport/ general amenity	61
Q28	Topsoil and soil ameliorants	65
Q30	Seeding/turfing	72
Q31	External planting	77
Q40	Fencing	87
Q50	Site/street furniture/equipment	91
Q52	Play and sports equipment	94

R	Disposal systems	105
R12	Below ground drainage systems	107
R13	Land drainage	109
S	Piped supply systems	112
S14	Irrigation	114
Z	Building fabric reference specification	118
Z20	Fixings and adhesives	120

**C**

**Demolition/ Alteration/ Renovation**

**C20**  
**Demolition**

## C20 Demolition

### To be read with Preliminaries/ General conditions

#### GENERAL REQUIREMENTS

##### 110 DESK STUDY/ SURVEY

- Scope: Before starting deconstruction/ demolition work, examine available information, and carry out a survey of:
  - the structure or structures to be deconstructed/ demolished,
  - the site on which the structure or structures stand, and
  - the surrounding area.
- Report and method statements: Submit, describing:
  - Form, condition and details of the structure or structures, the site, and the surrounding area.  
Extent: Refer to drawing: SCP-CBA-1-GF-M2-L-7001 .
  - Type, location and condition of features of historical, archaeological, geological or ecological importance.
  - Type, location and condition of adjoining or surrounding premises that might be adversely affected by removal of the structure or structures, or by noise, vibration and/ or dust generated during deconstruction/ demolition.
  - Identity and location of services above and below ground, including those required for the Contractor's use, and arrangements for their disconnection and removal.
  - Form and location of flammable, toxic or hazardous materials, including lead-based paint, and proposed methods for their removal and disposal.
  - Form and location of materials identified for reuse or recycling, and proposed methods for removal and temporary storage.
  - Proposed programme of work, including sequence and methods of deconstruction/ demolition.
  - Details of specific pre-weakening required.
  - Arrangements for protection of personnel and the general public, including exclusion of unauthorized persons.
  - Arrangements for control of site transport and traffic.
  - Special requirements:
    - Details of services supplied by the Statutory Authority;
    - Results of tests to determine the precise nature of hazardous materials;
    - Site waste management plan development and proposals; and - Structural calculations in support of method statements .
- Format of report: None .

##### 120 EXTENT OF DECONSTRUCTION/ DEMOLITION

- General: Subject to retention requirements specified elsewhere, deconstruct/ demolish structures down to levels as shown in drawing: SCP-CBA-1-GF-M2-L-7001.

##### 130 GROUNDWORKS

- Old foundations, slabs and the like: Break out in locations and to the extents stated.
- Contaminated material: Remove, and carry out remediation required by the Enforcing Authority.

##### 140 BENCH MARKS

- Unrecorded bench marks and other survey information: Give notice when found. Do not remove marks or destroy the fabric on which they are found.

#### 150A FEATURES TO BE RETAINED

General: Keep in place and protect the following (Refer to drawing: SCP-CBA-1-GF-M2-L-7001):

- Boundary walls;
- Gates and gate pillars;
- Railings; or
- Trees noted on drawings; protect in accordance with BS 5837.

Retain for re-use the following (Refer to drawing: SCP-CBA-1-GF-M2-L-7001):

- Cycle stands (EC)
- Picnic benches (EP)
- Pedestrian gate (EG1)
- Maintenance gate (EG2)

### **SERVICES AFFECTED BY DECONSTRUCTION/ DEMOLITION**

#### 210 SERVICES REGULATIONS

- Work carried out to or affecting new and/ or existing services: Carry out in accordance with the byelaws and/ or regulations of the relevant Statutory Authority.

#### 220 LOCATION OF SERVICES

- Services affected by deconstruction/ demolition work: Locate and mark positions.
- Mains services marking: Arrange with the appropriate authorities for services to be located and marked.
  - Marking standard: In accordance with National Joint Utilities Group 'Guidelines on the positioning and colour coding of underground utilities' apparatus'.

#### 230 SERVICES DISCONNECTION ARRANGED BY CONTRACTOR

- General: Arrange with the appropriate authorities for disconnection of services and removal of fittings and equipment owned by those authorities prior to starting deconstruction/ demolition.

#### 240 DISCONNECTION OF DRAINS

- General: Locate, disconnect and seal disused foul and surface water drains.
- Sealing: Permanent, and within the site.

#### 250 LIVE FOUL AND SURFACE WATER DRAINS

- Drains and associated manholes, inspection chambers, gullies, vent pipes and fittings:
  - Protect; maintain normal flow during deconstruction/ demolition.
  - Make good any damage arising from deconstruction/ demolition work.
  - Leave clean and in working order at completion of deconstruction/ demolition work.
- Other requirements: None.

#### 260 SERVICE BYPASS CONNECTIONS

- General: Provide as necessary to maintain continuity of services to occupied areas of the site on which the deconstruction/ demolition is taking place and to adjoining sites/ properties.
- Minimum notice to adjoining owners and all affected occupiers: 72 hours, if shutdown is necessary during changeover.

#### 270 SERVICES TO BE RETAINED

- Damage to services: Give notice, and notify relevant service authorities and/ or owner/ occupier regarding damage arising from deconstruction/ demolition.
- Repairs to services: Complete as directed, and to the satisfaction of the service authority or owner.

## **DECONSTRUCTION/ DEMOLITION WORK**

- 310 WORKMANSHIP
- Standard: Demolish structures in accordance with BS 6187.
  - Operatives:
    - Appropriately skilled and experienced for the type of work.
    - Holding, or in training to obtain, relevant CITB Certificates of Competence.
  - Site staff responsible for supervision and control of work: Experienced in the assessment of risks involved and methods of deconstruction/ demolition to be used.
- 320 GAS OR VAPOUR RISKS
- Precautions: Prevent fire and/ or explosion caused by gas and/ or vapour from tanks, pipes, etc.
- 330 DUST CONTROL
- General: Reduce airborne dust by periodically spraying deconstruction/ demolition works with an appropriate wetting agent. Keep public roadways and footpaths clear of mud and debris.
  - Lead dust: Submit method statement for control, containment and clean-up regimes.
- 340 HEALTH HAZARDS
- Precautions: Protect site operatives and general public from hazards associated with vibration, dangerous fumes and dust arising during the course of the Works.
- 350 ADJOINING PROPERTY
- Temporary support and protection: Provide. Maintain and alter, as necessary, as work proceeds. Do not leave unnecessary or unstable projections.
  - Defects: Report immediately on discovery.
  - Damage: Minimize. Repair promptly to ensure safety, stability, weather protection and security.
  - Support to foundations: Do not disturb.
- 360 STRUCTURES TO BE RETAINED
- Extent: Refer to drawing SCP-CBA-1-GF-M2-L-7001.
  - Parts which are to be kept in place: Protect.
  - Interface between retained structures and deconstruction/ demolition: Cut away and strip out with care to minimize making good.
- 370 PARTLY DEMOLISHED STRUCTURES
- General: Leave in a stable condition, with adequate temporary support at each stage to prevent risk of uncontrolled collapse. Make secure outside working hours.
  - Temporary works: Prevent overloading due to debris.
  - Access: Prevent access by unauthorized persons.
- 380 DANGEROUS OPENINGS
- General: Provide guarding at all times, including outside of working hours. Illuminate during hours of darkness.
  - Access: Prevent access by unauthorized persons.
- 391 ASBESTOS-CONTAINING MATERIALS – UNKNOWN OCCURRENCES
- Discovery: Give notice immediately of suspected asbestos-containing materials when discovered during deconstruction/ demolition work. Avoid disturbing such materials.
  - Removal: Submit statutory risk assessments and details of proposed methods for safe removal.



410 UNFORESEEN HAZARDS

- Discovery: Give notice immediately when hazards such as unrecorded voids, tanks, chemicals, are discovered during deconstruction/ demolition.
- Removal: Submit details of proposed methods for filling, removal, etc.

442A SITE SURFACE AT COMPLETION

- Levels: Grade the site to follow the levels of adjacent areas.

450 SITE CONDITION AT COMPLETION

- Debris: Clear away and leave the site in a tidy condition.
- Other requirements: None.

**MATERIALS ARISING**

510 CONTRACTOR'S PROPERTY

- Components and materials arising from the deconstruction/ demolition work: Property of the Contractor except where otherwise provided.
- Action: Remove from site as work proceeds where not to be reused or recycled for site use.

520 RECYCLED MATERIALS

- Materials arising from deconstruction/ demolition work: Can be recycled or reused elsewhere in the project, subject to compliance with the appropriate specification and in accordance with any site waste management plan.
- Evidence of compliance: Submit full details and supporting documentation.
  - Verification: Allow adequate time in programme for verification of compliance.

**D**

**Groundwork**

**D20**

**Excavating and filling**

## **D20 Excavating and filling**

To be read with Preliminaries/General conditions

### **GENERALLY/THE SITE**

- 110 SITE INVESTIGATION
  - Report: See Preliminaries section A12
- 145 VARIATIONS IN GROUND WATER LEVEL
  - Give notice: If levels encountered are significantly different from levels in the site investigation report or previously measured.
- 150 EXISTING SERVICES, FEATURES AND STRUCTURES
  - Services: See section A12 for locations.
  - Site features to be retained: See section A12 for details.
  - Structures: See section A34 for details of protection.

### **CLEARANCE/EXCAVATING**

- 164 TREE ROOTS
  - Protected area: Do not cut roots within precautionary protection area.
    - Size of area: As per drawing SCP-CBA-1-GF-M2-L-4001.
  - Excavation in protected area:
    - Method: By hand.
    - Backfill as soon as possible or temporarily line with polyethylene sheet to reduce evaporation.
  - Outside protected area: Give notice of roots exceeding 25 mm and do not cut without approval.
  - Cutting:
    - Make clean smooth cuts with no ragged edges.
    - Pare cut surfaces smooth with a sharp knife.
    - Treatment of cut roots: Not required.
  - Backfill: As dug material, enriched with phosphate fertilizer.
- 168 SITE CLEARANCE
  - Timing: Before topsoil stripping, if any.
  - General: Clear site of rubbish, debris and vegetation. Do not compact topsoil.
  - Treatment: Apply a suitable non-residual herbicide to areas to receive planting.
- 170 REMOVING SMALL TREES, SHRUBS, HEDGES AND ROOTS
  - Identification: Clearly mark trees to be removed.
  - Small trees, shrubs and hedges: Cut down
  - Roots: Grub up and dispose of without undue disturbance of soil and adjacent areas
  - Safety: Comply with HSE/ Arboriculture and Forestry Advisory Group safety leaflets.

- 220 STRIPPING TOPSOIL
- General: Before beginning general excavation or filling, strip topsoil from areas where there will be regrading, buildings, pavings/ roads and other areas shown on drawings.
  - Depth:
    - Remove to an average depth of 300 mm.
    - Give notice where the depth of topsoil is difficult to determine.
  - Handling: Handle topsoil for reuse or sale in accordance with clause 225.
  - Around trees: Do not remove topsoil from below the spread of trees to be retained.
  - Site storage: Within contractor's compound.
- 221 TREATING TOPSOIL
- Treatment: Apply a suitable translocated nonresidual herbicide.
  - Timing: Not less than two weeks before excavating topsoil.
- 225 HANDLING TOPSOIL
- Standard: To BS 3882.
  - Aggressive weeds:
    - Species: Included in the Weeds Act, section 2 or the appropriate Wildlife and Countryside Act for the relevant jurisdiction.
    - Give notice: Obtain instructions before moving topsoil.
  - Contamination: Do not mix topsoil with:
    - Subsoil, stone, hardcore, rubbish or material from demolition work.
    - Other soil or material containing aggressive weeds, sharps, plastics and non soil forming materials and notifiable animal or plant diseases.
    - Oil, fuel, cement or other substances harmful to plant growth.
    - Other classifications of topsoil.
  - Multiple handling: Keep to a minimum. Use topsoil immediately after stripping.
- 250 PERMISSIBLE DEVIATIONS FROM FORMATION LEVELS
- Beneath mass concrete foundations:  $\pm 25$  mm.
  - Beneath ground bearing slabs and r.c. foundations:  $\pm 15$  mm.
  - Embankments and cuttings:  $\pm 50$  mm.
  - Ground abutting external walls:  $\pm 50$  mm, but such as to ensure that finished level is not less than 150 mm below dpc.
- 255 ACCURACY - LINEAR DIMENSIONS
- Permissible deviations from linear dimensions generally: 50mm .
- 260A INSPECTING FORMATIONS
- Give notice: Make advance arrangements for inspection of formations for approval.
    - Notice (minimum): 48 hours.
  - Preparation: Just before inspection remove the last 150 mm of excavation.
  - Trim to required profiles and levels.
- 267 INSPECTION OF FORMATIONS IN SHRINKABLE SOILS
- Inspect formation: For signs of conducting and fine moisture absorbing roots.
  - Give notice: If significant quantities of roots are visible in the formation or in the bottom 75 mm of the walls of the excavation.

270 FOUNDATIONS GENERALLY

- Give notice if:
  - A natural bearing formation of undisturbed subsoil is not obtained at the depth shown on the drawings.
  - The formation contains soft or hard spots or highly variable material.

280 TRENCH FILL FOUNDATIONS

- Excavation: Form trench down to formation in one operation.
- Safety: Prepare formation from ground level.
- Inspection of formations: Give notice before commencing excavation.
  - Period of notice: 48 hours.
- Shoring: Where inspection of formation is required, provide localised shoring to suit ground conditions.
- Concrete fill: Place concrete immediately after inspection and no more than four hours after exposing the formation.

290 FOUNDATIONS IN MADE UP GROUND

- Depth: Excavate down to a natural formation of undisturbed subsoil.
- Discrepancy: Give notice if this is greater or less than depth given.

310 UNSTABLE GROUND

- Generally: Ensure that the excavation remains stable at all times.
- Give notice: Without delay if any newly excavated faces are too unstable to allow earthwork support to be inserted.
- Take action: If instability is likely to affect adjacent structures or roadways, take appropriate emergency action.

330 UNRECORDED FEATURES

- Give notice: If unrecorded foundations, beds, voids, basements, filling, tanks, pipes, cables, drains, manholes, watercourses, ditches, etc. not shown on the drawings are encountered.

360 EXCESS EXCAVATION

- Excavation taken wider than required:
  - Backfill: As clause 700.
- Excavation taken deeper than required:
  - Backfill: Under ground bearing slabs: Hardcore as clause 710.

370 UNDERGROUND STRUCTURES IN LANDSCAPE AREAS

- Generally: Remove walls, roads, foundations, disused services, drains, manholes and the like to minimum depth.
- Minimum depth below finished levels:
  - Grass, ground cover and perennial planting: 500 mm.
  - Shrub planting: 750 mm.
  - Within 2 m of tree planting: 1000 mm.
- Walls and slabs remaining: In every 10 m<sup>2</sup> of wall or slab, make a drainage hole at least 600 mm diameter.

**DISPOSAL OF MATERIALS**

410A EXCAVATED TOPSOIL STORAGE

- Storage: Stockpile in temporary storage heaps .

420 TOPSOIL STORAGE HEAPS

- Location: Contractor's compound.
- Standard: To BS 3882.
- Height (maximum): 2.0m.
- Protection:
  - Do not place any other material on top of storage heaps.
  - Do not allow construction plant to pass over storage heaps.
  - Prevent compaction and contamination.

441 SURPLUS SUBSOIL

- Excavated material: Stockpile in temporary storage heaps.
- Retained material: Spread and level surplus subsoil on site.
  - Locations: Contractor's compound .
  - Protected areas: Do not raise soil level within root spread of trees that are to be retained.
- Remaining material: Remove from site.

450 WATER

- Generally: Keep all excavations free from water until:
  - Formations are covered.
  - Below ground constructions are completed.
  - Basement structures and retaining walls are able to resist leakage, water pressure and flotation.
- Drainage: Form surfaces of excavations and fill to provide adequate falls.
- Removal of water: Provide temporary drains, sumps and pumping as necessary. Do not pollute watercourses with silt laden water.

454 GROUND WATER LEVEL, SPRING OR RUNNING WATER

- Give notice: If it is considered that the excavations are below the water table.
- Springs/ Running water: Give notice immediately if encountered.

**FILLING**

500 PROPOSED FILL MATERIALS

- Details: Submit full details of proposed fill materials to demonstrate compliance with specification, including:
  - Type and source of imported fill.
  - Proposals for processing and reuse of material excavated on site.
  - Test reports as required elsewhere.
- Timing: 48 hours.

510 HAZARDOUS, AGGRESSIVE OR UNSTABLE MATERIALS

- General: Do not use fill materials which would, either in themselves or in combination with other materials or ground water, give rise to a health hazard, damage to building structures or instability in the filling, including material that is:
  - Frozen or containing ice.
  - Organic.
  - Contaminated or noxious.
  - Susceptible to spontaneous combustion.
  - Likely to erode or decay and cause voids.
  - With excessive moisture content, slurry, mud or from marshes or bogs.
  - Clay of liquid limit exceeding 80 and/or plasticity index exceeding 55.
  - Unacceptable, class U2 as defined in the Highways Agency 'Specification for highway works', clause 601.

520 FROST SUSCEPTIBILITY

- General: Except as allowed below, fill must be non frost-susceptible as defined in Highways Agency 'Specification for Highway Works', clause 801.8.
- Test reports: If the following fill materials are proposed, submit a laboratory report confirming they are non frost- susceptible:
  - Fine grained soil with a plasticity index less than 20%.
  - Coarse grained soil or crushed granite with more than 10% retained on a 0.063 mm sieve.
  - Crushed chalk.
  - Crushed limestone fill with average saturation moisture content in excess of 3%.
  - Burnt colliery shale.
- Frost-susceptible fill: May only be used:
  - At depths below the finished ground surface greater than: \_\_\_\_\_.
  - Within the external walls of buildings below spaces that will be heated. Protect from frost during construction.
  - Where frost heave will not affect structural elements.

525A TESTING OF SUITABILITY OF FILL MATERIALS BEFORE START OF FILLING

- Laboratory: UKAS accredited laboratory.
- Submit report to: Contract administrator.
  - Timing: 21 days before starting filling
- Samples: Deliver to laboratory as required.  
Tests: As directed.
- Frequency: Submit with tender proposed rate and frequency of testing to demonstrate continuing compliance of imported or reprocessed fill with specified properties.

530 PLACING FILL

- Surfaces of excavations and areas to be filled: Free from loose soil, topsoil, organic material, rubbish and standing water.
- Freezing conditions: Do not place fill on frozen surfaces. Remove material affected by frost. Replace and recompact if not damaged after thawing.
- Adjacent structures, membranes and buried services:
  - Do not overload, destabilise or damage.
  - Submit proposals for temporary support necessary to ensure stability during filling.
  - Allow 14 days (minimum) before backfilling against in situ concrete structures.
- Layers: Place so that only one type of material occurs in each layer.
- Earthmoving equipment: Vary route to avoid rutting.



- 535     **COMPACTION GENERALLY**
- General: Compact fill not specified to be left loose as soon as possible after placing.
  - After compaction: Surface of each layer must be well closed, showing no movement under compaction plant, and without cracks, holes, ridges, loose material and the like.
  - Defective areas: Remove and recompact to full thickness of layer using new material.
- 540     **BENCHING IN FILL**
- Adjacent areas: If, during filling the difference in level between adjacent areas of filling exceeds 600 mm, cut into edge of higher filling to form benches 600 mm minimum width and height equivalent to depth of a layer of compacted filling.
  - New filling: Spread and compact to ensure maximum continuity with previous filling.
- 550A    **GEOTEXTILE SHEET**
- Manufacturer: TERRAM Global Office, Fiberweb Geosynthetics Ltd, Blackwater Trading Estate, The Causeway, Maldon, Essex, CM9 4GG | Tel: +44(0) 1621 874200 | Email: xxxx@xxxxxx.xxx.
    - Product reference: T1000 Standard Geotextile.
  - Type: Nonwoven.
  - Jointing: 300 mm overlap.
  - Preparation of subgrade: Before laying sheet, remove humps and sharp projections. Fill hollows.
  - Protect from:
    - Exposure to light.
    - Contaminants.
    - Materials listed as potentially deleterious by geotextile manufacturer.
    - Wind uplift.
- 610     **COMPACTED FILLING FOR LANDSCAPE AREAS**
- Fill: Material capable of compaction by light earthmoving plant.
  - Filling: Layers not more than 200 mm thick. Lightly compact each layer to produce a stable soil structure.
- 615     **LOOSE TIP FILLING FOR LANDSCAPE AREAS**
- Filling: Do not firm, consolidate or compact when laying. Tip and grade to approximate levels in one operation with minimum of trafficking by plant.
- 617     **HIGHWAYS AGENCY TYPE 1 UNBOUND MIXTURE**
- Fill: To Highways Agency 'Specification for highway works', clauses 801 and 803:
    - Crushed rock (other than argillaceous rock).
    - Crushed concrete.
    - Recycled aggregates.
    - Crushed non-expansive slag.
    - Well-burned non-plastic colliery shale.
  - Amendments to requirements in Highways Agency 'Specification for highway works': None.
  - Filling: To Highways Agency 'Specification for highway works', clause 802.

- 626    COMPACTED GENERAL FILL
- Suitable material: Any inorganic material excavated on the site.
  - Excavated material: Select suitable material and keep separate.
  - Filling: Spread and level material in layers. As soon as possible thoroughly compact each layer.
  - Required compaction: To suit use of fill as clause 610.
  - Proposals: Well in advance of starting work submit details of proposed:
    - Materials to be used, including quantities of each type.
    - Type of plant.
    - Maximum depth of each compacted layer.
    - Minimum number of passes per layer.
- 640    STARTER LAYER OF COMPACTED FILLING
- Fill: Suitable hard granular material. Compact thoroughly.
  - Thickness: 200mm .
- 650    PROTECTION OF COMPACTED FILLING
- Temporary protective filling: Before allowing construction traffic, raise level of compacted cohesive soil filling at least 150 mm above formation level using properly compacted temporary filling.
  - Removal: Remove temporary protective filling from site before permanent construction.
- 700    BACKFILLING AROUND FOUNDATIONS
- Under oversite concrete and pavings: Hardcore as clause 710.
  - Under grassed or soil areas: Material excavated from the trench, laid and compacted in 300 mm maximum layers.
- 710    HARDCORE FILLING
- Fill: Granular material, free from excessive dust, well graded, all pieces less than 75 mm in any direction:
    - Test requirements:
      - Minimum 10% fines value tested in a soaked condition to BS 812-111 \_\_\_\_\_.
      - Impact value SZ tested to BS EN 1097-2 \_\_\_\_\_.
  - In any one layer only one of the following:
    - Crushed rock (other than argillaceous rock) or quarry waste with not more binding material than is required to help hold the stone together.
    - Crushed concrete, crushed brick or tile, free from plaster, timber and metal.
    - Crushed non-expansive slag.
    - Gravel or hoggin with not more clay content than is required to bind the material together, and with no large lumps of clay.
    - Well-burned non-plastic colliery shale.
    - Natural gravel.
    - Natural sand.
  - Filling: Spread and level in 150 mm maximum layers. Thoroughly compact each layer.

710A    **HARDCORE FILLING**

- Fill: Granular material, free from excessive dust, well graded, all pieces less than 75 mm in any direction:
  - Minimum 10% fines value tested in a soaked condition to BS 812-111 and in any one layer only one of the following:
  - Crushed rock (other than argillaceous rock) or quarry waste with not more binding material than is required to help hold the stone together.
  - Crushed concrete, crushed brick or tile, free from plaster, timber and metal.
  - Crushed non-expansive slag.
  - Gravel or hoggin with not more clay content than is required to bind the material together, and with no large lumps of clay.
  - Well-burned non-plastic colliery shale.
  - Natural gravel.
  - Natural sand.
- Filling: Spread and level in 150 mm maximum layers. Thoroughly compact each layer.

**E**

**In situ concrete/Large precast concrete**

**E10**

**Mixing/casting/curing in situ concrete**

## **E10 Mixing/casting/curing in situ concrete**

To be read with Preliminaries/General conditions.

### **CONCRETE MIXES**

- 101 SPECIFICATION
  - Concrete generally: To BS 8500-2.
  - Exchange of information: Provide concrete producer with information required by BS 8500-1, clauses 4 and 5.
- 160 STANDARDIZED PRESCRIBED CONCRETE For Landscape Foundations
  - Grade: ST1.
  - Aggregates:
    - Size (maximum): 20mm.
    - Additional aggregate requirements: None.
  - Special requirements for cement/ combinations: None.
  - Consistence class: S1.
  - Site mixing: Permitted as clause 218.

### **MATERIALS, BATCHING AND MIXING**

- 218 SITE MIXED CONCRETE
  - Batching by mass:
    - Restrictions: Maximum pour size 30m<sup>3</sup>.
    - Accuracy of measuring devices: To BS EN 206, clause 9.6.2.2
    - Tolerances for quantity of constituent material: To BS EN 206, Table 27.
  - Batching by volume:
    - Restrictions: None for ST1.
  - Mixing: To BS 8000-2.1, subsections 2, 3 and 4.
- 312 PROPRIETARY AGGREGATE
  - Manufacturer: Contractor to submit details for CA approval.
    - Product reference: Contractor to submit details for CA approval.
  - Standard: To BS 8500-2: All aggregates.
    - Permitted deviations from standard: None.
  - Other requirements: None.
- 415 ADMIXTURES
  - Calcium chloride and admixtures containing calcium chloride: Do not use.

## **PROJECT TESTING/ CERTIFICATION**

### **505 PROJECT TESTING OF CONCRETE - GENERAL**

- Testing: BS EN 206-1, Annex B.
  - Nonconformity: Obtain instructions immediately.
- Recording: Maintain complete correlated records including:
  - Concrete designation.
  - Sampling, site tests, and identification numbers of specimens tested in the laboratory.
  - Location of the parts of the structure represented by each sample.
  - Location in the structure of the batch from which each sample is taken.

### **508A REGULAR PROJECT TESTING OF CONCRETE**

- Tests: Compressive strength.
- Sampling:
  - Point: At point of discharge from delivery truck.
  - Rate: One sample from each batch for consistence.
- Other requirements: Cubes for early stage strength testing to be stored under same conditions as concrete in members.

### **530 TESTS RESULTS**

- Submission of reports: Within one day of completion of each test.
  - Number of copies: Three.
- Reports on site: A complete set, available for inspection.

## **PLACING/ COMPACTION/ CURING AND PROTECTION**

### **630 PREMATURE WATER LOSS**

- Requirement: Prevent water loss from concrete laid on absorbent substrates.
  - Underlay: Select from:
    - Polyethylene sheet: 250 micrometres thick.
    - Building paper: To BS 1521, grade B1F.
  - Installation: Lap edges 150 mm.

### **650 SURFACES TO RECEIVE CONCRETE**

- Cleanliness of surfaces immediately before placing concrete: Clean with no debris, tying wire clippings, fastenings or free water.

### **680 PLACING**

- Records: Maintain for time, date and location of all pours.
- Timing: Place as soon as practicable after mixing and while sufficiently plastic for full compaction.
- Temperature limitations for concrete: 30°C (maximum) and 5°C (minimum), unless otherwise specified. Do not place against frozen or frost covered surfaces.
- Continuity of pours: Place in final position in one continuous operation up to construction joints. Avoid formation of cold joints.
- Discharging concrete: Prevent uneven dispersal, segregation or loss of ingredients or any adverse effect on the formwork or formed finishes.
- Thickness of layers: To suit methods of compaction and achieve efficient amalgamation during compaction.
- Poker vibrators: Do not use to make concrete flow horizontally into position, except where necessary to achieve full compaction under void formers and cast-in accessories and at vertical joints.

690 COMPACTING

- General: Fully compact concrete to full depth to remove entrapped air. Continue until air bubbles cease to appear on the top surface.
  - Areas for particular attention: Around reinforcement, under void formers, cast-in accessories, into corners of formwork and at joints.
- Consecutive batches of concrete: Amalgamate without damaging adjacent partly hardened concrete.
- Methods of compaction: To suit consistence class and use of concrete.

811 COVERINGS FOR CURING

- Sheet coverings: Suitable impervious material.
- Curing compounds: Selection criteria:
  - Curing efficiency: Not less than 75% or for surfaces exposed to abrasion 90%.
  - Colouring: Fugitive dye.
  - Application to concrete exposed in the finished work: Readily removable without disfiguring the surface.
  - Application to concrete to receive bonded construction/ finish: No impediment to subsequent bonding.
- Interim covering to top surfaces of concrete: Until surfaces are in a suitable state to receive coverings in direct contact, cover with impervious sheeting held clear of the surface and sealed against draughts at perimeters and junctions.

818 CURING PERIODS GENERALLY

- Minimum periods: When not otherwise indicated, to BS 8110-1, table 6.1..

820 CURING PERIODS FOR EXTERNAL CONCRETE

- General: Curing periods are in days (minimum).
  - Definition of 't': The average surface temperature of concrete in degrees Celsius during the curing period.
- Curing periods for concrete made using CEM1 strength class 42.5 or 52.5, or SRPC class 42.5:
  - Drying winds or dry, sunny weather (relative humidity < 50%): 6 days when the surface temperature is between 5°C and 10°C.
  - Intermediate conditions (relative humidity between 50 and 80%): 4 days when the surface temperature is between 5°C and 10°C.
  - Damp weather, protected from sun and wind (relative humidity > 80%): No special requirements.
- Curing periods: For concrete made using cements listed in BS 8500-1, table A.6 except for those listed above and for supersulfated cement:
  - Drying winds or dry, sunny weather (relative humidity < 50%): 10 days when the surface temperature is between 5°C and 10°C.
  - Intermediate conditions (relative humidity between 50 and 80%): 6 days when the surface temperature is between 5°C and 10°C.
  - Damp weather, protected from sun and wind (relative humidity > 80%): No special requirements.
- Curing periods: For concretes using admixtures or other types of cements/ combinations: Submit proposals.
- Other requirements: Increase curing period by any time during which the surface temperature of concrete is less than 5°C.



840 PROTECTION

- Prevent damage to concrete, including:
  - Surfaces generally: From rain, indentation and other physical damage.
  - Surfaces to exposed visual concrete: From dirt, staining, rust marks and other disfiguration.
  - Immature concrete: From thermal shock, physical shock, overloading, movement and vibration
  - In cold weather: From entrapment and freezing expansion of water in pockets, etc.

**E20**

**Formwork for in situ concrete**

## **E20 Formwork for in situ concrete**

To be read with Preliminaries/ General conditions.

### **GENERALLY/ PREPARATION**

#### **110 LOADINGS**

- Requirement: Design and construct formwork to withstand the worst combination of the following:
  - Total weight of formwork, reinforcement and concrete.
  - Construction loads including dynamic effects of placing, compacting and construction traffic.
  - Wind and snow loads.

#### **170 WORK BELOW GROUND FOOTINGS AND FOUNDATIONS**

- Casting vertical faces against faces of excavation: Permitted.
  - Requirements: Prevent contamination of concrete by loose soil and progressively withdraw face supports as concrete is placed against soil face.

### **CONSTRUCTION**

#### **310 ACCURACY**

- General requirement for formwork: Accurately and robustly constructed to produce finished concrete in the required positions and to the required dimensions.
- Formed surfaces: Free from twist and bow (other than any required cambers).
- Intersections, lines and angles: Square, plumb and true.

#### **315 SUBSTRUCTURE FORMWORK AND UNDERSLAB INSULATION**

- Cutting: Neat and accurate to edges, and around penetrations and downstands.
- Laying: Tightly butted and fully supported on firm, even substrate.
- Vertical faces: Stiffen as necessary to act as shutter.
- Formwork/ insulation surfaces: Protect from indentation by spacers and other items.
- Joints in formwork/ insulation and with edge structure and penetrations: Seal to prevent penetration of concrete.
- Concrete placement: Restrain formwork/ insulation against movement.

#### **320 JOINTS IN FORMS**

- Requirements including joints in form linings and between forms and completed work:
  - Prevent loss of grout, using seals where necessary.
  - Prevent formation of steps. Secure formwork tight against adjacent concrete.

#### **330 INSERTS, HOLES AND CHASES**

- Positions and details:
  - Dimensioned on drawings provided on behalf of the Employer: Do not change without consent.
  - Undimensioned or from other sources: Submit proposals.
- Positioning relative to reinforcement: Give notice of any conflicts well in advance of placing concrete.
- Method of forming: Fix inserts or box out as required. Do not cut hardened concrete without approval.

## **STRIKING**

### 510 STRIKING FORMWORK

- Timing: Prevent any disturbance, damage or overloading of the permanent structure.

### 521 MINIMUM PERIOD FOR RETAINING FORMWORK/ TEMPORARY SUPPORTS IN POSITION

- Concrete strength at time of formwork removal (minimum):  
Backfilling behind retaining walls - delayed until concrete reaches a cube strength of 15 N/mm<sup>2</sup>.
- Assumptions: Maturity of adjacent elements of structure is at least equal to element under consideration.
  - Before removing formwork: Submit proposals if assumptions will not be realised.
- Method to be used in assessing early age strength of concrete: Submit proposals.

## **FORMED FINISHES**

### 635 STANDARD FINISH

- Standard: BS 8110-1, clause 6.2.7.3.
- Quality: Type A when not otherwise indicated.
- Face as formed: As the regional reference panel.

**M**

**Surface finishes**

**M40**

**Stone/concrete/quarry/ceramic tiling/mosaic**

## **M40 Stone/concrete/quarry/ceramic tiling/mosaic**

### **5A REPLACEMENT CERAMIC TILING AS REQUIRED WITHIN IN PUBLIC TOILETS**

- Tiles: To match existing.
  - Manufacturer/ Supplier: Submit proposals.
  - Colour: To match existing.
  - Size: To match existing.
- Background/ Base: As per manufacturer's specification.
  - Preparation: As per manufacturer's specification.
- Intermediate substrate: As per manufacturer's specification.
- Bedding: As per manufacturer's specification.
  - Adhesive: As per manufacturer's specification.
- Joint width: To match existing.
- Grout: To match existing.
- Movement joints: As per manufacturer's specification.

**M60**

**Painting/clear finishing**



## M60 Painting/clear finishing

- 10A EMULSION PAINT FOR REPAINTING OF PUBLIC TOILET INTERIOR
- Manufacturer: Dulux or similar approved by CBA.
    - Product reference: Submit proposals.
  - Surfaces: As per manufacturer's specification.
    - Preparation: As per manufacturer's specification.
  - Initial coats: As per manufacturer's specification.
    - Number of coats: As required, to be approved by CA.
  - Undercoats: As per manufacturer's specification.
    - Number of coats: As required, to be approved by CA.
  - Finishing coats: Submit proposals.
    - Number of coats: As required, to be approved by CA.
- 12A GLOSS PAINT To make good railings damaged by the installation of new gate or fencing
- Manufacturer: Dulux or similar approved and approved by CA..
    - Product reference: Trade metalshield or submit proposals.
    - Colour to match existing fencing and gates.
  - Surfaces: Primed with Dulux metalshield Zinc phosphate primer and sealed.
    - Preparation: Degrease and provide key.
  - Initial coats: As recommended by manufacturer.
    - Number of coats: As required, to be approved by CA.
  - Undercoats: As recommended by manufacturer.
    - Number of coats: As required, to be approved by CA.
  - Finishing coats: Full gloss.
    - Number of coats: As required, to be approved by CA.
- 30 PREPARATION GENERALLY
- Standard: In accordance with BS 6150.
  - Refer to any pre-existing CDM Health and Safety File and CDM Construction Phase Plan where applicable.
  - Risk assessment and method statement for hazardous materials: Prepare for operations, disposal of waste, containment and reoccupation, and obtain approval before commencing work.
  - Preparation materials: Types recommended by their manufacturers and the coating manufacturer for the situation and surfaces being prepared.
  - Substrates: Sufficiently dry in depth to suit coating.
  - Efflorescence salts, dirt, grease and oil: Remove.
  - Surface irregularities: Provide smooth finish.
  - Organic growths and infected coatings:
    - Remove with assistance of biocidal solution.
    - Apply residual effect biocidal solution to inhibit regrowth.
  - Joints, cracks, holes and other depressions: Fill with stoppers/ fillers. Provide smooth finish.
  - Dust, particles and residues from preparation: Remove and dispose of safely.
  - Doors, opening windows and other moving parts:
    - Ease, if necessary, before coating.
    - Prime resulting bare areas.

39 STEEL PREPARATION

- Corrosion and loose scale: Take back to bare metal.
- Residual rust: Treat with a proprietary removal solution.
- Bare metal: Apply primer as soon as possible.

61 COATING GENERALLY

- Application standard: In accordance with BS 6150, clause 9.
- Conditions: Maintain suitable temperature, humidity and air quality.
- Surfaces: Clean and dry at time of application.
- Thinning and intermixing: Not permitted unless recommended by manufacturer.
- Priming coats: Apply as soon as possible on same day as preparation is completed.
- Finish:
  - Even, smooth and of uniform colour.
  - Free from brush marks, sags, runs and other defects.
  - Cut in neatly.
- Doors, opening windows and other moving parts: Ease before coating and between coats.

**N**

**Furniture/ Equipment**

**N91**

**External signage and interpretation**

## N91 External signage and interpretation

### 10 ENTER CLAUSE TITLE

#### 120A BESPOKE GATE SIGNAGE S2 Lambeth Parks Signage

- Function: Information  
Supplier: Reade Signs Ltd., 4 Holder Road, Aldershot, Hants, Gu12 4RH | Tel: 01252336000 | Email: xxxxxxxx@xxxxxxxxxxx.xxx.  
Description: Tray sign with VE panel. Folded aluminium tray sign PPC to clients ref to receive a folded vitreous enamel map panel. Rails on reverse to allow fixing to railings.  
Artwork: Supplied by Client.  
Size: 500mm (w) x 350mm (h) x 35mm (d)  
Materials: 3mm thickness folded aluminium with 11 gauge mild steel and vitreous enamel.

#### 120B BESPOKE BOARD SIGNAGE S1 Lambeth Parks Signage

- Function: Information
- Supplier: Reade Signs Ltd., 4 Holder Road, Aldershot, Hants, Gu12 4RH | Tel: 01252336000 | Email: xxxxxxxx@xxxxxxxxxxx.xxx.
- Description: Freestanding post and panel map and notice sign with poster case.
- Post and Panel Sign: As Artwork Supplied by Client.
- Size: Panel: 1960mm (w) x 1100mm (h) x 100mm (d) | Legs: 100mm x 100mm x 2500mm long. (2000mm out of ground) | Top VE panel 1955mm (w) x 180mm (h) x 20mm (d) | Map VE panel 1290mm (w) x 900mm (h) x 20mm (d) | Poster Case 660mm (w) x 905mm (h) x 30mm (d)
- Materials: 3mm thickness aluminium with 11 gauge mild steel vitreous enamel.

### 210 EXTERNAL SIGNAGE GENERALLY

- Signage systems generally: Complete to BS 559, including components, inserts, accessories and fixings necessary to complete the system.
- External signage: To BS 559, clause 6.1.
- Content: Signs including facing information, components, inserts, accessories and fixings necessary to complete the system.
- Geometric colours, shapes and layout: To BS ISO 3864-1 and BS 8501,
- Font: TBC.

### 230 ACCESSIBILITY

- Design standard for disabled users: In accordance with BS 8300.
- Geometric shapes, colours and layout: To BS ISO 3864-1 and BS 8501.
- Font: TBC

**Q**

**Paving/Planting/Fencing/Site furniture**

**Q10**

**Kerbs/ edgings/ channels/ paving accessories**

## Q10 Kerbs/ edgings/ channels/ paving accessories

### 200A ALUExcel ALUMINIUM EDGE RESTRAINT - FLEXIBLE FORMAT E1

- Manufacturer: Kinley, Northpoint, Compass Park, Staplecross, East Sussex, TN32 5BS | Tel: 01580830688 | Email: xxxxx@xxxxxx.xx.xx.
  - Product reference: AE150FM.
- Size: 70mm (W) x 2500mm(L) x 150mm(H), 8mm Thickness..
- Type/ Material: Aluminium 6005A T6 alloy..
  - Finish: Mill finish.
  - Colour: Silver.
- Fixing: Spiral landscape spikes, nails or screws, depending on the substrate. When fixing into concrete, an automatic nail firing gun with 35-40 mm concrete nails can be used..
- Installation: Substrate to be levelled and AluExcel laid on MOT Type 1 roadstone or similarly approved material.

Levels can be adjusted using lean mix (dry) concrete/sharp sand and cement if required.

Bedding on a lean mix (dry) sharp sand and cement ensures that edging is fully supported along its length. This is essential to avoid "bridging" between the edging and the sub-base.

It is recommended to set-out corners first and work way from them.

Sliding joint connectors are slid into channels provided and an approximate gap of 10 mm should be left for thermal expansion.

A small concrete haunch may be used if additional support is required but is not essential.

Maximum asphalt temperature recommended is 180°C.

Where AluExcel is being installed in conjunction with hot lay tarmacadam, there must be an expansion joint of a minimum of 3 mm between each 2.5 m length.

It is recommended that rigid format profiles are used for straight lines and flexible profiles for radiuses. Spiral landscape spikes, nails or screws, depending on the substrate. When fixing into concrete, an automatic nail firing gun with 35-40 mm concrete nails can be used..



#### 200B ALUExcel ALUMINIUM EDGE RESTRAINT - FLEXIBLE FORMAT E2

- Manufacturer: Kinley, Northpoint, Compass Park, Staplecross, East Sussex, TN32 5BS | Tel: 01580830688 | Email: xxxxx@xxxxxx.xx.xx.
  - Product reference: AE100FM.
- Size: 70mm (W) x 2500mm(L) x 100mm(H), 6.5mm Thickness..
- Type/ Material: Aluminium 6005A T6 alloy..
  - Finish: Mill finish.
  - Colour: Silver.
- Fixing: Spiral landscape spikes, nails or screws, depending on the substrate. When fixing into concrete, an automatic nail firing gun with 35-40 mm concrete nails can be used..
- Installation: Substrate to be levelled and AluExcel laid on MOT Type 1 roadstone or similarly approved material.

Levels can be adjusted using lean mix (dry) concrete/sharp sand and cement if required.  
Bedding on a lean mix (dry) sharp sand and cement ensures that edging is fully supported along its length. This is essential to avoid "bridging" between the edging and the sub-base.  
It is recommended to set-out corners first and work way from them.  
Sliding joint connectors are slid into channels provided and an approximate gap of 10 mm should be left for thermal expansion.  
A small concrete haunch may be used if additional support is required but is not essential.  
Maximum asphalt temperature recommended is 180°C.  
Where AluExcel is being installed in conjunction with hot lay tarmacadam, there must be an expansion joint of a minimum of 3 mm between each 2.5 m length.  
It is recommended that rigid format profiles are used for straight lines and flexible profiles for radiuses.

#### 200C ALUExcel ALUMINIUM EDGE RESTRAINT - FLEXIBLE FORMAT E3

- Manufacturer: Kinley, Northpoint, Compass Park, Staplecross, East Sussex, TN32 5BS | Tel: 01580830688 | Email: xxxxx@xxxxxx.xx.xx.
  - Product reference: AE75FM.
- Size: 70mm (W) x 2500mm(L) x 75mm(H), 6mm Thickness..
- Type/ Material: Aluminium 6005A T6 alloy..
  - Finish: Mill finish.
  - Colour: Silver.
- Fixing: Spiral landscape spikes, nails or screws, depending on the substrate. When fixing into concrete, an automatic nail firing gun with 35-40 mm concrete nails can be used..
- Installation: Substrate to be levelled and AluExcel laid on MOT Type 1 roadstone or similarly approved material.

Levels can be adjusted using lean mix (dry) concrete/sharp sand and cement if required.  
Bedding on a lean mix (dry) sharp sand and cement ensures that edging is fully supported along its length. This is essential to avoid "bridging" between the edging and the sub-base.  
It is recommended to set-out corners first and work way from them.  
Sliding joint connectors are slid into channels provided and an approximate gap of 10 mm should be left for thermal expansion.  
A small concrete haunch may be used if additional support is required but is not essential.  
Maximum asphalt temperature recommended is 180°C.  
Where AluExcel is being installed in conjunction with hot lay tarmacadam, there must be an expansion joint of a minimum of 3 mm between each 2.5 m length.  
It is recommended that rigid format profiles are used for straight lines and flexible profiles for radiuses.

#### 200D ALUExcel ALUMINIUM EDGE RESTRAINT - FLEXIBLE FORMAT E4

- Manufacturer: Kinley, Northpoint, Compass Park, Staplecross, East Sussex, TN32 5BS | Tel: 01580830688 | Email: xxxxx@xxxxxx.xx.xx.
  - Product reference: AE50FM.
- Size: 45mm (W) x 2500mm(L) x 50mm(H), 5mm Thickness..
- Type/ Material: Aluminium 6005A T6 alloy..
  - Finish: Mill finish.
  - Colour: Silver.
- Fixing: Spiral landscape spikes, nails or screws, depending on the substrate. When fixing into concrete, an automatic nail firing gun with 35-40 mm concrete nails can be used..
- Installation: Substrate to be levelled and AluExcel laid on MOT Type 1 roadstone or similarly approved material.

Levels can be adjusted using lean mix (dry) concrete/sharp sand and cement if required.

Bedding on a lean mix (dry) sharp sand and cement ensures that edging is fully supported along its length. This is essential to avoid "bridging" between the edging and the sub-base.

It is recommended to set-out corners first and work way from them.

Sliding joint connectors are slid into channels provided and an approximate gap of 10 mm should be left for thermal expansion.

A small concrete haunch may be used if additional support is required but is not essential.

Maximum asphalt temperature recommended is 180°C.

Where AluExcel is being installed in conjunction with hot lay tarmacadam, there must be an expansion joint of a minimum of 3 mm between each 2.5 m length.

It is recommended that rigid format profiles are used for straight lines and flexible profiles for radiuses.

Spiral landscape spikes, nails or screws, depending on the substrate. When fixing into concrete, an automatic nail firing gun with 35-40 mm concrete nails can be used..

#### 200E ALLEDGE ALUMINIUM EDGE RESTRAINT E5

- Manufacturer: Kinley, Northpoint, Compass Park, Staplecross, East Sussex, TN32 5BS | Tel: 01580830688 | Email: xxxxx@xxxxxx.xx.xx.
  - Product reference: ALP100M/300.
- Size: 2500mm(L) x 100mm(H), 5mm Thickness..
- Type/ Material: Aluminium 6005A T6 alloy..
  - Finish: Mill finish.
  - Colour: Silver.
- Fixing: Using supplied 300mm fixing stakes (3 per 2500mm(L)..
- Installation: Substrate to be levelled and AluExcel laid on MOT Type 1 roadstone or similarly approved material.

Levels can be adjusted using lean mix (dry) concrete/sharp sand and cement if required.

Bedding on a lean mix (dry) sharp sand and cement ensures that edging is fully supported along its length. This is essential to avoid "bridging" between the edging and the sub-base.

It is recommended to set-out corners first and work way from them.

It is recommended to set-out corners first and work way from them.

Sliding joint connectors are slid into channels provided and an approximate gap of 10 mm should be left for thermal expansion.

A small concrete haunch may be used if additional support is required but is not essential.

Maximum asphalt temperature recommended is 180°C.

Where AluExcel is being installed in conjunction with hot lay tarmacadam, there must be an expansion joint of a minimum of 3 mm between each 2.5 m length.

It is recommended that rigid format profiles are used for straight lines and flexible profiles for radiuses.

Spiral landscape spikes, nails or screws, depending on the substrate. When fixing into concrete, an automatic nail firing gun with 35-40 mm concrete nails can be used..

- 250 MATERIAL SAMPLES
- Samples representative of colour and appearance of designated materials: Submit before placing orders.
    - Designated materials: All Edges .
- 510 LAYING KERBS, EDGINGS AND CHANNELS
- Cutting: Neat, accurate and without spalling. Form neat junctions.
    - Long units (450 mm and over) minimum length after cutting: 300 mm.
    - Short units minimum length after cutting: The lower of one third of their original length or 50 mm.
  - Bedding of units: Positioned true to line and levelled along top and front faces, in a mortar bed on accurately cast foundations or on a race of fresh concrete.
  - Securing of units: After bedding has set, secured with a continuous haunching of concrete or on a race of fresh concrete with backing concrete cast monolithically.
- 520 ADVERSE WEATHER
- Conditions: Do not construct if the temperature is below 3°C on a falling thermometer or 1°C on a rising thermometer. Adequately protect foundations, bedding and haunching against frost and rapid drying by sun and wind.
- 530 CONCRETE FOR FOUNDATIONS, RACES AND HAUNCHING
- Standard: To BS 8500-2.
  - Designated mix: Not less than GEN0 or Standard mix ST1.
  - Workability: Very low.
- 540 CEMENT MORTAR BEDDING
- General: To section Z21.
  - Mix (Portland cement:sand): 1:3.
    - Portland cement: Class CEM I 42.5 to BS EN 197-1.
    - Sand: to BS EN 12620, grade 0/4 or 0/2 (MP).
  - Bed thickness: 12-40 mm.
- 600 RADIUS KERBS/CHANNELS
- Usage: Radii of 15 m or less.
- 620 ACCURACY
- Deviations (maximum):
    - Level:  $\pm 6$  mm.
    - Horizontal and vertical alignment: 3 mm in 3 m.
- 630 NARROW MORTAR JOINTS
- Jointing: Ends of units buttered with bedding mortar as laying proceeds. Joints completely filled, tightly butted and surplus mortar removed immediately.
    - Joint width: 3 mm.

**Q20**

**Granular sub-bases to roads/pavings**

## Q20 Granular sub-bases to roads/pavings

To be read with Preliminaries/ General conditions.

### 110B THICKNESSES OF SUB-BASE/ SUBGRADE IMPROVEMENT LAYERS

- Thicknesses: See sections:
    - 
    - Q22 Coated macadam/asphalt roads/pavings;
    - Q23 Gravel/hoggin/woodchip roads/pavings;
    - Q24 Interlocking brick/block roads/pavings; and
    - Q26 Special surfacings/pavings for sport/general amenity.
- Refer to drawing: SCP-CBA-1-GF-M2-L-8201

### 120 CHECKING OF SUBGRADES

- Anticipated subgrade conditions:
  - Soil type: TBC.
  - Plasticity index: test subgrade CBR to BS 1377-4.
  - CBR (minimum): test subgrade CBR to BS 1377-4.
  - Depth below formation level to groundwater table: Unknown.
- Subgrade variation: If material appears to vary from anticipated conditions, or if there are extensive soft spots, report condition and submit proposals .
- Submit: Results and obtain instructions before proceeding.

### 130 HERBICIDES

- Type: Non-residual, non-selective.
- Application: To subgrade of of all areas needing hard surfacing.

### 140 EXCAVATION OF SUBGRADES

- Final excavation to formation or subformation level: Carry out immediately before compaction of subgrade.
- Soft spots and voids: Give notice.
- Old drainage and service trenches: Excavate to remove soft or damaged material, then backfill with specified granular sub-base material and compact.
- Wet conditions: Do not excavate or compact when the subgrade may be damaged or destabilized.

### 145 PREPARATION AND COMPACTION OF SUBGRADES

- Timing: Immediately before placing sub-base.
- Soft or damaged areas: Excavate and replace with sub-base material, compacted in layers 300mm (maximum) thick..
- Compaction: Thoroughly, by roller or other suitable means, adequate to resist subsidence or deformation of the subgrade during construction and of the completed roads/ pavings when in use. Take particular care to compact fully at intrusions, perimeters and where local excavation and backfilling has taken place.

170A GEOTEXTILE FILTER / SEPARATOR MEMBRANE

- Manufacturer: [TERRAM Global Office, Fiberweb Geosynthetics Ltd, Blackwater Trading Estate, The Causeway, Maldon, Essex, CM9 4GG | Tel: +44(0) 1621 874200 | Email: xxxx@xxxxxx.xxx].
  - Product reference: [T1000 Standard Geotextile].
- Type: [Nonwoven].
- Jointing: [300 mm overlap].
- Preparation of subgrade: [Before laying sheet, remove humps and sharp projections. Fill hollows].
- Protect from:
  - Exposure to light.
  - Contaminants.
  - Materials listed as potentially deleterious by geotextile manufacturer.
  - Wind uplift.
- Preparation: Remove humps and sharp projections and fill hollows before laying.

180 NOTICE

- Give notice: After preparation and compaction of subgrades.
  - Period of notice: 5 working days.

310 ACCURACY

- Permissible deviation from required levels, falls and cambers (maximum):
  - Subgrades:
    - Roads and parking areas: +20 -30 mm.
    - Footways and recreation areas:  $\pm$  20 mm.
  - Sub-bases:
    - Roads and parking areas: +20-30mm.
    - Footways and recreation areas:  $\pm$  12mm.

330 COLD WEATHER WORKING

- Frozen materials: Do not use.
- Freezing conditions: Do not place fill on frozen surfaces. Remove material affected by frost. Replace and recompact if not damaged after thawing.

340 PROTECTION

- Sub-bases: As soon as practicable, cover with subsequent layers, specified elsewhere.
- Subgrades and sub-bases: Prevent degradation by construction traffic, construction operations and inclement weather.

**Q21**

**In situ concrete roads/ pavings/ bases**

## **Q21 In situ concrete roads/ pavings/ bases**



**Q22**

**Asphalt roads/ pavings**

## **Q22 Asphalt roads/ pavings**

To be read with Preliminaries/ General conditions.

### **TYPES OF PAVING**

#### **PREPARATORY WORK/ REQUIREMENTS**

##### **240 ACCEPTANCE OF SURFACES**

- Surface: Sound, clean and suitably close textured.
- Level tolerances: To BS 594987.
- Kerbs and edgings: Complete, adequately bedded and haunched and to the required levels.

##### **250 ABUTMENTS**

- Vertical edges of manholes, gullies, kerbs and other abutments: Clean and paint with a thin uniform coating of cold applied thixotropic bitumen emulsion.
- Finishing: Tamp surface around projections.
  - Level: Flush or not more than 3 mm above projections.

### **LAYING**

##### **310 LAYING GENERALLY**

- Preparation: Remove all loose material, rubbish and standing water.
- Adjacent work: Form neat junctions. Do not damage.
- Channels, kerbs, inspection covers etc: Keep clean.
- New paving:
  - Keep traffic free until it has cooled to prevailing atmospheric temperature.
  - Do not allow rollers to stand at any time.
  - Prevent damage.
  - Lines and levels: With regular falls to prevent ponding.
  - Overall texture: Smooth, even and free from dragging, tearing or segregation.
  - State on completion: Clean.

##### **320 ADVERSE WEATHER**

- Frozen materials: Do not use.
- Suspend laying:
  - During freezing conditions
  - If the air temperature reaches 0°C, or in calm dry conditions -3°C, on a falling thermometer.
  - Hot rolled asphalt: During periods of continuous or heavy rain or if there is standing water on the base.

##### **330 LEVELS**

- Permissible deviation from the required levels, falls and cambers (maximum): In accordance with BS 594987, clause 5.2.

340 FLATNESS/ SURFACE REGULARITY

- Deviation of surface: Where appropriate in relation to the geometry of the surface, the variation in gap under a 3 m straightedge placed anywhere on the surface to be not more than:
  - Base: Hand laid, 25mm and machine laid, 25mm.
  - Binder course: Hand laid, 13mm and machine laid 13mm.
  - Surface course: Hand laid 10mm and machine laid 7mm.
  - Where a straightedge cannot be used the surface must be of a comparable standard of accuracy when judged by eye.

350 CONTRACTOR'S USE OF PAVEMENTS

- Before use:
  - Timing: allow newly laid sections to cool before trafficking.
  - Open-grained surface: Fill with 0/4 mm size coated grit. Remove surplus.
  - Finish: Uncoated chipping and binder surface treatment.
- Preparation for final surfacing:
  - Timing: Defer laying until as late as practicable.
  - Immediately before laying final surfacing: Clean and make good the base/ binder course. Allow to dry.
  - Adhesion: Submit proposals.  
Application rate: As per manufacturer's recommendation.  
Accuracy: Uniform, without puddles.
  - Finishing: Allow emulsion to break completely before applying surface.

**COMPLETION**

390 DOCUMENTATION

- Standard: BS EN 13108-1 and BS EN 13108-4.
  - Declaration of conformity: Submit.
- Number of copies: Three.
- Submission: Two weeks prior to the date when the contractor expects work to be complete.

**Q23**

**Gravel/ Hoggin/ Woodchip/ Resin bound roads/ paving/  
overlays**

## Q23 Gravel/ Hoggin/ Woodchip/ Resin bound roads/ paving/ overlays

To be read with Preliminaries/ General conditions.

### TYPES OF SURFACING

#### 160A COMPACTED GRAVEL PV4

Refer to drawing: SCP-CBA-1-GF-M2-L-8201

- Surface course:
  - Manufacturer: [CED Natural Stone LTD, 728 London Road, West Thurrock, Grays, Essex, RM20 3LU | Tel: 01708 867237 | Email: xxxxxxxx@xxx.xxx.xx].
  - Product reference: [CEDEC Compacted Gravel | CEDEC Gold].
  - Colour: [Buff A.K.A Gold].
  - Aggregate size: [6mm].
  - Compacted thickness: 50mm.
- Geotextile: Refer to clause: Q20/170A.
- Compacted sub-base: Inert MOT Type 1 granular Sub-base compacted in 150mm layer. Granite or quartzite to be used to ensure porosity. Submit Proposals.
- Additional Notes:
  - When laid initially, CEDEC® should be rolled as indicated in the laying guide: See appendix documentation. This gives a useful start to the compaction process that will be continued by the processes of rain and being walked upon.
  - Any area of CEDEC® must always be constrained by a raised surround. As an example, always leave the surface of the CEDEC® at 5-10mm lower than the adjacent paving, to minimise migration of the loose chips onto the paving.
  - Because CEDEC® relies on its own binding qualities for stability, it is best as a level surface. It should not normally be laid on a slope greater than 1 in 25.

#### 225A RESIN BOUND PERMEABLE SURFACING PV2

Refer to drawing: SCP-CBA-1-GF-M2-L-8201

- Granular sub-base: Type 3 granular sub base to SHW clause 805 or 4/40mm, 4/20mm graded crushed concrete aggregate to EN12620. Refer to drawing SCP-CBA-GF-M2-L-8201.
  - Compacted thickness: 200 mm.
- Water collection: Not applicable, Permeable surface.
- Geotextile: Refer to clause Q20/170A.
- Base course: Asphalt binder course - AC10 open graded asphalt. Max 100/150 pen to BS EN 13108-1:2006 (Bituminous Macadam).
  - Compacted thickness: 70mm.
- Surface course: To be installed by Sureset UK Ltd.
  - Manufacturer: SureSet uk Ltd., 32 Deverill Road, Trading Estate, Sutton Veny, Warminster, BA12 7BZ | Tel:08006126501 | Email: xxxx@xxxxxxx.xx.xx.
  - Product reference: Resin Bound Natural Aggregate Paving - L1411/09.
  - Colour: Barley Beach.
  - Aggregate size: 6mm.
  - Slip resistance: GGG Glass/Sand Ad Mixture as per manufacturer's recommendations.
- Application: Thoroughly mixed and uniformly spread.
  - Thickness: 18 mm.
  - Compaction to all layers: As per manufacturer's recommendations.

## **LAYING**

### **320 SAMPLES**

- Submit: Representative samples of Resin bound permeable surfacing as clause 225A.

### **330A HERBICIDE TO SURFACING Q23**

- Type: Suitable for the application, location and conditions of use.
- Weeds and moss: Grub up.
- Application: As section A34, before surfacing.

### **340 LAYING GENERALLY**

- Channels, gullies, etc: Keep clear.
- Finished surfaces:
  - Lines and levels: To prevent ponding.
  - Overall texture: Even.
  - State at completion: Clean.

### **350 COLD WEATHER WORKING**

- Frozen materials: Do not use.
- Freezing conditions: Do not lay pavings.
- Cold bituminous surface dressings: Do not apply when ambient temperature is below 10°C.
- Other dressings or overlays: As manufacturers' recommendations.

### **360 DRAINAGE FALLS**

- Sealed surfaces:
  - Falls and cross falls (minimum): 1:40.
  - Camber (minimum): 1:50.
- Unsealed surfaces (minimum): 1:30.

### **370 LAYING GRANULAR SURFACES IN VEHICULAR AREAS**

- Permissible deviation from required levels, falls and cambers (maximum):  $\pm 20\text{mm}$ .
- General: Spread and level in 150 mm maximum layers. As soon as possible compact each layer.
- Dry weather: Lightly water layers during compaction.

### **380 LAYING GRANULAR SURFACES IN PEDESTRIAN AREAS**

- Permissible deviation from required levels, falls and cambers (maximum):  $\pm 12\text{ mm}$ .
- General: Spread and level in 100 mm maximum layers. As soon as possible, compact each layer.
- Dry weather: Lightly water layers during compaction.

### **390 PROTECTION FROM TRAFFIC AND PLANT**

- Paved areas: Restrict access to prevent damage.

## **COMPLETION**

### 400 SLIP RESISTANCE TESTING

- Surfaces to be tested: Resin Bound Permeable Surfacing PV2.
  - Surface condition: Dry and wet.
- Timing: Two weeks prior to handover, but after initial cleaning.
- Period of notice (minimum): 3 working days.
- Test standard: To BS 1134.
  - Testing authority: A UKAS accredited laboratory.
  - Witnessing/ Certification: Arrange for tests to be witnessed/ certified by: Contract administrator.
  - Report: Submit.
  - Format: As required under BS 1134.

**Q24**

**Interlocking brick/block roads/pavings**



## Q24 Interlocking brick/block roads/pavings

To be read with Preliminaries/ General conditions

### TYPES OF PAVING

#### 110A TEGULA PRIORA PERMEABLE CONCRETE BLOCK PAVING SETTS PV1

Refer to drawing: SCP-CBA-1-GF-M2-L-8201

- Subgrade improvement layer: Submit proposals.
  - Compacted thickness: Minimum 250mm.
- Geotextile:
  - Manufacturer: [Marshall's plc., Landscape House, Lowfield Business Park, Elland, HX5 9HT | Tel: 03704427702 | Email: xxxx@xxxxxxxxx.xx.xx].
  - Product reference: [Marshall's MG15 Grid].
- Granular sub-base: 20mm nominal size angular subgrade aggregate. (With 32-40% void ratio)..
  - Compacted thickness: 250 mm \*Minimum depth required for a CBR of 5% or better..
- Laying course:
  - 2-6mm nominal size bedding layer of coarse aggregate. (With 32-40% void ratio).
  - Material: In accordance with BS 7533-3.  
Category: III.
  - Method of screeding, in accordance with BS 7533-3: Compaction.
  - Nominal thickness after compaction: 50 mm.
- Blocks: To BS EN 1338:2003
  - Manufacturer: Marshall's plc., Landscape House, Lowfield Business Park, Elland, HX5 9HT | Tel: 03704427702 | Email: xxxx@xxxxxxxxx.xx.xx.  
Product reference: PV3754160 | PV3754200 | PV3754230 .
  - Sizes: 240mm(W) x 160mm(L) x 60mm(Thickness) | 160mm(W) x 160mm(L) x 60mm(Thickness) | 160mm(W) x 120mm(L) x 60mm(Thickness).
  - Special blocks: None.
  - Arrises: No requirement.
  - Colour/ Finish: Harvest.
  - Recycled content: Submit proposals.
- Jointing:
  - Material: As per granular bedding layer.
  - Joint width: 6mm.
- Sealer/ Stabilizer: Not required.
- Setting out:
  - Bond: Running.

### EXECUTION

#### 200 EXECUTION GENERALLY - CONCRETE BLOCK AND CLAY PAVER PAVING

- Standard: In accordance with BS 7533-3.

#### 211 COLOUR BANDING

- General: Unless premixed by manufacturer, select blocks/ pavers/ setts vertically from at least 3-5 separate packs in rotation to avoid colour banding.

#### 220 SAMPLES

- General: Before ordering, submit samples of concrete blocks/ pavers/ setts that are representative of colour and appearance.

- 230 CONTROL SAMPLES
- General: Carry out sample area of finished work:
    - Location: TBC.
    - Size (minimum): 1.5 x 1.5 m.
    - Features to be included: Edging.
  - Give notice: When ready for inspection.
  - Timing: Obtain approval of appearance before proceeding.
- 240 ADVERSE WEATHER
- General: Do not use frozen materials or lay bedding on frozen or frost covered sub-bases.
- 335 PLANING AND REPAIRS TO EXISTING BASES
- Existing macadam/ asphalt surfaces: Plane to required levels.
  - Repairs: Cut out depressions, fill to match existing surface and compact.
  - Building up to required levels: Regulate using bituminous material to Highways Agency 'Specification for highway works'.
- 350 GRANULAR LAYER OVER EXISTING BASES
- Material: Unbound mixture for permeable paving, as section Q20.
  - Thickness: 100 mm.
  - Compaction: Laying granular sub-bases for pedestrian areas, as section Q20.
  - Blinding: As section Q20.
- 450 LAYING GEOTEXTILE SHEET FOR CONVENTIONAL PAVING
- Location: Immediately below laying course.
  - Jointing: \_\_\_\_\_.
  - Laying: Fit neatly at edge restraints and other features that interrupt the sand laying course, e.g. drainage fittings, channels, manholes and kerbs.
    - Edge detail: Turn sheet up to form an upstand against features.
    - Height (minimum): Thickness of sand laying course.
- 452 PREPARED EXISTING AND NEW BOUND BASES (ROADBASES)
- Condition before placing laying course: Sound, clean, free from rutting or major cracking and cleared of sharp stones, projections or debris.
- 485 LAYING BLOCKS/ PAVERS/ SETTS
- Setting out: Start from an edge restraint.
  - Cutting: Cleanly, accurately and vertically, without spalling. Do not mark or damage visible surfaces.
  - Cut edges: Turn inwards where possible; do not position against edge restraints or other features.
  - In situ mortar or concrete infill: Not applicable refer to clause 110A.
  - Compaction: Vibrate to produce thoroughly interlocked paving of even overall appearance with regular joints and accurate to line, level and profile. Do not mark or damage paving units, kerbs and adjacent work.
    - Concrete blocks and clay pavers: In accordance with BS 7533-3, Annex F, to site category required for laying course material.

505     REGULARITY OF PAVED SURFACES

- Maximum undulations in the surface of pavings (except tactile paving surfaces) under a 1 m straight edge placed anywhere on the surface (where appropriate in relation to the geometry of the surface): 3 mm.
- Joints between paving units or utility access covers:
  - Joints flush with the surface: difference in level between adjacent units to be no more than twice the joint width (with a 5 mm max difference in level).
  - Recessed, filled joints: difference in level between adjacent units to be no greater than 2 mm; the recess to be no deeper than 5 mm.
  - Unfilled joints: difference in level between adjacent units to be no greater than 2 mm.
- Sudden irregularities: Not permitted.

**COMPLETION**

615     COMPLETION OF PAVING

- Final compaction of the surface course: In accordance with BS 7533-3.
- Vacuum cleaning machines: Not allowed.

**Q26**

**Special surfacings/ pavings for sport/ general amenity**

## Q26 Special surfacings/ pavings for sport/ general amenity

To be read with Preliminaries/ General conditions.

### PLAY SAFETY SURFACING

#### 120A RESIN BOUND TIGER MULCH SURFACING PV3A

Refer to drawing: SCP-CBA-1-GF-M2-L-8201

- Subgrade improvement layer: Submit proposals.
  - Compacted thickness: Submit proposals.
- Geotextile: Refer to clause Q20/17A
- Granular sub-base:
  - Material: As per manufacturer's recommendations.
  - Compacted thickness: 100mm
- Surface Course:
  - Manufacturer: Star Rubber Environmental Ltd., Belmont House, Aller, Langport, Somerset, TA10 0QN | Tel: 01458253377 | Email: xxxxxxxxxx@xxx.xxx.
  - Product Reference: Tiger Mulch.
  - Colour: Brown.
  - Thickness: 40mm as required by the fall heights of play equipment as per BS EN 1176 and BS EN 1177..
- Application: Uniformly spread.

#### 120D RUBBER CRUMB SURFACING PV5A

Refer to drawing: SCP-CBA-1-GF-M2-L-8201

- Subgrade improvement layer: Submit proposals.
  - Compacted thickness: Submit proposals.
- Geotextile: Refer to clause Q20/17A
- Granular sub-base:
  - Material: As per manufacturer's recommendations.
  - Compacted thickness: 150mm
- Base Course
  - Manufacturer: [Playtop Licensing Limited, Jessop Way, Newark, Nottingham, NG24 2ER | Tel: 01636 642461 | Email: xxxxxxxxxx@xxxxxxx.xxx].
  - Product Reference: [Playtop Safer Surfacing - 1:4 Rubber grade].
  - Colour: [Not applicable].
  - Thickness: [Minimum 25mm, varying as required by the fall heights of play equipment as per BS EN 1176 and BS EN 1177.].
- Surface Course:
  - Manufacturer: Playtop Licensing Limited, Jessop Way, Newark, Nottingham, NG24 2ER | Tel: 01636 642461 | Email: xxxxxxxxxx@xxxxxxx.xxx.
  - Product Reference: Playtop Safer Surfacing.
  - Colour: Fireblend.
  - Thickness: 15mm wearing course..
- Application: Uniformly spread.

120E RUBBER CRUMB SURFACING PV5B

Refer to drawing: SCP-CBA-1-GF-M2-L-8201

- Subgrade improvement layer: Submit proposals.
  - Compacted thickness: Submit proposals.
- Geotextile: Refer to clause Q20/17A
- Granular sub-base:
  - Material: As per manufacturer's recommendations.
  - Compacted thickness: 150mm
- Base Course
  - Manufacturer: [Playtop Licensing Limited, Jessop Way, Newark, Nottingham, NG24 2ER | Tel: 01636 642461 | Email: xxxxxxxxxx@xxxxxxx.xxx].
  - Product Reference: [Playtop Safer Surfacing - 1:4 Rubber grade].
  - Colour: [Not applicable].
  - Thickness: [Minimum 25mm, varying as required by the fall heights of play equipment as per BS EN 1176 and BS EN 1177.].
- Surface Course:
  - Manufacturer: Playtop Licensing Limited, Jessop Way, Newark, Nottingham, NG24 2ER | Tel: 01636 642461 | Email: xxxxxxxxxx@xxxxxxx.xxx.
  - Product Reference: Playtop Safer Surfacing.
  - Colour: Beige.
  - Thickness: 15mm wearing course..
- Application: Uniformly spread.

120F RESIN BOUND TIGER MULCH SURFACING PV3B

Refer to drawing: SCP-CBA-1-GF-M2-L-8201

- Subgrade improvement layer: Submit proposals.
  - Compacted thickness: Submit proposals.
- Geotextile: Refer to clause Q20/17A
- Granular sub-base:
  - Material: As per manufacturer's recommendations.
  - Compacted thickness: 100mm
- Surface Course:
  - Manufacturer: Star Rubber Environmental Ltd., Belmont House, Aller, Langport, Somerset, TA10 0QN | Tel: 01458253377 | Email: xxxxxxxxxx@xxx.xxx.
  - Product Reference: Tiger Mulch.
  - Colour: Brown.
  - Thickness: 80mm as required by the fall heights of play equipment as per BS EN 1176 and BS EN 1177..
- Application: Uniformly spread.

120G RESIN BOUND TIGER MULCH SURFACING PV3C

Refer to drawing: SCP-CBA-1-GF-M2-L-8201

- Subgrade improvement layer: Submit proposals.
  - Compacted thickness: Submit proposals.
- Geotextile: Refer to clause Q20/17A
- Granular sub-base:
  - Material: As per manufacturer's recommendations.
  - Compacted thickness: 100mm
- Surface Course:
  - Manufacturer: Star Rubber Environmental Ltd., Belmont House, Aller, Langport, Somerset, TA10 0QN | Tel: 01458253377 | Email: xxxxxxxxxx@xxx.xxx.
  - Product Reference: Tiger Mulch.
  - Colour: Brown.
  - Thickness: 140mm as required by the fall heights of play equipment as per BS EN 1176 and BS EN 1177..
- Application: Uniformly spread.

**Q28**

**Topsoil and soil ameliorants**



## Q28 Topsoil and soil ameliorants

### PRODUCTS

#### 300 PREPARATION MATERIALS GENERALLY

- Purity: Free of pests and disease.
- Foreign matter: On visual inspection, free of fragments and roots of aggressive weeds, sticks, straw, subsoil, pieces of brick, concrete, glass, wire, large lumps of clay or vegetation, and the like.
- Contamination: Do not use topsoil contaminated with subsoil, rubbish or other materials that are:
  - Corrosive, explosive or flammable.
  - Hazardous to human or animal life.
  - Detrimental to healthy plant growth.
- Subsoil: In areas to receive topsoil or planting media, do not use subsoil contaminated with the above materials.
- Objectionable odour: None.
- Give notice: If any evidence or symptoms of soil contamination are discovered on the site or in topsoil or planting media to be imported.

#### 310 MATERIALS NOT PERMITTED

- Materials:
  - Peat;
  - Products containing peat; and
  - River and canal dredgings.

#### 315A IMPORTED TOPSOIL TO BS 3882

- Quantity: Provide as necessary to make up any deficiency of topsoil existing on site and to complete the work.
- Standard: To BS 3882.
- Classification: Multipurpose.
  - Grade: 2-6mm.
- Source: Submit proposals.
  - Product reference: Submit proposals.

#### 355 ORGANIC MATERIALS FOR TREE AND SHRUB AREAS

- Type: Tree and shrub planting compost.
- Source: Submit proposals.
  - Product reference: Submit proposals.

365A COMPOSTED MATERIALS FOR TREE AND SHRUB AREAS

- Type: Composted biomaterial.
- Source: Submit proposals.
  - Product reference: Submit proposals.
- Horticultural parameters:
  - pH (1:5 water extract): 7.0-8.7.
  - Electrical conductivity (maximum, 1:5 water extract): 200 mS/m.
  - Moisture content (m/m of fresh weight): 35-55%.
  - Organic matter content (minimum): 25%.
  - Grading (air dried samples): 99% passing 25 mm screen, and 90% passing: 10mm screen mesh aperture.
  - Carbon:Nitrogen ratio (maximum): 20:1.
- Texture: Friable.
- Objectionable odour: None.
- Samples: Submit details of recent chemical and physical analysis before ordering.

401 ORGANIC FERTILIZERS TO BE INCORPORATED INTO SOIL/GROWING MEDIA FOR TREE AND SHRUB AREAS

- Manufacturer/ source: Submit proposals.
  - Product reference: Submit proposals.
- Standard: In accordance with The EC Fertilisers (England and Wales) Regulations 2006.
- Purpose: Establishment fertilizer.
- Type: Granular.
- Availability to plants: Slow release.

**EXECUTION**

610 TOPSOIL ANALYSIS

- Soil to be analysed: Imported topsoil and Topsoil stockpile.
- Soil analyst: Tim O'hare Associates.
- Samples: Collect in accordance with BS 3882.
- Submit:
  - Declaration of analysis: In accordance with BS 3882, clause 6 and Table 1.
  - Additional analysis:
    - Chemical analysis;
    - Maximum stone content, stone size and pH value;
    - pH value and textural classification;
    - Phytotoxic and CLEA elements.
  - Report detailing soil analyst's recommendations.

620 IMPORTING TOPSOIL

- Give notice: Before stripping topsoil for transfer to site.
  - Notice period: 7 days.

625 SAMPLE LOADS FOR IMPORTED TOPSOIL

- Deliver to site a sample load: of not less than 5 m<sup>3</sup>.
- Give notice: Allow inspection before making further deliveries to site. Retain for comparison with subsequent loads.
  - Notice period: 7 days.

- 630 DOCUMENTATION FOR IMPORTED TOPSOIL FOR SHRUB BEDS AND TREE PITS
- Timing: Submit at handover.
  - Contents:
    - Full description of all soil components.
    - Record of source for all soil components.
    - Record drawings showing the location and depth of all soils by type and grade.
    - Declaration of analysis: in accordance with BS 3882, clause 6 and Table 1.
  - Number of copies: Three.
- 635 DOCUMENTATION FOR COMPOST AND COMPOSTED MATERIALS
- Timing: Submit at handover.
  - Contents:
    - Full description of all compost components.
    - Record of source for all compost components.
    - Analyst's report for each test carried out.
    - Declaration of compliance: in accordance with PAS 100 and BSI PD CR 13456.
    - Quality Compost Protocol certification: Required.
  - Number of copies: Three.
- 650 NOTICE
- Give notice before:
    - Setting out.
    - Spreading topsoil.
    - Applying herbicide.
    - Applying fertilizer.
    - Visiting site during maintenance period.
  - Period of notice: 2 weeks.
- 655 MECHANICAL TOOLS
- Restrictions: Do not use within 100 mm of tree and plant stems.
- 660A GRADING SUBSOIL
- Standard: In accordance with BS 8601.
  - General: Grade to smooth flowing contours to achieve specified finished levels of topsoil.
  - Areas of thicker topsoil: Excavate locally.
  - Avoid compaction.
  - Excess subsoil: Remove.
- 665A SUBSOIL SURFACE PREPARATION
- Standard: In accordance with BS 3882.
  - General: Excavate and/ or place fill to required profiles and levels, as section D20.
  - Loosening:
    - When ground conditions are sufficiently dry to allow breaking up of soils, loosen thoroughly to specified depth:
      - Light and noncohesive subsoils: When ground conditions are reasonably dry, loosen thoroughly to a depth of 300mm.
      - Stiff clay and cohesive subsoils: When ground conditions are reasonably dry, loosen thoroughly to a depth of 450mm.
      - Rock and chalk subgrades: Lightly scarify to promote free drainage.
    - Wet conditions: Do not loosen subsoils.
  - Stones: Immediately before spreading topsoil, remove stones larger than 50 mm.
  - Remove from site: Arisings, contaminants and debris and Builders rubble.

- 670 INSPECTING FORMATIONS
- Give notice: Before spreading topsoil for lawn areas and planting beds.
  - Notice period: 7 days.
- 675 PREPARATION OF UNDISTURBED TOPSOIL
- Standard: In accordance with BS 4428.
    - Grading and cultivation: To suit cultivation operations specified in Q30.
  - Hard ground: Break up thoroughly.
  - Clearing: Remove visible roots and large stones with a diameter greater than 50 mm.
  - Areas covered with turf or thick sward: Plough or dig over to full depth of topsoil.
  - Fallow period (minimum): One month.
    - Weed control: At appropriate times treat with a suitable translocated nonresidual herbicide.
- 680 SURPLUS TOPSOIL TO BE RETAINED
- Generally: Spread and level on site:
    - Locations: As directed by Landscape Architect.
    - Protected areas: Do not raise soil level within root spread of trees that are to be retained.
- 685 SURPLUS MATERIALS TO BE REMOVED
- Topsoil removal from site: Imported topsoil remaining after completion of all landscaping work.
  - Subsoil, stones, debris, wrapping material, canes, ties, temporary labelling, rubbish, prunings and other arisings: Remove.
- 690A TOPSOIL STORAGE HEAPS
- Location: Submit proposals.
  - Height (maximum): 1.0 m.
  - Width (maximum): 3.0 m.
  - Protection:
    - Do not place any other material on top of storage heaps.
    - Do not allow construction plant to pass over storage heaps.
    - Prevent compaction and contamination, by fencing and covering as appropriate.
- 695 CULTIVATION
- Compacted topsoil: Break up to full depth.
  - Tilth: Loosen, aerate and break up topsoil to a tilth suitable for blade grading.
    - Depth: 250mm.
    - Particle size (maximum): 10mm.
    - Timing: Within a few days prior to planting.
    - Weather and ground conditions: Suitably dry.
  - Surface: Leave regular and even.
  - Levels as drawings: SCP-CBA-1-GF-M2-L-1001 and SCP-CBA-1-GF-M2-L-1002
  - Undesirable material brought to surface: Remove visible weeds, roots and large stones with any dimension exceeding 50mm.
- Soil within root spread of trees and shrubs to be retained: Don not dig or cultivate.
- 700A GRADING OF TOPSOIL
- Topsoil condition: Reasonably dry and workable.
  - Contours: Smooth and flowing, with falls for adequate drainage.
    - Hollows and ridges: Not permitted.
  - Blade graing: May be used to adjust topsoil levels provided depth of topsoil is nowhere less than 150mm.
  - Give notice: If required levels cannot be achieved by movement of existing soil.

705 HANDLING TOPSOIL

- Standard: In accordance with BS 3882.
- Aggressive weeds: Give notice and obtain instructions before moving topsoil.
- Plant: Select and use plant to minimize disturbance, trafficking and compaction.
- Contamination: Do not mix topsoil with:
  - Subsoil, stone, hardcore, rubbish or material from demolition work.
  - Other grades of topsoil.
- Multiple handling: Keep to a minimum. Use or stockpile topsoil immediately after stripping.
- Wet conditions: Handle topsoil in the driest condition possible. Do not handle during or after heavy rainfall or when it is wetter than the plastic limit less than 3%, to BS 1377-2.

710A SPREADING TOPSOIL ON

- Standard: In accordance with BS 3882.
- Temporary roads/ surfacing: Remove before spreading topsoil.
- Layers:
  - Depth (maximum): 150 mm.
  - Gently firm each layer before spreading the next.
- Depth after firming and settlement (minimum): 150mm.
- Crumb structure: Do not compact topsoil. Preserve a friable texture of separate visible crumbs wherever possible.

715A LOOSE TIPPING OF TOPSOIL

- Standard: In accordance with BS 3882.
- General: Do not firm, consolidate or compact topsoil when laying. Tip and grade to approximate levels in one operation with minimum of trafficking by plant.  
Depths after settlement: (minimum) 150mm.

720A FINISHED LEVELS OF TOPSOIL AFTER SETTLEMENT

- In relation to adjoining paving or kerbs: 25mm.
- In relation to dpc of adjoining buildings: Not less than 150mm.
- In relation to adjacent grass areas: 125mm.
- Seeded areas: Extend cultivation into existing adjacent grassed areas sufficient to ensure full marrying in of levels.
- Sportsfields: To even levels and within the following permitted deviations:
  - From levels or gradients shown on drawings:  $\pm 75$  mm.
  - From line between boning rods 30 m apart:  $\pm 25$  mm.
- Within root spread of existing trees and shrubs to be retained: Do not dig or cultivate.
- Adjoining soil areas: Marry in.
- Thickness of turf or mulch: Included.

810A APPLYING COMPOST TO TREE, SHRUB AND GRASS AREAS

- Locations: As drawings.
- Other requirements: Submit 5kg sample before ordering.
- Application rate for trees and shrubs:  $1.2\text{m}^3/100\text{m}^2$ .
  - Timing: Apply prior to cultivation.
- Application rate for grass:  $0.6\text{m}^3/100\text{m}^2$ .
  - Timing: Apply prior to cultivation.

- 820     APPLYING GENERAL FERTILIZER to tree and shrub areas
- Application: Spread evenly, carefully incorporating below mulch materials.
    - Timing: Immediately before cultivation.
    - Application rate: 25g/m<sup>2</sup>.
    - Other requirements: None.
- 825A    APPLYING FERTILIZER TO PROPOSED AND EXISTING GRASS AREAS
- Locations: As per drawings.
  - Application: Before final cultivation and three to five days before seeding/ turfing.
  - Coverage:
    - Spread evenly, in transverse directions.
    - Rate: 50 g/m<sup>2</sup>.
- 920     APPLYING MULCH
- Timing: Immediately after planting.
  - Watering: Ensure that soil is thoroughly moistened prior to mulching, applying water where necessary.
  - Planting beds: Re-mulch.
    - Depth (minimum): 75 mm.
  - Trees: Remulch.
    - Depth (minimum): 75 mm.
  - Container planting: Remulch.
    - Depth (minimum): 75 mm.

**Q30**

**Seeding/turfing**

## **Q30 Seeding/turfing**

To be read with Preliminaries/General conditions.

### **GENERAL INFORMATION/REQUIREMENTS**

- 115    SEEDED AND TURFED AREAS
- Growth and development: Healthy, vigorous grass sward, free from the visible effects of pests, weeds and disease.
  - Appearance: A closely knit, continuous ground cover of even density, height and colour.
- 120    CLIMATIC CONDITIONS
- General: Carry out the work while soil and weather conditions are suitable.
- 145    WATERING
- Quantity: Wet full depth of topsoil.
  - Application: Even and without displacing seed, seedlings or soil.
  - Frequency: As necessary to ensure the establishment and continued thriving of all seeding/turfing.
- 150    WATER RESTRICTIONS
- Timing: If water supply is or is likely to be restricted by emergency legislation do not carry out seeding/turfing until instructed. If seeding/turfing has been carried out, obtain instructions on watering.
- 160    NOTICE
- Give notice before:
    - Setting out.
    - Applying herbicide.
    - Applying fertilizer.
    - Preparing seed bed.
    - Seeding or turfing.
    - Visiting site during maintenance period.
  - Period of notice: 1 week.
- 170    SETTING OUT
- Boundaries: Mark clearly.
  - Delineation: In straight lines or smoothly flowing curves as shown on drawings.

### **PREPARATION**

- 210    HERBICIDE FOR ALL GRASSED AREAS
- Type: Suitable for suppressing perennial weeds.
  - Timing: Allow fallow period before cultivation.
    - Duration: As manufacturer's recommendation.



## 250 SOIL REQUIREMENTS

- Type:
  - Seeded areas: Not applicable.
  - Turfed areas: Soil for grass swards, as section Q28 .
  - Reinforced grass areas: Soil for grass swards, as section Q28.

## TURFING

### 400A CULTIVATED TURF TF1 refer to drawings: SCP-CBA-1-GF-M2-L-4003 and SCP-CBA-1-GF-M2-L-4003

- Supplier: Lindum, West Grange, Thorganby, York, YO19 6DJ | Tel: +44 (0) 1904 448675 | Email: xxxxxx@xxxx.xx.xx.
  - Product reference: LT7-Festival Landscape Turf.
  - Sown Mixtures: 25% dwarf perennial ryegrass, 35% slender creeping red fescue, 20% smooth stalked meadow grass, 20% chewings fescue. All the varieties used are named cultivars, highly rated by the STRI for wear and disease tolerance, recovery and appearance.
  - Roll Size: Standard rolls: 1 metre square
  - Final thickness: 15-20mm
  - Weight: 15-20kg per m<sup>2</sup> depending on saturation
- Specification Guidance Notes:
  - Turf to comply with the TGA (Turfgrass Growers Association) Standard and BS3969.
  - The turf soil should be of a sandy loam nature with no stones.
  - The grass will be dense, of uniform green colour, free of broadleaved weeds and not visibly affected by pest or disease.

### 400B CULTIVATED TURF TF2 refer to drawings: SCP-CBA-1-GF-M2-L-4003 and SCP-CBA-1-GF-M2-L-4003

- Supplier: Lindum, West Grange, Thorganby, York, YO19 6DJ | Tel: +44 (0) 1904 448675 | Email: xxxxxx@xxxx.xx.xx.
  - Product reference: LT Shade.
  - Sown Mixtures: Sown as 40% Tufted hair-grass, 25% Hard fescue, 25% Slender creeping red fescue, 10% Perennial Ryegrass, The Tufted hair-grass, Hard Fescue and Bargold (perennial) ryegrass all give the LT Shade turf mixture good tolerance to shade.
  - Roll Size: Roll length (m) 1.62, Roll width (mm) 610
  - Weight: 15-20kg depending on saturation
- Specification Guidance Notes:
  - Turf to comply with the TGA (Turfgrass Growers Association) Standard and BS3969.
  - The turf soil should be of a sandy loam nature with no stones.
  - The grass will be dense, of uniform green colour, free of broadleaved weeds and not visibly affected by pest or disease.

## 420 DELIVERY AND STORAGE

- Timing: Lay turf with minimum possible delay after lifting. If delay occurs, lay turf out on topsoil and keep moist.
- Frosty weather or waterlogged ground: Do not lift turf.
- Delivery: Arrange to avoid need for excessive stacking.
- Stacking height (maximum): 1 m.
- Dried out or deteriorated turf: Do not use.
- Certification:
  - Standard: To BS 3969.
  - Declaration: Species mix, including percentage of specified species.

423 INSPECTION OF TURF FOR ALL GRASSED AREAS

- Sampling method: To BS 3969.
- Give notice: Before lifting turf.
  - Period of notice: 1 week.

430A TURFING GENERALLY

- Time of year: To be agreed.
- Timing of laying:
  - Spring and summer: Within 18 hours of delivery.
  - Autumn and winter: Within 24 hours of delivery.
- Weather conditions: Do not lay turf when persistent cold or drying winds are likely to occur or soil is frost bound, waterlogged or excessively dry.
- Working access: Planks laid on previously laid turf. Do not walk on prepared bed or newly laid turf.
- Jointing: Laid with broken joints, well butted up. Do not stretch turf.
- Edges: Whole turfs, trimmed to a true line.
- Adjusting levels: Remove high spots and fill hollows with fine soil.
- Consolidating: Lightly and evenly firm as laying proceeds to ensure full contact with substrate. Do not use rollers.
- Dressing, brushed well in to completely fill all joints.
- Watering: Thoroughly water completed turf immediately after laying. Check that water has penetrated into the soil below.

450 TRIMMING TURF

- Newly planted tree pits: Neatly cut away around individual trees.
  - Diameter: \_\_\_\_\_.
  - Tree pit surface: \_\_\_\_\_.

**PROTECTING/CUTTING**

510 PROTECTIVE FENCING

- Fencing type: Chestnut pale fencing to BS 1722-4.
  - Height: 1.2 m.
- Erection: On completion of seeding/ turfing.
- Removal: After grass is well established. Fencing will remain the property of the Contractor.

530 FIRST CUT OF GRASSED AREAS

- Timing: When grass is reasonably dry.
  - Height of initial growth: 40-75 mm.
- Preparation:
  - Debris and litter: Remove.
  - Stones and earth clods larger than 25 mm in any dimension: Remove
- Height of first cut: 50 mm.
- Mower type: Contractor's choice.
- Arisings: Remove from site.

590 CLEANLINESS

- Soil and arisings: Remove from hard surfaces.
- General: Leave the works in a clean, tidy condition at Completion and after any maintenance operations.

## **MAINTENANCE**

### **620 MAINTAINING GENERAL GRASSED AREAS**

- Duration: Carry out the following operations from completion of seeding/ turving until: practical completion.
- Maximum height of growth at any time: 50 mm.
- Preparation: Before each cut remove all litter and debris.
- Cutting: As and when necessary to a height of 50 mm.
  - Arisings: Remove.
- Bulb planting areas: Do not cut until bulb foliage has died down.
- Trimming: All edges.
  - Arisings: Remove.
- Weed control: Substantially free of broad leaved weeds.
  - Method: Application of a suitable selective herbicide.
- Stones brought to the surface: Remove regularly.
  - Size: Exceeding 25 mm in any dimension.
- Areas of settlement: Make good.
- Watering: Contractor's choice.

### **630 MAINTAINING GENERAL GRASSED AREAS DURING DEFECTS LIABILITY PERIOD**

- Maximum height of growth at any time: 50 mm.
- Preparation: Before each cut remove all litter and debris.
- Cutting: As and when necessary to a height of 50 mm.
  - Arisings: Remove.
- Bulb planting areas: Do not cut until bulb foliage has died down.
- Trimming: All edges.
  - Arisings: Remove.
- Weed control: Substantially free of broad leaved weeds.
  - Method: Application of a suitable selective herbicide.
- Stones brought to the surface: Remove regularly.
  - Size: Exceeding 25 mm in any dimension.
- Areas of settlement: Make good.
- Watering: Contractor's choice.

**Q31**

**External planting**

## Q31 External planting

To be read with Preliminaries/General conditions.

### GENERAL INFORMATION/ REQUIREMENTS

**NOTES** Please refer to planting plan drawings: SCP-CBA-1-GF-M2-L-4001, SCP-CBA-1-GF-M2-L-4002 and SCP-CBA-1-GF-M2-L-4003

- 112 SITE CLEARANCE GENERALLY
- General: Remove rubbish, concrete, metal, glass, decayed vegetation and contaminated topsoil.
  - Stones: Remove those with any dimension exceeding 50 mm.
  - Contamination: Remove material containing toxins, pathogens or other extraneous substances harmful to plant, animal or human life.
  - Vegetation: Clear surface vegetation in areas shown on drawings using suitable nonresidual herbicide.
  - Large roots: Grub up and dispose of without undue disturbance of soil and adjacent areas.
  - Additional requirements: Remove remnants structures.
- 118 SOIL CONDITIONS
- Soil for cultivating and planting: Moist, friable and (except in aquatic/ marginal planting) not waterlogged.
  - Frozen or snow covered soil: Give notice before planting. Provide additional root protection. Prevent planting pit sides and bases and backfill materials from freezing.
- 120 CLIMATIC CONDITIONS
- General: Carry out the work while soil and weather conditions are suitable.
    - Strong winds: Do not plant.
- 125 TIMES OF YEAR FOR PLANTING
- Deciduous trees and shrubs: Late October to late March.
  - Conifers and evergreens: September/ October or April/ May.
  - Herbaceous plants (including marginal): September/ October or March/ April.
  - Container grown plants: At any time if ground and weather conditions are favourable.
    - Watering and weed control: Provide as necessary.
  - Dried bulbs, corms and tubers: September/ October.
  - Colchicum (crocus): July/ August.
  - Green bulbs: After flowering in spring.
  - Wildflower plugs: Late August to mid November or March/ April.
  - Aquatic plants: May/ June or September/ October.
- 130 MECHANICAL TOOLS
- Restrictions: Do not use within 100 mm of tree and plant stems.
- 145 WATERING
- Quantity: Wet full depth of topsoil.
  - Application: Even and without damaging or displacing plants or soil.
  - Frequency: As necessary to ensure establishment and continued thriving of planting.

- 150 WATER RESTRICTIONS
- General: If water supply is or is likely to be restricted by emergency legislation, do not carry out planting until instructed. If planting has been carried out, obtain instructions on watering.
- 160 NOTICE
- Give notice before:
    - Setting out.
    - Applying herbicide.
    - Applying fertilizer.
    - Delivery of plants/ trees.
    - Planting shrubs.
    - Planting trees into previously dug pits.
    - Watering.
    - Visiting site during maintenance period.
  - Period of notice: Two weeks.
- 160A PREPARATION OF PLANTING AND MULCHING MATERIALS
- General: Free from toxins, pathogens or other extraneous substances harmful to plant, animal or human life.  
Certification of source, analysis, suitability for purpose and absence of harmful substances:  
Submit.
    - Certified materials: Composted horticultural waste.
    - Give notice before ordering or using.
- 200 PLANTS/ TREES - GENERAL
- Condition: Materially undamaged, sturdy, healthy and vigorous.
  - Appearance: Of good shape and without elongated shoots.
  - Hardiness: Grown in a suitable environment and hardened off.
  - Health: Free from pests, diseases, discoloration, weeds and physiological disorders.
  - Budded or grafted plants: Bottom worked.
  - Root system and condition: Balanced with branch system.
    - Standard: The relevant parts of BS 3936.
  - Species: True to name.
  - Origin/ Provenance: As plant schedule: SCP-CBA-1-GF-M2-L-4002.  
Definition: Origin and Provenance have the meaning given in the National Plant Specification.
- 215A PLANTS/ TREES - SPECIFICATION CRITERIA
- Name, forms, dimensions, provenance and other criteria: As scheduled and defined in the National Plant Specification.
- 225 BULBS/ CORMS/ TUBERS
- Condition: Firm, entire, not dried out or shrivelled.
  - Health: Free from pests, diseases and fungus.
  - Handling: Remove from packaging immediately.
  - Storage: Permitted only when necessary.
    - Location: Well ventilated, dark, covered, rodent proof container, away from exhausts and fruit.
    - Duration: Minimum period.
    - Temperature: 18-21°C.

- 235 CONTAINER GROWN PLANTS/ TREES
- Growing medium: With adequate nutrients for plants to thrive until permanently planted.
  - Plants: Centred in containers, firmed and well watered.
  - Root growth: Substantially filling containers, but not root bound, and in a condition conducive to successful transplanting.
  - Hardiness: Grown in the open for at least two months before being supplied.
  - Containers: With holes adequate for drainage when placed on any substrate commonly used under irrigation systems.
- 245 LABELLING AND INFORMATION
- General: Provide each plant/ tree or group of plants/ trees of a single species or cultivar with supplier's labelling for delivery to site, showing:
    - Full botanical name.
    - Total number.
    - Number of bundles.
    - Part bundles.
    - Supplier's name.
    - Employer's name and project reference.
    - Plant specification, in accordance with scheduled National Plant Specification categories.
  - Additional information: Submit on request: Date supplied and consignment details or reference.
- 255 PLANTS/ TREES RESERVED AT SUPPLIER'S PREMISES
- Types/ Species: As plant schedule.
  - Predelivery inspection: Give notice.
  - Labelling: Identify inspected plants/ trees as reserved for use on this project.
- 260 PLANT/ TREE SUBSTITUTION
- Plants/ trees unobtainable or known to be likely to be unobtainable at time of ordering: Submit alternatives, stating:
    - Price.
    - Difference from specified plants/ trees.
  - Approval: Obtain before making any substitution.
- 265 PLANT HANDLING, STORAGE TRANSPORT AND PLANTING
- Standard: To CPSE 'Handling and establishing landscape plants'.
  - Frost: Protect plants from frost.
  - Handling: Handle plants with care. Protect from mechanical damage and do not subject to shock, e.g. by dropping from a vehicle.
  - Plant packaging: Black polyethylene bags.
  - Packaging of bulk quantities: Pallets or bins sealed with polyethylene and shrink wrapped.
  - Planting: Upright or well balanced with best side to front.
- 280 TREATMENT OF TREE WOUNDS
- Cutting: Keep wounds as small as possible.
    - Cut cleanly back to sound wood using sharp, clean tools.
    - Leave branch collars. Do not cut flush with stem or trunk.
    - Set cuts so that water will not collect on cut area.
  - Fungicide/ Sealant: Do not apply unless instructed.

285 PROTECTION OF EXISTING GRASS

- General: Protect areas affected by planting operations using boards/ tarpaulins.
  - Excavated or imported material: Do not place directly on grass.
  - Duration: Minimum period.

290 SURPLUS MATERIAL

- Subsoil, stones, debris, wrapping material, canes, ties, temporary labelling, rubbish, prunings and other arisings: Remove.

**PREPARATION OF PLANTING BEDS/ PLANTING MATERIALS**

300 HERBICIDE TO CLEAR OVERGROWN BEDS

- Locations: As per drawings.
- Type: Suitable for suppressing perennial weeds.
- Timing: Allow fallow period before cultivation.
  - Duration (minimum): As manufacturer's recommendation.

305 WEED CONTROL for invasive non-native species

- Locations: As per drawings.
- General: Prevent weeds from seeding and perennial weeds from becoming established, in accordance with the Environment Agency 'Managing Japanese knotweed on development sites. The knotweed code of practice'.

375 CULTIVATION

- Compacted topsoil: Break up to full depth.
- Cultivation: Loosen, aerate and break up soil into particles of 2-8mm.
  - Depth: 250mm.
- Timing: Within a few days before planting.
  - Weather and ground conditions: Suitably dry.
- Surface: Leave regular and even.
- Levels: As drawings.
- Undesirable material brought to the surface: Remove visible weeds, roots and large stones with any dimension exceeding 50mm.
- Soil within root spread of trees and shrubs to be retained: Do not dig or cultivate.

**PLANTING SHRUBS/ HERBACEOUS PLANTS/ BULBS**

401 REGULAR PLANT LAYOUT TO ALL BEDS

- Spacing: As per drawings.
- Density: As plant schedule.

405A SHRUB PLANTING PITS

- Timing: Excavate 1-2 days (maximum) before planting.
- Sizes: Wide enough to accommodate roots when fully spread and 75 mm deeper than root system.
- Pit bottom improvement Break up to a depth of 150 mm, incorporating 25 g of slow release fertilizer per planting pit.  
Backfilling material: Reuse excavated material.



- 415 ANTIDESICCANT FOR CONIFERS/ EVERGREENS
- Manufacturer: Submit proposals.
    - Product reference: Submit proposals.
  - Application: Dip before delivering to site. Spray soon after planting.
    - Do not apply in wet or frosty weather.
    - Ensure full coverage of underside of foliage.
- 445 PLANTING BULBS/ CORMS/ TUBERS
- Depth: Top of bulb/ corm/ tuber at a depth of approximately twice its height, base in contact with bottom of hole.
  - Backfilling: Finely broken soil. Lightly firm to existing ground level.
  - Naturalized planting in existing grassed areas:
    - Scattering: Random. Plant bulbs/ corms/ tubers where they fall.
    - Planting: Neatly remove a plug of turf and replace after planting.
- 470 FORMAL HEDGES
- Shrubs for hedges: Consistent in species, cultivar and clone to ensure a uniform hedge.
  - Planting: In trenches large enough to take full spread of roots. Set out plants evenly.
- 472 FENCING SUPPORT FOR NEW HEDGES
- Type: Chestnut pale fence, as section Q40.
  - Timing: Before planting hedge.
  - Support: Lightly secure hedge plants to fence wires at appropriate intervals.
- 480 AFTER PLANTING
- Watering: Immediately after planting, thoroughly and without damaging or displacing plants or soil.
  - Firming: Lightly firm soil around plants and fork and/ or rake soil, without damaging roots, to a fine tilth with gentle cambers and no hollows.
  - Top dressing: Mulching and top dressing system, as section Q28.
    - Depth: 25 mm.

## **PLANTING TREES**

- 505A TREE PITS WITHIN HARD LANDSCAPE
- Sizes: As drawing per drawings.
  - Sloping ground: Maintain horizontal bases and vertical sides with no less than minimum depth throughout.
  - Pit bottoms: Excavate with slightly raised centre: Break up base to a depth of 150 mm.
    - Treatment: Soil ameliorant worked into pit bottoms.
  - Pit sides: Scarify.
  - Backfilling material: Excavated material from tree pit, installed to original soil profiles in accordance with BS 8545.
- Accessories: Perforated plastics irrigation/ventilation pipe.

505B TREE PITS WITHIN SOFT LANDSCAPE

- Sizes: As drawing per drawings.
- Sloping ground: Maintain horizontal bases and vertical sides with no less than minimum depth throughout.
- Pit bottoms: Excavate with slightly raised centre: Break up base to a depth of 150 mm.
  - Treatment: Soil ameliorant worked into pit bottoms.
- Pit sides: Scarify.
- Backfilling material: Excavated material from tree pit, installed to original soil profiles in accordance with BS 8545.
- Accessories: Perforated plastics irrigation/ventilation pipe.

505C TREE PITS WITHIN EXISTING CONCRETE BASIN

- Sizes: As drawing per drawings.
- Sloping ground: Maintain horizontal bases and vertical sides with no less than minimum depth throughout.
- Pit bottoms: Excavate with slightly raised centre: Break up base to a depth of 150 mm.
  - Treatment: Soil ameliorant worked into pit bottoms.
- Pit sides: Scarify.
- Backfilling material: Excavated material from tree pit, installed to original soil profiles in accordance with BS 8545.
- Accessories: Perforated plastics irrigation/ventilation pipe.

510 TREE PIT ROOT BARRIERS

- Locations: Trees planted above concrete basin foundations.
- Manufacturer: DeepRoot Urban Solutions, Ltd., 43-45 Portman Square, London W1H 6HN | Tel: +44 207 969 2739 |  
Email: xxxxx@xxxxxxxxxxx.xxx.
  - Product reference: Root Barrier.
- Thickness: 2.032 mm.
- Barrier depth: 610mm.
- Foil liner: Not required .
- Top of root barrier in relation to finished topsoil level: 25 mm below ground level.
- Installation: With sides vertical. Remove all sharp objects adjacent to barrier.

512B TREE PIT IRRIGATION AND VENTILATION ACCESSORIES irrigation

- Locations: To all tree pits .
- Manufacturer: Toms Tree Ties, 7 Marley Farm Headcorn Road, Smarden, Ashford, Kent, TN27 8PJ | Tel: 01233 770066 | Email: xxxx@xxxxxxxxxxxxxx.xx.xx.
  - Product reference: Root Rain Urban.
- Type: Perforated plastics irrigation pipe with inlet.
- Pipe diameter: 60mm.
- Ring diameter: 3m.
- Inlet: Black plastics, with cap.
- Installation:
  - Pipe: Lay in loop above root ball with slight fall away from inlet pipe. Trim length to ensure a close fit in the tree pit. Connect both ends of pipe securely into plastics tee junction on inlet.
  - Top cap of inlet: Protruding slightly above finished surround level.
  - Backfill material: Carefully compact in layers.

- 512C BELOW GROUND ROOT BALL GUY  
Locations: To all trees supplied with root balls.
- Manufacturer: Toms Tree Ties, 7 Marley Farm Headcorn Road, Smarden, Ashford, Kent, TN27 8PJ | Tel: 01233 770066 | Email: xxxx@xxxxxxxxxxxx.xx.xx.
    - Product reference: Platipus Tree Anchoring Root Ball Fixing System RF2P.
  - Type: 3 x S61 anchors, 7m of 4mm cable with 1 ratchet tensioner.
- 525 SEMI-MATURE TREES
- Standard: Prepare roots and transplant to BS 4043.
  - Backfilling material: As described in clause 586.
- 535 TREE STAKES
- Stakes: Softwood, peeled chestnut, larch or oak, straight, free from projections and large or edge knots and with pointed lower end.
    - Preservative treatment: Submit proposals.
  - Stake size (minimum): As per drawings.
  - Stake length (minimum): As per drawings.
- 556 TRIPLE STAKING FOR ALL MULTI-STEMMED TREES
- Staking:
    - Position: Equidistantly around the tree position.
    - Driving: Vertically at least 300 mm into bottom of pit before planting.
    - Backfilling: Consolidate material around stake.
    - Firming: Sufficiently firm to prevent movement of the rootball/ rootstock.
  - Height of stakes: Cut off at approximately 50MM below the top of main clear stem height.
  - Horizontal bracing: Submit proposals.
  - Tying: Triple tying.
  - Nails for fixing belts and webbing: To BS 1202-1, galvanized, minimum 25 mm long and with 10 mm diameter heads
- 586 TREE BACKFILLING MATERIAL
- Composition: Previously prepared mixture of topsoil excavated from pit and additional topsoil as required.
  - Ameliorant / Conditioner: Mushroom compost.
    - Application rate: 5kg per m<sup>3</sup> of topsoil.
  - Fertilizer: Slow release.
    - Application rate: 10g/m<sup>2</sup>.
- 590 MULCHING TREES
- Material: Fine grade bark mulch.
    - Purity: Free of pests, disease, fungus and weeds.
    - Recycled content: Submit proposals.
  - Preparation: Clear all weeds. Water soil thoroughly.
  - Coverage: In a circular area of 600mm radius measured from the tree stem.
  - Finished level of mulch: 50mm below adjacent grassed or paved areas.
- 605 EXISTING VEGETATION/ WEED CLEARANCE
- Surface vegetation clearance: In areas shown on drawings, using suitable nonresidual herbicide.
  - Arisings: Remove.

- 615     EXISTING TREES/ SEEDLINGS/ COPPICE SHOOTS
- Existing trees and seedlings: Retain.
  - Coppice shoots: Remove all stems and treat with suitable herbicide to prevent regrowth.
- 617     REMOVING TREES AND HEDGES
- Identification: Clearly mark trees and hedges to be removed.
  - Work near retained trees: Where canopies overlap, take down trees carefully in small sections to avoid damage to adjacent trees that are to be retained.
  - Arisings: Remove.
  - Tree stumps: Remove mechanically to a minimum depth of 300 mm below ground level.
- 625     CULTIVATION
- General: Rotary cultivate to full depth of topsoil.
  - Consolidation: Leave for one month.
  - Soil within root spread of trees to be retained: Do not plough or cultivate.
- 710     MAINTENANCE
- Duration: Carry out the operations in the following clauses from completion of planting until end of defects liability period.
  - Frequency of maintenance visits: Monthly during growing season and as necessary to fulfil the requirements of this specification.
- 720     FAILURES OF PLANTING
- Defects due to materials or workmanship not in accordance with the Contract: Plants/ trees/ shrubs that have failed to thrive.
    - Exclusions: Theft or malicious damage after completion.
    - Rectification: Replace with equivalent plants/ trees/ shrubs.
  - Replacements: To match size of adjacent or nearby plants of same species or match original specification, whichever is the greater.
  - Timing of making good: During the next suitable planting season and in accordance with an agreed defects rectification programme.
- 730     PROTECTIVE FENCING
- Fencing type: Cleft chestnut pale fencing, as section Q40.
  - Erection: On completion of planting.
  - Removal: After planting is well established.
- 740     CLEANLINESS
- Soil and arisings: Remove from hard surfaces and grassed areas.
  - General: Leave the works in a clean tidy condition at completion and after any maintenance operations.

#### 750A PLANTING MAINTENANCE GENERALLY

- Weed control: Maintain weed free area around each tree and shrub.
  - Diameter (minimum): The larger of 1 m or the surface of original planting pit.
  - Keep planting beds clear of weeds: By hoeing.
- Planted areas: Fork over beds as necessary to keep soil loose, with gentle cambers and no hollows. Take care not to reduce depth or effect of mulch.
- Precautions: Ensure that trees and shrubs are not damaged by use of mowers, nylon filament rotary cutters and similar powered tools.
- Firming up: Gently firm loosened soil around trees/ shrubs. Straighten leaning trees/ shrubs.
- Trees: Spray crown when in leaf during warm weather.
  - Timing: After dusk.
- Tree accessories: Check condition of stakes, ties, guys, guards and irrigation and ventilation systems.
  - Broken or missing items: Replace.
  - Loose stakes: Re-firm in the ground or replace as necessary to provide support to the tree.
  - Loose guys: Re-firm anchor points and adjust as necessary to provide support to the tree.
  - Ties: Adjust to accommodate growth and prevent constriction or abrasion.
  - Damage to bark: Cut back neatly with sharp knife. Prevent further damage.
  - Frequency of checks: Every two months.
- Firming up: Gently firm loosened soil around trees /shrubs. Straighten leaning trees/shrubs.
- Trees: Spray crown when in leaf during warm weather.
  - Timing: After Dusk.
- Watering: As maintenance programme, during dry periods or when instructed.

#### 760 PLANTING MAINTENANCE - PRUNING

- General: Prune to promote healthy growth and natural shape.
  - Dead, dying, diseased wood and suckers: Remove.
  - Timing: As appropriate to the species.
  - Trees: Favour a single central leading shoot.
- Arisings: Remove.

#### 760A PLANTING MAINTENANCE - FERTILIZER

- Time of year: March or April.  
Fertilizer: Slow release.
  - Manufacturer: Submit proposals.
  - Product reference: Submit proposals
- Application: Evenly spread, carefully incorporating below mulch materials.
- Application rate: 25g/m<sup>2</sup>

#### 780 MAINTENANCE INSTRUCTIONS

- General: Before end of the maintenance period, submit printed instructions recommending procedures to be established by the Employer for maintenance of the planting work for one full year: Provide a schedule of any ongoing maintenance problems experienced during the rectification period.

#### 790 FINAL MULCHING

- Timing: At end of the maintenance period.
- Watering: Ensure that soil is thoroughly moistened prior to remulching, applying water where necessary.
- Planting beds: Remulch.  
Depth (minimum): 50 mm.
- Trees: Remulch.  
Depth (minimum): 50 mm.

**Q40**  
**Fencing**

## Q40 Fencing

To be read with Preliminaries/ General conditions.

### FENCING SYSTEMS

#### 320A CLEFT CHESTNUT PALE FENCING

- Manufacturer: Submit proposals.
  - Product reference: Submit proposals.
- Standard: To BS 1722-4
- Height: 1200 mm.
- Posts and struts: Wood.
  - Treatment: Submit proposals.
- Method of setting posts and struts:
  - Straining posts: Submit proposals.
  - Struts: Submit proposals.
  - Intermediate posts: Submit proposals.
- Accessories: None.

#### 430A FENCING F1

(Refer to: SCP-CBA-1-GF-M2-L-8601)

- Manufacturer: Heras Fencing Systems, Herons Way, Off Carr Hill, Doncaster, South Yorkshire, DN4 8WA | Tel: 01302364551 | Email: xxxxx.xxxxx@xxxxxxxx.xx.xx.
  - Product reference: TR800 Play Bow Top Fencing System.
- Height: TBC.
- Materials: Steel.
  - Treatment: Galvanised.
  - Finish: Polyester powder coated PPC.
  - Colour: Black.
- Centres of posts (maximum): As manufacturer's recommendations.
- Method of setting posts: As manufacturer's recommendations.
- Accessories: None.

#### 430B BESPOKE FENCING TO MATCH EXISTING F2

(Refer to: SCP-CBA-1-GF-M2-L-8601)

- Manufacturer: Submit proposals.
  - Product reference: Submit proposals.
- Height: to match existing.
- Materials: Timber post and metal bar to match existing.
  - Treatment: Submit proposals.
  - Finish: Submit proposals.
  - Colour: To match existing.
- Centres of posts (maximum): To match existing.
- Method of setting posts: Submit proposals.
- Accessories: None.

## **GATES, POSTS AND STILES**

### **570B PEDESTRIAN GATE G1**

(Refer to: SCP-CBA-1-GF-M2-L-8601)

- Manufacturer: Heras Fencing Systems, Herons Way, Off Carr Hill, Doncaster, South Yorkshire, DN4 8WA | Tel: 01302364551 | Email: xxxxx.xxxxx@xxxxxxxx.xx.xx.
  - Product reference: Quantum - Self-closing gate (RoSPA)..
- Finish: Powder coated to BS 6497.
  - Colour: Black.
- Fittings: As supplied..
- Method of fixing: As per manufacturer's specification..
- Components: 1 no. Gate post frame, 1 no. Gate Leaf, 1 no. Top locating plate complete with plain bearing, 1 no. Adjustable dual action self closing unit, 1 no. Bottom locating plate complete with internal stops and thrust bearing  
Reversible slam plate..

## **EXECUTION**

### **710 INSTALLATION GENERALLY**

- Set out and erect:
  - Alignment: Straight lines or smoothly flowing curves.
  - Tops of posts: Following profile of the ground.
  - Setting posts: Rigid, plumb and to specified depth, or greater where necessary to ensure adequate support.
  - Fixings: All components securely fixed.

### **715A COMPETENCE**

- Operatives: Contractors must employ competent operatives.
- Qualifications: Submit certification of training.
  - NHSS Sector Scheme 2A sub categories: Sector scheme 2A.
  - Categories: As above.

### **780 MAKING GOOD GALVANIZED SURFACES**

- Treatment of minor damage (including on fasteners and fittings): Low melting point zinc alloy repair rods or powders made for this purpose, or at least two coats of zinc-rich paint to BS 4652.
- Thickness: Apply sufficient material to provide a zinc coating at least equal in thickness to the original layer.

### **790 SITE PAINTING**

- Timing: Prepare surfaces and apply finishes as soon as possible after fixing.

## **COMPLETION**

### **910 CLEANING**

- General: Leave the works in a clean, tidy condition.
- Surfaces: Clean immediately before handover.

### **920 FIXINGS**

- All components: Tighten.
  - Timing: Before handover.



930 GATES

- Hinges, latches and closers: Adjust to provide smooth operation. Lubricate where necessary.
  - Timing: Before handover.

**Q50**

**Site/street furniture/equipment**

## Q50 Site/street furniture/equipment

To be read with Preliminaries/ General conditions.

### GATES, BARRIERS AND PARKING CONTROLS

- 220A BENCHES B1 - Fordham Seat with backrest  
(Refer to: SCP-CBA-1-GF-M2-L-8801)
- Manufacturer: Furnitubes.
    - Product reference: FOR6.
  - Material: Frame: Galvanized steel | Slats: Certified kiln dried Iroko timber.
    - Finish: Frame: Powder coated (PCC) | Slats: Smooth, planed finish..
    - Colour: Frame: Black | Slats: Natural timber..
  - Armrests: Not required..
  - Method of fixing: 4 no. M16 ground fixings, as per manufacturer's specification..
- 220B BENCHES B2 - Fordham Bench without backrest  
(Refer to: SCP-CBA-1-GF-M2-L-8801)
- Manufacturer: Furnitubes.
    - Product reference: FORB6.
  - Material: Frame: Galvanized steel | Slats: Certified kiln dried Iroko timber..
    - Finish: Frame: Powder coated (PCC) | Slats: Smooth, planed finish..
    - Colour: Frame: Black | Slats: Natural timber..
  - Armrests: Not required..
  - Method of fixing: 4 no. M16 ground fixings, as per manufacturer's specification..
- 220C EXISTING BENCHES To be retained  
(Refer to: SCP-CBA-1-GF-M2-L-1000)
- To be protected from damage during construction.
  - Method of fixing: Submit proposals..
- 220D EXISTING PICNIC TABLES To be retained  
(Refer to: SCP-CBA-1-GF-M2-L-1000)
- To be protected from damage during construction.
  - Method of fixing: Submit proposals..
- 220E EXISTING CYCLE STANDS To be retained  
(Refer to: SCP-CBA-1-GF-M2-L-1000)
- To be protected from damage during construction.
  - Method of fixing: Submit proposals..
- 240A LITTER BINS LB - Tenby Litter Bin  
(Refer to: SCP-CBA-1-GF-M2-L-8801)
- Manufacturer: Furnitubes.
    - Product reference: TSL231.
  - Material: Frame: Steel | Slats: Iroko timber..
    - Finish: Frame: Plastic coated | Slats: Stained .
    - Colour: Frame: Black | Slats: 'Sadolin classic teak'.
  - Method of fixing: 3 no. M12 ground fixings, as per manufacturer's specification..

**262A TREE GRILLES T1 FOR TREES IN HARD LANDSCAPE**

- Manufacturer: Marshalls plc., Landscape House, Lowfield Business Park, Elland, HX5 9HT | Tel: 03704427702 | Email: xxxx@xxxxxxxxxx.xx.xx.
  - Product reference: 42.2205S: Sineu Graff Series 2000 Square Roots Grille.
- Material: Steel.
  - Finish: Zinc plated and polyester powder coated.
  - Colour: Sable 650 Brown .
- Size: 1200mm(W) x 1200(L).
- Accessories/ Special requirements: Tree grille frame also required.
- Method of fixing: As per manufacturer's instructions.

**345A NATURAL PLAY BOULDERS BO**

- Supplier: CED Natural Stone.
  - Product reference: Natural Play Boulders, CED LTD, 728 London Road, West Thurrock, Grays, Essex, RM20 3LU | Tel: 01708 867237 | Email: xxxxxxxx@xxx.xxx.xx .
- Material: TBC.
- Approximate size: 900mm x 600mm x 600mm.
- Method of fixing: TBC.

**INSTALLATION**

**510A CONCRETE FOUNDATIONS GENERALLY**

- Standard: To BS 8500-2.
- Mix: Designated concrete not less than GEN 1 or standard prescribed concrete not less than ST2.
- Admixtures: Do not use.
- Foundation holes: Neat vertical sides.
- Depth of foundations, bedding, haunching: Appropriate to provide adequate support and to receive overlying soft landscape or paving finishes.

**515 SETTING COMPONENTS IN CONCRETE**

- Holes: Refer to relevant drawings.
- Components: Accurately positioned and securely supported.
- Concrete fill: Fully compacted as filling proceeds.
- Concrete foundations exposed to view: Compacted until air bubbles cease to appear on the upper surface, then weathered to shed water and trowelled smooth.
- Temporary component support: Maintain undisturbed for minimum 48 hours.

**550 DAMAGE TO GALVANIZED SURFACES**

- Minor damage in areas up to 40 mm<sup>2</sup> (including on fixings and fittings): Make good.
  - Material: Low melting point zinc alloy repair rods or powders made for this purpose or at least two coats of zinc-rich paint to BS 4652.
  - Thickness: Sufficient to provide a zinc coating at least equal to the original layer.

**560 SITE PAINTING**

- Timing: Prepare surfaces and apply finishes as soon as possible after fixing.

**Q52**

**Play and sports equipment**

## Q52 Play and sports equipment

**To be read with Preliminaries/ General conditions.**

### **PLAY EQUIPMENT**

- 330A PLATFORM HOUSE PE1
- Standard: To BS EN 1176-1.
  - Manufacturer: Timberplay, Aizlewood's Mill, Nursery Street, Sheffield, S3 8GG | Tel: 01142823462 | Email: xxxx@xxxxxxxxxxx.xxx.
    - Product reference: 4904.
  - Age range: 3+.
  - Materials: As per manufacturer's specification..
    - Finish: As supplied..
    - Colour: As supplied..
  - Dimensions: 5250mm(H) x 3850mm(L) x 2400mm(H).
  - Components: Platform, Platform house, ladder, inclined climbing net, small children slide with ground anchor..
  - Method of fixing: Ground anchor to manufacturer's specification.
- 330b JUMPING MUSHROOM SEAT PE22
- Standard: To BS EN 1176-1.
  - Manufacturer: Jupiter Play & Leisure, 23 Rectory Road, West Bridgford, Nottingham, NG2 6BE | Tel:01159699859 | Email:xxxx@xxxxxxxxxxx.xx.xx .
    - Product reference: 906110350R.
  - Age range: 4-10.
  - Materials: Class 1 Robinia timber to BS EN 350-02..
    - Finish: As supplied..
    - Colour: As supplied..
  - Dimensions: 350mm(H)..
  - Components: N/A..
  - Method of fixing: Stainless steel fittings and galvanised plates, installed as per manufacturer's specification..
- 330B LITTLE CHICKEN PE3
- Standard: To BS EN 1176-1.
  - Manufacturer: Timberplay, Aizlewood's Mill, Nursery Street, Sheffield, S3 8GG | Tel: 01142823462 | Email: xxxx@xxxxxxxxxxx.xxx.
    - Product reference: 4.08100.
  - Age range: Not specified..
  - Materials: As per manufacturer's specification..
    - Finish: As supplied..
    - Colour: As supplied..
  - Dimensions: 550mm(W) x 750mm(L) x 750mm(H).
  - Components: 1 no. animal body, mounted on hot-dip galvanised see-saw mechanism, 1 no. pre-fabricated concrete foundation..
  - Method of fixing: Pre-fabricated concrete foundation, installed to manufacturer's specification..

- 330c WOODLAND FINGER MAZE PE26
- Standard: To BS EN 1176-1.
  - Manufacturer: Hand Made Places, Unit 1, Bordon Trading Estate, Old Station Way, Bordon, Hampshire, GU35 9HH | Tel:01420474111 | Email: xxxx@xxxxxxxxxxxxxx.xx.xx.
    - Product reference: BX/HMP 400014.
  - Age range: 2+.
  - Materials: As per manufacturer's specification..
    - Finish: As supplied..
    - Colour: As supplied..
  - Dimensions: 1500mm(W)..
  - Components: N/A..
  - Method of fixing: Manufacturer's standard.
- 330C LITTLE SNAIL PE4
- Standard: To BS EN 1176-1.
  - Manufacturer: Timberplay, Aizlewood's Mill, Nursery Street, Sheffield, S3 8GG | Tel: 01142823462 | Email: xxxx@xxxxxxxxxxx.xxx.
    - Product reference: 4.24235.
  - Age range: For older children but also for children under 3 years old..
  - Materials: As per manufacturer's specification..
    - Finish: As supplied..
    - Colour: As supplied..
  - Dimensions: 550mm(W) x 1400mm(L) x 500mm(H).
  - Components: 1 no. snail, 2 no. foundation irons..
  - Method of fixing: Foundation as per manufacturer's specification..
- 330d LEAF SEATS PE27
- Standard: To BS EN 1176-1.
  - Manufacturer: Hand Made Places, Unit 1, Bordon Trading Estate, Old Station Way, Bordon, Hampshire, GU35 9HH | Tel:01420474111 | Email: xxxx@xxxxxxxxxxxxxx.xx.xx.
    - Product reference: Beech Leaf Seat - BX/HMP 450002 | Holly Leaf Seat - BX/HMP 450011 | Maple Leaf Seat - BX/HMP 450014 | Oak Leaf Seat - BX/HMP 450020 | Sycamore Leaf Seat - BX/HMP 450030.
  - Age range: 2+.
  - Materials: As per manufacturer's specification..
    - Finish: As supplied..
    - Colour: As supplied..
  - Dimensions: 400mm(W) x 200(L) x 400(H)..
  - Components: N/A..
  - Method of fixing: Manufacturer's standard.

- 330D SMALL SEE-SAW PE5
- Standard: To BS EN 1176-1.
  - Manufacturer: Timberplay, Aizlewood's Mill, Nursery Street, Sheffield, S3 8GG | Tel: 01142823462 | Email: xxxx@xxxxxxxxxxx.xxx.
    - Product reference: 6.11700.
  - Age range: Not specified..
  - Materials: As per manufacturer's specification..
    - Finish: As supplied..
    - Colour: As supplied..
  - Dimensions: 300mm(W) x 1550mm(L) x 550-800mm(H).
  - Components: 1 no. Small See-saw complete with support frame..
  - Method of fixing: Foundation as per manufacturer's specification..
- 330e TOUCH AND MOVEMENT TOTEM PE24
- Standard: To BS EN 1176-1.
  - Manufacturer: Hand Made Places, Unit 1, Bordon Trading Estate, Old Station Way, Bordon, Hampshire, GU35 9HH | Tel:01420474111 | Email: xxxx@xxxxxxxxxxxxxxxxxx.xx.
  - Product reference: BX/HMP 750008.
  - Age range: 2+.
  - Materials: As per manufacturer's specification..
    - Finish: As supplied..
    - Colour: As supplied..
  - Dimensions: 1500mm(H)..
  - Components: N/A..
  - Method of fixing: Manufacturer's standard.
- 330E WOBBLE DISH PE6
- Standard: To BS EN 1176-1.
  - Manufacturer: Timberplay, Aizlewood's Mill, Nursery Street, Sheffield, S3 8GG | Tel: 01142823462 | Email: xxxx@xxxxxxxxxxx.xxx.
    - Product reference: 6.27300.
  - Age range: Not specified..
  - Materials: As per manufacturer's specification..
    - Finish: As supplied..
    - Colour: As supplied..
  - Dimensions: 1100mm(Ø) x 750mm(H).
  - Components: 1 no. Wobble Dish, 1 no. pre-fabricated concrete foundation..
  - Method of fixing: Pre-fabricated concrete foundation, installed to manufacturer's specification..
- 330F WIND PIPES PE7
- Standard: To BS EN 1176-1.
  - Manufacturer: Timberplay, Aizlewood's Mill, Nursery Street, Sheffield, S3 8GG | Tel: 01142823462 | Email: xxxx@xxxxxxxxxxx.xxx.
    - Product reference: 9.02400.
  - Age range: All age groups..
  - Materials: As per manufacturer's specification..
    - Finish: As supplied..
    - Colour: As supplied..
  - Dimensions: 1050mm(W) x 1900mm(L).
  - Components: 1 no. complete equipment with 3 see-saw beams and 6 piston pumps with musical pipes..
  - Method of fixing: 1 no. box foundation 1250 x 2200 x 500 mm with a wall thickness of 300 mm on the short side and 200 mm on the long side, installed to manufacturer's specification..



330G TWO STOREY PLAY HOUSE PE8

- Standard: To BS EN 1176-1.
- Manufacturer: Timberplay, Aizlewood's Mill, Nursery Street, Sheffield, S3 8GG | Tel: 01142823462 | Email: xxxx@xxxxxxxxxxx.xxx.
  - Product reference: 4.10500.
- Age range: for older than, but also suitable for children under 3 years..
- Materials: As per manufacturer's specification..
  - Finish: As supplied..
  - Colour: As supplied..
- Dimensions: 1750mm(W) x 2250mm(L) x 2450mm(H).
- Components: 1 no. house body, 2 no. roof sections, double-layered, 4 no. support posts, 1 no. stairs with hand rail and foundation irons, 1 no. level playroom containing: 2 no. walls with 2 no. benches and 1 no. round table..
- Method of fixing: As per manufacturer's specification..

330H SMALL PLAY HOUSE PE9

- Standard: To BS EN 1176-1.
- Manufacturer: Timberplay, Aizlewood's Mill, Nursery Street, Sheffield, S3 8GG | Tel: 01142823462 | Email: xxxx@xxxxxxxxxxx.xxx.
  - Product reference: 4.10100.
- Age range: for older than, but also suitable for children under 3 years..
- Materials: As per manufacturer's specification..
  - Finish: As supplied..
  - Colour: As supplied..
- Dimensions: 1750mm(W) x 1450mm(D) x 1500mm(H).  
Components: 1 no. house body, including: 2 no. benches, 1 no. table, 2 no. roof sections, double-layered, 4 no. foundation irons..
- Method of fixing: Foundation necessary to immobilise the equipment. Foundation as per manufacturer's specification..

330I TODDLER TWIN SWING PE10

- Standard: To BS EN 1176-1.
- Manufacturer: Timberplay, Aizlewood's Mill, Nursery Street, Sheffield, S3 8GG | Tel: 01142823462 | Email: xxxx@xxxxxxxxxxx.xxx.
  - Product reference: 6.12720.
- Age range: 3+.
- Materials: As per manufacturer's specification..
  - Finish: As supplied..
  - Colour: As supplied..
- Dimensions: 3700mm(W) x 2000mm(H) x 1800mm(Vetical clearance).  
Components: 1 no. swing with steel feet and cross beam made of steel, 2 no. canvas seats with chains..
- Method of fixing: 4 no. ground anchors 600 x 700 x 400 mm, installed as per manufacturer's specification..

- 330J BALANCE BLOCKS PE12
- Standard: To BS EN 1176-1.
  - Manufacturer: Timberplay, Aizlewood's Mill, Nursery Street, Sheffield, S3 8GG | Tel: 01142823462 | Email: xxxx@xxxxxxxxxxx.xxx.
    - Product reference: 6.51700.
  - Age range: 4+.
  - Materials: As per manufacturer's specification..
    - Finish: As supplied..
    - Colour: As supplied..
  - Dimensions: 400mm(W) x 3850mm(L) x 450mm(H).  
Components: 2 no. support frames, 1 no. walkway, 2 no. square timbers for reinforcement.
  - Method of fixing: 2 no. ground anchors 500 x 700 x 550 mm installed as per manufacturer's specification..
- 330K JUMPING DISCS PE13
- Standard: To BS EN 1176-1.
  - Manufacturer: Timberplay, Aizlewood's Mill, Nursery Street, Sheffield, S3 8GG | Tel: 01142823462 | Email: xxxx@xxxxxxxxxxx.xxx.
    - Product reference: 6.06000.
  - Age range: 4+.
  - Materials: As per manufacturer's specification..
    - Finish: As supplied..
    - Colour: As supplied..
  - Dimensions: 350mm(H) x 1000mm(Ø).  
Components: 1 no. disc complete with 3 no. springs, 1 no. pre-fabricated concrete foundation..
  - Method of fixing: As per manufacturer's specification..
- 330L ROTATING BEAMS PE14
- Standard: To BS EN 1176-1.
  - Manufacturer: Timberplay, Aizlewood's Mill, Nursery Street, Sheffield, S3 8GG | Tel: 01142823462 | Email: xxxx@xxxxxxxxxxx.xxx.
    - Product reference: 6.51500.
  - Age range: 6+.
  - Materials: As per manufacturer's specification..
    - Finish: As supplied..
    - Colour: As supplied..
  - Dimensions: 350mm(H) x 5350(L) x 200mm(Ø).  
Components: 1 no. rotating beam, 2 no. stand posts of robinia..
  - Method of fixing: 2 no. ground anchors 600 x 600 x 600mm, installed as per manufacturer's specification..

- 330M BIG SUSPENSION BRIDGE PE15
- Standard: To BS EN 1176-1.
  - Manufacturer: Timberplay, Aizlewood's Mill, Nursery Street, Sheffield, S3 8GG | Tel: 01142823462 | Email: xxxx@xxxxxxxxxxx.xxx.
    - Product reference: 6.61000.
  - Age range: 6+.
  - Materials: As per manufacturer's specification..
    - Finish: As supplied..
    - Colour: As supplied..
  - Dimensions: 1550mm(W) x 8400(L) x 2000mm(H).  
Components: 2 no. end frames with ladder, 1 no. walkway with chain handrails 7000mm(L)..
  - Method of fixing: 4 no. ground anchors 1750 x 2200 x 800mm, installed as per manufacturer's specification..
- 330N MOUND STAINLESS STEEL SLIDE PE16
- Standard: To BS EN 1176-1.
  - Manufacturer: Timberplay, Aizlewood's Mill, Nursery Street, Sheffield, S3 8GG | Tel: 01142823462 | Email: xxxx@xxxxxxxxxxx.xxx.
    - Product reference: 3.63300.
  - Age range: For older children but also for children under 3 years old..
  - Materials: As per manufacturer's specification..
    - Finish: As supplied..
    - Colour: As supplied..
  - Dimensions: 1000mm(W) x 2000(L) x 1400mm(H).  
Components: 1 no. slide 1000mm(W) with ground anchor..
  - Method of fixing: As per manufacturer's specification..
- 330O CRADLE NEST - SPECIAL PE17
- Standard: To BS EN 1176-1.
  - Manufacturer: Timberplay, Aizlewood's Mill, Nursery Street, Sheffield, S3 8GG | Tel: 01142823462 | Email: xxxx@xxxxxxxxxxx.xxx.
    - Product reference: 6.14520.
  - Age range: 4+.
  - Materials: As per manufacturer's specification..
    - Finish: As supplied..
    - Colour: As supplied..
  - Dimensions: 4300mm(W) x 2600(Vertical Clearance) x 2900mm(H).  
Components: 1 no. swing frame with steel feet and cross beam made of steel, 1 no. cradle nest suspended on hose-sleeved chains..
  - Method of fixing: 4 no. ground anchors 600 x 700 x 600mm, installed as per manufacturer's specification..

330P HIGH TWIN SWING SPECIAL PE18

- Standard: To BS EN 1176-1.
- Manufacturer: Timberplay, Aizlewood's Mill, Nursery Street, Sheffield, S3 8GG | Tel: 01142823462 | Email: xxxx@xxxxxxxxxxx.xxx.
  - Product reference: 6.14020.
- Age range: 4+.
- Materials: As per manufacturer's specification..
  - Finish: As supplied..
  - Colour: As supplied..
- Dimensions: 2250mm(W) x 4300(L) x 3000mm(H).  
Components: 1 no. swing frame with steel feet and crossbeam made of steel, 2 no. complete suspension attachments..
- Method of fixing: 4 no. ground anchors 600 x 700 x 400mm, installed as per manufacturer's specification..

330Q TOWER COMBINATION 331 PE19

- Standard: To BS EN 1176-1.
- Manufacturer: Timberplay, Aizlewood's Mill, Nursery Street, Sheffield, S3 8GG | Tel: 01142823462 | Email: xxxx@xxxxxxxxxxx.xxx.
  - Product reference: 2.33100.
- Age range: Not specified..
- Materials: As per manufacturer's specification..
  - Finish: As supplied..
  - Colour: As supplied..
- Dimensions: As per constituent components.  
Components: 1 no. 3.20600 Square Tower with roof, 1 no. 3.66005 Support Frame for suspension bridge, 1 no. 3.66090 Suspension Bridge 3000mm, 1 no. 3.66030 End Frame with ladder, 1 no. 3.68300 Inclined Balancing Beam with chain handrail, 1 no. 3.63420 Stainless Steel Slide with ground anchor attachment height 2000mm, 1 no. 3.69350 Vertical Climbing Net with bent firemen's pole, 1 no. 3.69010 Balancing Rope with holding rope..
- Method of fixing: As per manufacturer's specification..

330R CLIMBING STRUCTURE PE28

- Standard: To BS EN 1176-1.
- Manufacturer: Timberplay, Aizlewood's Mill, Nursery Street, Sheffield, S3 8GG | Tel: 01142823462 | Email: xxxx@xxxxxxxxxxx.xxx.
  - Product reference: 6.51007L
- Age range: Not specified..
- Materials: As per manufacturer's specification..
  - Finish: As supplied..
  - Colour: As supplied..
- Dimensions: 8500mm(W) x 11700(L)..  
Components: 14 no. stand posts, 20 no. connecting tie beams, 1 no. net fitting..
- Method of fixing: As per manufacturer's specification. Special fixings required for compatibility with Tiger Mulch surfacing. Installation needs to be carried out by an installation company authorised by manufacturer..

- 330S TIMBERWOOD TANGLE - TYPE 3 PE29
- Standard: To BS EN 1176-1.
  - Manufacturer: Timberplay, Aizlewood's Mill, Nursery Street, Sheffield, S3 8GG | Tel: 01142823462 | Email: xxxx@xxxxxxxxxxx.xxx.
    - Product reference: 6.50030L
  - Age range: 6+.
  - Materials: As per manufacturer's specification..
    - Finish: As supplied..
    - Colour: As supplied..
  - Dimensions: 21200mm(W) x 8100(L) x 5800(H)..  
 Components: Pre-fabricated support frames with steel feet, stand posts with steel feet, stand posts for swinging beams, posts, suspended rope construction, see-saw swing with 2 no. pendulum seats, nets, monkey swing, fittings..
  - Method of fixing: As per manufacturer's specification. Special fixings required for compatibility with Tiger Mulch surfacing. Installation needs to be carried out by an installation company authorised by manufacturer..
- 330T CLIMBING WALL - TWO ELEMENT STRUCTURE PE30
- Standard: To BS EN 1176-1.
  - Manufacturer: Timberplay, Aizlewood's Mill, Nursery Street, Sheffield, S3 8GG | Tel: 01142823462 | Email: xxxx@xxxxxxxxxxx.xxx.
    - Product reference: 7.77010.
  - Age range: 8+.
  - Materials: As per manufacturer's specification..
    - Finish: As supplied..
    - Colour: As supplied..
  - Dimensions: 2550mm(Element W) x 1900(H)..  
 Components: 2 no. wall elements, 1900mm(H), 2 no. 7 double-layer modules with grips, 3 no. steel tubes as ground anchors..
  - Method of fixing: 3 no. ground anchor foundations 1000 x 1000 x 500mm, installed as per manufacturer's specification..
- 330U TABLE TENNIS TABLE PE31
- Standard: To BS EN 1176-1.
  - Manufacturer: Timberplay, Aizlewood's Mill, Nursery Street, Sheffield, S3 8GG | Tel: 01142823462 | Email: xxxx@xxxxxxxxxxx.xxx.
    - Product reference: 7.89000.
  - Age range: 6+.
  - Materials: As per manufacturer's specification..
    - Finish: As supplied..
    - Colour: As supplied..
  - Dimensions: 1520mm(W) x 2740(L) x 760(H)..  
 Components: 1 no. standing frame with ground anchor, 1 no. Two-part table top of acrylic composite, 1 no. aluminium net..
  - Method of fixing: As per manufacturer's specification..

- 330V FLOOR TRAMPOLINE, ROUND INCL. INSTALLATION FRAME PE2
- Standard: To BS EN 1176-1.
  - Manufacturer: Eibeplay Ltd., Eibe House, Forsyth's Home Farm, A3 Bypass Road, Hurtmore, Surrey, GU8 6AD | Tel: 01483813834 | Email: xxxx@xxxx.xx.xx.
    - Product reference: 5 62 068 0.
  - Age range: 3+.
  - Materials: As per manufacturer's specification..
    - Finish: As supplied..
    - Colour: As supplied..
  - Dimensions: 1900(Ø)..
  - Components: 1no. Round trampoline, 4 no. Foundation rings, 16 no. Bolts, 16 no. Nyloc nuts..
  - Method of fixing: As per manufacturer's specification..
- 330W OAK LEAF TABLE PE20
- Standard: To BS EN 1176-1.
  - Manufacturer: Hand Made Places, Unit 1, Bordon Trading Estate, Old Station Way, Bordon, Hampshire, GU35 9HH | Tel:01420474111 | Email: xxxx@xxxxxxxxxxxxxxxx.xx.xx.
    - Product reference: BX/HMP 450021.
  - Age range: Not specified.
  - Materials: As per manufacturer's specification..
    - Finish: As supplied..
    - Colour: As supplied..
  - Dimensions: 800mm(W) x 1200(L) x 600(H)..
  - Components: N/A..
  - Method of fixing: Manufacturer's standard.
- 330X MINI BEAST MOTEL PE25
- Standard: To BS EN 1176-1.
  - Manufacturer: Hand Made Places, Unit 1, Bordon Trading Estate, Old Station Way, Bordon, Hampshire, GU35 9HH | Tel:01420474111 | Email: xxxx@xxxxxxxxxxxxxxxx.xx.xx.
    - Product reference: BX/HMP 550003.
  - Age range: 2+.
  - Materials: As per manufacturer's specification..
    - Finish: As supplied..
    - Colour: As supplied..
  - Dimensions: 800mm(H)..
  - Components: N/A..
  - Method of fixing: Manufacturer's standard.
- 330Y MINIBEAST HQ PE21
- Standard: To BS EN 1176-1.
  - Manufacturer: Hand Made Places, Unit 1, Bordon Trading Estate, Old Station Way, Bordon, Hampshire, GU35 9HH | Tel:01420474111 | Email: xxxx@xxxxxxxxxxxxxxxx.xx.xx.
    - Product reference: BX/HMP 550008.
  - Age range: 2+.
  - Materials: As per manufacturer's specification..
    - Finish: As supplied..
    - Colour: As supplied..
  - Dimensions: 1000mm(W) x 1200mm(H)..
  - Components: N/A..
  - Method of fixing: Manufacturer's standard.

- 330Z TASTE AND SMELL TOTEM PE23
- Standard: To BS EN 1176-1.
  - Manufacturer: Hand Made Places, Unit 1, Bordon Trading Estate, Old Station Way, Bordon, Hampshire, GU35 9HH | Tel:01420474111 | Email: xxxx@xxxxxxxxxxxxxx.xx.xx.
    - Product reference: BX/HMP 750007.
  - Age range: 2+.
  - Materials: As per manufacturer's specification..
    - Finish: As supplied..
    - Colour: As supplied..
  - Dimensions: 1500mm(H)..
  - Components: N/A..
  - Method of fixing: Manufacturer's standard.

## **EXECUTION**

- 710 PLAY EQUIPMENT INSTALLATION GENERALLY
- Standard: To manufacturer's written instructions provided in accordance with BS EN 1176-1.
- 720 CONCRETE FOUNDATIONS GENERALLY
- Standard: To BS 8500-2.
  - Concrete: Designated, not less than GEN 1 or Standard prescribed, not less than ST2.
  - Admixtures: Do not use.
  - Foundation holes: Neat vertical sides.
  - Depth of foundations, bedding, haunching: Appropriate to provide adequate support and to receive overlying soft landscape or paving finishes.
- 725A SETTING COMPONENTS IN CONCRETE
- As per manufacturer's instructions.
- 730A SETTING COMPONENTS IN EARTH
- As per manufacturer's instructions.
- 740 PRESERVATIVE TREATED TIMBER
- Surfaces exposed by minor cutting and drilling: Treated by immersion or with two flood coats of a solution recommended for the purpose by main treatment solution manufacturer.
- 750 DAMAGE TO GALVANIZED SURFACES
- Minor damage in areas up to 40 mm<sup>2</sup> (including on fixings and fittings): Make good.
    - Materials: Low melting point zinc alloy repair rods or powders made for this purpose or at least two coats of zinc-rich paint to BS 4652.
    - Thickness: Sufficient to provide a zinc coating at least equal to the original layer.
- 760 SITE PAINTING
- Timing: Prepare surfaces and apply finishes as soon as possible after installing components.

## **COMPLETION**

- 910 INSPECTION
- Standard: In accordance with equipment manufacturer's maintenance and inspection instructions.
  - Timing: Two weeks prior to the date on which work is expected to be practically complete.
  - Period of notice (minimum): 3 working days.

- 920    CLEANING
- General: Leave the works in a clean, tidy condition.
  - Surfaces: Clean immediately before handover.
- 930    TESTING
- Standard: To BS EN 1176-1.
- 940    LABELS
- Standard: To BS EN 1176-1.
  - Labels: Provide permanent labelling on all types of play equipment.
  - Location: Where visible when erected on site.
- 950    DOCUMENTATION
- Standard: To BS EN 1176-1.
  - Contents:
    - Copies of test reports.
    - General product information.
    - Installation information.
    - Inspection and maintenance information.
  - Number of copies: Three.
  - Submission: Two weeks prior to the date on which the work is expected to be practically complete..
- 960    SPARES
- General: At completion provide the following: \_\_\_\_\_.
- 970    OPERATING TOOLS
- Tools: Supply tools required for operation, maintenance and cleaning purposes.
- 980    RETENSIONING ROPES \_\_\_\_\_.
- Timing: \_\_\_\_\_.
  - Period of notice (minimum): \_\_\_\_\_.



**R**

**Disposal systems**

**R12**

**Below ground drainage systems**

## **R12 Below ground drainage systems**

**R13**

**Land drainage**

## **R13 Land drainage**

To be read with Preliminaries/General conditions.

### **GENERALLY**

#### **100 EXISTING DRAINS AND WATERCOURSES**

- Setting out: Before starting work, check invert levels and positions of existing drainage against drawings. Report any discrepancies.
- Drains to be retained: Protect. Maintain normal operation.

### **DRAINS**

#### **350 LAYING PIPES**

- Weather conditions: Lay pipes in good weather using methods suitable for the site conditions.
  - Plastics pipes: Do not lay or backfill at temperatures lower than 5°C.
  - Soil structure: Prevent compaction, smearing, top ponding, rutting and damage.
- General: Lay to line and gradient on a firm bed free from loose soil to give a free-draining installation without backfalls. Do not lay on soil backfill or in slurry.
- Drains closer than 6 m to trees or hedges: Unperforated pipes with positively sealed joints and as -dug backfill.
- Junctions between branches and mains: Purpose made components.
- Upper ends of drain runs: Plug to prevent ingress of soil or animals.
- Backfilling: Do not damage, distort or displace pipes.

### **EXCAVATING/ BEDDINGS/ SURROUNDS/ BACKFILL**

#### **500 TOPSOILING**

- Filter drains: Do not lay until soiling operations, including spreading and grading of topsoil, have been completed.
- Segregation: Carefully remove topsoil when forming trenches and prevent mixing with subsoil.

#### **505 EXCAVATION**

- Pipe gradients: Between 1 in 200 and 1 in 80.
- Subsoil: Remove from site or to approved locations at end of each day and before pipe laying. Do not disperse on topsoiled areas.
  - Approved locations: .

#### **515 EXISTING LIVE LAND DRAINS**

- Drains exposed by excavation: Mark positions.
- Cutting out: Carefully break back piped drains to an undisturbed section.
- Reconnection: Connect exposed drain to new work.
- Record drawing: Show position of exposed system and new connections. Submit copy.

#### **520 FORMATION FOR BEDS OR PIPES**

- Timing: Excavate to formation immediately before laying beds or pipes.
- Hard spots: Remove rock projections, boulders, etc. Replace with consolidated bedding material.
- Soft spots: Tamp in bedding material.
- Inspection: Give notice of completed excavated formation for each section of the work.
  - Period of notice (minimum): 2 working days.

- 525 GRANULAR BEDS
- Compacted thickness (minimum): 50 mm.
    - Laying pipes: Scoop out locally at couplings and sockets and lay pipes digging slightly into bed and resting uniformly on their barrels.
- 540 GRANULAR SURROUND AND BACKFILL - SURFACE WATER DRAINS
- Material: Clean gravel, broken stone, hard clinker or slag, with no fines, graded 75 to 20 mm or approved recycled material.
- 546 SELECTED AS-DUG SURROUND AND BACKFILL
- Material: Selected as-dug, free from vegetable matter, rubbish, frozen soil, large lumps of clay and material retained on a 40 mm sieve.
  - Placing material around sides of pipes and against fin drains: Carefully pack. Prevent damage or disruption to pipelines or fin drains and compact thoroughly.
- 555 GRANULAR BACKFILLING TO DRAINS WITH PIPES
- General: Not applicable to narrow trenches where a backfill is placed continuously by machine.
  - Placing: in maximum 300 mm thick layers, with mechanical compaction from 300 mm above crown of pipe, up to finished ground level.
    - Surround and backfill material: Do not heap in the trench before spreading.
    - Packing: Carefully pack material around the sides of the pipe. Prevent damage or disruption to pipelines and compact thoroughly.
- 560 GRANULAR BACKFILLING TO DRAINS WITHOUT PIPES
- General: Not applicable to narrow trenches where a backfill is placed continuously by machine.
  - Placing: Backfill in maximum 300 mm thick layers, with mechanical compaction, up to finished ground level.
- 565 BACKFILLING WITH AS-DUG MATERIAL
- General: Not applicable to narrow trenches where a backfill is placed continuously by machine.
  - Material: As excavated from the trench.
  - Placing and compaction: Maximum 300 mm thick layers, up to finished ground level. Compact each layer before placing the next.
  - Heavy compactors: Do not use before there is 600 mm of material over pipes.

#### **ANCILLARY CONSTRUCTIONS AND WORK**

- 600A INSPECTION CHAMBER
- Drawing reference: SCP-CBA-1-GF-M2-L-8901.
  - Supplier: Wavin Ltd. Edlington Ln, New Edlington, Doncaster DN12 1BY | Tel: 0844 856 9440.
  - Product Ref: Wavin UR 500mm NIC UnE Base BK 150x110 D | Catalogue Code: 6UR937  
Dimensions: 626mm(L) x 496mm(W) x 649mm(H), 500mm Diameter.
  - Material: PVC-U.  
Colour: Black.
- 600B PROPOSED SURFACE DRAIN
- Refer to drawing: SCP-CBA-1-GF-M2-L-8901.
  - Supplier: Submit proposals.
  - Material: Submit proposals.  
Colour: Submit proposals.

- 600C PROPOSED SURFACE WATER DRAINAGE PIPE
- To connect proposed surface drain (See clause: R13/600B) to proposed inspection chamber (R13/600A). Refer to drawing: SCP-CBA-1-GF-M2-L-8901.
  - Supplier: Submit proposals.
  - Material: Submit proposals.
  - Colour: Submit proposals.
- 600D PROPOSED COVER / CAPPING TO REDUNDANT DRAINS IN SOFT LANDSCAPE
- Refer to drawing: SCP-CBA-1-GF-M2-L-8901.
  - Supplier: Submit proposals.
  - Material: Submit proposals.
  - Colour: Submit proposals.
- 620A GRANULAR FILL / DRAINAGE MEDIA FOR SWALES
- Geotextile membrane: As per clause: Q20/17a.
  - Granular Fill: Submit proposals.
- 800 CLEANING
- General: Thoroughly flush out the whole of the installation with clean water to remove silt and debris immediately before handover.
  - Washings and detritus: Dispose of safely. Do not discharge into sewers or watercourses.

**S**

**Piped supply systems**



**S14**  
**Irrigation**

## **S14 Irrigation**

To be read with Preliminaries/ General conditions.

### **GENERAL**

#### **110A IRRIGATION SYSTEM Mains connected tap for irrigation use**

- Source: Mains water supply.
- Water meters: Required.
- Backflow prevention device: Submit proposals.
- Water storage tanks: Not required.
- Pumps: Submit proposals if required.
- Pipelines: Submit proposals.
  - Insulation: Submit proposals.
- Draw-off taps/ valves: Draw off tap for above ground use.
- Filters: Submit proposals if required.
- Outlets: Tap.

### **PERFORMANCE**

#### **210 DESIGN AND DETAILING**

- Requirement: Complete the design of the irrigation system.
- Proposals: Submit drawings (showing equipment positions and pipeline routes), technical information, calculations and manufacturer's literature.
- General: Design the irrigation systems to comply with the relevant parts of BS 7562, BS 8558, BS EN 805, BS EN 806-2, -3 and -5 and BS EN 12484-4, and in accordance with HSE publication 'The control of legionella bacteria in water systems. Approved code of practice and guidance', water supply regulations and the requirements of the water supply undertaker.

### **PRODUCTS**

#### **320 WATER METERS new metered supply to serve maintenance tap and irrigation including meter enclosure**

- Manufacturer: Submit proposals.
  - Product reference: Submit proposals.

#### **372 THERMOPLASTICS PIPELINE FOR EXTENDING EXISTING WATER SUPPLY TO NEW LOCATION**

- Standard: To BS 7291.
- Material: Submit proposals.
- Jointing: Submit proposals.
- Supports: Submit proposals.

382 VALVES GENERALLY

- Types: Approved for the purpose by the local water supply undertaker and of the appropriate pressure rating.
- Location: Adjacent to equipment to be isolated and where they can be readily operated and maintained.
- Joints: To suit the pipe material.
- Operation:
  - Handwheels: For control purposes.
  - Lockshields: For isolation or regulation of circuits or equipment.

383A NEW IRRIGATION TAP FOR ABOVE GROUND USE INCLUDING RELEVANT SUPPORT/ENCLOSURE

- Please submit proposals.

**EXECUTION**

610 INSTALLATION GENERALLY

- Standard: In accordance with the relevant parts of BS 7562-5, BS 8558, BS EN 805, BS EN 806-4 and BS EN 12484-4, water supply regulations and the requirements of the water supply undertaker.
- Generally:
  - Fixing: Secure and neat in locations and depths suitable for the purpose.
  - Outlets and valves: Adequately support to prevent pipes being strained during operation.
  - Open ends of pipes: Temporarily seal with purpose made plugs or blanking caps to prevent ingress of dirt, insects or rodents during installation.
- Equipment, components and accessories:
  - Store in original packaging in dry conditions.
  - Where appropriate, securely fix parallel or perpendicular to the enclosing structure.
- Corrosion resistance: In locations where moisture is present or may occur, provide corrosion resistant fittings/ fixings and avoid contact between dissimilar metals by use of suitable washers, gaskets, etc.
- Performance: Free from leaks and the audible effects of expansion, vibration and water hammer.
- Access: Allow adequate space for inspection, servicing and maintenance.

611 INSTALLATION OF PUMPS

- Pipeline connections: Prevent transmission of pipeline forces to pump casing.
- Pipeline mounted pumps: Support on purpose made brackets lined with vibration absorbent material.
- Alignment: Align and balance to minimize vibration.
- Drive belts: Correctly tensioned.
- Access: Provide adequate space for service and maintenance.
- Identification plate: Engrave showing:
  - Manufacturer's name and address.
  - Serial number.
  - Duty and maximum head.
  - Speed.
  - Electrical loading.

#### 612 PIPELINE INSTALLATION

- Appearance: Install pipes straight, and parallel or perpendicular to walls, floors, ceilings, and other building elements.
- Joints, bends and offsets: Minimize.
- Access: Locate runs to facilitate installation of equipment, accessories and insulation and allow access for maintenance.
- Electrical equipment: Install pipelines 150 mm (minimum) clear of electrical equipment. Do not run pipelines through electrical enclosures or above distribution boards, controllers or outlets.
- Insulation: Allow space around pipelines to fit insulation without compression.
- Drains and vents: Fix pipelines to falls. Fit draining taps at low points and vents at high points.
- Thermal expansion and contraction: Allow for thermal movement of pipelines. Isolate from structure. Prevent noise or abrasion of pipelines caused by movement. Sleeve pipelines passing through walls, floors or other building elements.

#### 613 SUPPORTS FOR COPPER PIPELINES

- Spacing: Fix securely and true to line at the following maximum centres:
  - 15 and 22 mm pipe OD: 1.2 m horizontal, 1.8 m vertical.
  - 28 and 35 mm pipe OD: 1.8 m horizontal, 2.4 m vertical.
  - 42 and 54 mm pipe OD: 2.4 m horizontal, 3.0 m vertical.
- Additional supports: Locate within 150 mm of connections, junctions and changes of direction.

#### 614 SUPPORTS FOR THERMOPLASTICS PIPELINES

- Spacing: Fix securely and true to line at the following maximum centres:
  - Up to 16 mm pipe OD: 300 mm horizontal, 500 mm vertical.
  - 17–25 mm pipe OD: 500 mm horizontal, 800 mm vertical.
  - 26–32 mm pipe OD: 800 mm horizontal, 1000 mm vertical.
- Additional supports: Locate within 150 mm of connections, junctions and changes of direction.

#### 615 FITTING INSULATION TO EXTERNAL SUPPLY PIPELINES

- Location: Where exposed to air and where less than 750 mm below ground level.
- Installation:
  - Fixing: Securely and neatly in accordance with manufacturer's recommendations and with the split on 'blind' side of pipeline.
  - Over fittings and at supports: Continuous leaving no gaps.
  - Timing: Do not fit insulation until completion of testing.

#### 616 JOINTS IN COPPER PIPELINES

- Preparation: Cut pipes square. Remove burrs.
- Joints: Neat, clean and fully sealed. Install pipe ends into joint fittings to full depth.
- Bends: Do not use formed bends on exposed pipework, except for small offsets. Form changes of direction with radius fittings.
- Adaptors for connecting dissimilar materials: Purpose designed.
- Substrate and plastics pipes and fittings: Do not damage, e.g. by heat when forming soldered joints.
- Flux residue: Clean off.

#### 617 JOINTS IN THERMOPLASTICS PIPELINES

- Fittings and accessories for joints: Purpose designed.
- Preparation: Cut pipes square. Remove burrs.
- Joints: Neat, clean and fully sealed. Install pipe ends into joint fittings to full depth.
- Compression fittings: Do not over tighten.

618 INSTALLATION OF VALVES

- Isolation and regulation valves: Provide on equipment and subcircuits.
- Access: Locate where valves can be readily operated and maintained and next to equipment which is to be isolated.
- Connection to pipework: Fit with joints to suit the pipe material.

630 SERVICE CONNECTIONS

- General: Covered elsewhere by a Provisional Sum.

**COMPLETION**

910 TESTING

- Standard: To BS EN 12484-5.
- Notice (minimum): Three days.
- Condition of pipework and equipment prior to testing: Correctly installed, secure and clean.
- Pressure testing: Joints, fittings and components must be free from leaks and signs of physical distress when tested for at least one hour as follows:
  - Systems fed directly from the mains: Apply a test pressure equal to 1.5 times the maximum pressure to which the installation or relevant part is designed to be subjected in operation.
  - Systems fed from storage: Apply a test pressure equal to the pressure produced when the storage cistern is filled to its normal maximum operating level.
- Other test procedures: As recommended by the manufacturer and required by the water undertaker.
- Test results: Submit.

920 COMMISSIONING

- Equipment: Check and adjust operation of equipment and controls.
- Outlets: Check operation of outlets for satisfactory rate of flow.

940 OPERATING TOOLS

- Tools: Supply tools for operation, maintenance and cleaning purposes.
- Keys: Supply keys for valves, vents and cabinets.

**Z**

## **Building fabric reference specification**

**Z20**

**Fixings and adhesives**

## **Z20 Fixings and adhesives**

To be read with Preliminaries/ General conditions.

### **PRODUCTS**

#### **310 FASTENERS GENERALLY**

- Materials: To have:
  - Bimetallic corrosion resistance appropriate to items being fixed.
  - Atmospheric corrosion resistance appropriate to fixing location.
- Appearance: Submit samples on request.

#### **320 PACKINGS**

- Materials: Noncompressible, corrosion proof.
- Area of packings: Sufficient to transfer loads.

#### **340 MASONRY FIXINGS**

- Light duty: Plugs and screws.
- Heavy duty: Expansion anchors or chemical anchors.

#### **350 PLUGS**

- Type: Proprietary types to suit substrate, loads to be supported and conditions expected in use.

#### **390 ADHESIVES GENERALLY**

- Standards:
  - Hot-setting phenolic and aminoplastic: To BS 1203.
  - Thermosetting wood adhesives: To BS EN 12765.
  - Thermoplastic adhesives: To BS EN 204.

#### **410 POWDER ACTUATED FIXING SYSTEMS**

- Types of fastener, accessories and consumables: As recommended by tool manufacturer.

### **EXECUTION**

#### **610 FIXING GENERALLY**

- Integrity of supported components: Select types, sizes, quantities and spacings of fixings, fasteners and packings to retain supported components without distortion or loss of support.
- Components, substrates, fixings and fasteners of dissimilar metals: Isolate with washers/ sleeves to avoid bimetallic corrosion.
- Appearance: Fixings to be in straight lines at regular centres.

#### **620 FIXING THROUGH FINISHES**

- Penetration of fasteners and plugs into substrate: To achieve a secure fixing.

#### **630 FIXING PACKINGS**

- Function: To take up tolerances and prevent distortion of materials and components.
- Limits: Do not use packings beyond thicknesses recommended by fixings and fasteners manufacturer.
- Locations: Not within zones to be filled with sealant.



640     FIXING CRAMPS

- Cramp positions: Maximum 150 mm from each end of frame sections and at 600 mm maximum centres.
- Fasteners: Fix cramps to frames with screws of same material as cramps.
- Fixings in masonry work: Fully bed in mortar.

690     USING POWDER ACTUATED FIXING SYSTEMS

- Powder actuated fixing tools: To BS 4078-2 and Kitemark certified.
- Operatives: Trained and certified as competent by tool manufacturer.

700     APPLYING ADHESIVES

- Surfaces: Clean. Adjust regularity and texture to suit bonding and gap filling characteristics of adhesive.
- Support and clamping during setting: Provide as necessary. Do not mark surfaces of or distort components being fixed.
- Finished adhesive joints: Fully bonded. Free of surplus adhesive.

London Borough of Lambeth

**STREATHAM COMMON PLAYGROUND**

50025801-E-SP01

Appendix:

Playground Equipment

Manufacturer's Installation Instructions

**General information****A Surfacing requirements**

This equipment should be installed on an impact absorbing surfacing / loose fill material that accords with EN 1176 and is adequate for a maximum free height of fall of  $\leq 2.00$  m.

**B Foundations**

Please take into account the special sheet: "Notes on the construction of foundations".

**Special information**

Certified by TÜV Product Service GmbH in compliance with EN 1176.

Please do not alter any parts of the equipment or the construction itself since this may affect the safety standards and your guarantee. This equipment is supplied with information on the basis of it being used in combination with other Richter equipment.

We reserve the right to make technical alterations!  
For further information please call your local agent.

**Total weight:** approx. 1,100 kg  
**Heaviest single part:** approx. 450 kg  
**Largest part:** 1.40 x 1.40 x 3.25 m

**Recommended assembly tools and materials**

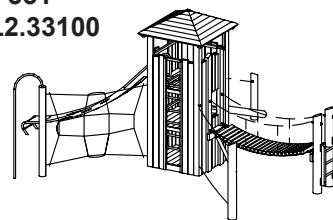
Set of carpenter's tools  
Set of ratchets  
Set of spanners  
Torx inserts T 20, 25, 30, 40, 50  
Rubber mallet  
Battens for support during assembly  
For erection of the tower: crane or 4 persons

**Attention!**

During the assembly period (including the setting of the concrete) it is not allowed to play on or put any weight on the equipment in order to secure stability during use after the assembly. Standard concrete requires at least 2 weeks to set.

**Tower Combination 331  
Order No. 2.33100/L2.33100**

*also valid for  
version with  
steel feet*



**Please pay particular attention to the assembly instructions listed below.**

**Components**

Number of parts: 11

**Assembly instructions  
Order No.**

**Square Tower with Roof**

- |                                  |                |
|----------------------------------|----------------|
| 1 square tower                   | <b>3.20600</b> |
| with frame for suspension bridge | <b>3.66005</b> |
| 1 bundle: 4 steel feet           |                |
| 1 roof                           |                |

**Suspension Bridge**

- |                                                               |                |
|---------------------------------------------------------------|----------------|
| 1 end frame with ladder                                       | <b>3.66030</b> |
| 1 running board 3 m with chain handrails and distance battens | <b>3.66090</b> |
| 1 metal brace for tower frame                                 | <b>3.66005</b> |

**Inclined Balancing Beam**

- |                                                       |                |
|-------------------------------------------------------|----------------|
| 1 bundle: inclined balancing beam with chain handrail | <b>3.68300</b> |
|-------------------------------------------------------|----------------|

**Balancing Rope with Holding Rope**

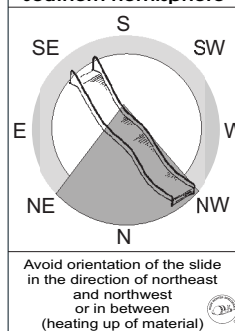
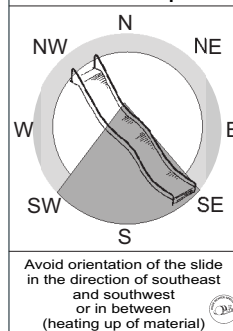
- |                                          |                |
|------------------------------------------|----------------|
| 1 bundle: balancing rope w. holding rope | <b>3.69010</b> |
|------------------------------------------|----------------|

**Vertical Climbing Net**

- |                                            |                |
|--------------------------------------------|----------------|
| 1 bundle: vertical net with firemen's pole | <b>3.69350</b> |
|--------------------------------------------|----------------|


**Slide**

- |                         |                |
|-------------------------|----------------|
| 1 stainless steel slide | <b>3.63420</b> |
| 1 ground anchor         |                |

**Note on installation for southern hemisphere****Note on installation for northern hemisphere**



### Sequence of assembly operations

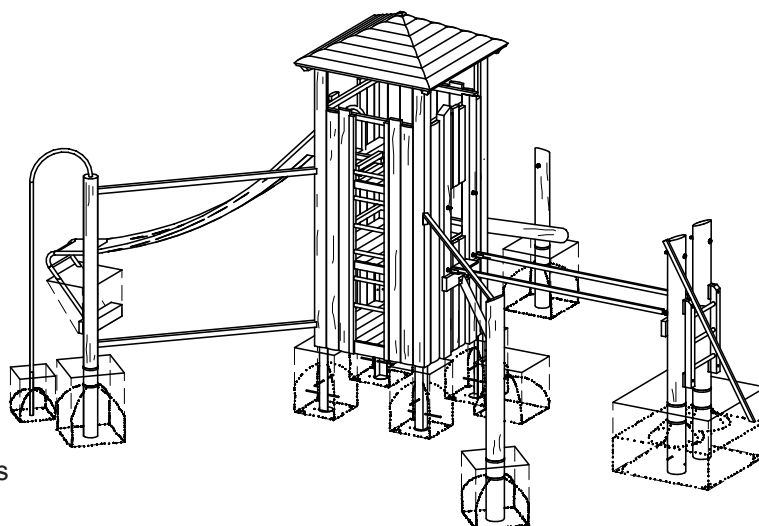
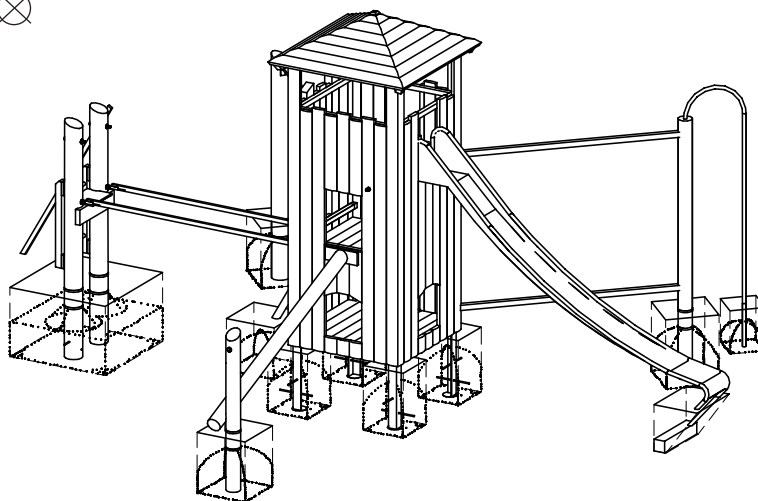
1. Locate the site and take into account the space required, including the safety distances, according to the ground plan on page 2.
2. Start surveying at the point of reference  and dig out the foundation holes.

3. Erect tower with roof according to the separate assembly instructions of order No. 3.20600 and take position of equipment to be attached into account.

**Assemble the equipment to be attached according to the separate assembly instructions as follows:**

4. Suspension bridge, order No. 3.66090/3.66030 and 3.66005.
5. Inclined balancing beam, order No. 3.68300.
6. Stainless steel slide, order No. 3.63420.
7. Vertical climbing net, order No. 3.69350.
8. Balancing rope with holding rope, order No. 3.69010.

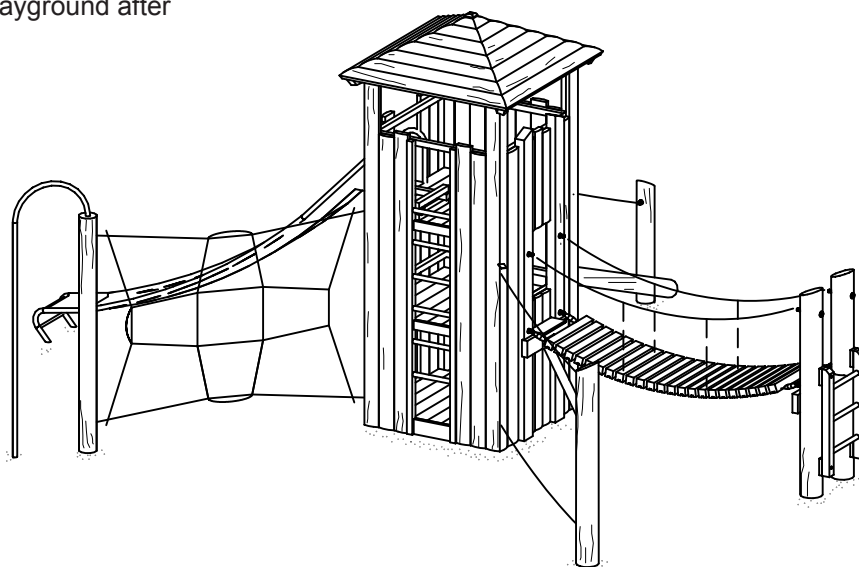
9. **Check the following aspects before you start to concrete:**
  - depth of installation according to the marks
  - position and orientation of the elements to each other
  - correct position of the distance battens



10. After the concrete has set finish the combination according to the respective separate assembly instructions.

11. Repair minor damage caused during assembly or transportation.

12. Please ensure that all assembly aids, e. g. excess bolts, assembly instructions, distance battens or tape are removed entirely from the play equipment and the playground after work is finished.



**Please note that after about 6 weeks all screws and bolts need to be checked and, if necessary, retightened.**

**General information****A Surfacing requirements**

This element is suitable for installation in a number of ways and in combination with other equipment. It should be installed on impact absorbing surfacing or loose fill material that accords with EN 1176 and is suitable for a maximum free height of fall of up to 1.00 m depending on the combination equipment or installation situation. At the run-out of the slide we recommend sand as loose fill material.

**B Foundations**

depends on the installation situation

**C Excavation depth for ground anchor**

= 55 cm

**Special information**

Certified by TÜV Product Service GmbH in compliance with EN 1176:2008.

Please do not alter any parts of the equipment or the construction itself since this may affect the safety standards and your guarantee. This equipment is supplied with information on the basis of it being used in combination with other Richter equipment.

We reserve the right to make technical alterations!  
For further information please call your local agent.

**Stainless Steel Slides** as combination element or for installation on a slope  
installed height 1.00 m

**Order No. 3.63300**

width 1.00 m

**Order No. 3.63310**

width 0.45 m

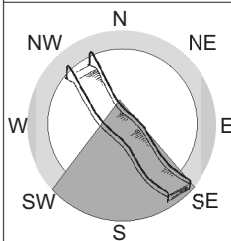
**Components**

Number of parts: 2

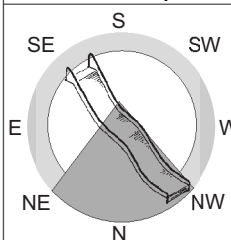
1 slide

1 ground anchor and bolts

**Weight:** approx. 65 kg

**Note on installation for northern hemisphere**

Avoid orientation of the slide in the direction of southeast and southwest or in between (heating up of material)

**Note on installation for southern hemisphere**

Avoid orientation of the slide in the direction of northeast and northwest or in between (heating up of material)

**For sequence of assembly operations please refer to page 3 to 4.**

**Recommended assembly tools and materials**

Set of carpenter's tools  
 Set of ratchets  
 Allen key No. 5  
 Rubber mallet

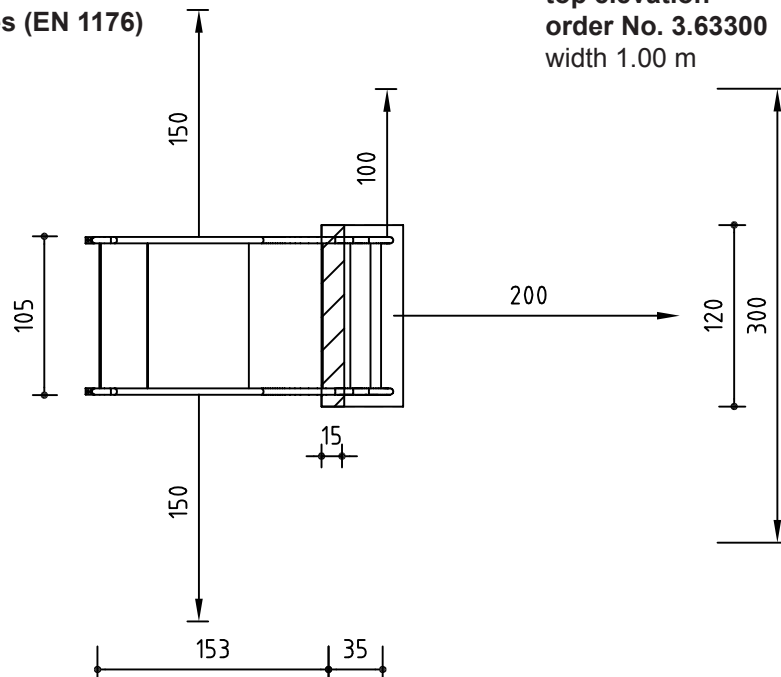
safety distance →

foundations ●

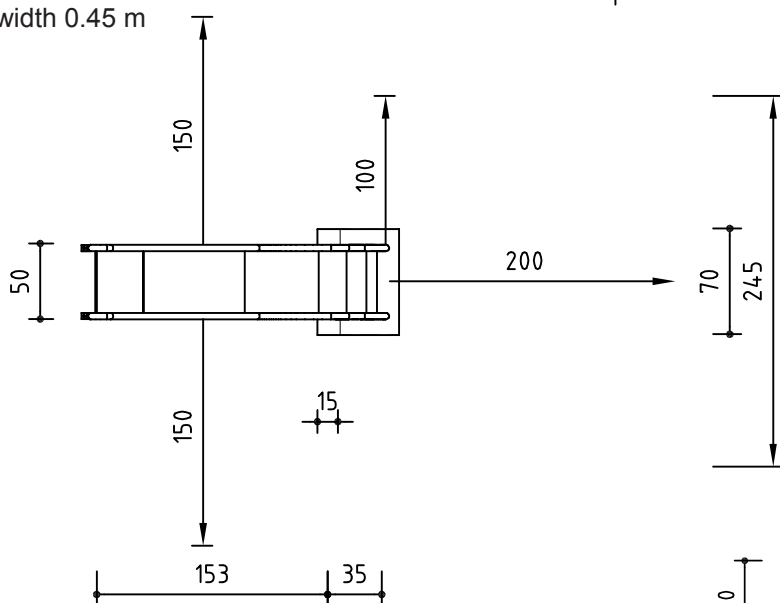
**Required space including safety distances (EN 1176)**

according to top elevation  
 scale 1:50  
 all dimensions in cm

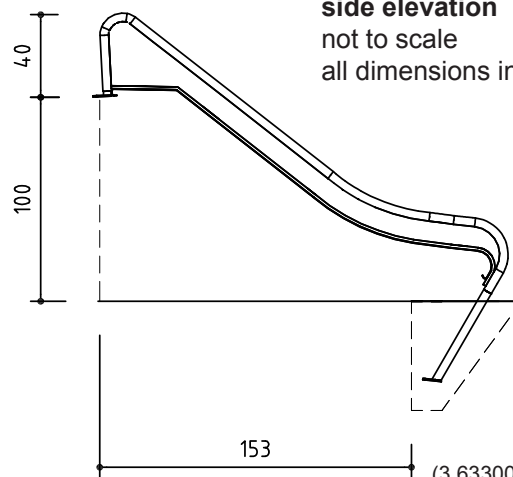
**top elevation**  
**order No. 3.63300**  
 width 1.00 m



**top elevation**  
**order No. 3.63310**  
 width 0.45 m



**side elevation**  
 not to scale  
 all dimensions in cm





### Sequence of assembly operations

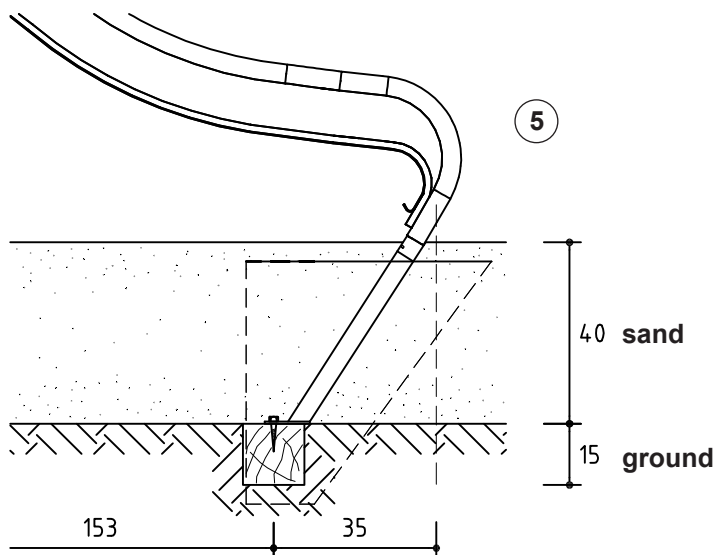
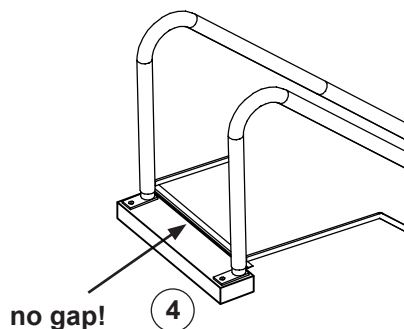
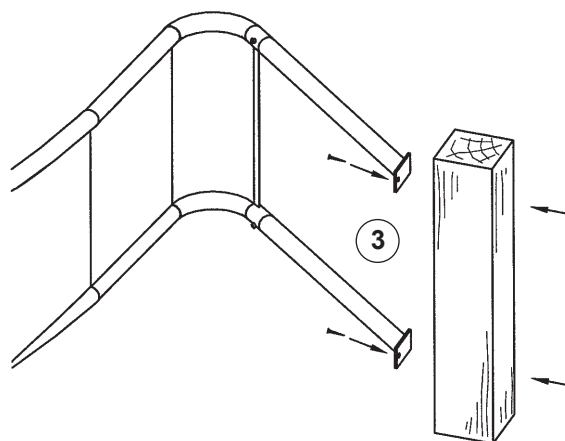
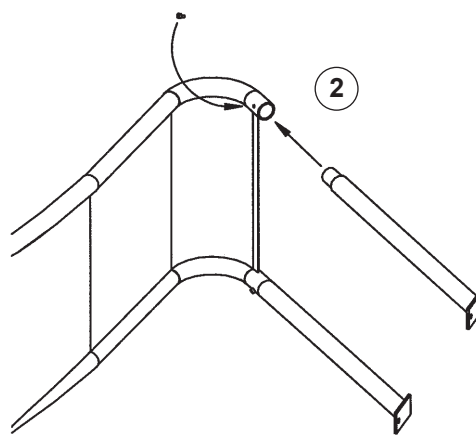
1. Locate the site and take into account the space required (side elevation, page 2), including the safety distances (top elevation, page 2). Dig out the hole for the ground anchor.
2. Insert the feet of the slide and secure with Allen bolts.
3. Screw the feet onto the ground anchor, the holes are pre-drilled.
4. Place the slide into the foundation hole and fasten to the main equipment according to the markings. The starting section must have a  $3^\circ$  gradient towards the front to avoid accumulation of rain water on the sliding surface.

#### Note

The slide's steel plate must be pushed past the floor edge/support beam in order to make sure there is no gap between the starting section of the slide and the main equipment.

5. Cover the foundation hole with sand.
6. Repair minor damage caused during assembly or transportation.
7. Please ensure that all assembly aids, e. g. excess bolts, assembly instructions, distance battens or tape are removed entirely from the play equipment and the playground after work is finished.

**Please note that after about 6 weeks all screws and bolts need to be checked and, if necessary, retightened.**



## General information

### A Surfacing requirements

This element does not reach the free height of fall limit of 600 mm above which a specific requirement for impact absorbing surfacing or materials is necessary.

However, we recommend surfacing corresponding to a fall height of  $\leq 1.00$  m.

### B Foundations

No concrete foundation required. If installed in loose-fitting material we recommend an additional anchoring in cast-in-place concrete (concrete quality C25/30) or cover pre-cast-foundation permanently e.g. with safetytiles.

## Special information

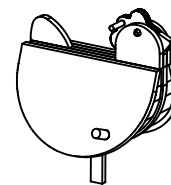
Certified by TÜV Product Service GmbH in compliance with EN 1176.

Please do not alter any parts of the equipment or the construction itself since this may affect the safety standards and your guarantee.

We reserve the right to make technical alterations!  
For further information please call your local agent.

## Little Chicken Order No. 4.08100

with pre-fabricated foundation



## Components

Number of parts: 1

1 complete equipment  
with pre-fabricated foundation

**Total weight:** approx. 139 kg  
without pre-fabricated foundation: approx. 54 kg

## Required space including safety distances (EN 1176)

275 x 255 cm

safety distance →  
foundations —●

## Ground plan

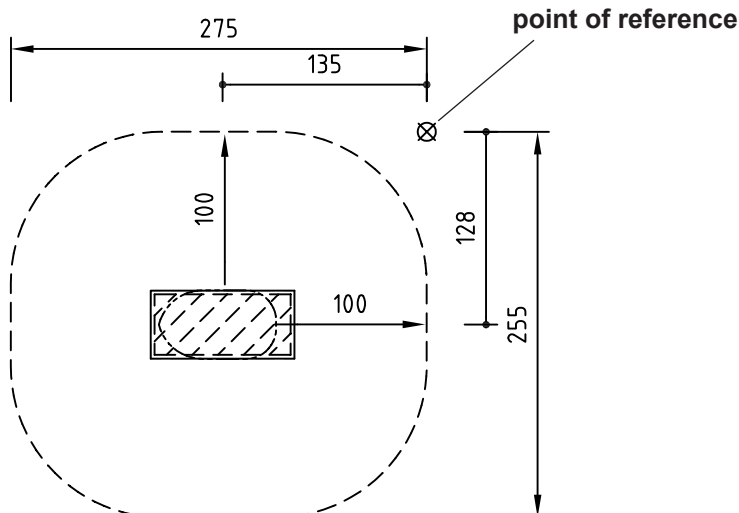
scale 1:50

all dimensions in cm

## Foundations

pre-fabricated foundation


excavation 95 x 45 x 20 cm

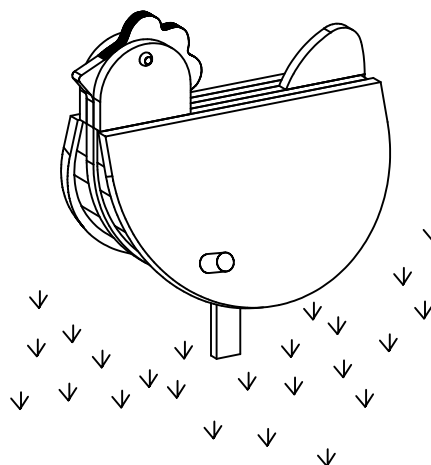
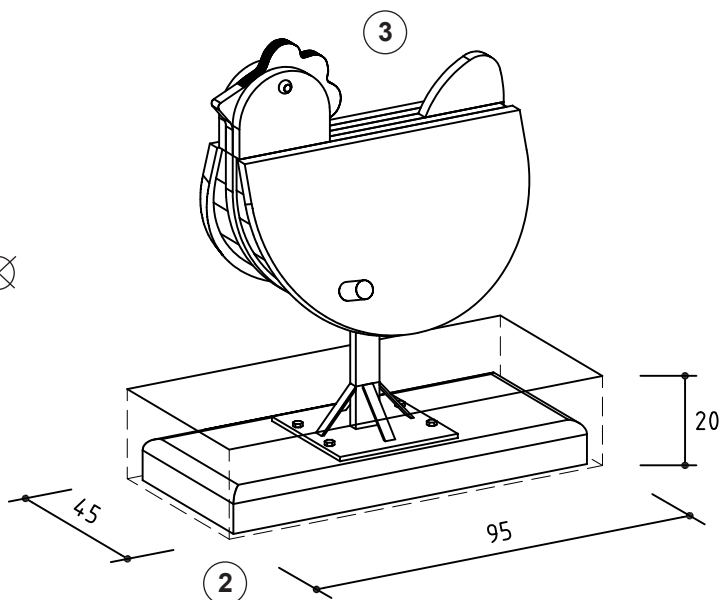


## Recommended assembly tools and materials

Set of carpenter's tools  
Set of ratchets

## Sequence of assembly operations

1. Locate the site and take into account the space required, including the safety distances, according to the ground plan on page 1.
2. Start surveying at the point of reference  and dig out the foundation hole.
3. Place the equipment with the pre-fabricated foundation into the foundation hole and cover the foundation up to ground level with surfacing material.
4. Repair minor damage caused during assembly or transportation.
5. Please ensure that all assembly aids, e.g. excess bolts, assembly instructions, distance battens or tape are removed entirely from the play equipment and the playground after work is finished.



**Please note that after about 6 weeks all screws and bolts need to be checked and, if necessary, retightened.**

**General information****A Surfacing requirements**

This element does not reach the free height of fall limit of 600 mm above which a specific requirement for impact absorbing surfacing or materials is necessary.

We recommend a fall height of  $\leq 1.00$  m.

**B Foundations**

Please take into account the special sheet: „Notes on the construction of foundations“.

**Special information**

Certified by TÜV Product Service GmbH in compliance with EN 1176.

Please do not alter any parts of the equipment or the construction itself since this may affect the safety standards and your guarantee.

We reserve the right to make technical alterations!  
For further information please call your local agent.

**Small Playing House**

Order No. 4.10100

Order No. L4.10100

**Small Timber House with Door**

Order No. 4.10110

Order No. L4.10110

**Components**

Number of parts: 1

1 complete playing house with roof

**Weight:** 250 kg (265 kg incl. door)  
1.25 x 1.43 x 1.15 m

**Required space including safety distances (EN 1176)**

445 x 425 cm

safety distance →  
foundations ●

**Ground plan**

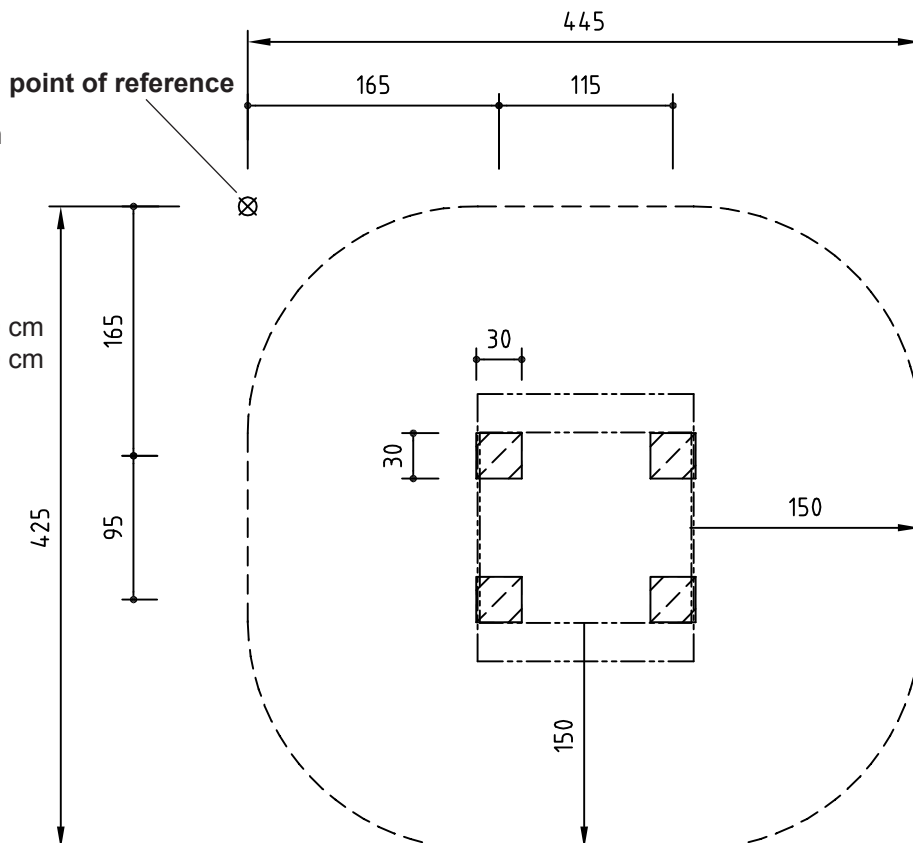
scale 1:50

all dimensions in cm

**Foundations**

quality of  
concrete C25/30

4 items 30 x 30 x 30 cm  
excavation depth 40 cm



**Recommended assembly tools and materials**

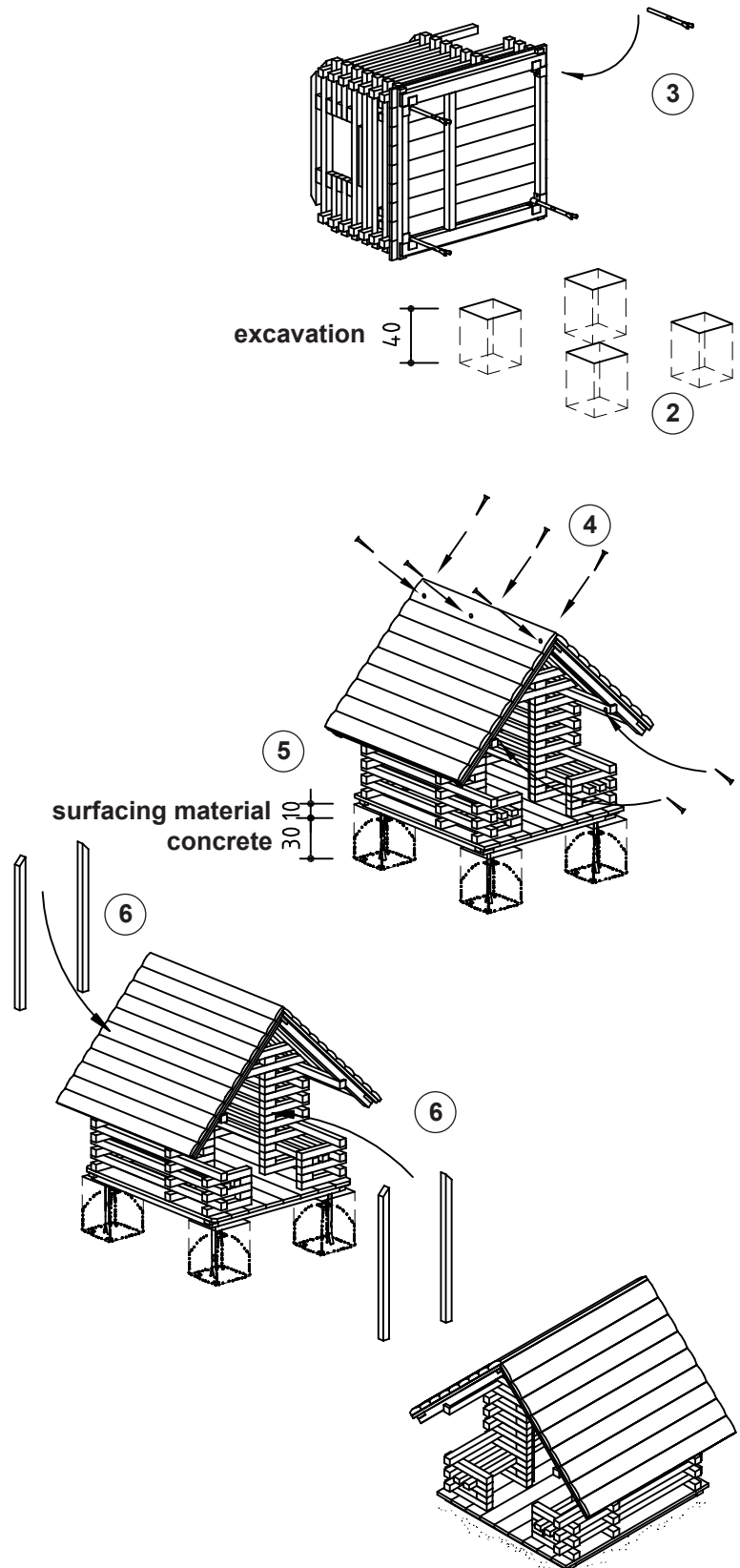
Set of carpenter's tools  
 Set of ratchets  
 Set of spanners  
 Torx insert T 30  
 Rubber mallet, spirit level, if necessary pipe wrench  
 Fork lift truck or similar

**Attention!**

During the assembly period (including the setting of the concrete) it is not allowed to play on or put any weight on the equipment in order to secure stability during use after the assembly. Standard concrete requires at least 2 weeks to set.

**Sequence of assembly operations**

1. Locate the site and take into account the space required, including the safety distances, according to the ground plan on page 1.
2. Start surveying at the point of reference and dig out the foundation holes.
3. Lie the house on its side in front of the foundation holes and screw the foundation irons into the sockets at the bottom of the house.
4. Place the house upright again, if necessary on paving stones or similar, and put the roof on. The house must be precisely level.
5. Fill the foundation holes with concrete and tamp. Place the house onto the concrete and press in the foundation irons. Align the house. **Please take into account the special sheet: Notes on the construction of foundations.** Leave the concrete to set. Cover the foundations up to ground level with surfacing material.
6. Place roof supports next to door and window on the inside, align and screw on. The inclination must fit exactly under the roof parts.
7. Repair minor damage caused during assembly or transportation.
8. Please ensure that all assembly aids, e. g. excess bolts, assembly instructions, distance battens or tape are removed entirely from the play equipment and the playground after work is finished.



**Please note that after about 6 weeks all screws and bolts need to be checked and, if necessary, retightened.**

## General information

### A Surfacing requirements

This equipment should be installed on an impact absorbing surfacing / loose fill material that accords with DIN EN 1176 / EN 1176 and is adequate for a maximum free height of fall of  $\leq 1.00$  m.

We recommend surfacing corresponding to a fall height of  $\leq 1.50$  m.

### B Foundations

Please take into account the special sheet: Notes on the construction of foundations.

## Special information

Certified by TÜV Product Service GmbH in compliance with EN 1176.

Please do not alter any parts of the equipment or the construction itself since this may affect the safety standards and your guarantee.

We reserve the right to make technical alterations! For further information please call your local agent.

## Two Storey Play House

Order No. 4.10500

Order L4.10500

Order No. 4.10501



## Components

Number of parts: 8

- 1 lower part of house
- 2 roof sections attached
- 1 bundle: stand posts
- 1 staircase, wide
- 1 window wall
- 1 closed wall
- 1 table
- 1 bundle: 2 benches
- 1 bundle: handrails

**Total weight:** 380 kg  
**heaviest single part:** 250 kg  
**largest single part:** 1.25 x 1.40 x 1.20 m

En-EN 02.05.2016

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## Required space including safety distances (EN 1176)

500 x 425 cm

### Ground plan

scale 1:50

all dimensions in cm

### Foundations

quality of concrete  
C25/30

### House

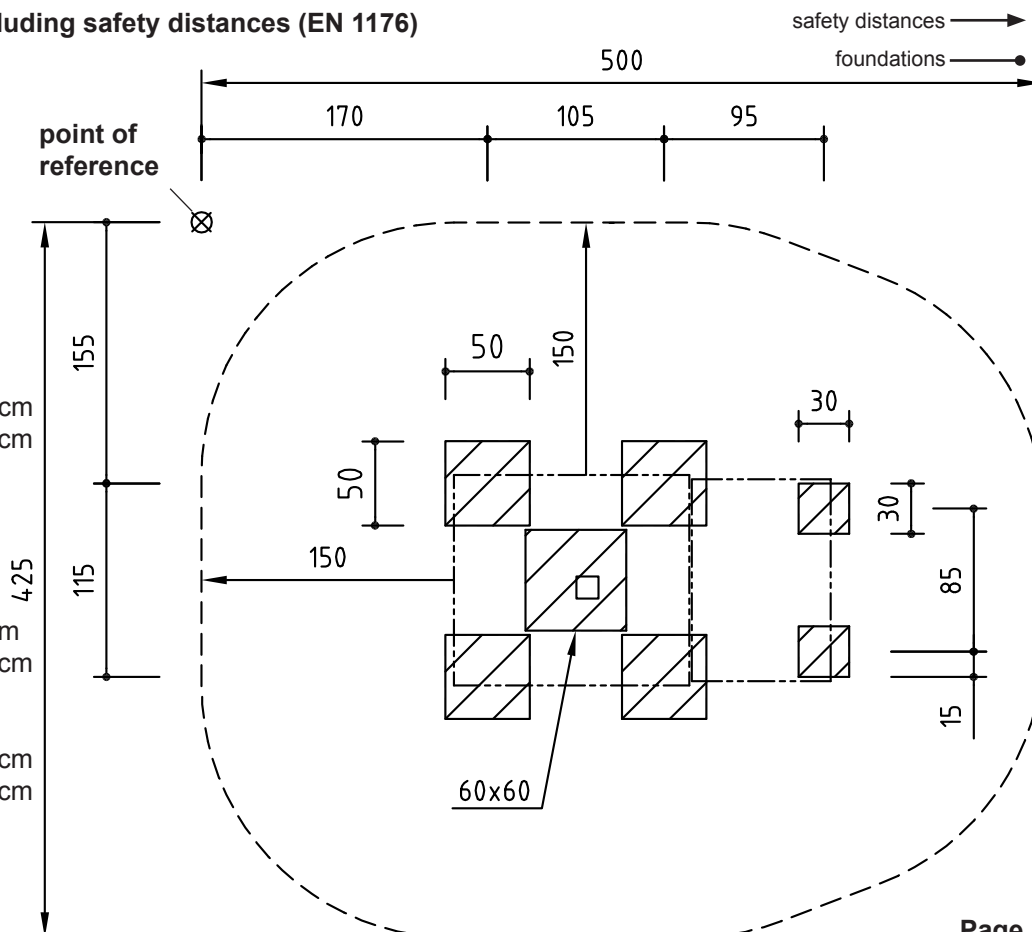
4 items 50 x 50 x 40 cm  
excavation depth 60 cm

### Table

1 item 60 x 60 x 40 cm  
excavation depth 60 cm

### Stairs

2 items 30 x 30 x 20 cm  
excavation depth 40 cm



### Recommended assembly tools and materials

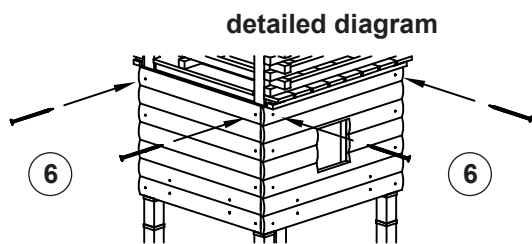
set of carpenter's tools  
set of ratchets  
set of spanners  
Torx inserts T 20, 25, 30, 40, 50  
rubber mallet

### Attention!

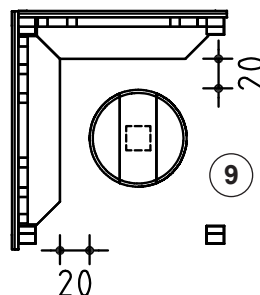
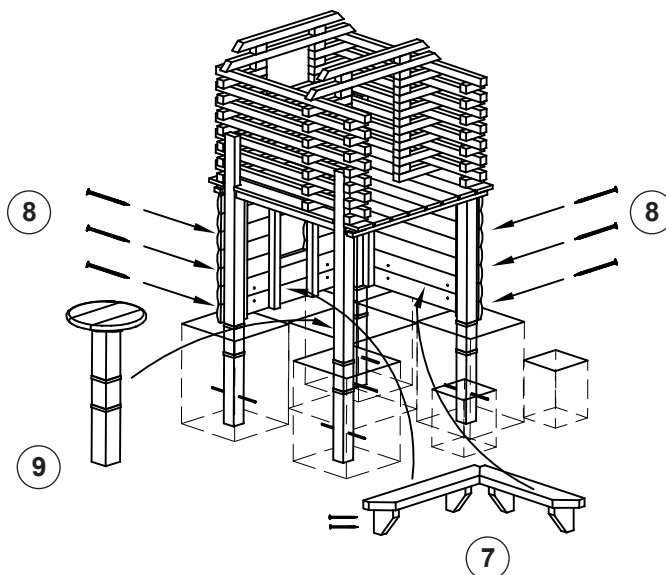
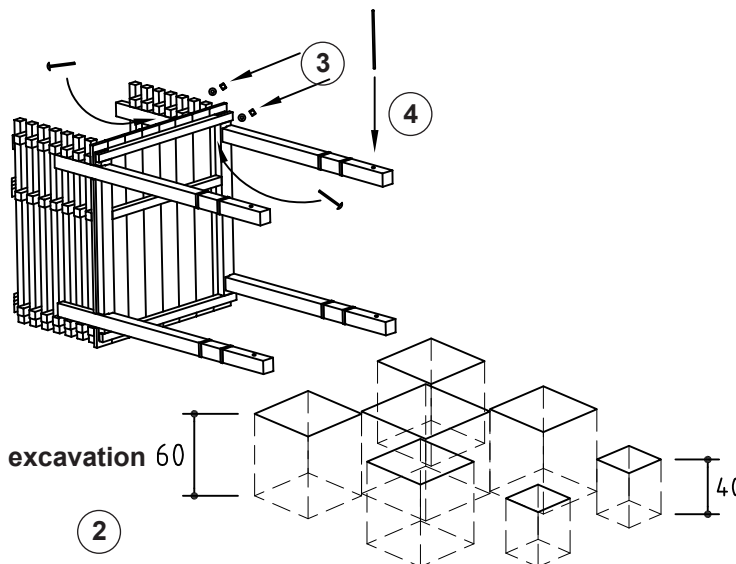
During the assembly period (including the setting of the concrete) it is not allowed to play on or put any weight on the equipment in order to secure stability during use after the assembly. Standard concrete requires at least 2 weeks to set.

### Sequence of assembly operations

1. Locate the site and take into account the space required, including the safety distances, according to the ground plan on page 1.
2. Start surveying at the point of reference and dig out the foundation holes.
3. Place house in front of the foundation holes on the rear side and screw stand posts onto the house (carriage bolts).
4. Hammer the foundation irons into the stand posts.
5. Place the house into the foundation holes and align.
6. Place the rear wall and side wall between the stand posts from the outside, and screw on (provisionally) at the top according to the **detailed diagram**.



7. Attach the benches to the walls from inside (secure bench consoles from outside using Spax screws).
8. Screw on the rear wall and the side wall to the stand posts completely.
9. Place the table into the foundation hole and align in such a way that the distance to the benches is 20 cm.





10. Place the roof sections onto the house and screw onto the topmost end-to-end square timbers of the house. Then attach the roof ridge.

**Note**

**In order to assemble the roof correctly, the house must be aligned exactly, both horizontally and vertically.**

11. Attach the foundation irons to the staircase. Remove the uppermost step, place the staircase into the foundation hole and attach to the house (Spax screws). Refasten the step.

12. Attach double-sided handrail.

13. Place roof supports next to door and window on the inside, align and screw on. The inclination must fit exactly under the roof parts.

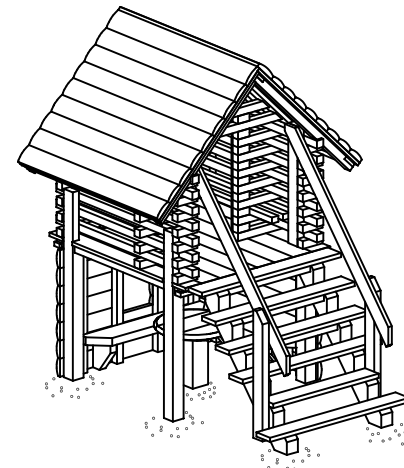
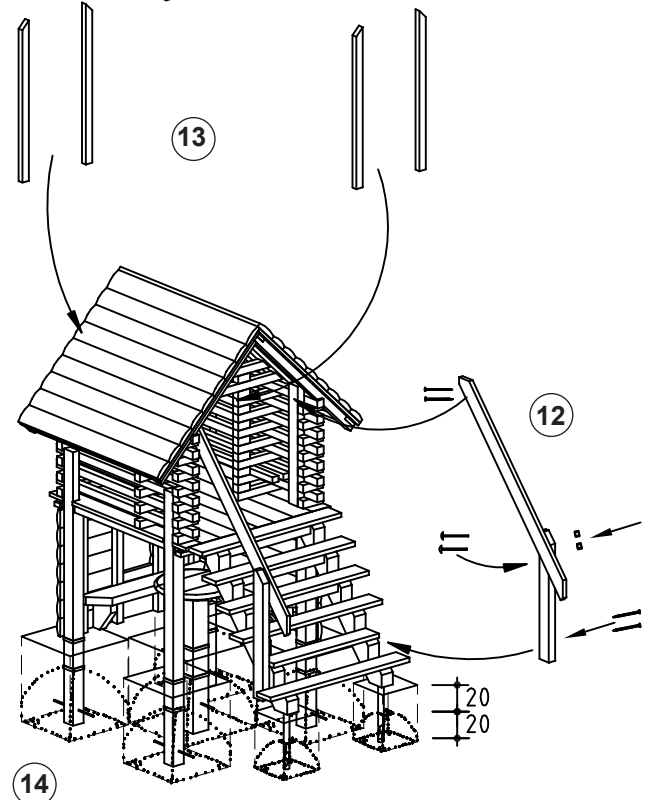
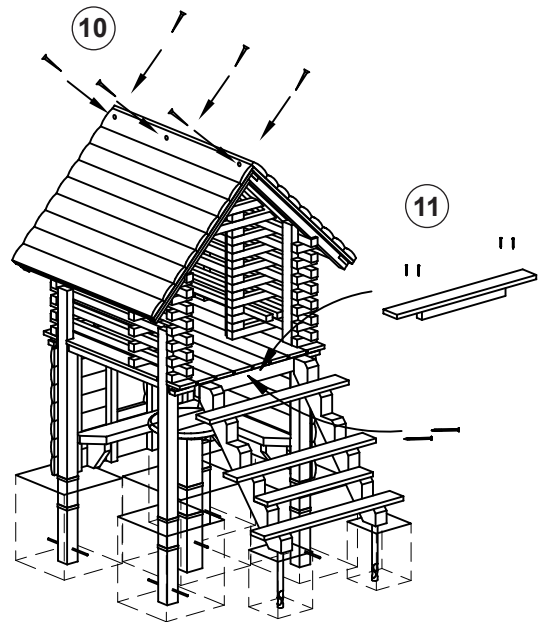
14. Align the equipment once again and fill the foundation holes with concrete, tamp and round the edges. **Please take into account the special sheet: Notes on the construction of foundations.** Cover the foundations up to ground level with surfacing material.

surfacing material 20  
concrete 40

15. Repair minor damage caused during assembly or transportation.

16. Please ensure that all assembly aids, e.g. excess bolts, assembly instructions, distance battens or tape are removed entirely from the play equipment and the playground after work is finished.

**Please note that after about 6 weeks all screws and bolts need to be checked and, if necessary, retightened.**





**General information****A Surfacing requirements**

This equipment should be installed on an impact absorbing surfacing / loose fill material that accords with EN 1176 and is adequate for a maximum free height of fall of  $\leq 1.00$  m. At the run-out of the slide we recommend sand as fill material.

**B Foundations**

Please take into account the special sheet: „Notes on the construction of foundations“.

**Special information**

Certified by TÜV Product Service GmbH in compliance with EN 1176.

Please do not alter any parts of the equipment or the construction itself since this may affect the safety standards and your guarantee. This equipment is supplied with information on the basis of it being used in combination with other Richter equipment.

We reserve the right to make technical alterations!  
For further information please call your local agent.

**Total weight:** approx. 630 kg  
**Heaviest single part:** approx. 250 kg  
**Largest single part:** 1.80 x 1.30 x 1.20 m

**Recommended assembly tools and materials**

Set of carpenter's tools  
Set of ratchets  
Set of spanners  
Torx inserts T 20, 25, 30, 40, 50  
Rubber mallet  
Battens for support during assembly  
Screw clamps

**Attention!**

During the assembly period (including the setting of the concrete) it is not allowed to play on or put any weight on the equipment in order to secure stability during use after the assembly. Standard concrete requires at least 2 weeks to set.

**Platform House 4904**

Order No. 4.14904



**Please pay particular attention to the assembly instructions listed below.**

**Components**

Number of parts: 10      **Assembly instructions  
Order No.**

- 1 house with 2 roof parts
- 1 bundle: 2 posts with steel feet
- 1 side with steel feet
- 1 side with steel feet and ladder
- 2 floor elements
- 1 bundle: 2 tie beams, floor beam,  
handrail beam above slide
- 1 inclined climbing net with cross beam **3.69140**
- 1 small children slide, height 1.00 m      **3.63300**
- 1 ground anchor for slide

**Foundations**

quality of concrete C25/30

Equipment	Quantity	Size in cm	Excavation depth in cm
Platform house	6	60 x 60 x 60	80
Inclined net	2	50 x 50 x 40	80
Ground anchor for slide	1	no concrete required	55

**Required space including safety distances (EN 1176)**

685 x 865 cm

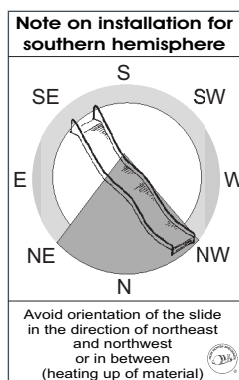
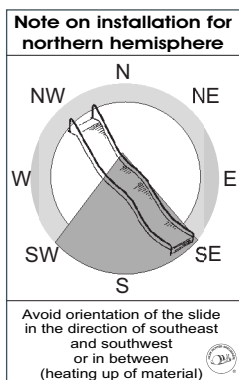
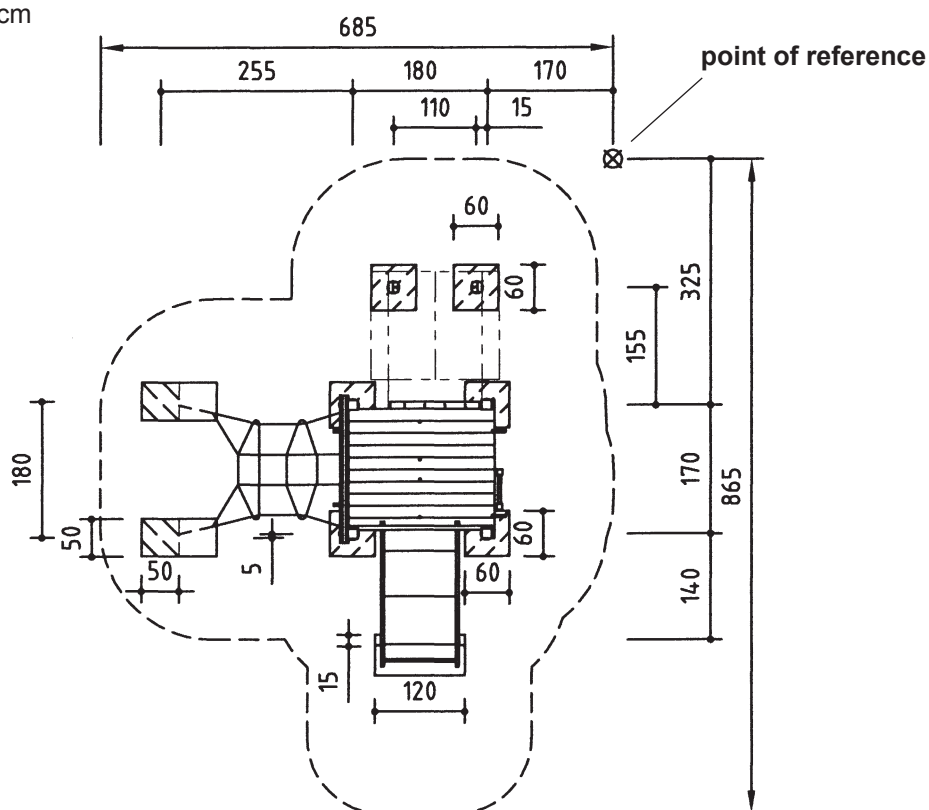
**Ground plan**

scale 1:100

all dimensions in cm

safety distance →

foundations ●



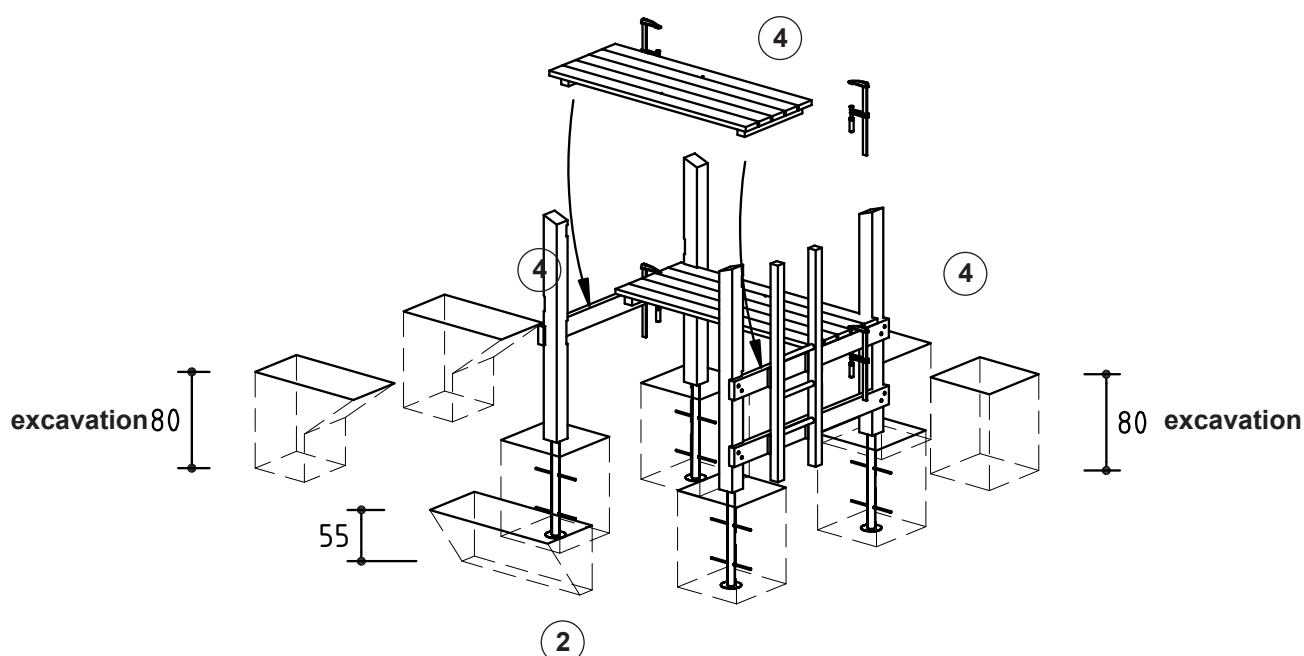
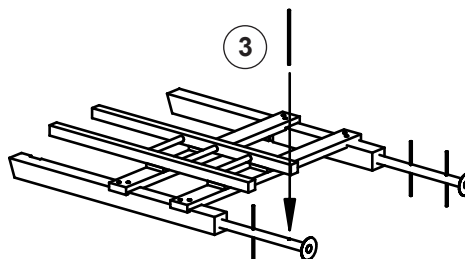
### Sequence of assembly operations

1. Locate the site and take into account the space required, including the safety distances, according to the ground plan on page 2.

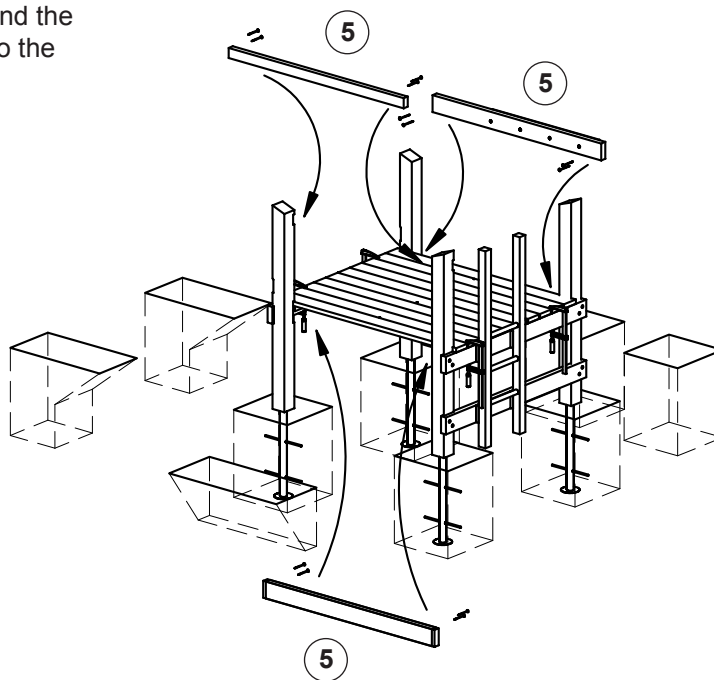
2. Start surveying at the point of reference and dig out the foundation holes.

3. Insert the foundation irons into the steel feet of the sides.

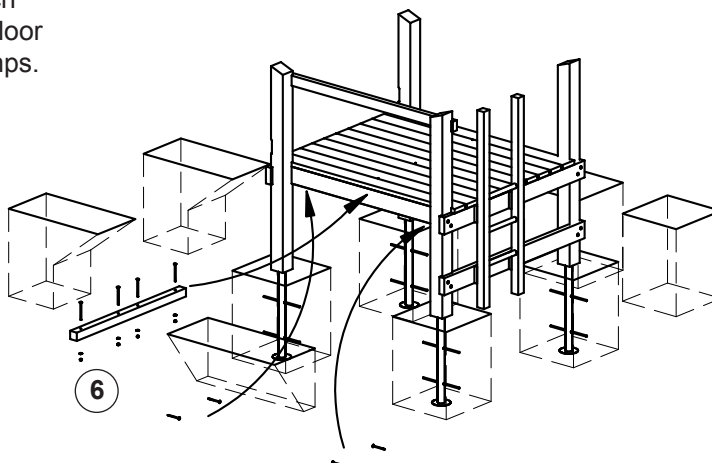
4. Place both sides into the foundation holes and secure in position using battens.  
Fit on the floor panels and secure using screw clamps. Align the equipment.



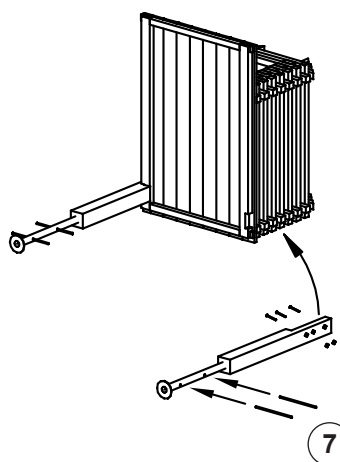
5. Screw the simple tie beam, the tie beam with support beam for the house and the handrail beam above the slide onto the posts. The positions are marked.



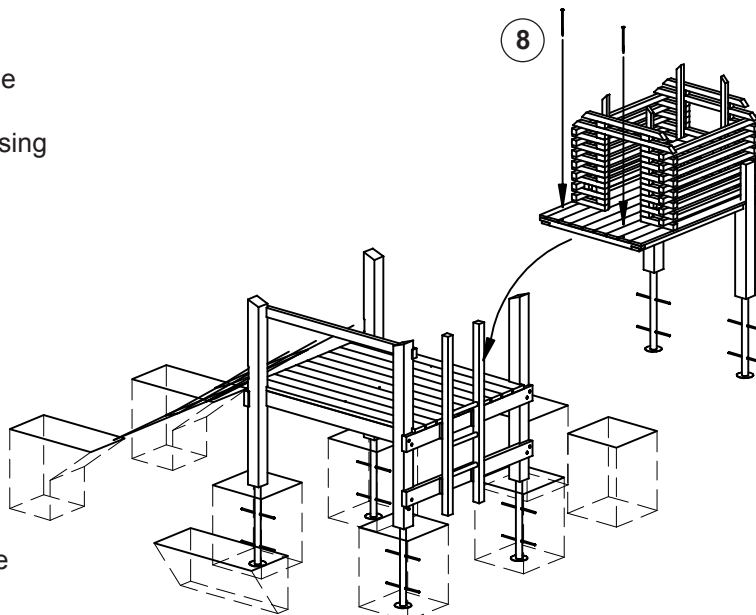
6. Screw the floor onto the sides. Attach the floor beam to the bottom of the floor element and remove the screw clamps.



7. Fasten the stand posts to the house and insert the foundation irons into the steel feet.



8. Place the house into the foundation holes and fasten to the support of the platform's tie beam. Exactly align the entire equipment using a spirit level and secure in position.



9. Place the roof halves onto the house and fasten using screws.

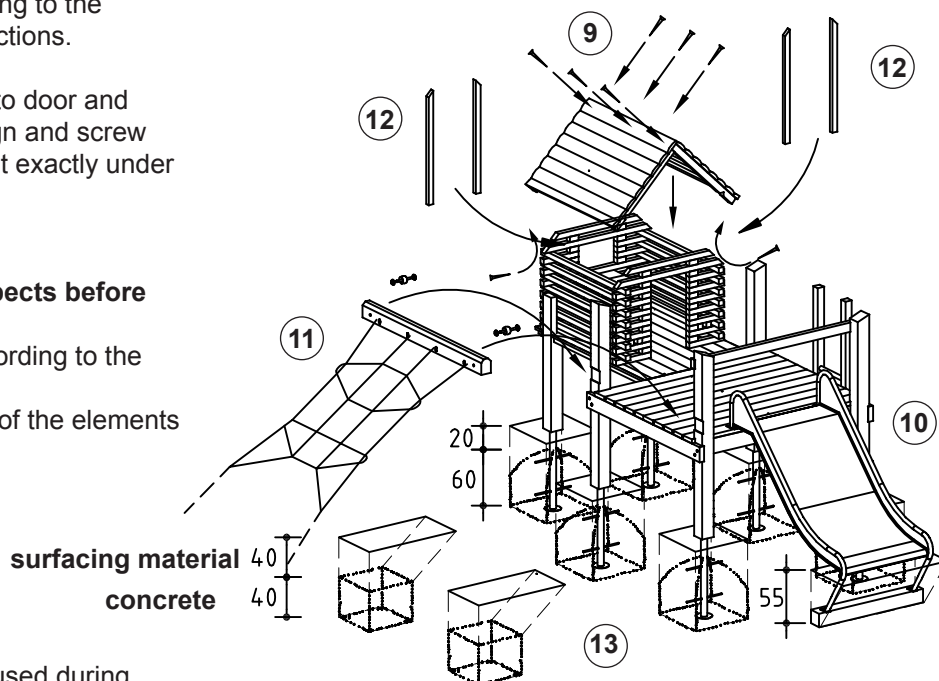
10. Assemble the slide according to the separate assembly instructions.

11. Assemble the net according to the separate assembly instructions.

12. Place roof supports next to door and window on the inside, align and screw on. The inclination must fit exactly under the roof parts.

13. Check the following aspects before you start to concrete:

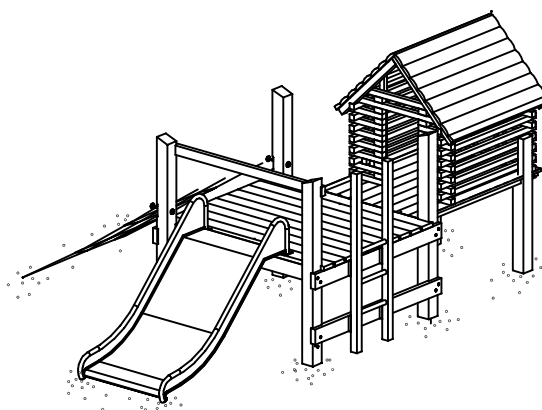
- depth of installation according to the marks
- position and orientation of the elements to each other



14. Repair minor damage caused during assembly or transportation.

15. Please ensure that all assembly aids, e. g. excess bolts, assembly instructions, distance battens or tape are removed entirely from the play equipment and the playground after work is finished.

**Please note that after about 6 weeks all screws and bolts need to be checked and, if necessary, retightened.**





### Recommended assembly tools and materials

set of carpenter's tools  
set of ratchets

### Attention!

During the assembly period (including the setting of the concrete) it is not allowed to play on or put any weight on the equipment in order to secure stability during use after the assembly. Standard concrete requires at least 2 weeks to set.

### Sequence of assembly operations

1. Locate the site and take into account the space required, including the safety distances, according to the ground plan on page 1.

2. Start surveying at the point of reference and dig out the foundation hole.

3. Attach the foundation irons to the snail's body.

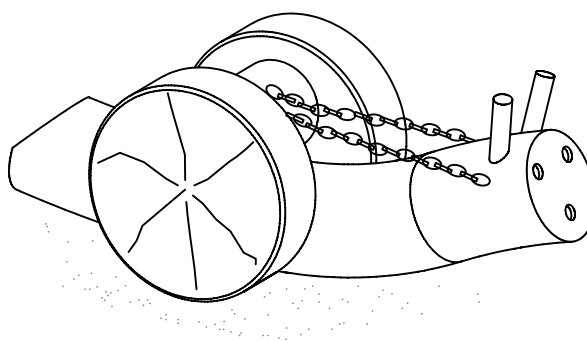
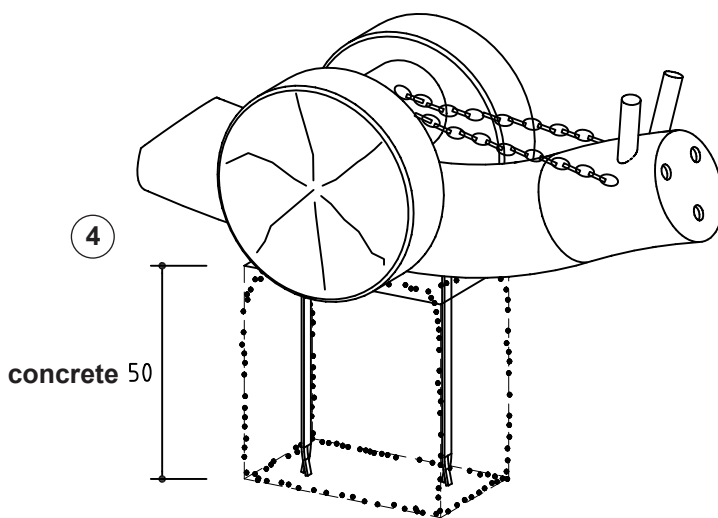
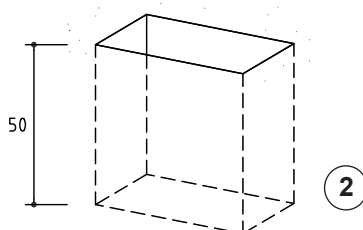
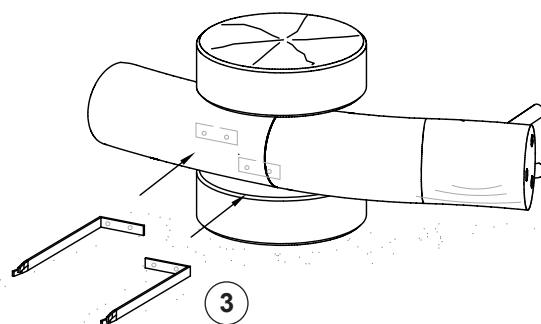
4. Fill the foundation hole with concrete and push the snail into the concrete.

**Please take into account the special sheet: Notes on the construction of foundations.**

5. Repair minor damage caused during assembly or transportation.

6. Please ensure that all assembly aids, e.g. excess bolts, assembly instructions, distance battens or tape are removed entirely from the play equipment and the playground after work is finished.

**Please note that after about 6 weeks all screws and bolts need to be checked and, if necessary, retightened.**



**General information****A Surfacing requirements**

This element does not reach the free height of fall limit of 0.60 m above which a specific requirement for impact absorbing surfacing or materials is necessary.

We recommend a fall height of  $\leq 1.00$  m.

**B Foundations**

Please take into account the special sheet:

„Notes on the construction of foundations.“

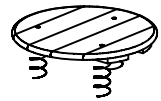
For installation in loose material, an additional anchorage in concrete is necessary on-site.

**Special information**

Certified by TÜV Product Service GmbH in compliance with EN 1176.

Please do not alter any parts of the equipment or the construction itself since this may affect the safety standards and your guarantee.

We reserve the right to make technical alterations!  
For further information please call your local agent.

**Jumping Disc  
Order No. 6.06000****Components**

Number of parts: 2

- 1 jumping disc with springs and screws
- 1 pre-fabricated foundation

**Total weight:** approx. 140 kg  
**Heaviest single part** approx. 110 kg

**Required space including safety distances (EN 1176)**

depends on the number of jumping discs

Minimum distance 40 cm

Maximum distance 120 cm

**Ground elevation**

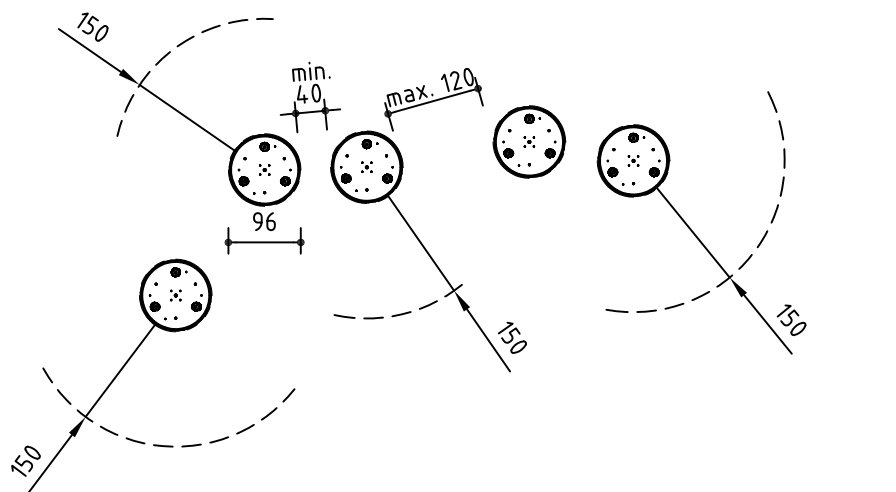
Scale 1:100

all dimensions in cm

**Foundations**

for firm ground conditions  
excavation depth approx. 15 cm  
+ blinding layer, if required

for loose ground conditions  
excavation depth approx. 45 cm





**Recommended assembly tools and materials**

Set of carpenter's tools

Set of open-ended/ring spanners size 19

**Attention!**

When jumping discs are mounted in loose ground, the foundations may start "moving". Therefore we recommend mounting jumping discs, especially on heavily frequented playgrounds, with the supplied foundation anchors imbedded in concrete (quality of concrete C 25/30). Please pay particular attention to the notes on page 4. In this case it is not allowed to play on or put any weight on the equipment during the assembly period (including setting of concrete) in order to secure stability during use after assembly. Standard concrete requires at least 2 weeks to set.

**Sequence of assembly operations**

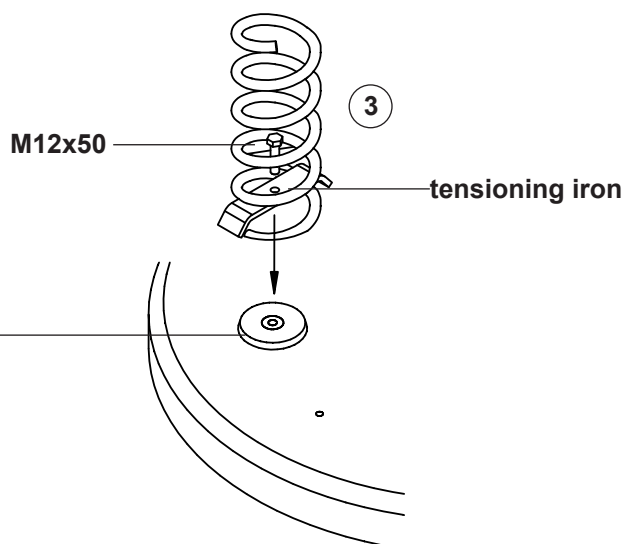
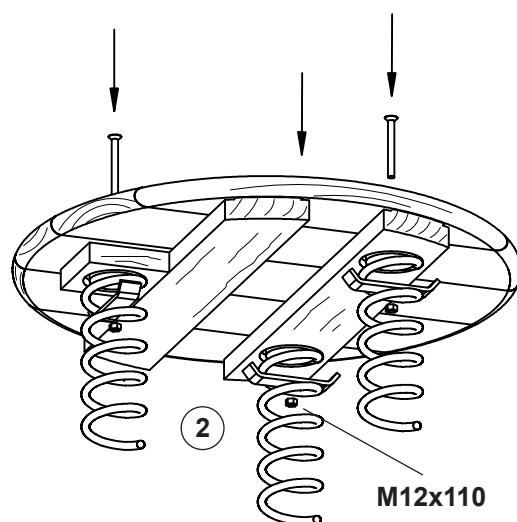
1. Locate the site and take into account the space required, including the safety distances, according to the ground elevation on page 1. Dig out the foundation holes according to the number of jumping discs.

2. Screw the springs with the tensioning irons onto the jumping disc. Pay particular attention to locating the tensioning irons exactly as shown in the sketch.

3. Fasten the jumping disc to the pre-fabricated foundation using the tensioning irons.

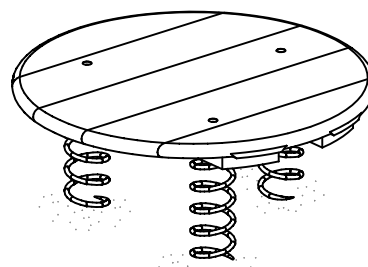
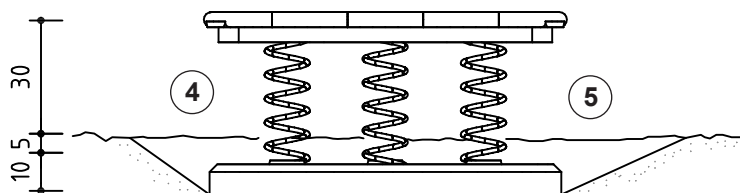
**Attention!**

Do not oil or grease the tapped bushes in the pre-fabricated foundation since the bolts may come loose during use.



**Assembly with firm ground conditions,  
e.g. lawn**

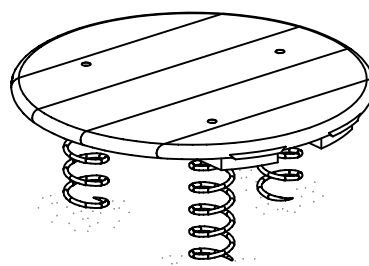
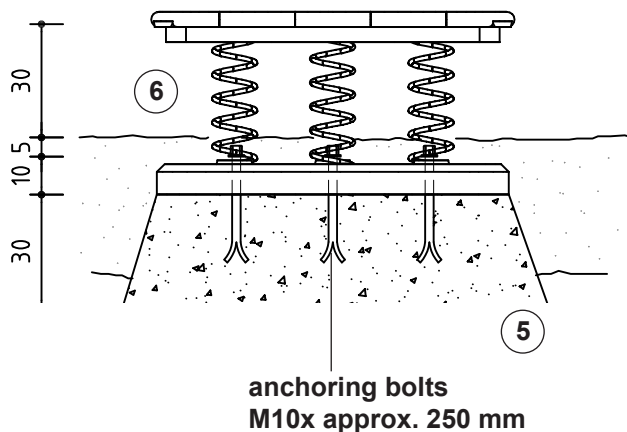
4. Place the complete equipment into the foundation hole. Note that the top edge of the pre-fabricated foundation must be approx. 5 cm below the level of the playing surface.
5. Fill the foundation hole up to ground level with surfacing material.
6. Repair minor damage caused during assembly or transportation.
7. Please ensure that all assembly aids such as excess bolts and assembly instructions, distance battens, markings (chalk) or adhesive tape are removed entirely from the play equipment and the playground after work is finished.



**Please note that after about 6 weeks all screws and bolts need to be checked and, if necessary, retightened.**

**Assembly with loose ground conditions,  
e.g. sand**

4. Attach the anchoring bolts included (M10 x approx. 250 mm ) to the pre-fabricated foundation.
5. Fill the foundation hole with concrete and tamp.
6. Place the complete equipment into the concrete. Note that the top edge of the pre-fabricated foundation must be approx. 5 cm below the level of the playing surface.
7. Repair minor transport and assembly damage.
8. Please ensure that all assembly aids such as excess bolts and assembly instructions, distance battens, markings (chalk) or adhesive tape are removed entirely from the play equipment and the playground after work is finished.



**Please note that after about 6 weeks all screws and bolts need to be checked and, if necessary, retightened.**

**General information****A Surfacing requirements**

This equipment should be installed on an impact absorbing surfacing / loose fill material that accords with EN 1176 and is adequate for a maximum free height of fall of  $\leq 1.00$  m.

**B Foundations**

Please take into account the special sheet: „Notes on the construction of foundations“.

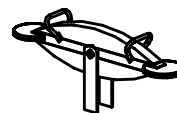
**Special information**

Certified by TÜV Product Service GmbH in compliance with EN 1176.

Please do not alter any parts of the equipment or the construction itself since this may affect the safety standards and your guarantee.

We reserve the right to make technical alterations!  
For further information please call your local agent.

**Small See-Saw**  
**Order No. 6.11700**

**Components**

Number of parts: 1 small see-saw  
complete with support frame

**Weight:** approx. 55 kg  
1.55 x 0.80 m

**Required space including safety distances (EN 1176)**

355 x 230 cm

safety distance →  
foundations —●

**Ground elevation**

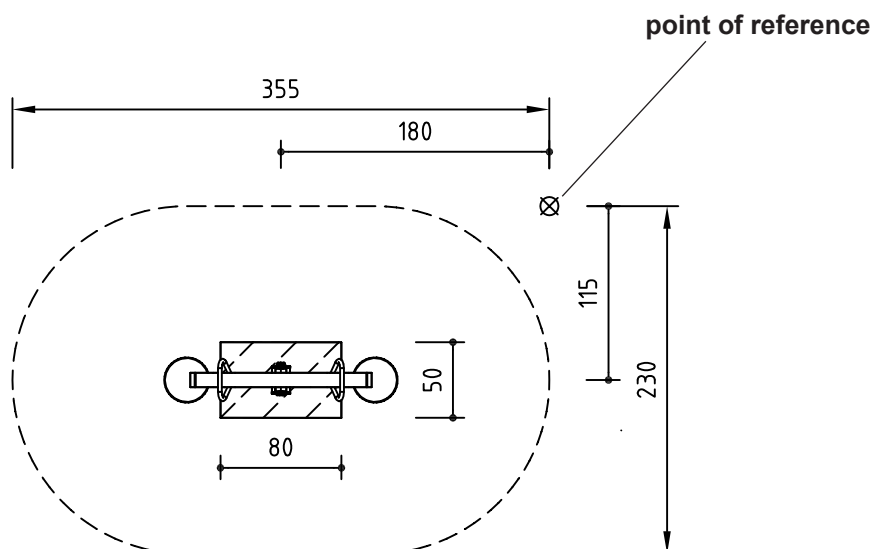
scale 1:50

all dimensions in cm

**Foundations**

quality of concrete C25/30

1 item 50 x 80 x 50 cm  
excavation depth 70 cm




**Recommended assembly tools and materials**

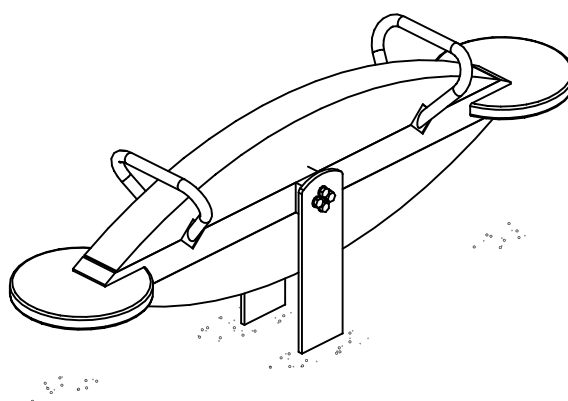
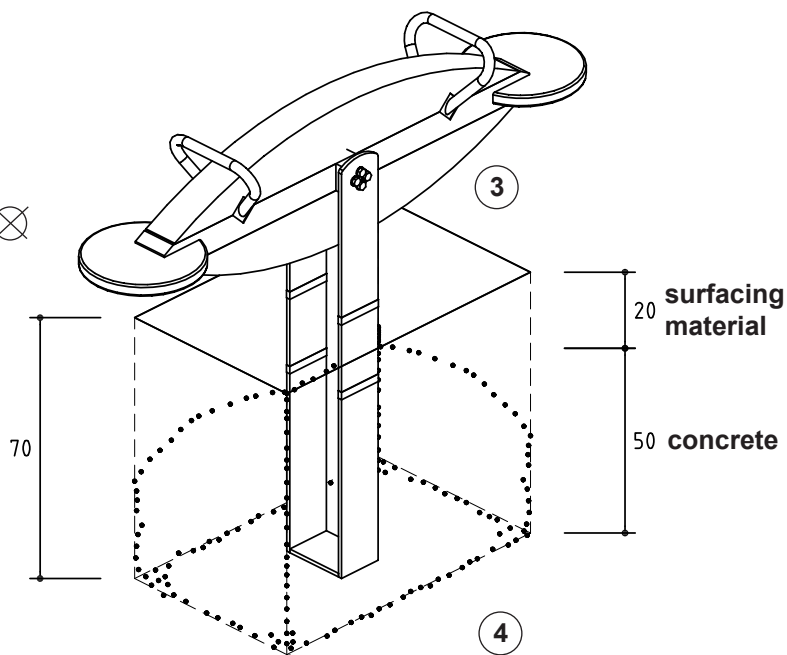
Set of carpenter's tools  
 Rubber mallet  
 Allen key 10

**Attention!**

During the assembly period (including the setting of the concrete) it is not allowed to play on or put any weight on the equipment in order to secure stability during use after the assembly. Standard concrete requires at least 2 weeks to set.

**Sequence of assembly operations**

1. Locate the site and take into account the space required, including the safety distances, according to the ground elevation on page 1.
2. Start surveying at the point of reference  and dig out the foundation hole.
3. Place complete equipment into the foundation hole. **Please pay attention to the marked depth of installation.**
4. Fill the foundation hole with concrete, tamp and round the edges. **Please take into account the special sheet: Notes on the construction of foundations.** Cover the foundation up to ground level with surfacing material.
5. Repair minor damage caused during assembly or transportation.
6. Please ensure that all assembly aids, e. g. excess bolts, assembly instructions, distance battens or tape are removed entirely from the play equipment and the playground after work is finished.



**Please note that after about 6 weeks all screws and bolts need to be checked and, if necessary, retightened.**

**General information****A Surfacing requirements**

This equipment should be installed on an impact absorbing surfacing / loose fill material that accords with EN 1176 and is adequate for a maximum free height of fall of  $\leq 1.00$  m.

**B Foundations**

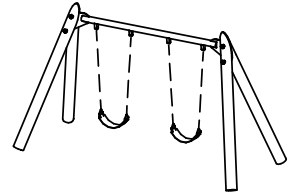
Please take into account the special sheet: „Notes on the construction of foundations“.

**Special information**

Certified by TÜV Product Service GmbH in compliance with EN 1176.

Please do not alter any parts of the equipment or the construction itself since this may affect the safety standards and your guarantee.

We reserve the right to make technical alterations!  
For further information please call your local agent.

**Toddler's Twin Swing - special  
Order No. 6.12720****Components**

Number of parts: 4

2 bundles: each with 2 stand posts with steel feet  
1 cross beam made of steel  
1 bundle: 2 textile seats with chains

**Weight:** 180 kg  
**Largest single part:** Ø 18 cm x 2.80 m

**Required space including safety distances (EN 1176)**

700 x 440 cm

**Ground plan**

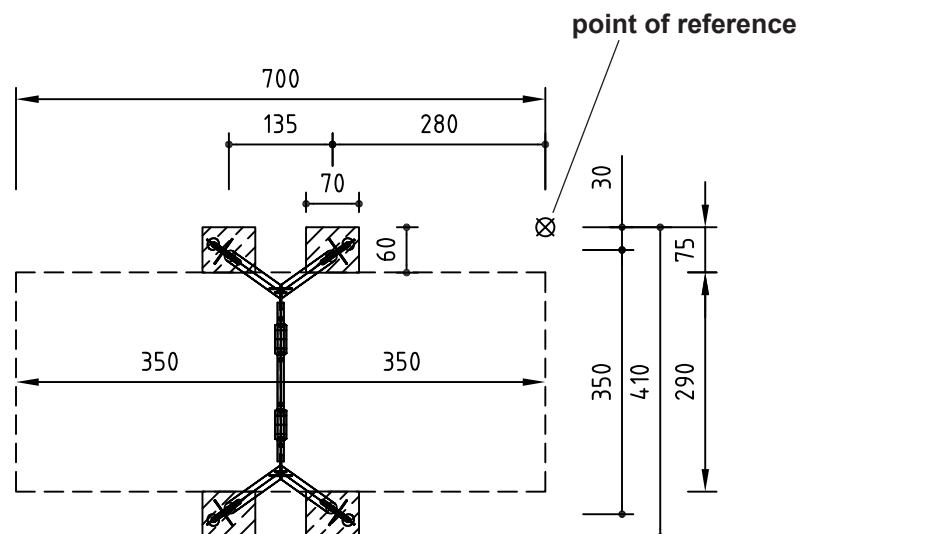
scale 1:100

all dimensions in cm

**Foundations**

quality of concrete C25/30

4 items 60 x 70 x 40 cm  
excavation depth 60 cm




**Recommended assembly tools and materials**

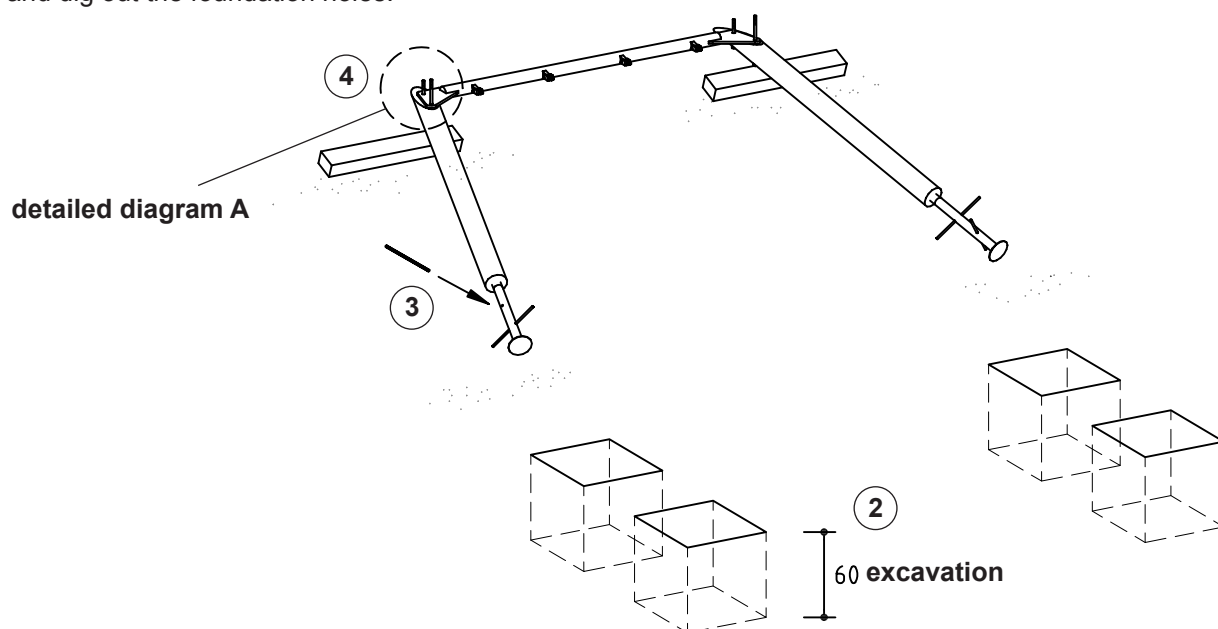
Set of carpenter's tools  
 Set of ratchets  
 Set of spanners  
 Rubber mallet  
 Beam for underpinning during assembly

**Attention!**

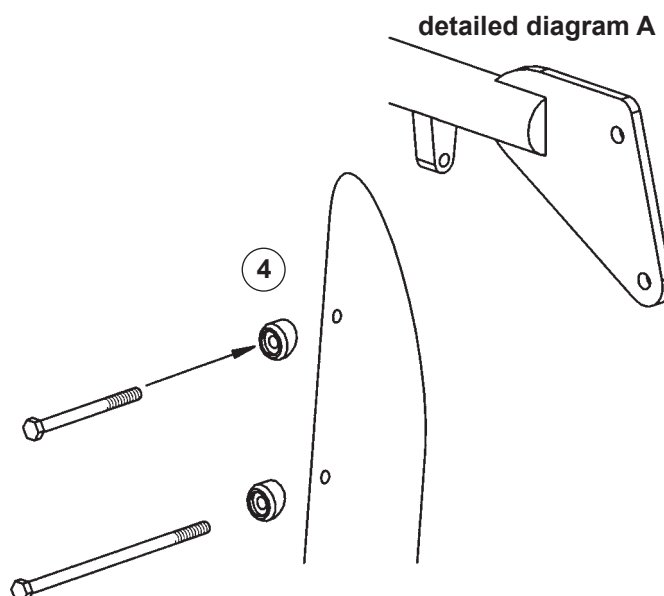
During the assembly period (including the setting of the concrete) it is not allowed to play on or put any weight on the equipment in order to secure stability during use after the assembly. Standard concrete requires at least 2 Weeks to set.

**Sequence of assembly operations**

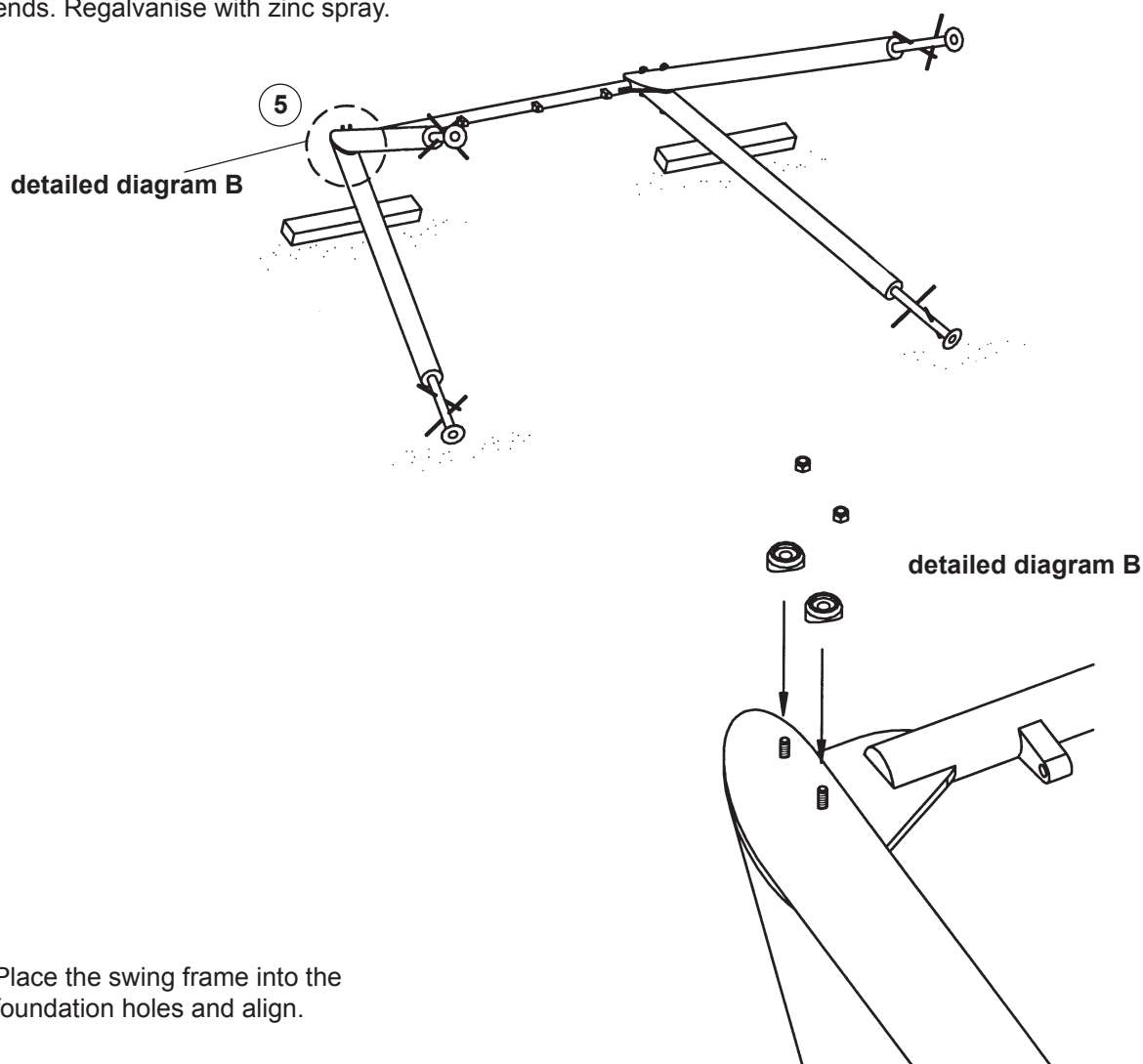
1. Locate the site and take into account the space required, including the safety distances, according to the ground plan on page 1.
2. Start surveying at the point of reference  and dig out the foundation holes.



3. Place two stand posts next to the foundation holes (the posts are marked) and insert the foundation irons into the drilled holes of the steel feet.
4. Assemble bolts, washers, posts and cross beam according to **detailed diagram A**.



5. Insert the two other stand posts and screw together according to **detailed diagram B**. Grind/cut off protruding bolt ends. Regalvanise with zinc spray.

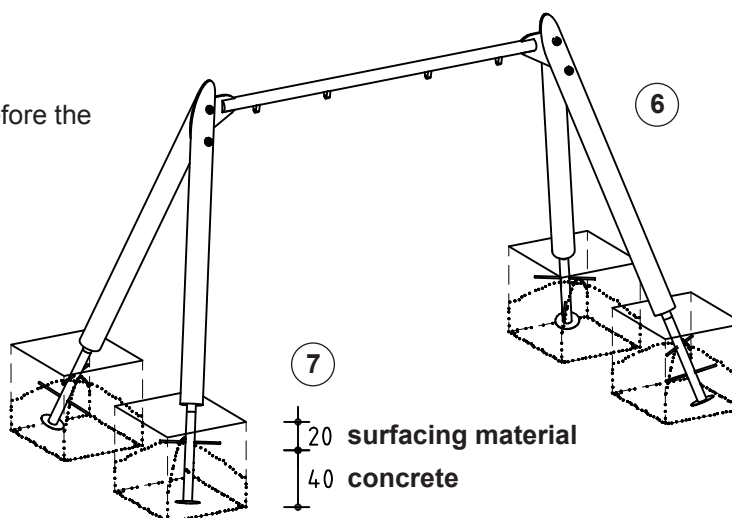


6. Place the swing frame into the foundation holes and align.

7. Fill the foundation holes with concrete, tamp and round the edges. **Please take into account the special sheet: Notes on the construction of foundations.** Cover the foundations up to ground level with surfacing material.

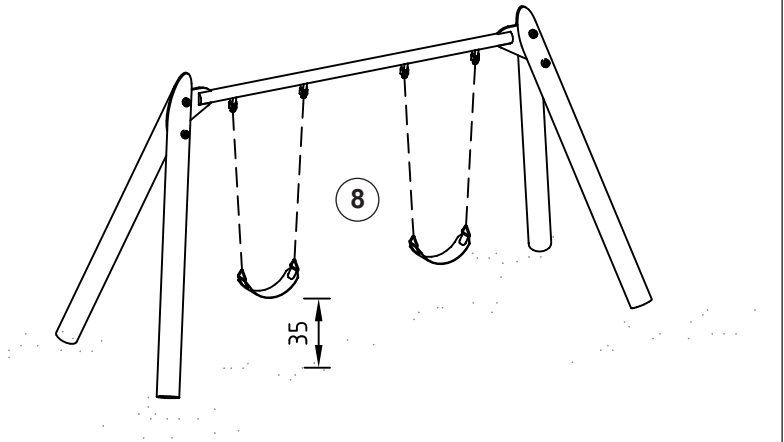
**Note**

Do not install the swing seats before the concrete has set.



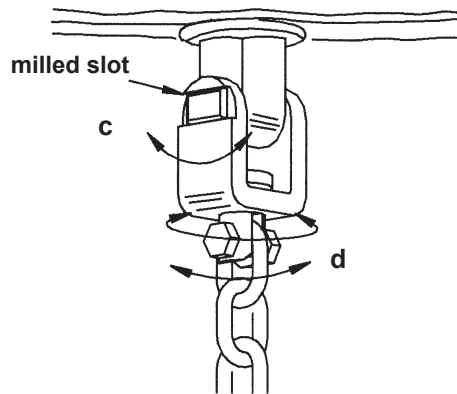
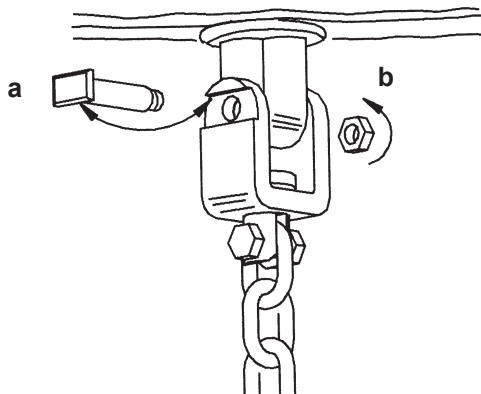


8. After the concrete has set, fasten textile seats with chains and joint parts – make sure that joints move smoothly (pay attention to the notes below). Check the seats for a minimum ground clearance of 35 cm. If the situation requires, adjust length of chain, the measurement '35 cm' takes priority.



### Notes

- a. When installing joints make sure that the bolt head fits snugly into the milled slot.
- b. The nut has to be tightened to the end of its thread.
- c. Make sure that the joints move smoothly.
- d. Tighten bolt so firmly that the top chain link cannot move.



9. Repair minor damage caused during assembly or transportation.
10. Please ensure that all assembly aids, e. g. excess bolts, assembly instructions, distance battens or tape are removed entirely from the play equipment and the playground after work is finished.

**Please note that after about 6 weeks all screws and bolts need to be checked and, if necessary, retightened.**

## General information

### A Surfacing requirements

This equipment should be installed on an impact absorbing surfacing / loose fill material that accords with EN 1176 and is adequate for a maximum free height of fall of  $\leq 2.00$  m.

### B Foundations

Please take into account the special sheet: „Notes on the construction of foundations“.

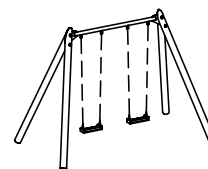
## Special information

Certified by TÜV Product Service GmbH in compliance with EN 1176.

Please do not alter any parts of the equipment or the construction itself since this may affect the safety standards and your guarantee.

We reserve the right to make technical alterations! For further information please call your local agent.

## High Twin Swing Special Order No. 6.14020



## Components

Number of parts: 2

- 1 bundle: 4 stand posts with steel feet and cross beam made of steel
- 1 bundle: 2 swing seats with chains

**Total weight:** 260 kg  
**Heaviest single part:** 55 kg  
**Largest single part:** Ø 18 cm x 3.90 m

## Required space including safety distances (EN 1176)

860 x 490 cm

## Ground plan

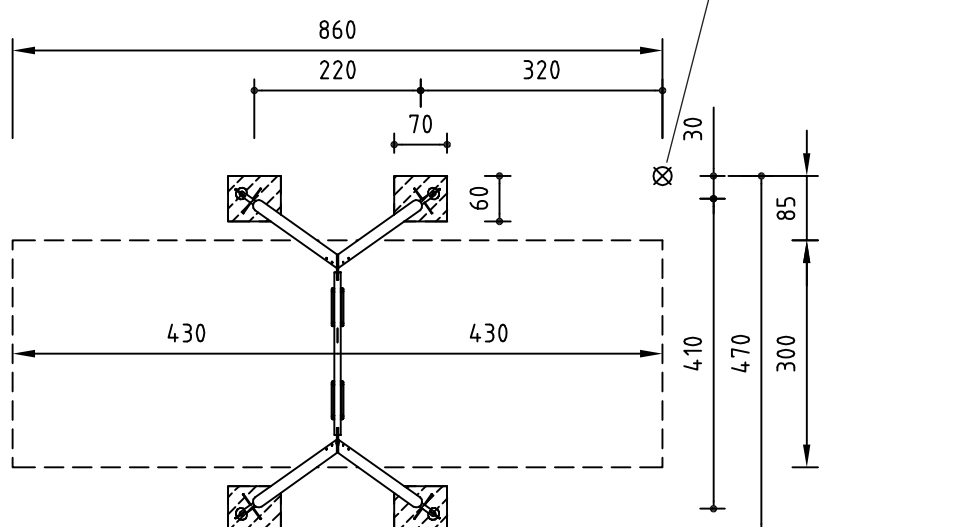
scale 1:100

all dimensions in cm

## Foundations

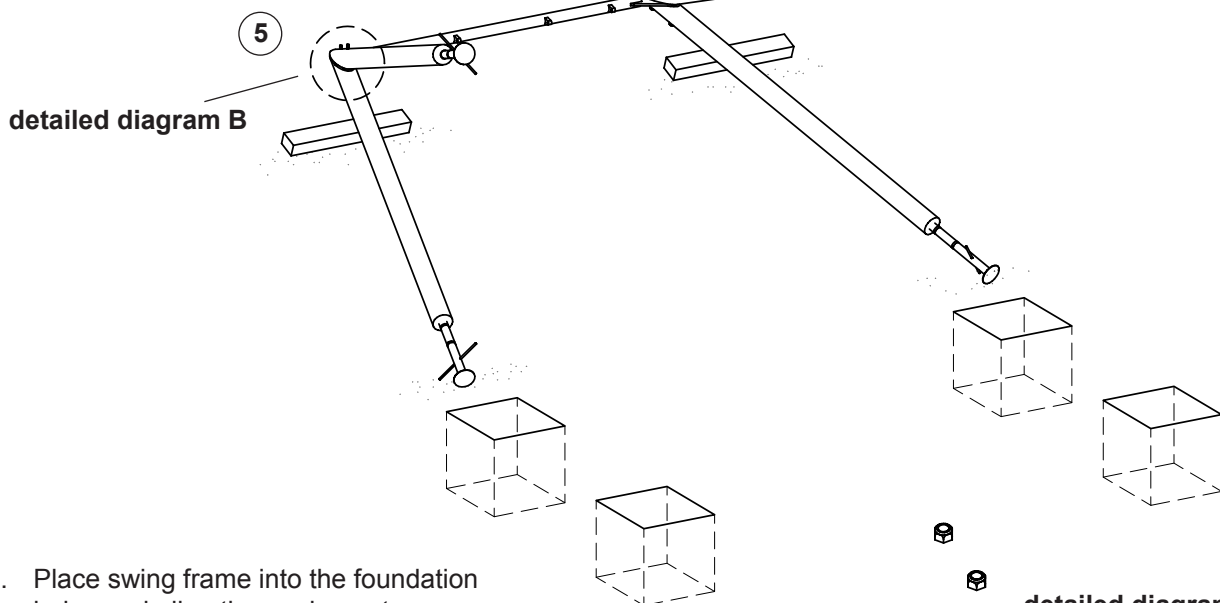
quality of concrete C25/30

4 items 60 x 70 x 40 cm  
excavation depth 60 cm





5. Insert the two other stand posts and screw together according to **detailed diagram B**. Grind/cut off protruding bolt ends. Regalvanise with zinc spray.

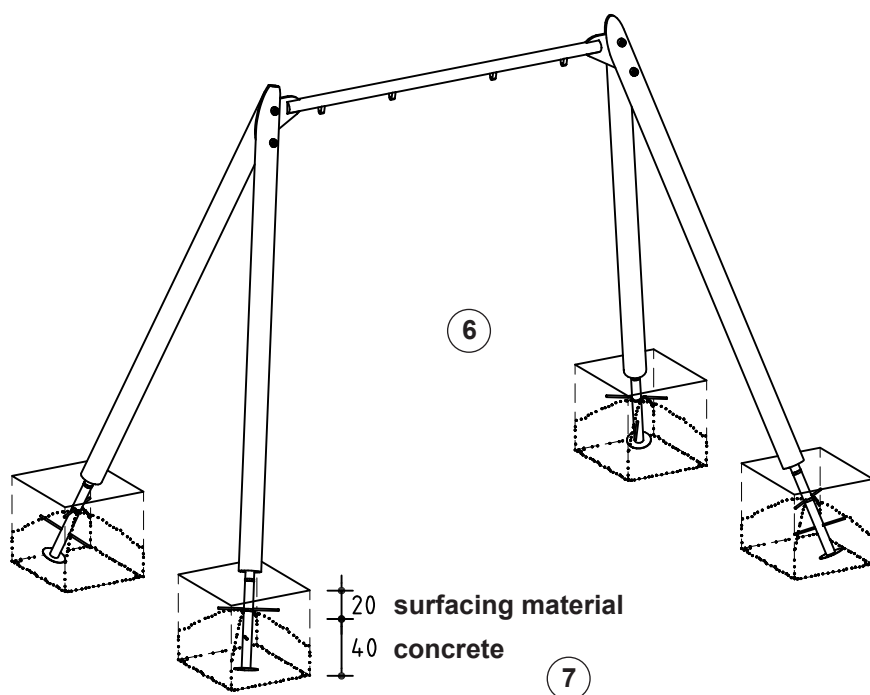
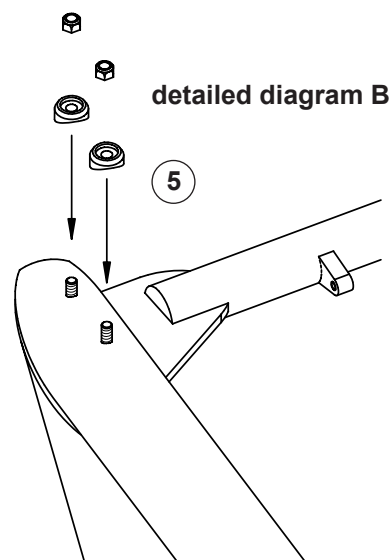


6. Place swing frame into the foundation holes and align the equipment.

7. Fill the foundation holes with concrete, tamp and round the edges. **Please take into account the special sheet: Notes on the construction of foundations.** Cover the foundations up to ground level with surfacing material.

#### Note

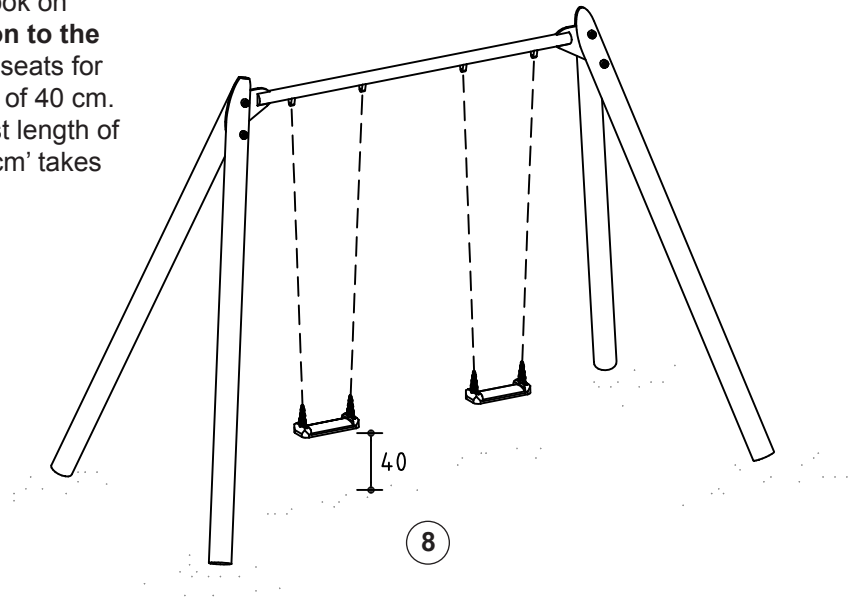
Do not install the swing seats before the concrete has set.



20 surfacing material  
40 concrete

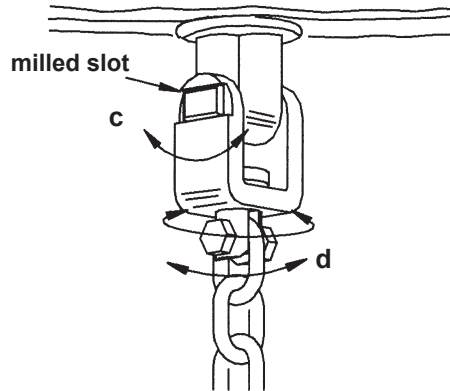
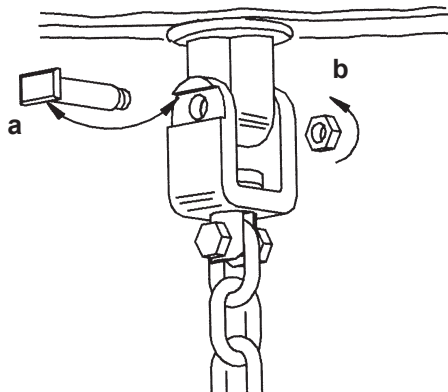
7

8. After the concrete has set, hook on the swing seats (**pay attention to the following notes**). Check the seats for a minimum ground clearance of 40 cm. If the situation requires, adjust length of chain, the measurement '40 cm' takes priority.



#### Notes

- When installing joints make sure that the bolt head fits snugly into the milled slot.
- The nut has to be tightened to the end of its thread.
- Make sure that the joints move smoothly.
- Tighten bolt so firmly that the top chain link cannot move.



- Repair minor damage caused during assembly or transportation.
- Please ensure that all assembly aids, e.g. excess bolts, assembly instructions, distance battens or tape are removed entirely from the play equipment and the playground after work is finished.

**Please note that after about 6 weeks all screws and bolts need to be checked and, if necessary, retightened.**

**General information****A Surfacing requirements**

This equipment should be installed on an impact absorbing surfacing / loose fill material that accords with EN 1176 and is adequate for a maximum free height of fall of  $\leq 1.50$  m.

**B Foundations**

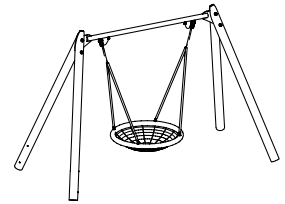
Please take into account the special sheet: „Notes on the construction of foundations“.

**Special information**

Certified by TÜV Product Service GmbH in compliance with EN 1176.

Please do not alter any parts of the equipment or the construction itself since this may affect the safety standards and your guarantee.

We reserve the right to make technical alterations!  
For further information please call your local agent.

**Cradle Nest special  
Order No. 6.14520****Components**

Number of parts: 2

- 1 bundle: 4 stand posts with steel feet and cross beam made of steel
- 1 bundle: bird's nest with suspension

**Total weight:** approx. 280 kg  
**Heaviest single part:** approx. 50 kg  
**Largest single part:** Ø 18 cm x 3,80 m

**Required space including safety distances (EN 1176)**

860 x 500 cm

**Ground plan**

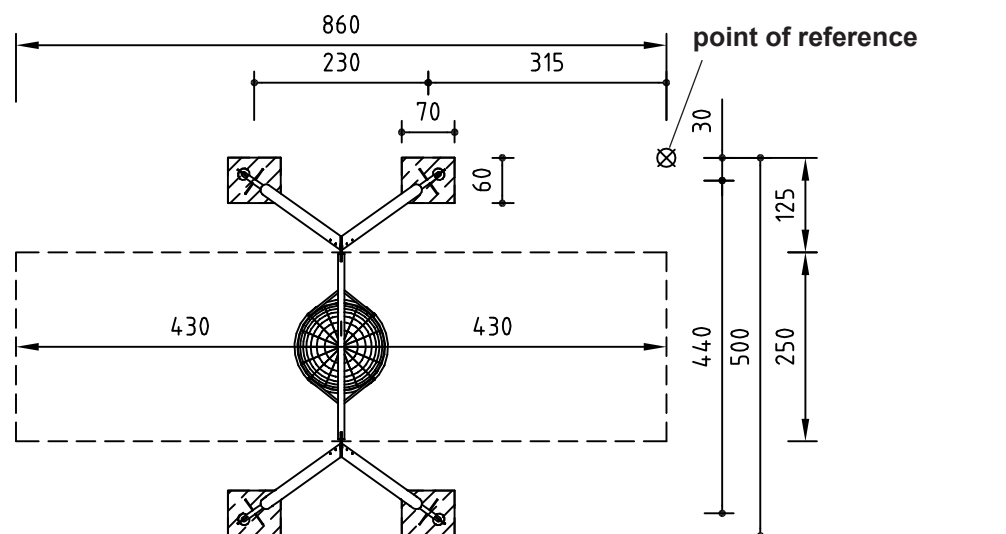
Scale 1:100

all dimensions in cm

**Foundations**

Quality of concrete  
C25/30

4 items 60 x 70 x 60 cm  
excavation depth 80 cm




**Recommended assembly tools and materials**

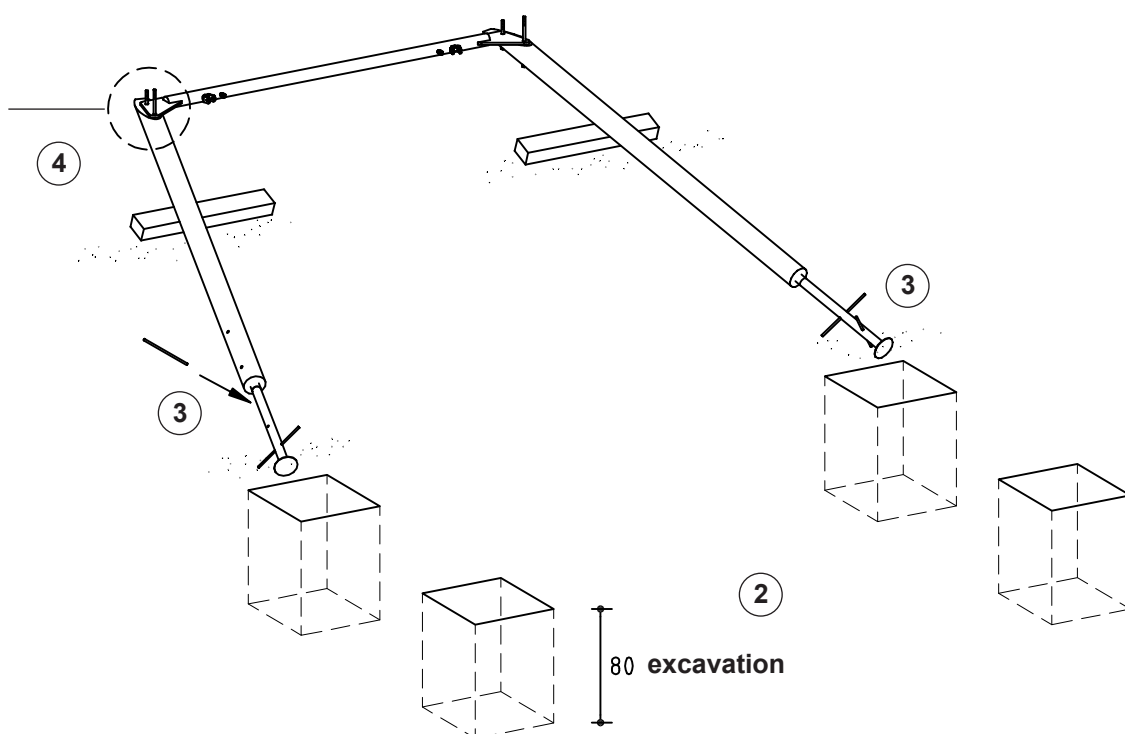
Set of carpenter's tools  
 Set of ratchets  
 Set of spanners  
 Torx inserts T 20, 25, 30, 40, 50  
 Rubber mallet

**Attention!**

During the assembly period (including the setting of the concrete) it is not allowed to play on or put any weight on the equipment in order to secure stability during use after the assembly. Standard concrete requires at least 2 weeks to set.

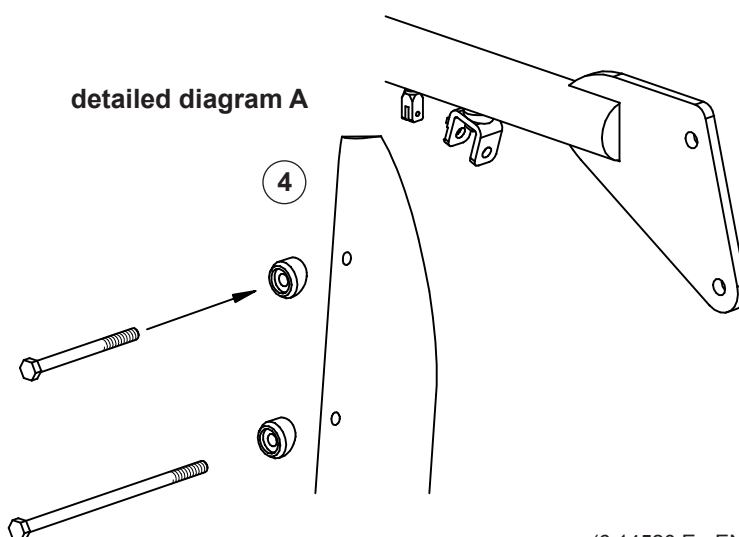
**Sequence of assembly operations**

1. Locate the site and take into account the space required, including the safety distances, according to the ground plan on page 1.
2. Start surveying at the point of reference  and dig out the foundation holes.

**detailed diagram A**

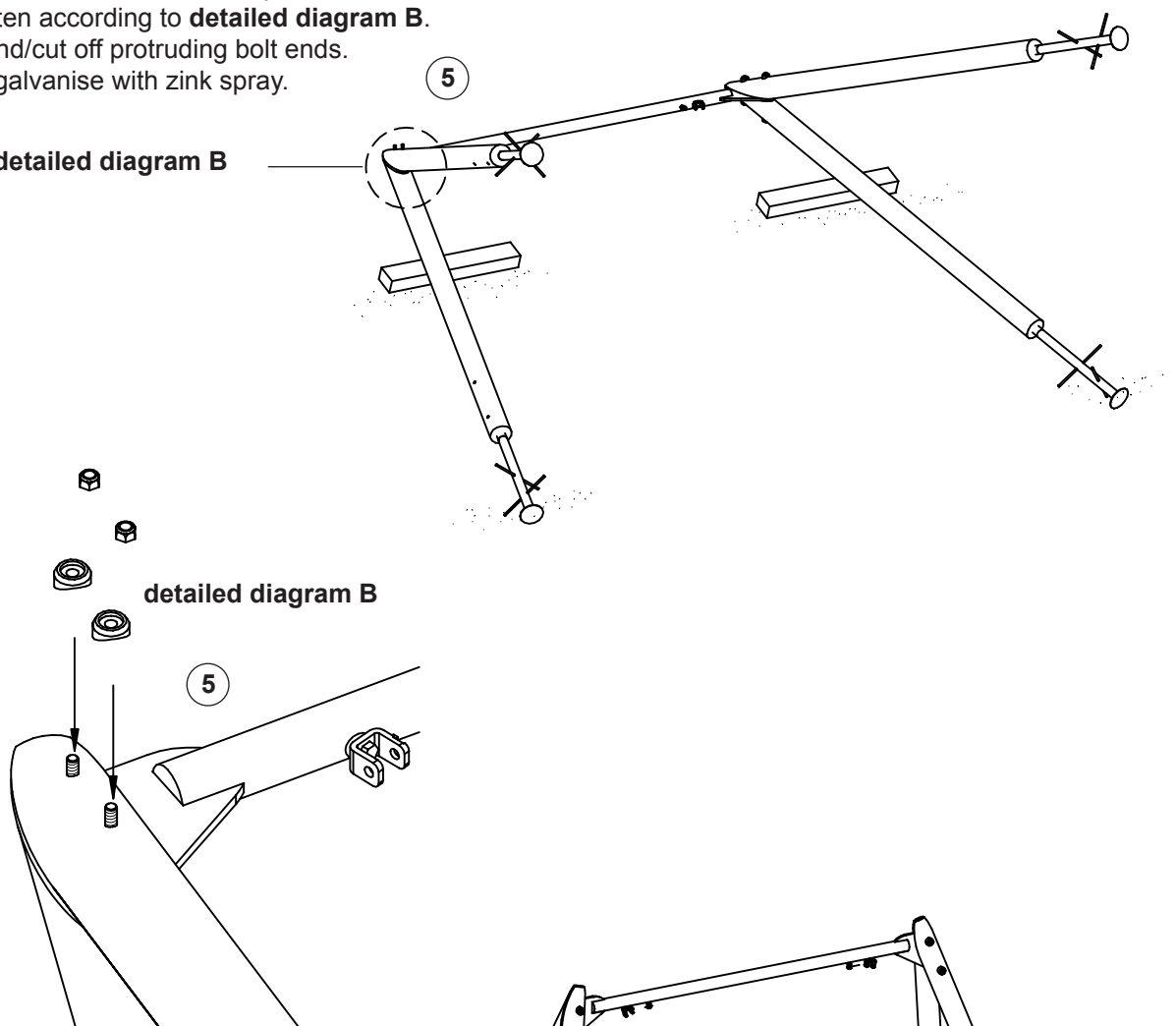
3. Place two stand posts next to the foundation holes (the posts are marked) and insert the foundation irons into the drilled holes of the steel feet.

4. Assemble bolts, washers, posts and cross beam according to **detailed diagram A**.

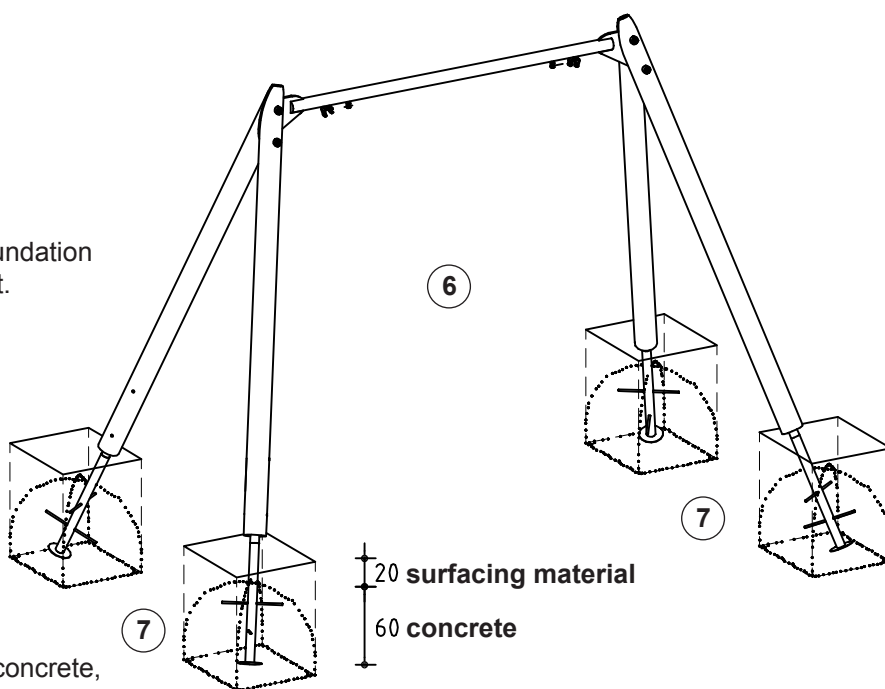
**detailed diagram A**

5. Insert the two other stand posts and fasten according to **detailed diagram B**. Grind/cut off protruding bolt ends. Regalvanise with zink spray.

detailed diagram B



6. Place swing frame into the foundation holes and align the equipment.

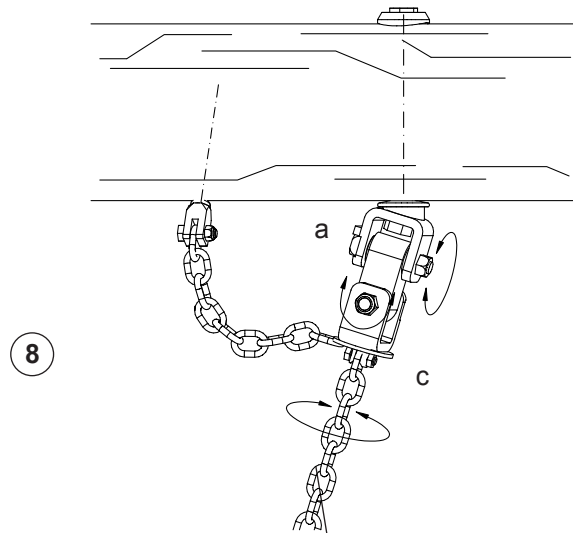
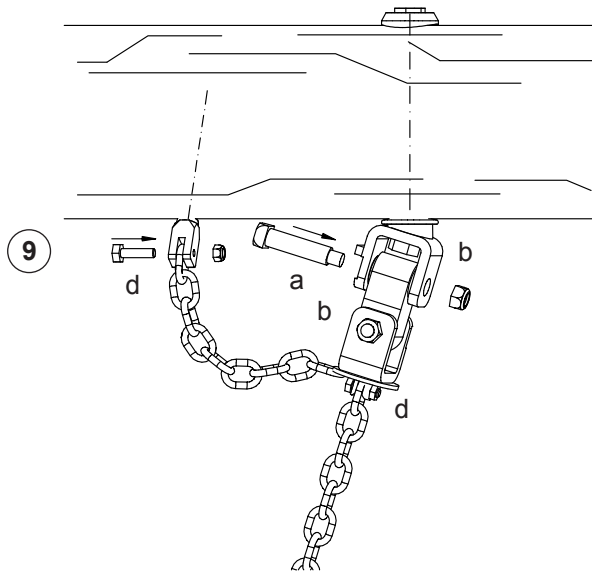


7. Fill the foundation holes with concrete, tamp and round the edges. **Please take into account the special sheet: Notes on the construction of foundations.** Cover the foundations up to ground level with surfacing material.  
**Note:** Do not install the cradle nest before the concrete has set.



8. Hook on the cradle nest, **paying attention to the following notes:**

- a When installing joints make sure that the bolt head fits snugly into the milled slot.
- b The nut has to be tightened to the end of its thread.
- c Make sure that the joints move smoothly.
- d Tighten bolt so firmly that the top chain link cannot be moved.



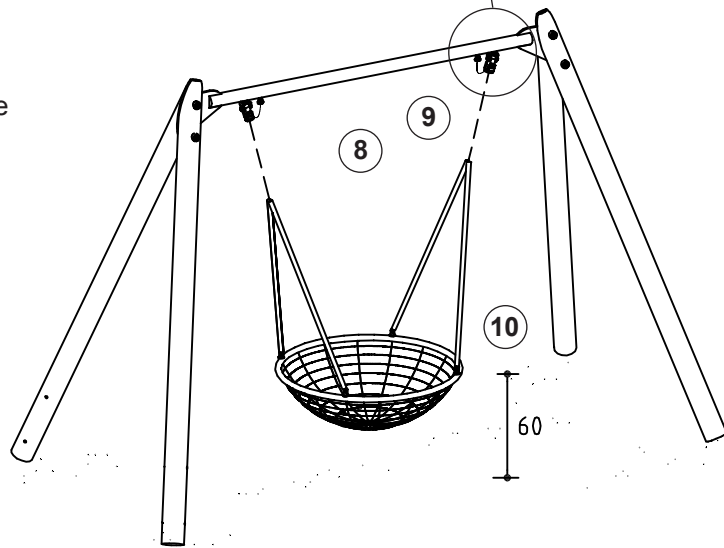
9. Attach safety chain to the chain fork.

**Note:** The safety chain must not be tensioned while equipment is being used.

10. Make sure that the distance between the top edge of the cradle nest at rest and the ground is at least 60 cm.

11. Repair minor damage caused during assembly or transportation.

12. Please ensure that all assembly aids, e. g. excess bolts, assembly instructions, distance battens or tape are removed entirely from the play equipment and the playground after work is finished.



**Please note that after about 6 weeks all screws and bolts need to be checked and, if necessary, retightened.**

## General information

### B Surfacing requirements

This equipment does not reach the free height of fall limit of 600 mm above which a specific requirement for impact absorbing surfacing or materials is necessary.

We recommend surfacing corresponding to a fall height of  $\leq 1.00$  m.

#### Note

The equipment should not be installed in sand. Otherwise, the underground parts of the mechanism will be damaged.

### C Foundations

Please take into account the special sheet: Notes on the construction of foundations.

## Special information

Certified by TÜV Product Service GmbH in compliance with EN 1176.

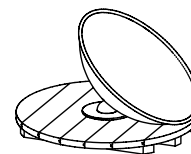
Please do not alter any parts of the equipment or the construction itself since this may affect the safety standards and your guarantee.

We reserve the right to make technical alterations!  
For further information please call your local agent.

## Wobble Dish

Order No. 6.27300

with pre-cast foundation



## Components

Number of parts: 1

1 completely assembled piece of equipment with pre-cast foundation

**Weight:** approx. 190 kg  
Ø 1.10 m

## Required space including safety distances (EN 1176)

circle diameter 410 cm

safety distances →  
foundations —●—

### Ground plan

scale 1:50

all dimensions in cm

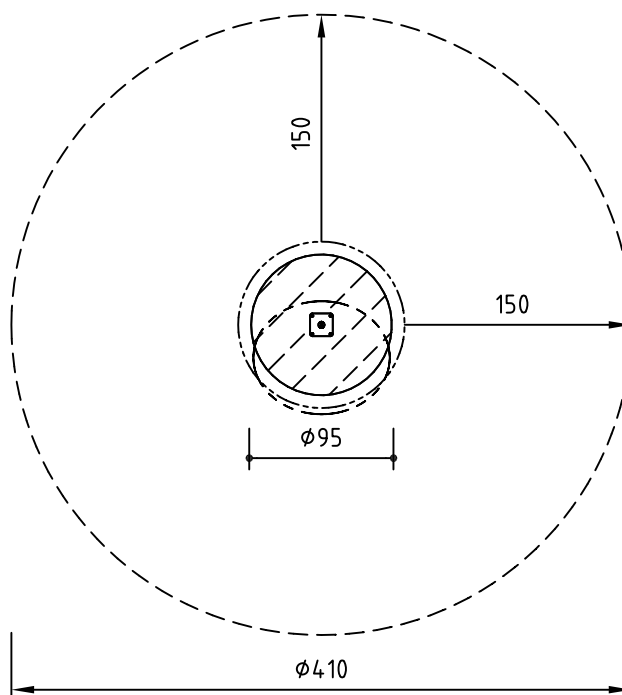
### Foundations

quality of concrete C25/30

1 pre-cast foundation

#### Note

For installation in loose material, an additional anchorage in concrete is necessary on site (see page 2).



### Recommended assembly tools and materials

shovel

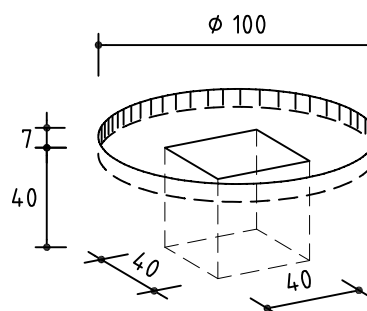
lifting equipment, if necessary

### Note

If the equipment is mounted in loose ground, the foundations may start "moving". Therefore we recommend that the pre-cast foundation be anchored additionally in an on-site foundation, above all in playgrounds that are heavily frequented. In this case, during the assembly period (including the setting of the concrete) it is not allowed to play on or put any weight on the wobble dish in order to secure stability during use after the assembly. Standard concrete requires at least 2 weeks to set.

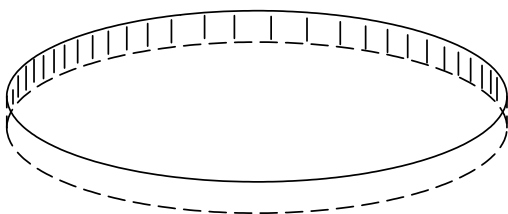
### Sequence of assembly operations

1. Locate the site and take into account the space required, including the safety distances, according to the ground plan on page 1. Dig out a circular foundation hole. If necessary, dig out an additional foundation hole for anchorage (see 2. B).



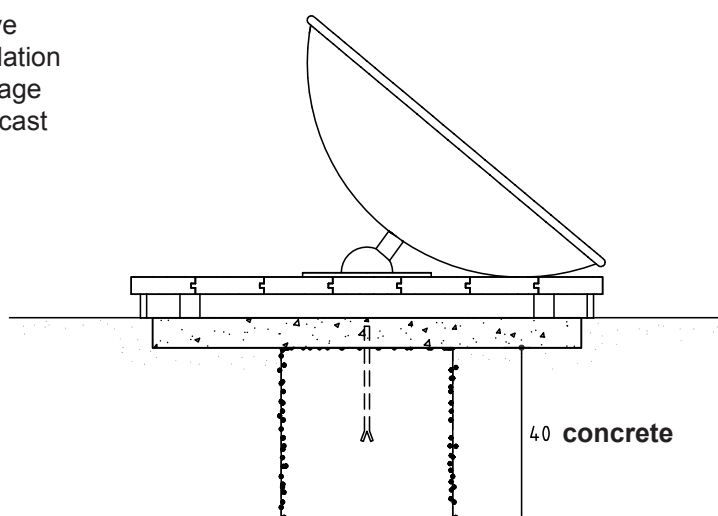
### Assembly with firm ground conditions

2. **A** Place wobble dish with pre-cast foundation into the circular foundation hole.

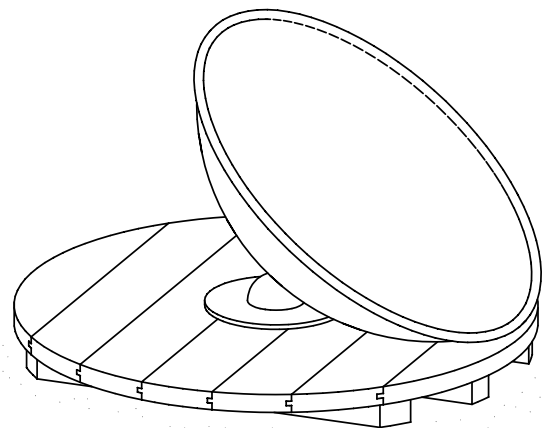


### Assembly with loose ground conditions

2. **B** Screw the anchorage bolt into the sleeve bolt on the underside of the pre-cast foundation slab and fill the foundation hole for anchorage with concrete. Place wobble dish with pre-cast foundation into the foundation hole.



3. Repair minor damage caused during assembly or transportation.
4. Please ensure that all assembly aids, e.g. excess bolts, assembly instructions, distance battens or tape are removed entirely from the play equipment and the playground after work is finished.



**Please note that after about 6 weeks all screws and bolts need to be checked and, if necessary, retightened.**

**General information****A Surfacing requirements**

This element does not reach the free height of fall limit of 600 mm above which a specific requirement for impact absorbing surfacing or materials is necessary.

**B Foundations**

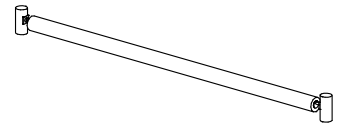
Please take into account the special sheet: "Notes on the construction of foundations".

**Special information**

Certified by TÜV Product Service GmbH in compliance with EN 1176.

Please do not alter any parts of the equipment or the construction itself since this may affect the safety standards and your guarantee.

We reserve the right to make technical alterations!  
For further information please call your local agent.

**Rotating Beam  
Order No. 6.51500****Rotating Beam  
with stand post made of steel  
Order No. 6.51501****Components**

Number of parts: 2

1 rotating beam  
1 bundle: 2 stand posts

**Total weight:** approx. 150 kg  
**Heaviest single part:** approx. 110 kg  
**Largest single part:** 4.90 m, Ø 0.20 m

**Required space including safety distances (EN 1176)**

835 x 320 cm

safety distance →  
foundations ●

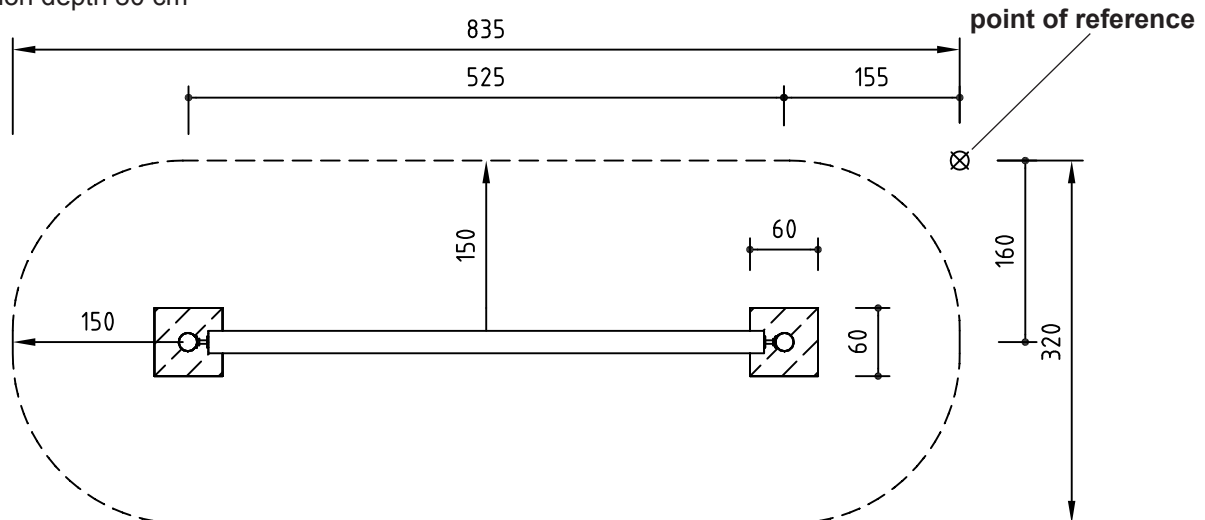
**Ground elevation**

not to scale  
all dimensions in cm

**Foundations**

quality of concrete C25/30

2 items 60 x 60 x 60 cm  
excavation depth 80 cm




**Recommended assembly tools and materials**

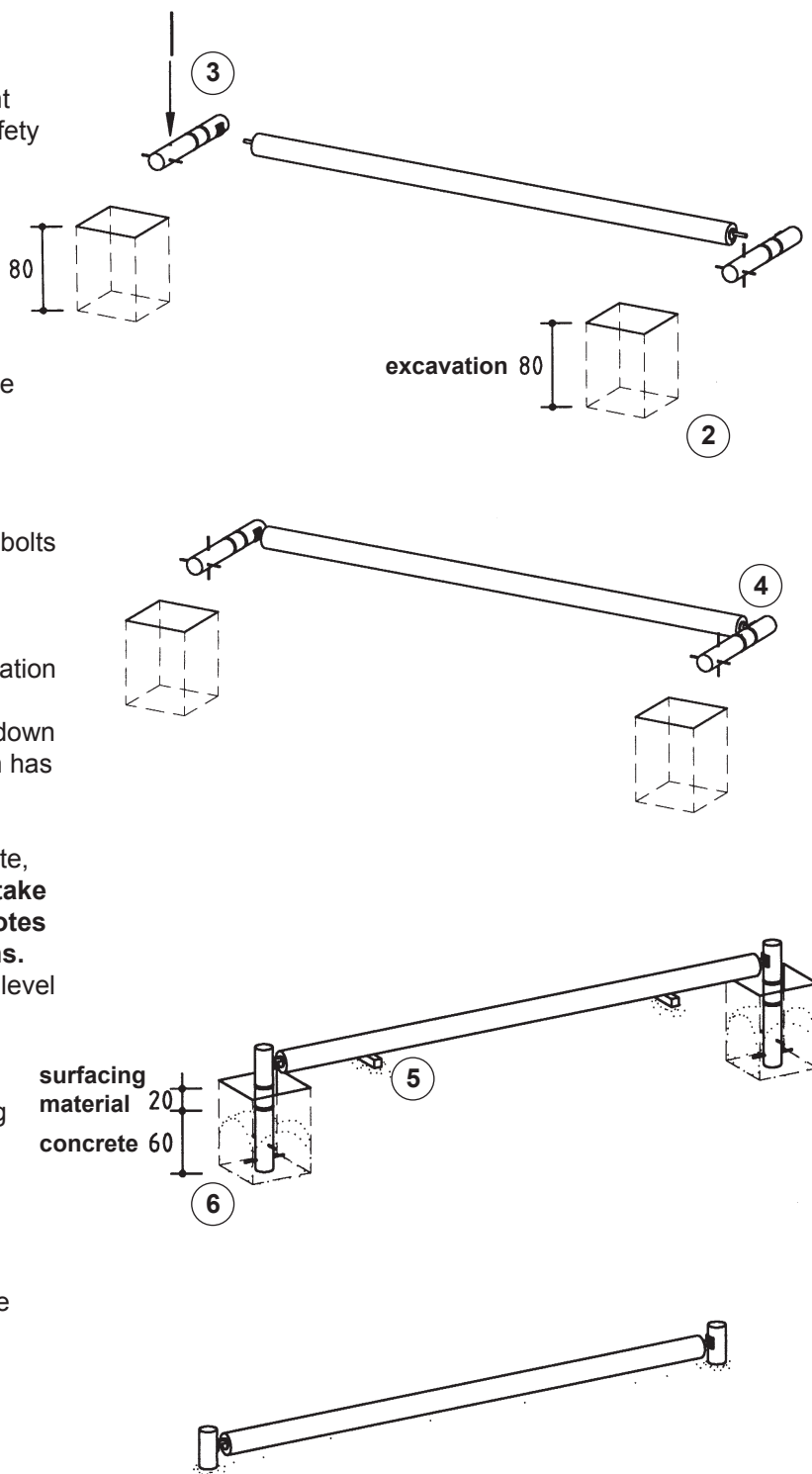
Set of carpenter's tools  
 Set of ratchets  
 Allen key 3  
 Rubber mallet  
 Timbers, paving stones for underpinning

**Attention!**

During the assembly period (including the setting of the concrete) it is not allowed to play on or put any weight on the equipment in order to secure stability during use after the assembly. Standard concrete requires at least 2 weeks to set.

**Sequence of assembly operations**

1. Locate the site and take into account the space required, including the safety distances, according to the ground elevation on page 1.
2. Start surveying at the point of reference  and dig out the foundation holes.
3. Hammer the foundation irons into the stand posts.
4. Insert the rotating beam into the bearings and tightly screw the Allen bolts in the bearings.
5. Place the stand posts into the foundation holes and, using a piece of wood or similar, underpin the rotating beam down until the marked depth of installation has been reached.
6. Fill the foundation holes with concrete, tamp and round the edges. **Please take into account the special sheet: Notes on the construction of foundations.** Cover the foundations up to ground level with surfacing material.
7. Repair minor damage caused during assembly or transportation.
8. Please ensure that all assembly aids, e. g. excess bolts, assembly instructions, distance battens or tape are removed entirely from the play equipment and the playground after work is finished.



**Please note that after about 6 weeks all screws and bolts need to be checked and, if necessary, retightened.**

**General information****A Surfacing requirements**

This element does not reach the free height of fall limit of 600 mm above which a specific requirement for impact absorbing surfacing or materials is necessary.

**B Foundations**

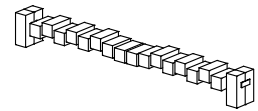
Please take into account the special sheet: Notes on the construction of foundations.

**Special information**

Certified by TÜV Product Service GmbH in compliance with EN 1176.

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We reserve the right to make technical alterations!  
For further information please call your local agent.

**Balance Blocks**  
**Order no. 6.51700****Components**

Number of parts: 3

- 1 bundle: walkway with bracing beams
- 2 support frames

**Total weight:** approx. 250 kg  
**Heaviest single part:** approx. 140 kg  
**Largest single part:** 3.30 x 0.40 m

**Required space including safety distances (EN 1176)**

685 x 340 cm

safety distance →  
 foundations —●—

**Ground elevation**

Scale 1:50  
 all dimensions in cm

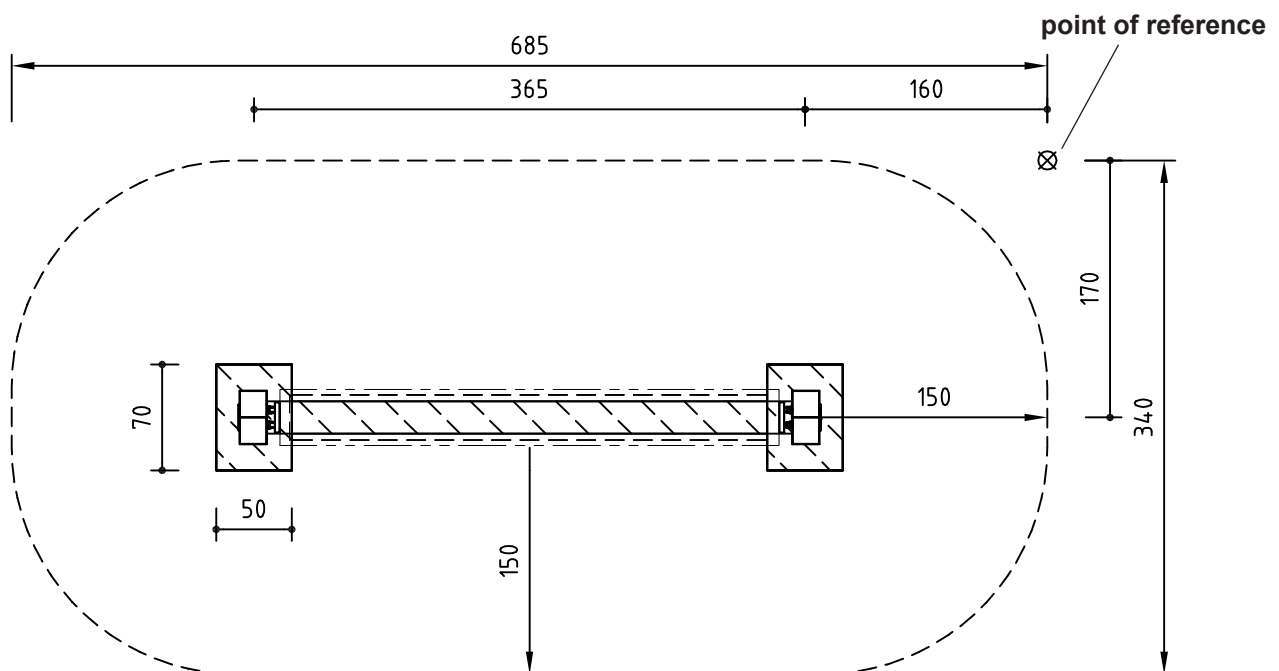
**Foundations**

Quality of concrete C25/30

2 pieces 50 x 70 x 55 cm

Excavation depth 75 cm

Excavation for bracing beams  
 ca. 315 x 30 x 15 cm



**Recommended assembly tools and materials**

Set of carpenter's tools

Set of ratchets

Set of spanners

Torx inserts T 20, 25, 30, 40, 50

Rubber mallet

Battens and beams for support during assembly

**Attention!**

During the assembly period (including the setting of the concrete) it is not allowed to play on or put any weight on the equipment in order to secure stability during use after the assembly. Standard concrete requires at least 2 weeks to set.

**Sequence of assembly operations:**

1. Locate the site and take into account the space required, including the safety distances, according to the ground elevation on page 1.

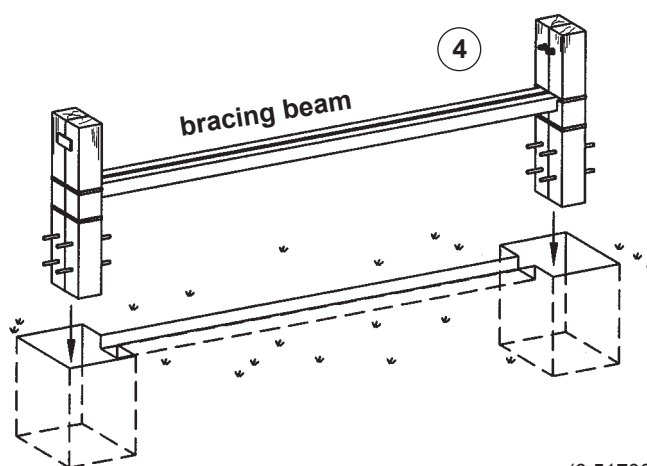
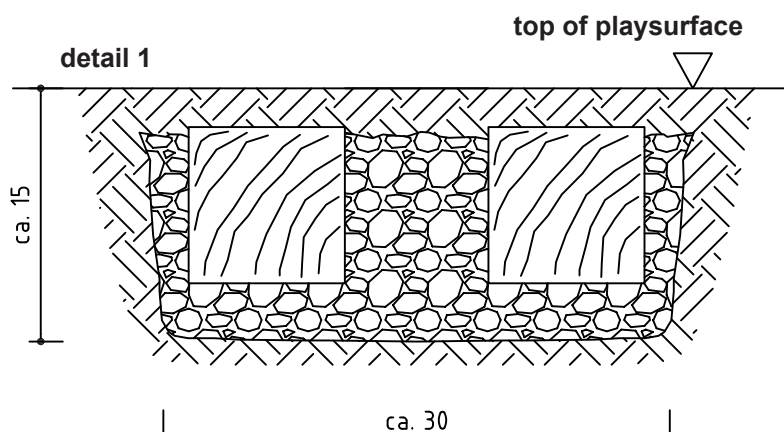
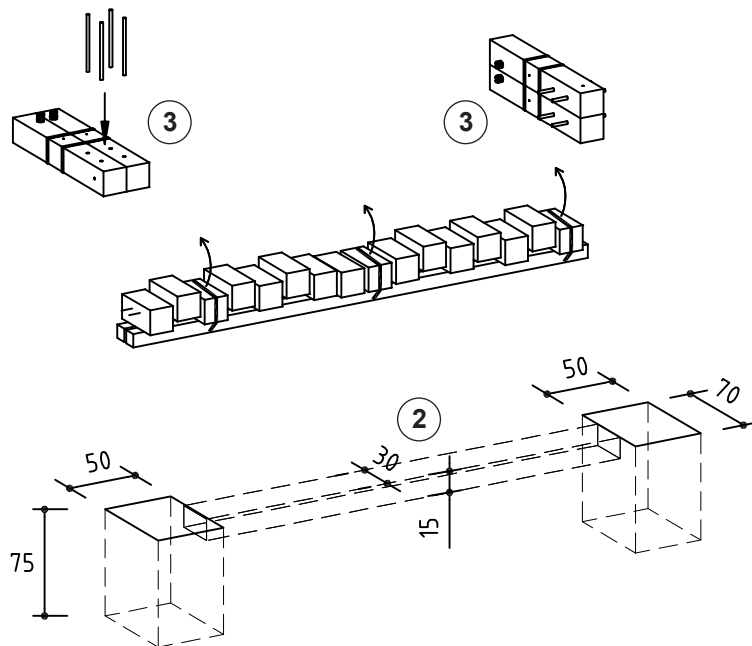
2. Start surveying at the point of reference and dig out the foundation holes.

The channel between the two foundation holes must be 30 cm wide and 15 cm deep.

3. Hammer the foundation irons into the support frames. Take off walkway from bracing beams.

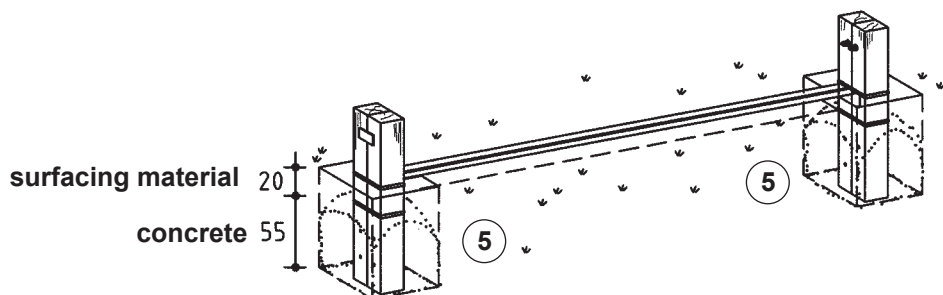
Note: We recommend to fill in fine gravel around the bracing beams for adequate drainage (**see detail 1**).

4. Insert the bracing beam with pins into the pre-drilled holes in the support frames. Place the frame into the foundation holes (note marked depth of installation) and align.

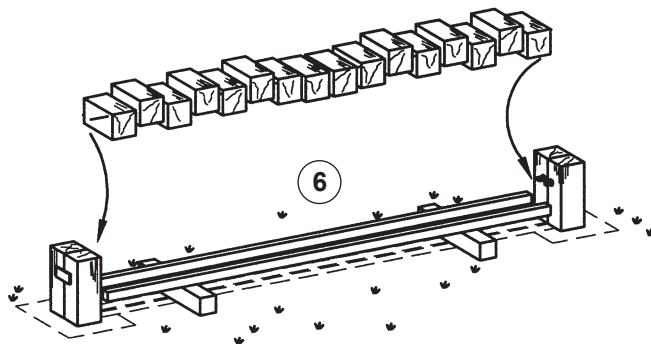




5. Fill the foundation holes with concrete, tamp and round the edges. **Please take into account the additional information sheet: Notes on the construction of foundations.** Cover the foundations up to ground level with surfacing material.

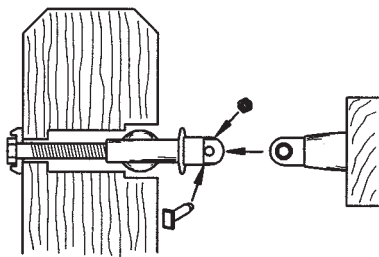


6. After the concrete has set, place the assembly battens (on two crossbeams between the support frames and hook in the walkway at the support frames. The forked joint is in position **A** (see detailed diagram) at delivery. After installation of the walkway tighten the joints until position **B** (see detail 2) is reached.



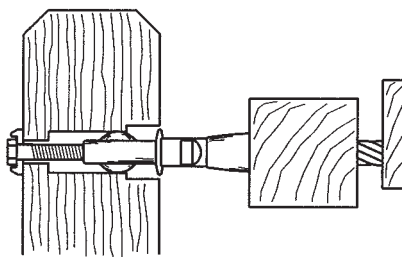
detail 2

A



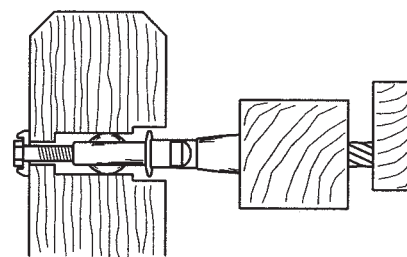
position at delivery

B



tightening of joint

C

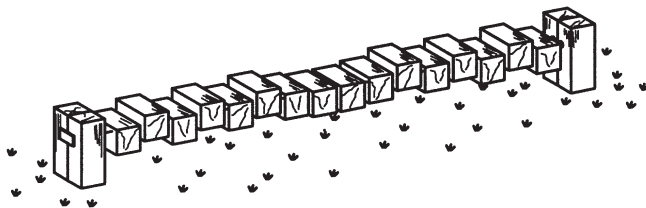


re-tightening of joint

**Maintenance:**

The walkway can be re-tightened by 2 cm on each side - see point **C** (detail 2).

7. Repair minor damage caused during assembly or transportation.
8. Please ensure that all assembly aids, e. g. excess bolts, assembly instructions, distance battens or tape are removed entirely from the play equipment and the playground after work is finished.



**Please note that after about 6 weeks all screws and bolts need to be checked and, if necessary, retightened.**

**General information****A Surfacing requirements**

This element should be installed on impact absorbing surfacing or loose fill material that accords with EN 1176 and is suitable for a maximum free height of fall of up to  $\leq 2.00$  m depending on the installation situation.

**B Foundations**

Please take into account the special sheet:  
"Notes on the construction of foundations".

**Special information**

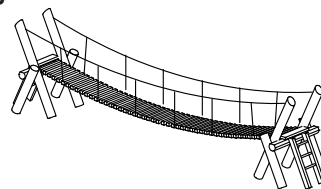
Certified by TÜV Product Service GmbH in compliance with EN 1176.

Please do not alter any parts of the equipment or the construction itself since this may affect the safety standards and your guarantee.

We reserve the right to make technical alterations!  
For further information please call your local agent.

**Big Suspension Bridge**

Order No. 6.61000/  
L6.61000

**Components**

Number of parts: 8

4 bundles: 2 stand posts each

2 bundles: cross beams with starting board, ladders

1 walkway with chain handrail

1 bag: walking boards, pipe clips

**Total weight:** approx. 600 kg  
**Heaviest single part:** approx. 250 kg  
**Largest single part:** 3.25 x 0.50 x 0.25 m

**Required space including safety distances (EN 1176)**

1120 x 370 cm

safety distance →  
foundations ●

**Ground elevation**

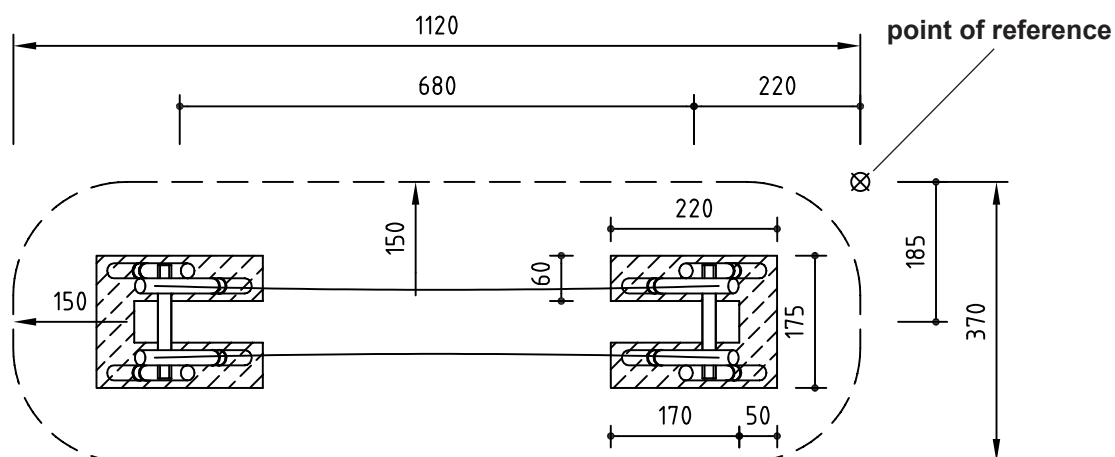
scale 1:100

all dimensions in cm

**Foundations**

quality of concrete C25/30

4 items 220 x 60 x 80 cm  
excavation depth 100 cm



**Recommended assembly tools and materials**


Set of carpenter's tools  
 Set of ratchets  
 Set of spanners  
 Torx inserts T 20, 25, 30, 40, 50  
 Rubber mallet  
 Scaffolding or fork lift truck

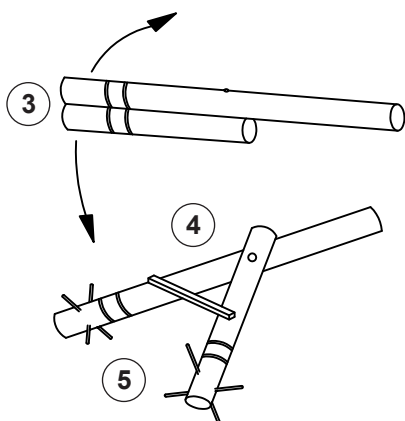
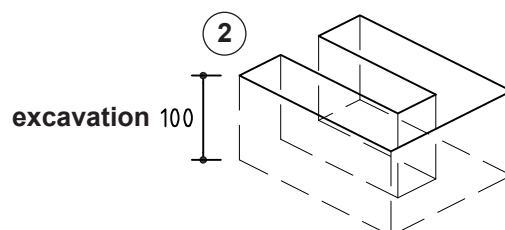
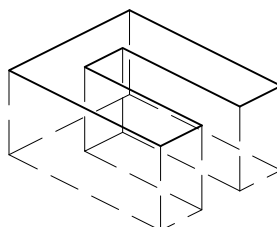
**Attention!**

During the assembly period (including the setting of the concrete) it is not allowed to play on or put any weight on the equipment in order to secure stability during use after the assembly. Standard concrete requires at least 2 weeks to set.

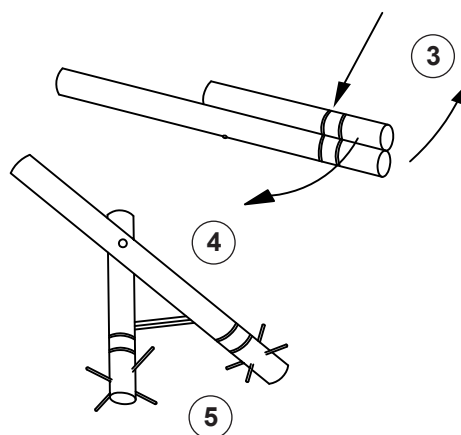
**Sequence of assembly operations**

All parts have been pre-assembled in our works and marked accordingly.

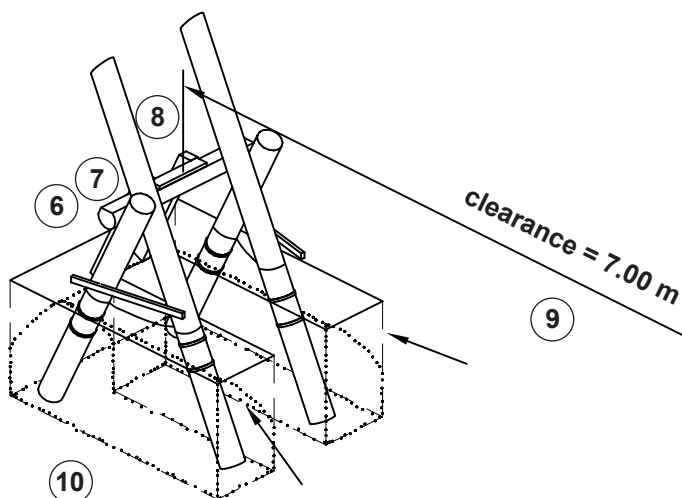
1. Locate the site and take into account the space required, including the safety distances, according to the ground elevation on page 1.
2. Start surveying at the point of reference  and dig out the foundation holes.



3. Loosen the connections on the stand posts slightly and pull the stand posts apart.
4. Secure the distance between the stand posts at the marked positions using battens. Retighten the connection.
5. Hammer the foundation irons into the stand posts.

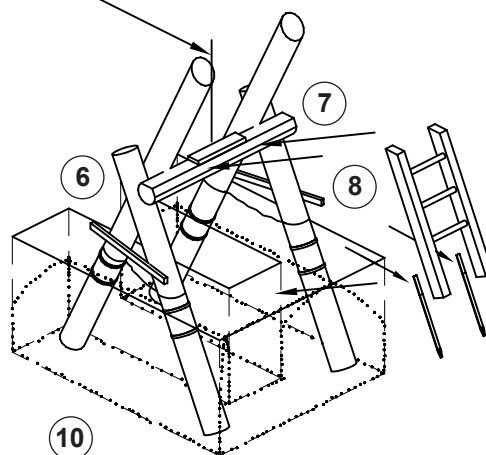


6. Place the pairs of stand posts into the foundation holes and ensure that the bracing battens face outward.



7. Attach the cross beams for fastening the ropes.
8. Attach foundation irons to the ladders, then fasten ladders to cross beams.
9. Precisely align the support frames. Exactly adhere to the 7.00 m clearance between the inner sides of the cross beams!

surfacing material  
20  
concrete  
80

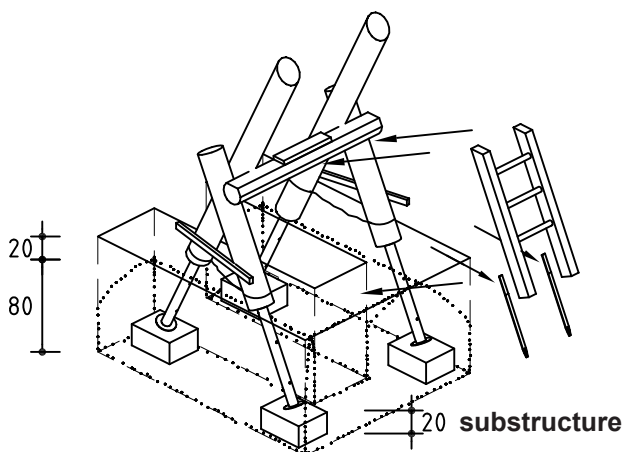


#### Note

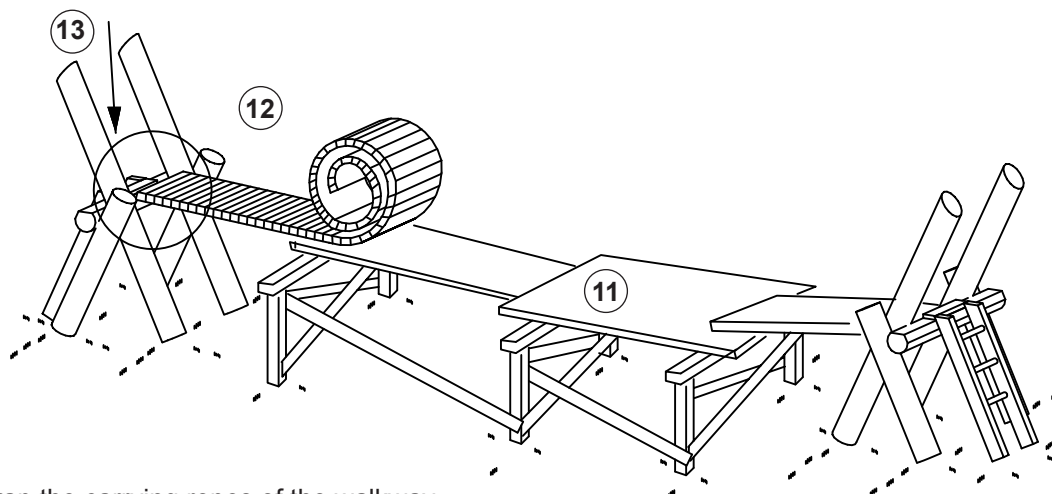
The frames must be parallel and at a right angle to each other.

10. Fill the foundation holes with concrete, tamp and round the edges. **Please take into account the special sheet: Notes on the construction of foundations.** Cover the foundations up to ground level with surfacing material.

#### L6.61000 version with steel feet



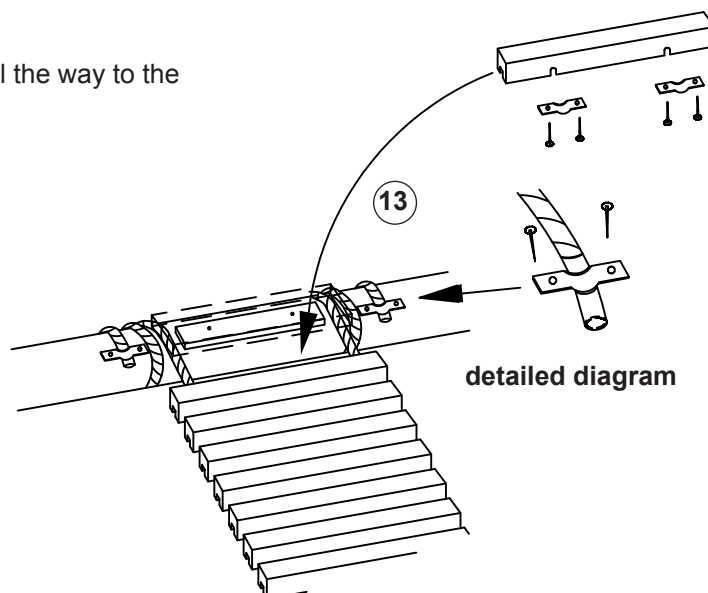
11. After the concrete has set, mount the walkway. In order to be able to fasten the carrying ropes without tension, either build a scaffolding (see sketch) or lift the walkway using a fork lift truck.
12. Unroll the walkway completely and turn upside down.



13. Wrap the carrying ropes of the walkway around the cross beam of each suspension bridge frame and fasten using the pipe clips. Pay attention to the **detailed diagram**.

**Note**

Push the pipe clips all the way to the pressed part.

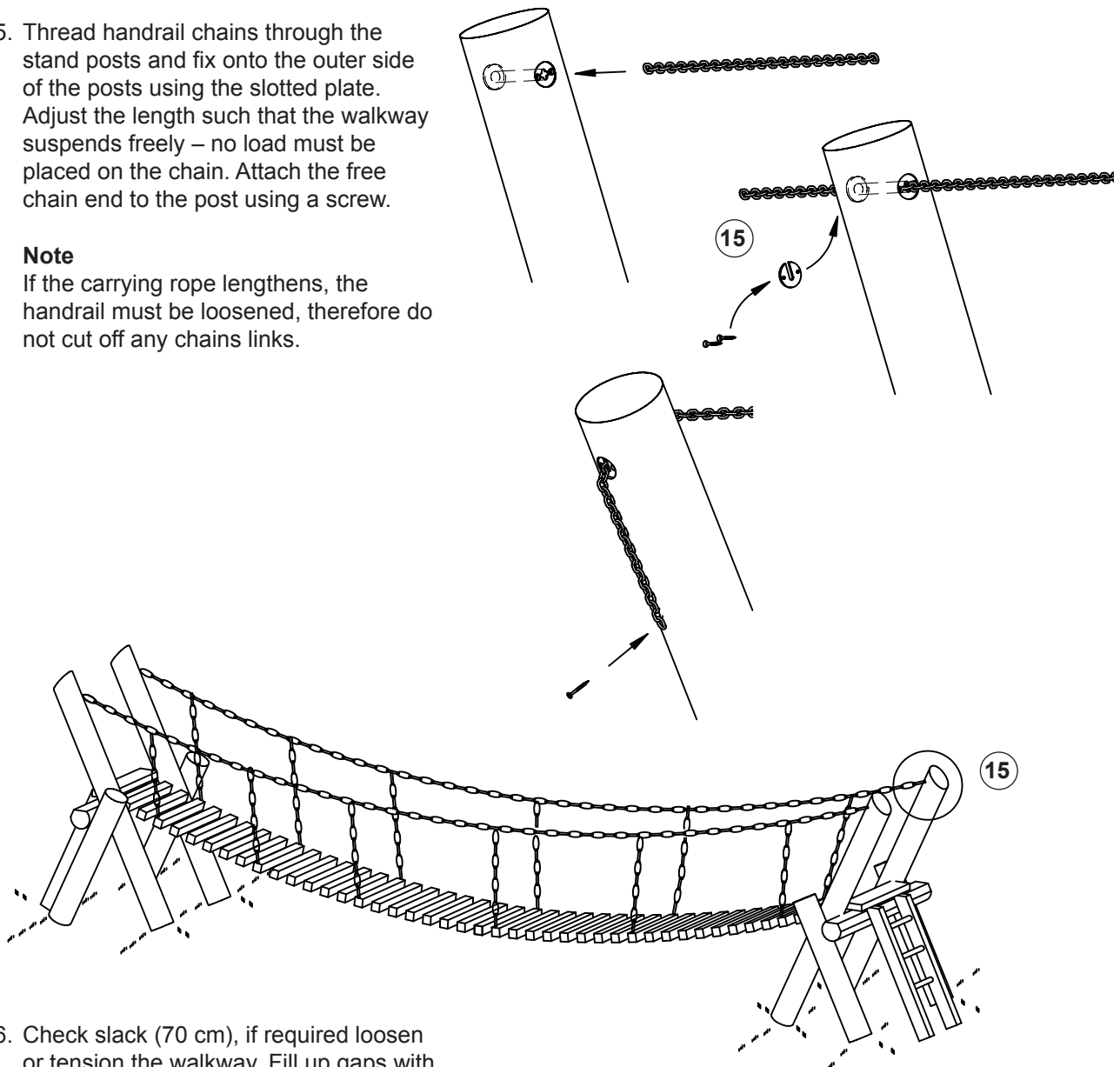


14. Now remove the scaffolding, if applicable.

15. Thread handrail chains through the stand posts and fix onto the outer side of the posts using the slotted plate. Adjust the length such that the walkway suspends freely – no load must be placed on the chain. Attach the free chain end to the post using a screw.

**Note**

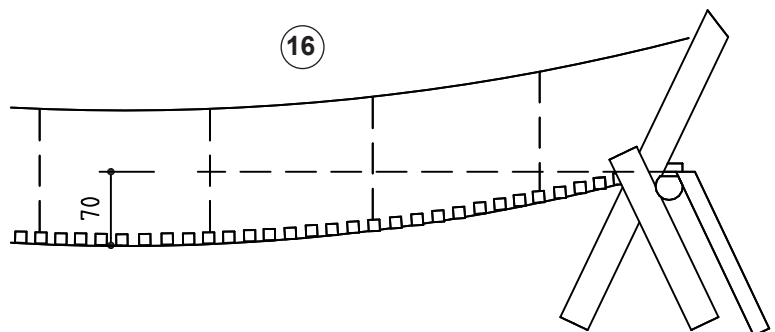
If the carrying rope lengthens, the handrail must be loosened, therefore do not cut off any chains links.



16. Check slack (70 cm), if required loosen or tension the walkway. Fill up gaps with included walking boards as shown in the detailed diagram on page 4 or remove walking boards as necessary.

17. Repair minor damage caused during assembly or transportation.

18. Please ensure that all assembly aids, e. g. excess bolts, assembly instructions, distance battens or tape are removed entirely from the play equipment and the playground after work is finished.



**Please note that after about 6 weeks all screws and bolts need to be checked and, if necessary, retightened.**

## General Hints

### A Surfacing requirements

This equipment should be installed on an impact absorbing surfacing / loose fill material that accords with EN 1176 and is suitable for a maximum free height of fall of up to  $\leq 2.00 \text{ m} / \leq 3.00 \text{ m}$ .

### B Foundations

Please take into account the special sheet: Notes on the construction of foundations.

## Special information

Certified by TÜV Product Service GmbH in compliance with EN 1176.

Please do not alter any parts of the equipment or the construction itself since this may affect the safety standards and your guarantee.

We reserve the right to make technical alterations! For further information please call your local agent.

## Climbing Wall

with 2 elements

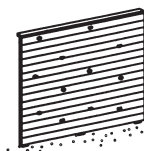
**Order No. 7.77010**

with 3 elements

**Order No. 7.77015**

with 4 elements

**Order No. 7.77060**



## Components

Number of parts: 2 - 4

1 - 3 pallets: module

1 pallet: steel tubes and screws

## Total weight:

2 elements approx. 1000 kg

3 elements approx. 1800 kg

4 elements approx. 2500 kg

Heaviest single part 70/90 kg

## Required space including safety distances (EN 1176):

depends on the layout of the entire playground

safety distance →  
foundations —●

## Please pay attention to the order-relevant attached sheets!

### Ground plan example for order no. 7.77010

Scale 1:50

all dimensions in cm

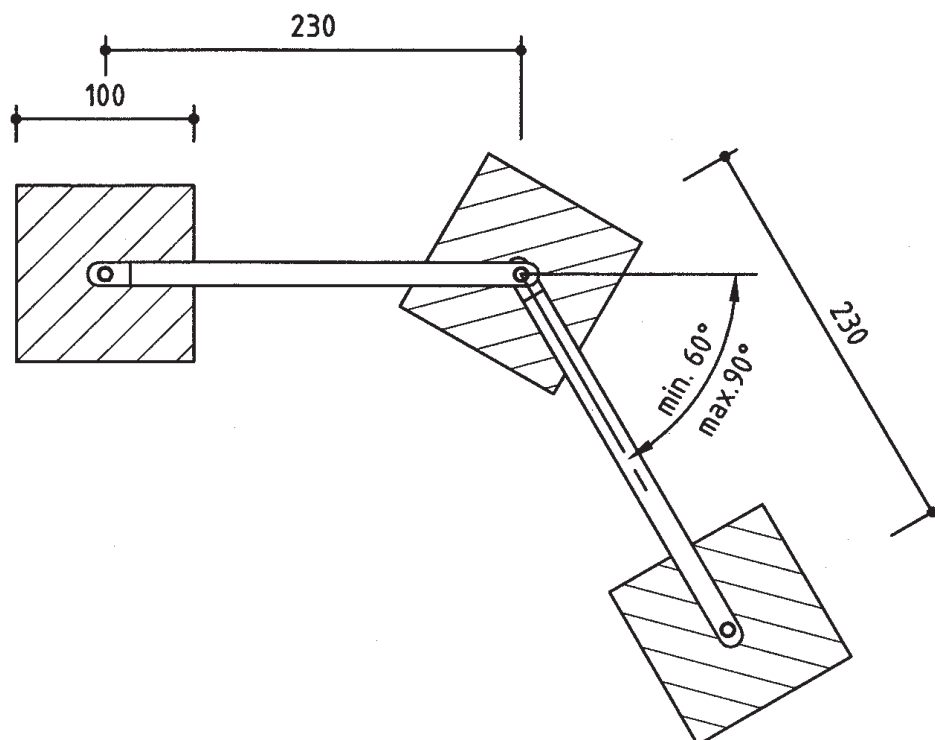
### Foundations

Quality of concrete C25/30

3 items 100 x 100 x 50 cm

Excavation depth 70 cm

otherwise depending on the number of elements





**Recommended assembly tools**

Set of carpenter's tools

Set of ratchets

Set of spanners

Torx inserts T 20, 25, 30, 40, 50

Rubber mallet

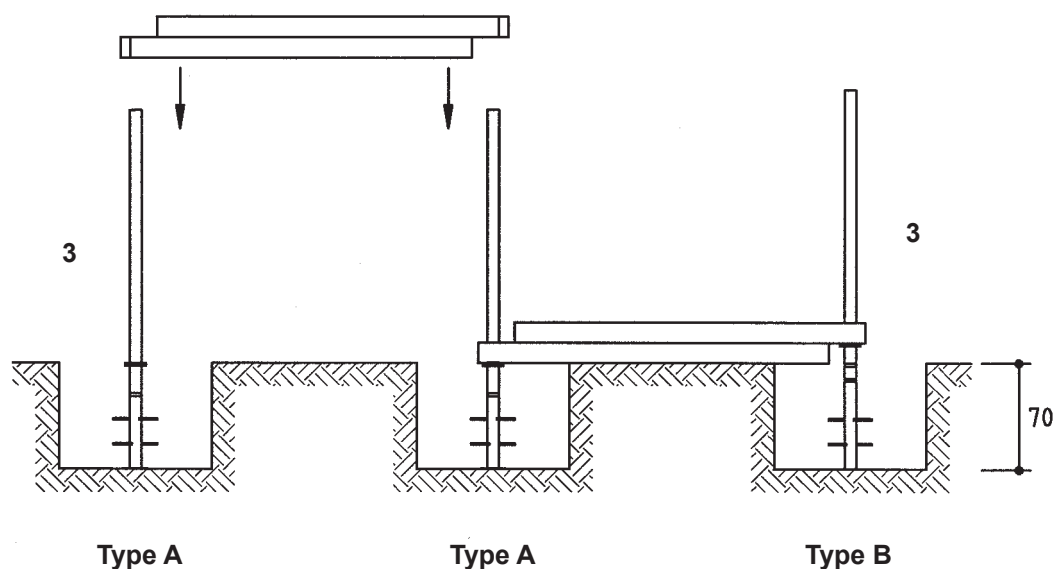
Battens for support during assembly

**Attention!**

During the assembly period (including the setting of the concrete) it is not allowed to play on or put any weight on the equipment in order to secure stability during use after the assembly. Standard concrete requires at least 2 weeks to set.

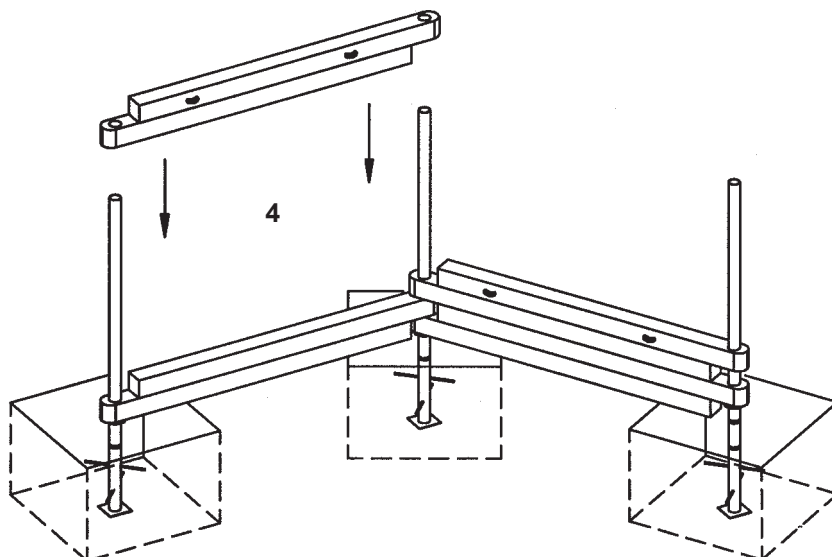
**Sequence of assembly operations:**

1. Locate the site and take into account the space required, including the safety distances, according to the ground plan (**see order-relevant sheet**).
2. Dig out the foundation holes and survey with respect to each other.
3. Insert the foundation irons into the steel tubes and place into the foundation holes according to their model (**see order-relevant sheet**).

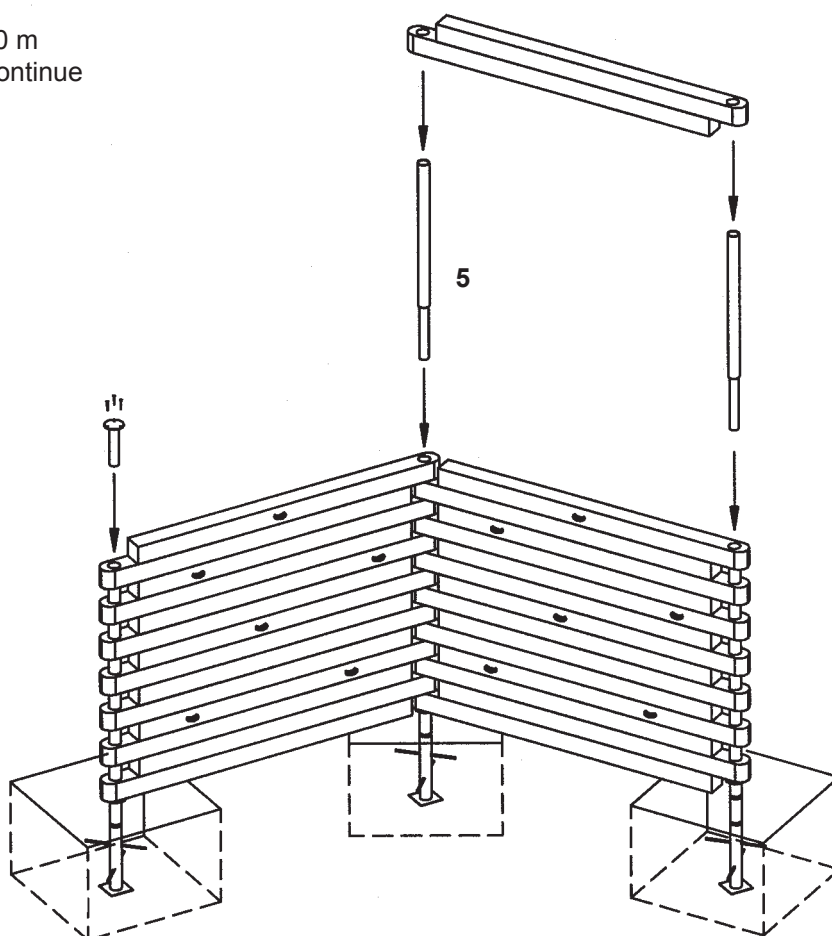


4. Build up the wall by threading the modules layer by layer onto the steel tubes.

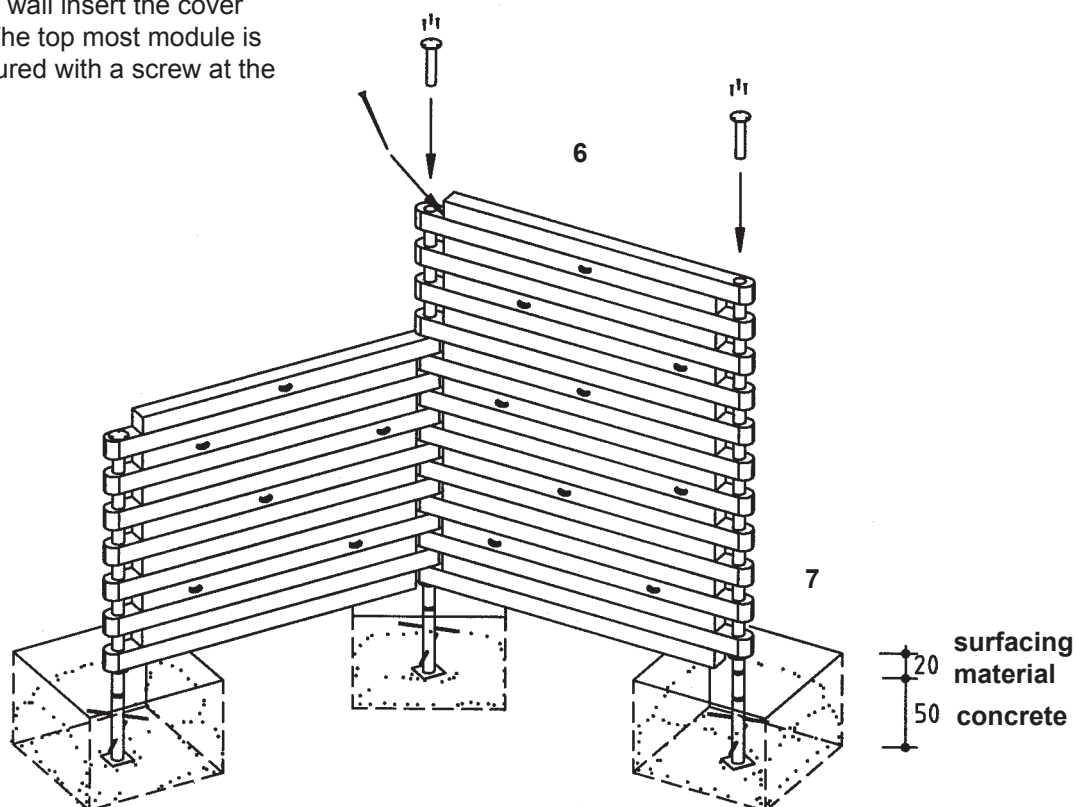
**The modules with climbing grips and the bottom modules are marked with numbers according to their assigned layer. Modules without number can be installed in any layer.**



5. If the wall builds higher than 1.90 m insert the tube extensions and continue to thread on the modules.



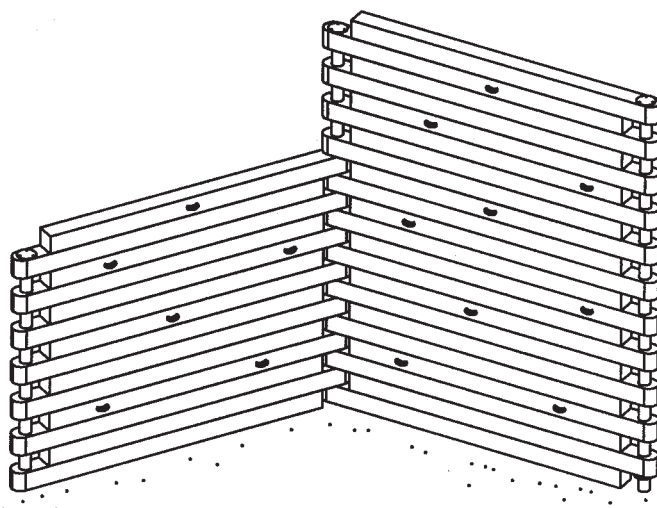
6. At the top of the wall insert the cover and screw on. The top most module is additionally secured with a screw at the marked spot.



7. Fill the foundation holes with concrete, tamp and round the edges.  
**Please take into account the additional information sheet: Notes on the construction of foundations.**  
 Cover the foundations up to ground level with surfacing material.

8. Repair minor damage caused during assembly or transportation.

9. Please ensure that all assembly aids, e. g. excess bolts, assembly instructions, distance battens or tape are removed entirely from the play equipment and the playground after work is finished.



**Please note that after about 6 weeks all screws and bolts need to be checked and, if necessary, retightened.**

## General information

### A Surfacing requirements

This piece of equipment is intended for children to play with, rather than on, and therefore has no intended body support. No free height of fall is thereby stipulated.

### B Foundations

No concrete foundations required.

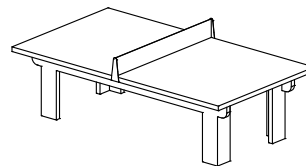
## Special information

Certified by TÜV Product Service GmbH in compliance with EN 1176.

Please do not alter any parts of the equipment or the construction itself since this may affect the safety standards and your guarantee.

We reserve the right to make technical alterations!  
For further information please call your local agent.

## Table Tennis Table of acrylic composite Order No. 7.89000



## Components

Number of parts: 1

### Pallet:

6 table supports with 4 galvanized steel straps  
2 table top halves  
fastening material

### optionally:

1 aluminium net with 2 net brackets  
4 aluminium tie rods

### Weight with the pallet:

approx. 415 kg

### Heaviest single part:

approx. 130 kg

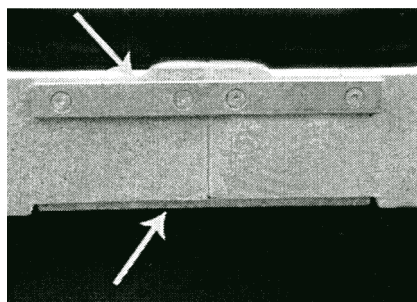
**As delivery arrives on a pallet, check parts for damage caused in transit and inform forwarder immediately.**

**Take care when removing retaining straps. At least two or if possible three people needed for assembly.**

### Sequence of assembly operations

1. Bring the 6 table supports to the place where the table is to be installed. Connect the two parts (each side) that are going to be the long supports, using 2 galvanized steel straps 290 x 50 mm and countersunk screws M8 x 20. One steel strap is placed at the bottom one from the inner side of the supports.

①



2. Put the first long support up and attach a short support by means of an aluminium tie rod. Add the two other supports accordingly. Place the table in the position it is going to occupy and ensure that the base is on the square (equal diagonal lines).

②



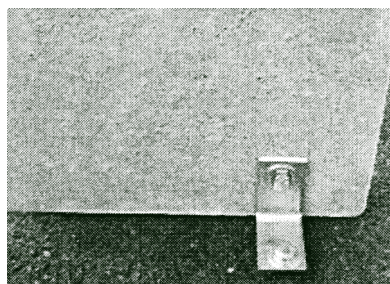
3. Secure the table supports with the aluminium angles and the hexagonal screws M8 x 20.

③



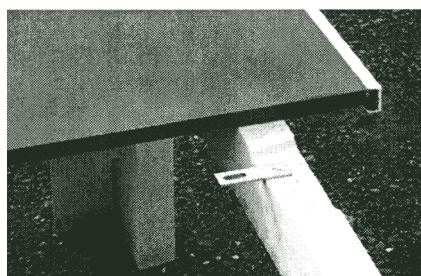
4. Floor attachment: attach the aluminium angle to the base using the hexagonal screws M8 x 20. Fix the substructure to the ground using wood screws 8 x 60 with the dowels.

④



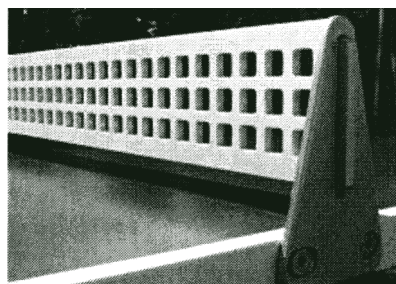
5. First fit the steel straps with countersunk screws M8 x 16 onto the base using the circular hole; the slotted hole shows to the centre. Tighten the screws gently so that you are still able to adjust the straps. Then lift the table top halves onto the base and adjust them. Assemble the top to the base by means of hexagonal screws M8 x 20 through the steel straps gently.

5



6. Assembling the aluminium net: fit the two net brackets to the net. Then assemble the brackets to the table using the countersunk screws M10 x 25.

6



**Please note that after about 6 weeks all screws and bolts need to be checked and, if necessary, retightened.**



## General information

### A Surfacing requirements

This element does not reach the free height of fall limit of 600 mm above which a specific requirement for impact absorbing surfacing or materials is necessary.

If installed in grass/soil we recommend to refill around the Wind Pipes with gravel afterwards.

### B Foundations

Please take into account the special sheet: „Notes on the construction of foundations“.

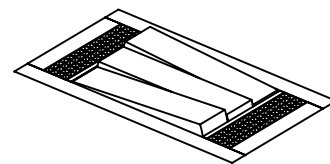
## Special information

Certified by TÜV Product Service GmbH in compliance with EN 1176.

Please do not alter any parts of the equipment or the construction itself since this may affect the safety standards and your guarantee.

We reserve the right to make technical alterations!  
For further information please call your local agent.

## Wind Pipes Order No. 9.02400



## Components

Number of parts: 1

1 complete equipment with 3 see-saw beams and 6 piston pumps with musical pipes

**Weight:** approx. 180 kg

## Required space including safety distances (EN 1176)

420 x 380 cm

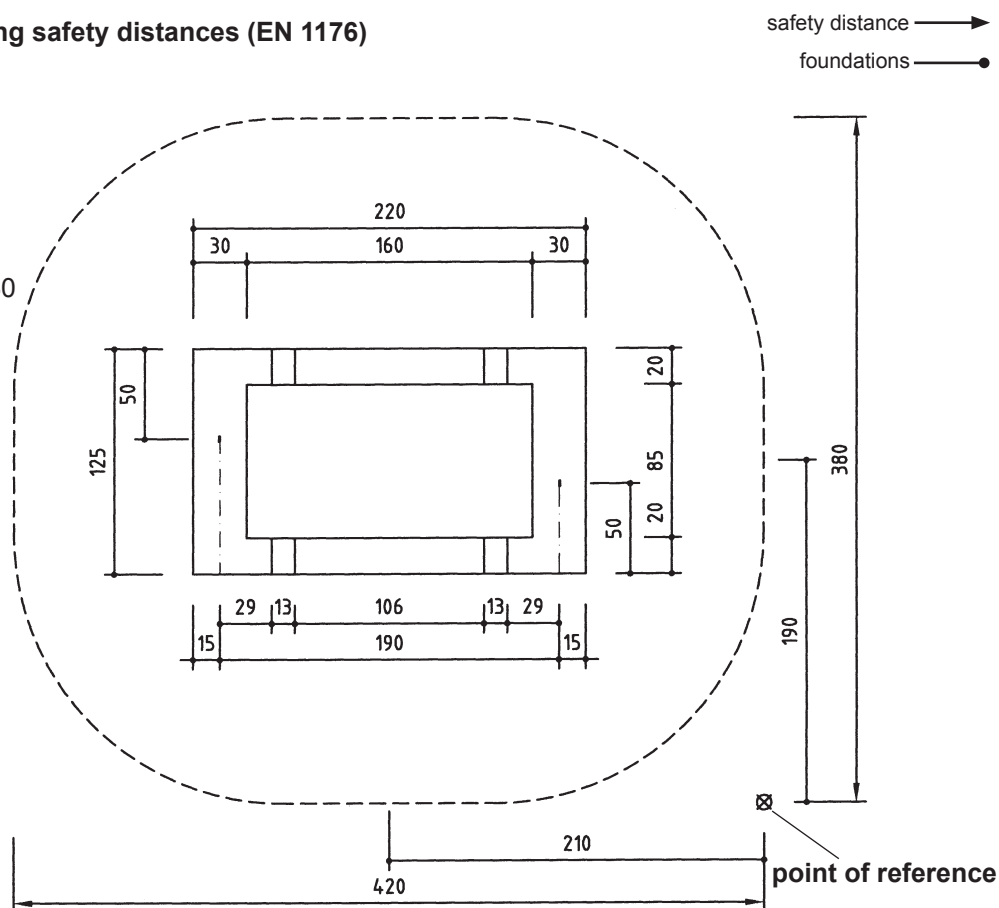
### Ground plan

without scale  
all dimensions in cm

### Foundations

Quality of concrete C25/30

1 box foundation  
125 x 220 x 50 cm  
Excavation depth 63 cm



**Recommended assembly tools and materials**

Set of carpenter's tools  
Set of ratchets  
Set of spanners  
Torx inserts T 20, 25, 30, 40, 50  
Rubber mallet

**Attention!**

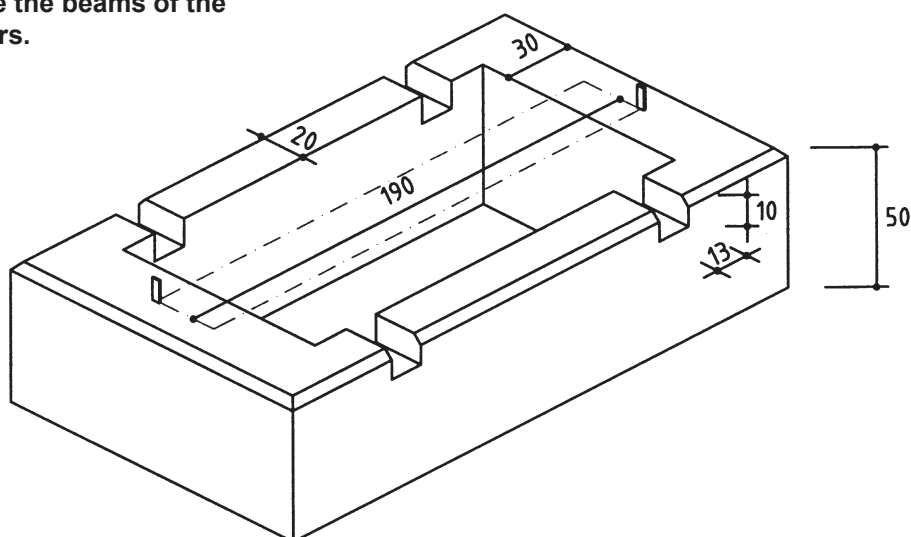
During the assembly period (including the setting of the concrete) it is not allowed to play on or put any weight on the equipment in order to secure stability during use after the assembly. Standard concrete requires at least 2 weeks to set.

**Sequence of assembly operations:**

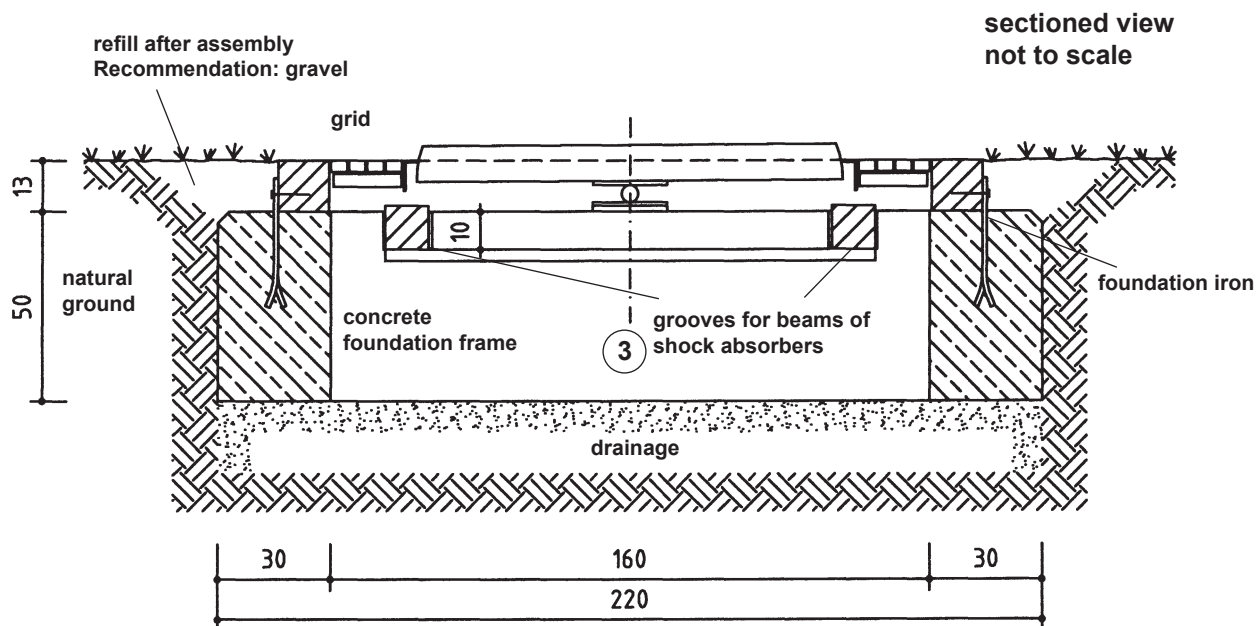
1. Locate the site and take into account the space required, including the safety distances, according to the ground plan on page 1.
2. Start surveying at the point of reference and dig out the foundation hole.
3. Cast the box foundation by building a casing, fix the position of the foundation irons and cast them into concrete with the foundation frame.

**Attention!**

When building the casing, allow for grooves to take the beams of the shock absorbers.



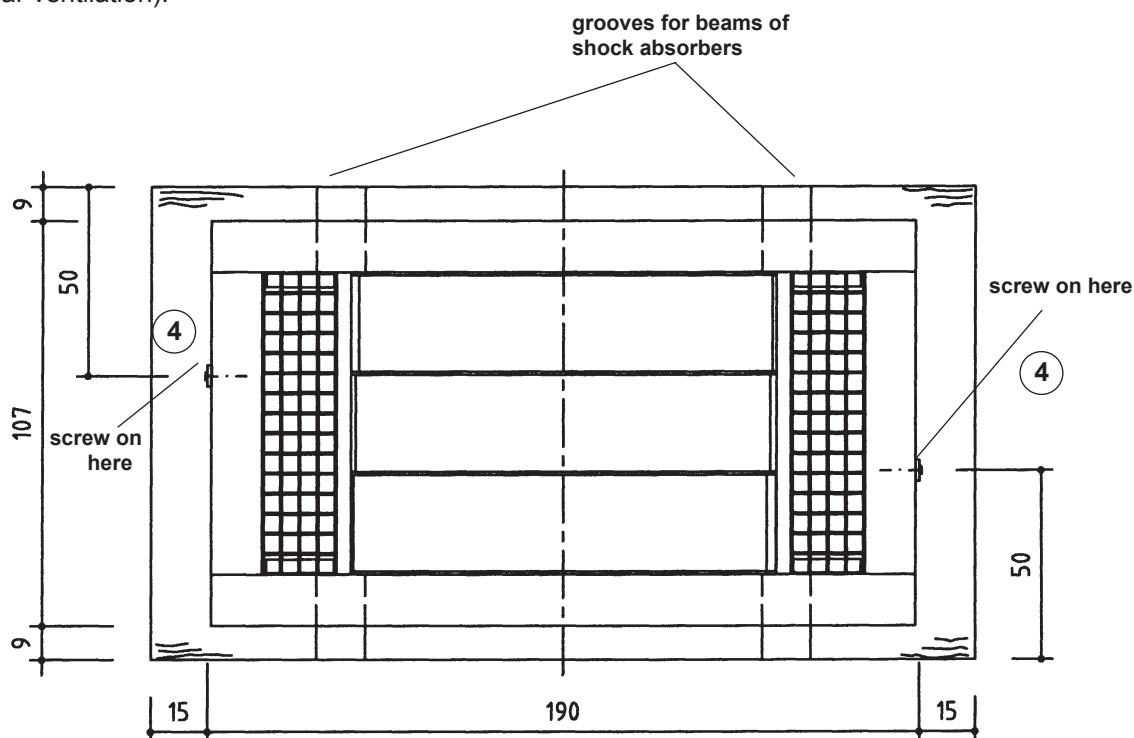




4. After the concrete has set, screw the wind pipes onto the foundation frame (foundation irons).

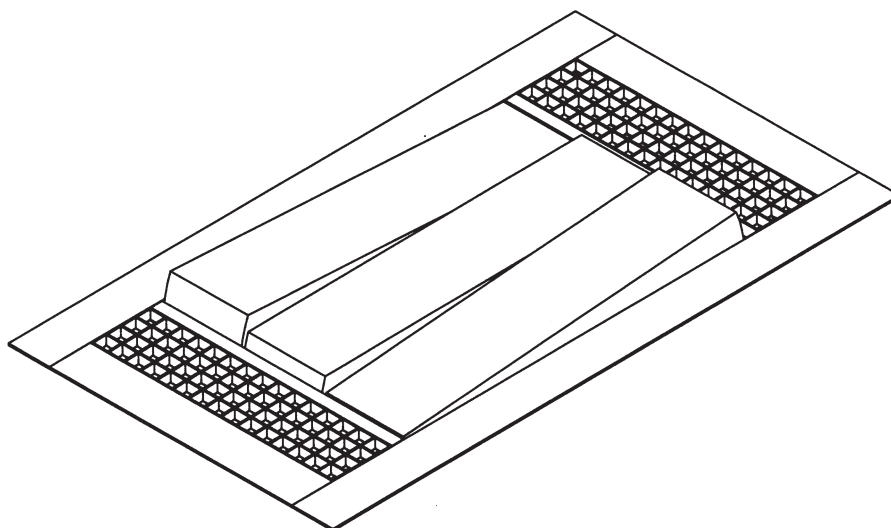
#### Attention!

The floor of the foundation box must not be cast in concrete, otherwise the rain water cannot drain away. The dimensions stated for the casing must be strictly adhered to for the equipment to operate as desired (sound experience and rear ventilation).



5. Repair minor damage caused during assembly or transportation.
6. Please ensure that all assembly aids, e. g. excess bolts, assembly instructions, distance battens or tape are removed entirely from the play equipment and the playground after work is finished.

**Please note that after about 6 weeks all screws and bolts need to be checked and, if necessary, retightened.**



All illustrations regarding the construction of foundations accord with EN 1176/6, paragraph 4.2.14.

## I Surfacing made of loose material

When foundations are covered by sand, fine gravel, wood chips or lawn, the edges should be rounded carefully. The top level of the concrete foundation, **level B**, must be covered with a layer of surfacing material of at least 20 cm up to **level A**.

## II Surfacing made of compact material

In the case of equipment installed on pavement, asphalt or impact protection slabs, the surfacing can be installed directly on the foundations.

## III Foundation dimensions

The foundation dimensions indicated in our assembly instructions refer to an allowable soil pressure of at least 200 kN/m<sup>2</sup> according to EN 1997 without taking into account ground water effects. The foundation dimensions indicated for each piece of equipment must be adhered to. Stability is ensured by the weight of the foundation and the lateral earth pressure. The dimensions apply to moderately heavy soil. Loose ground material or very light, sandy soil requires larger foundations that have a conical shape with an angle of approx. 45 ° toward the installation surface (see sketch). If necessary, individual foundations must be connected with each other.

## IV Minimum layer thickness

For information on minimum depths, please refer to Table 4, EN 1176-1:2008 (E), Materials in dependence of permissible free heights of fall (see page 2).

### Note

In accordance with the standard, 10 cm must be added to the minimum layer thickness for loose fall protection material to compensate for displacement.

## Procedure for laying the foundations

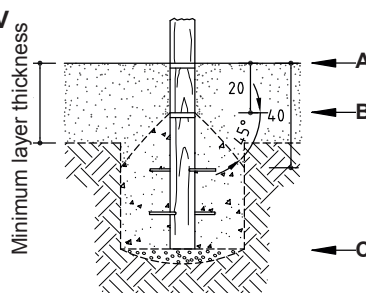
1. Dig out the foundation holes **up to level C**.  
**Recommendation:** dig 5 cm deeper; place a layer of gravel, and level.
2. Assemble the equipment according to the assembly instructions (slightly bend foundation irons downwards). The ground level and the top level of the concrete layer are marked on the posts.
3. Fill foundation holes with concrete C25/30, XC2, F2/C2 **up to level B** max., tamp and round the edges.  
**Attention! During the assembly period (including the setting of the concrete) it is not allowed to play on or put any weight on the equipment in order to secure stability during use after the assembly. Standard concrete requires at least 2 weeks to set.**
4. Backfill foundations with fall protection material up to **level A**.

level A = ground level

level B = top level of concrete layer

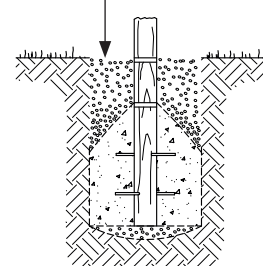
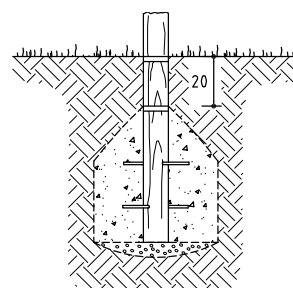
level C = excavation depth for concrete (without gravel layer)

I/IV

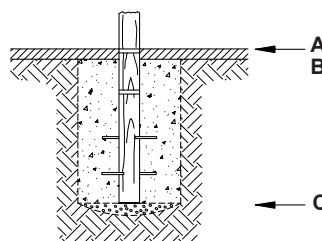


### Note

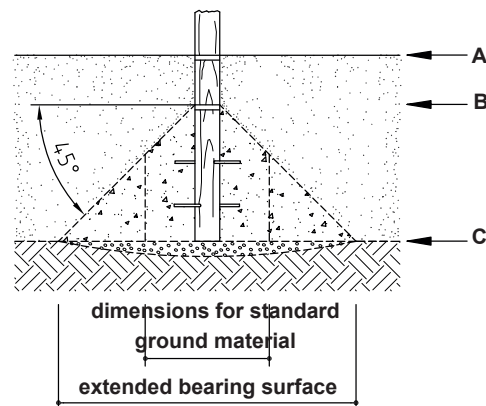
Ensuring good water drainage will increase the lifetime of the wooden stand posts: place a **gravel pack** around the posts in the area of the foundation and place the posts onto a layer of gravel.



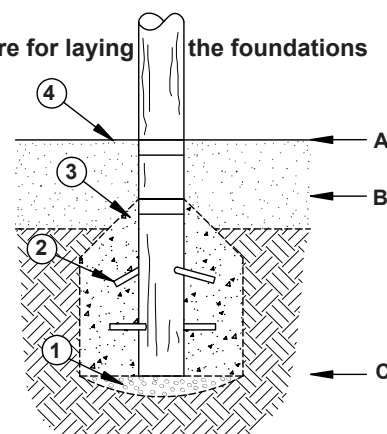
II.



III.



## Procedure for laying the foundations



## IV Minimum layer thickness

The quality of the ground material and the procedure used for constructing the surfacing must comply with valid standards and guidelines.

**Materials in dependence of permissible free heights of fall according to EN 1176-1:2008 (E), Table 4**

Material <sup>a</sup>	Description	Minimum depth <sup>b</sup>	Critical fall height
	mm	mm	mm
Turf/topsoil			≤ 1000 <sup>d</sup>
Bark	20 to 80 grain size	200	≤ 2000
		300	≤ 3000
Woodchip	5 to 30 grain size	200	≤ 2000
		300	≤ 3000
Sand <sup>c</sup>	0,2 to 2 grain size	200	≤ 2000
		300	≤ 3000
Gravel <sup>c</sup>	2 to 8 grain size	200	≤ 2000
		300	≤ 3000
Other materials and other depths	As tested to HIC (see EN 1177)		Critical fall height as tested

<sup>a</sup> Materials properly prepared for use in children's playgrounds

<sup>b</sup> For loose particulate material, add 100 mm to the minimum depth to compensate for displacement (see 4.2.8.5.1)

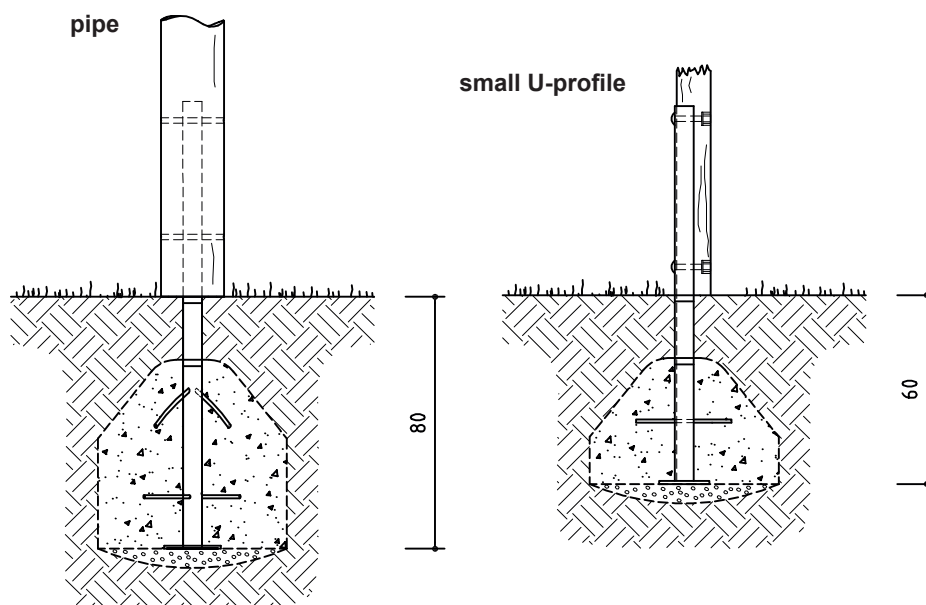
<sup>c</sup> No silty or clay particles. Grain size can be identified by use of a sieve test, such as EN 933-1

<sup>d</sup> See NOTE 1 in 4.2.8.5.2

## Depths of foundations for steel feet

The depths of foundations or excavation depths required for versions with steel feet may differ from those required for versions with wooden posts. Please pay particular attention to notes on standard foundations on the front page. We recommend the following quality of concrete: C25/30, XC2, F2/C2.

The following depths of foundations must be adhered to:



---

**A Assembly instructions**  
**Trampoline Circus**  
**Art. 5620680**



**Operator:** \_\_\_\_\_

**Location:** \_\_\_\_\_

---

## Contents

<b>A</b>	<b>Assembly instructions Trampoline Circus Art.# 20.02.112 .....</b>	<b>1</b>
1	Introduction Assembling .....	4
2	Datasheet Climbing Trampoline Circus, Art.# 20.02.112 .....	6
3	Delivery contents (parts list with part numbers) .....	7
4	Post installation checks .....	15
<b>B</b>	<b>Maintenance instructions Trampoline Circus Art.# 20.02.112.....</b>	<b>17</b>
5	Introduction Maintenance .....	19
6	General maintenance information .....	20
7	Maintenance timetable.....	22
8	Monthly maintenance .....	23
9	Quarterly maintenance .....	23
10	Half yearly maintenance .....	23
11	Annual maintenance .....	25
12	Maintenance printout.....	26
13	Hand over document .....	28

## List of Tables

Table 3-1: Delivery contents, in words.....	7
Table 3-2: Delivery contents, in symbols.....	8

---

## 1 Introduction Assembling

### 1.1 General information

This equipment should be installed, inspected, maintained and operated in accordance with EN1176-7 guidelines.

**Before installation work commences, please check that you have all of the equipment and fixation components in the parts list provided (see Tables 3-1 and 3-2).**

**Please consider that the installation has to be carried out only on even terrain (max.slope up to 3%).**

Any spare parts that may be required can be obtained directly from your supplier.

Please do not hesitate to call your supplier if you have any problems during installation or in case of any other questions.



#### **Attention**

Following installation, complete assembly instructions, maintenance instructions and a maintenance record must be sent to the operator who must confirm receipt in writing. See the last page of this document.



#### **Attention**

All nuts and bolts are hot-dip galvanised or stainless steel.

One of the characteristics of stainless steel is that uncontrolled cold welding may occur when the nuts are tightened. To prevent this, it is necessary to spray the nuts and bolts with Teflon spray or another similar lubricant.

---

**We hereby confirm that this play equipment has been tested and certified in accordance with the play equipment standard EN 1176.**

---

## **Drawings / Views**

All optical drawings are showing only the measurements/dimensions and are no mandatory technical views of the complete item.

We reserve the right to change technical details of our articles which are serving for the further development of our articles and are reasonable for the customer.

## **Measurement tolerances**

Because of the properties and characteristics of the components, minor measurement tolerances compared to the indication on the sketches are possible.

This concerns all shown measurements except the foundation measurements resp. measurements below upper edge ground level/play area.



## 2 Datasheet Climbing Trampoline Circus, Art.# 20.02.112

1. Space requirement: Ø 1.90 m and/or Ø 4.30 m including safety zone.

The Images (Individual drawings) are not to scale !!

2. Required safety surface:

Surface material	Description mm	Minimum thickness of layer mm	Maximum height of fall mm
Topsoil grass			<= 1000 <sup>d</sup>
Chipped bark	20 – 80 grain size	300 <b>400</b>	<= 2000 <b>&lt;= 3000</b>
Wood chippings	5 – 30 grain size	300 <b>400</b>	<= 2000 <b>&lt;= 3000</b>
Sand <sup>c</sup>	0.2 – 2 grain size	300 <b>400</b>	<= 2000 <b>&lt;= 3000</b>
Gravel <sup>c</sup>	2 – 8 grain size	300 <b>400</b>	<= 2000 <b>&lt;= 3000</b>
Other ground materials	As recommended by manufacturer		Critical fall height as checked

<sup>a</sup> Appropriate ground material, prepared for use at playgrounds

<sup>b</sup> In case of loose fill material, 100mm have to be added onto the minimum layer thickness to compensate the falling away effect (see 4.2.8.5.1).

<sup>c</sup> Without silty or clayey proportions. Grain size can be determined by a sieve test according to EN 933-1.

<sup>d</sup> See note 1 in 4.2.8.5.2.

3. Name and overall dimension of the largest component:  
1 Trampoline, ø 1.90 m
4. Name and weight of the heaviest component:  
1 Trampoline, approx. 119 kg
5. Intended age group: 3 years and over
6. Assembly time, once foundations completed: 2-3 hours.  
Required assistants: 4 persons.
7. Any spare parts which may be required can be obtained directly from  
your supplier
8. **.We hereby confirm that this item of play equipment has been tested and  
certified in accordance with the play equipment standard EN 1176.**

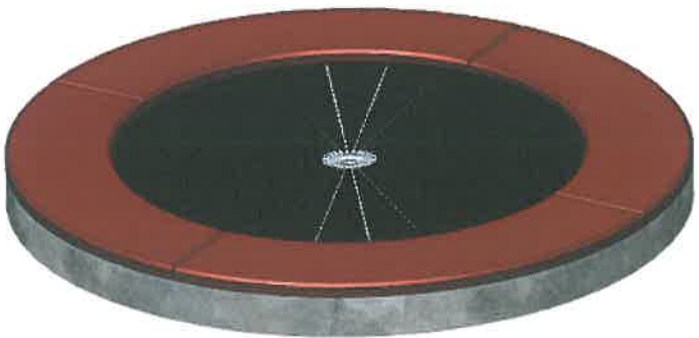
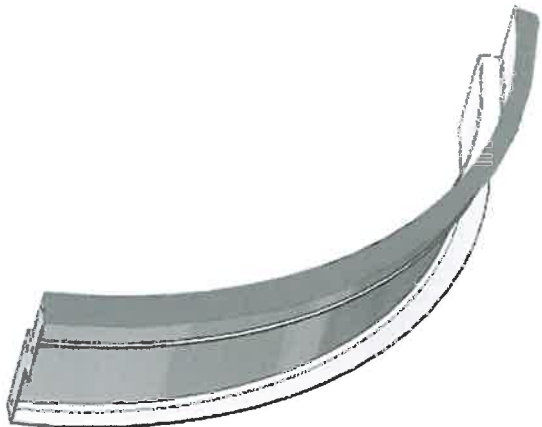


### 3 Delivery contents (parts list with part numbers)

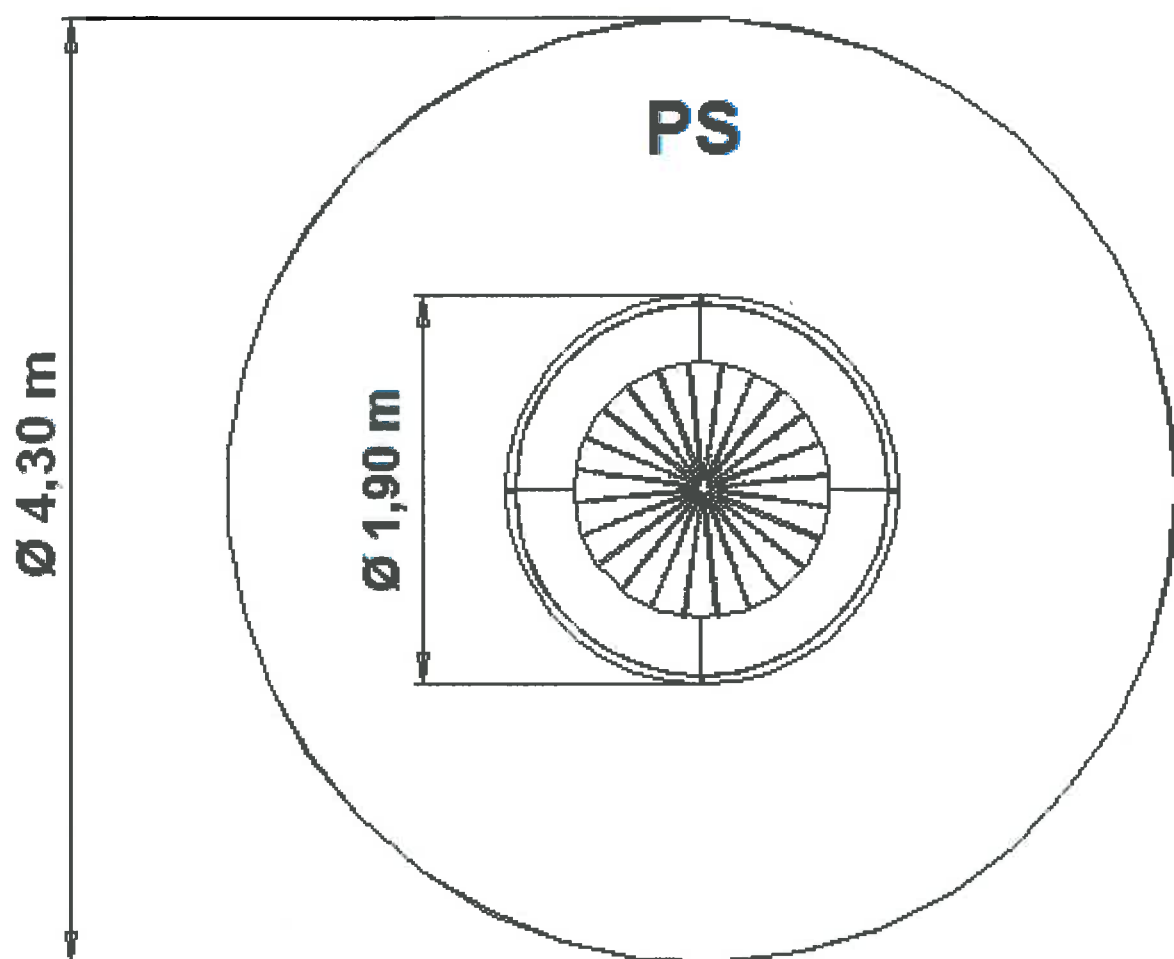
#### 3.1 In words

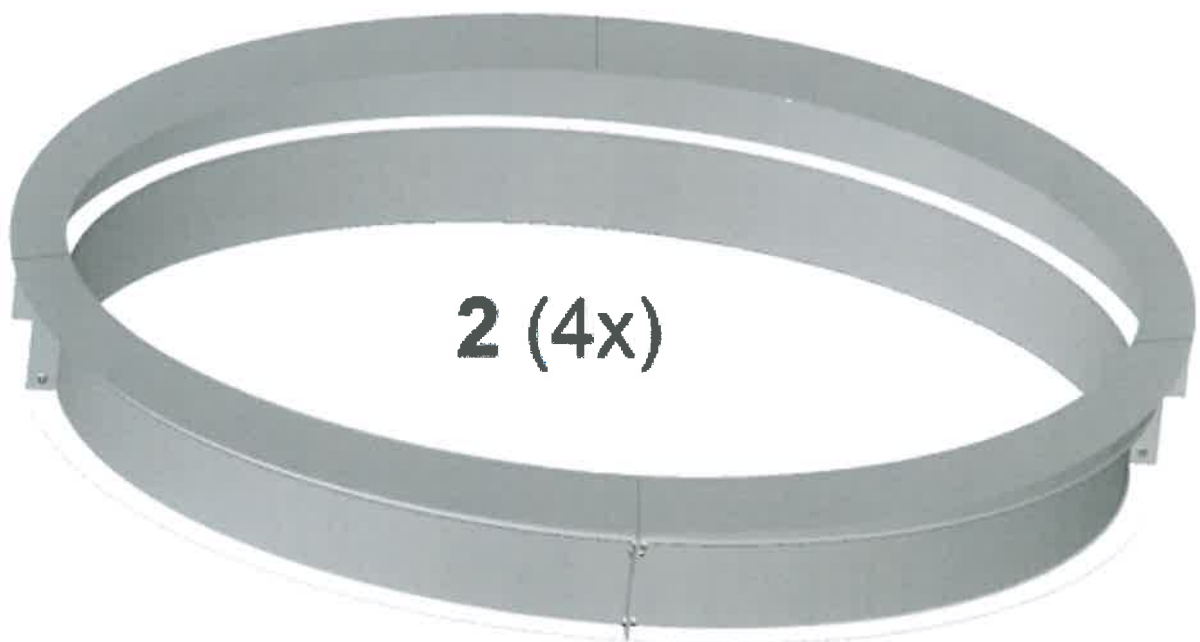
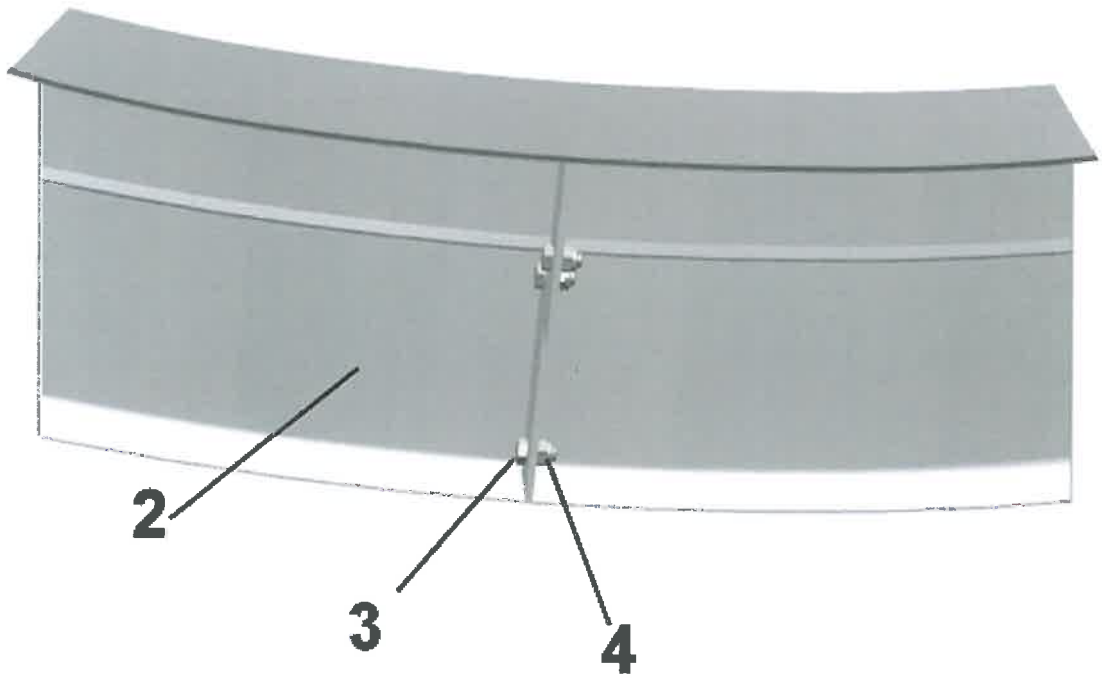
Table 3-1: Delivery contents, in words

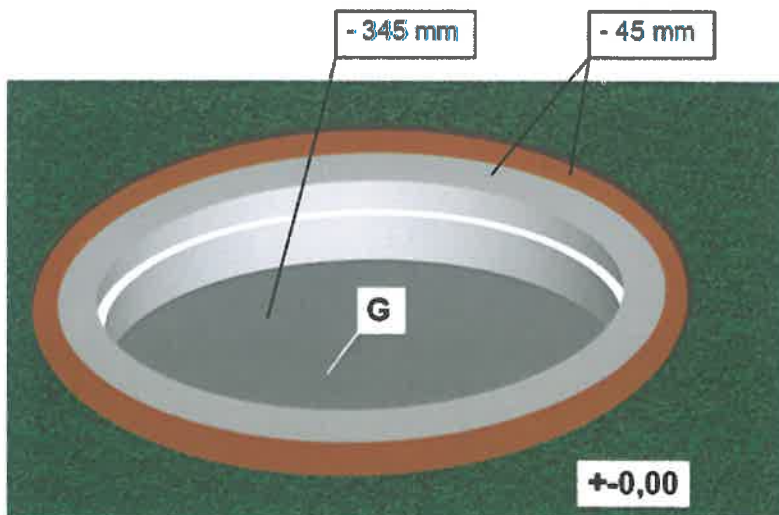
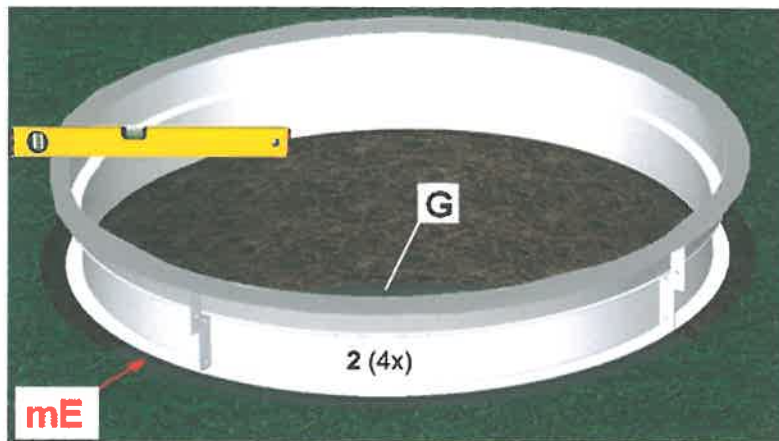
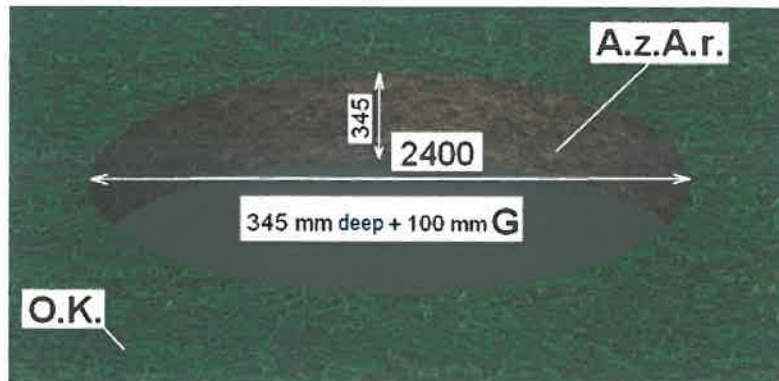
Pos.	Quantity	Element / Description	Size	O.K	Missing
1	1	Round trampoline	Ø 1.90m		
2	4	Foundation ring	Ø 1.90m		
3	16	Bolts	M10x12mm		
4	16	Nyloc nuts	M10		

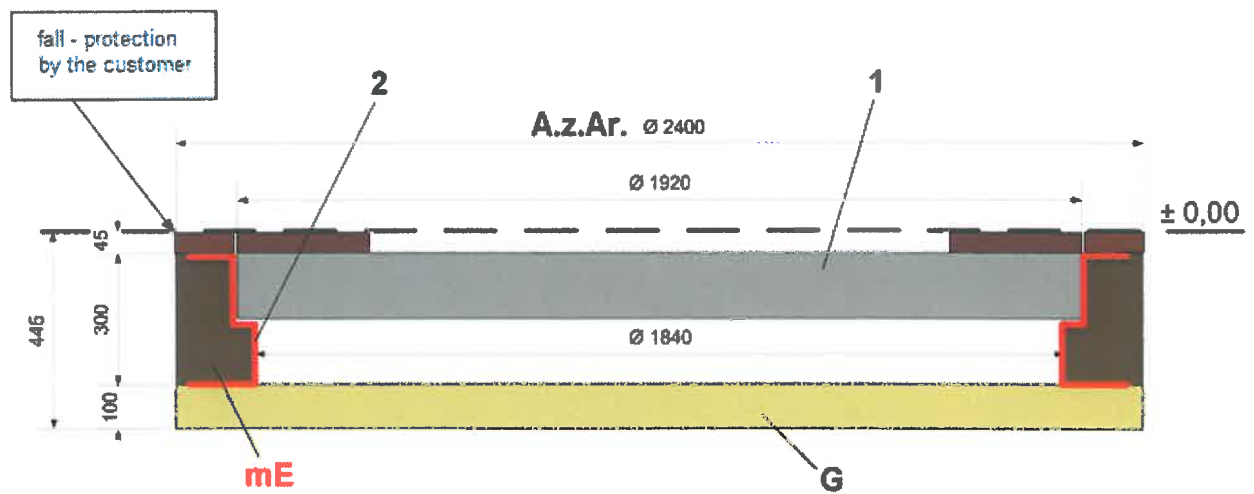
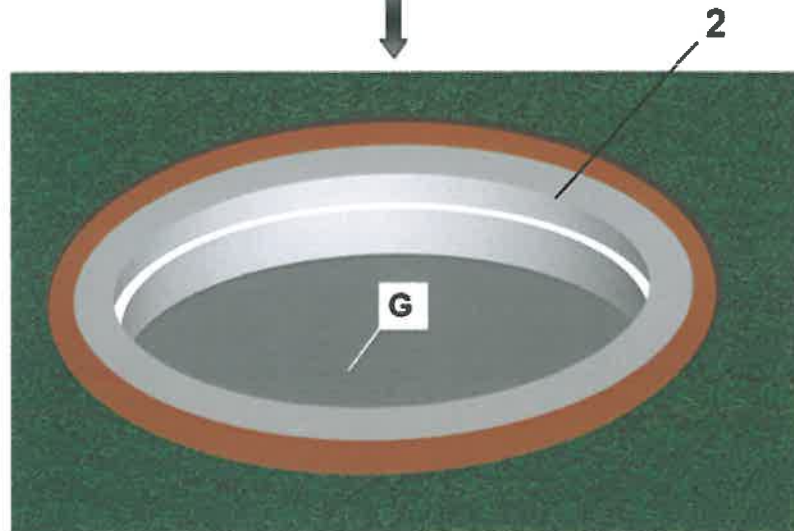
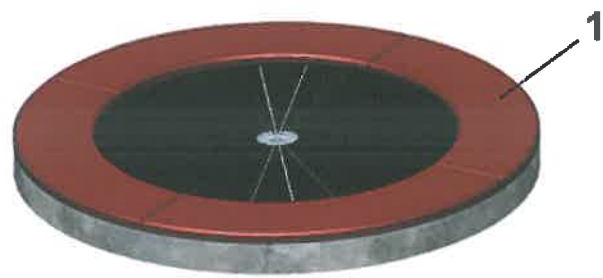
**Table 3-2: Delivery contents, in symbols**

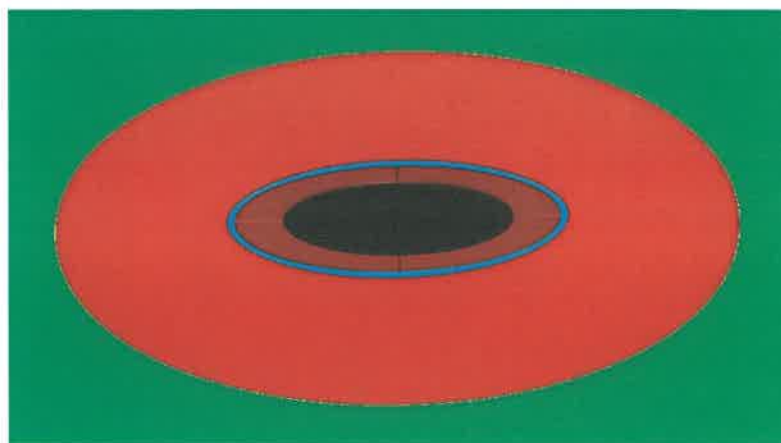
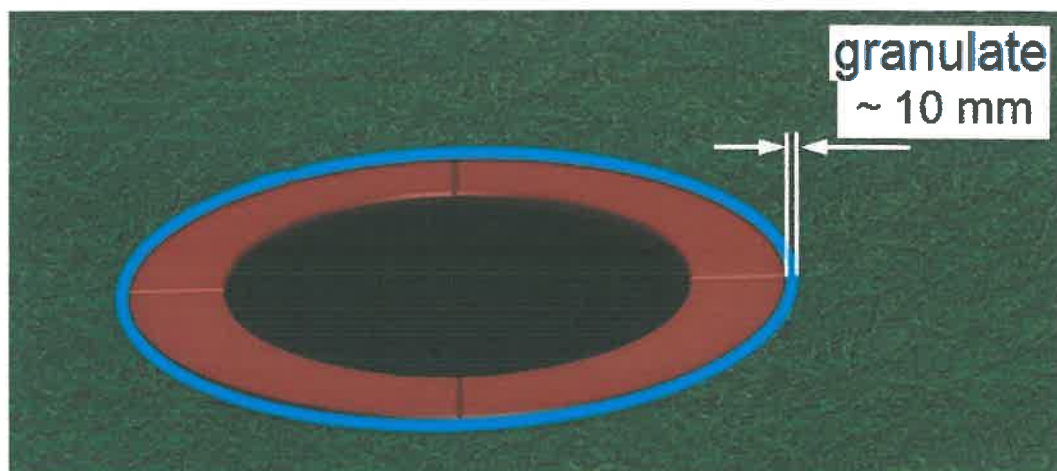
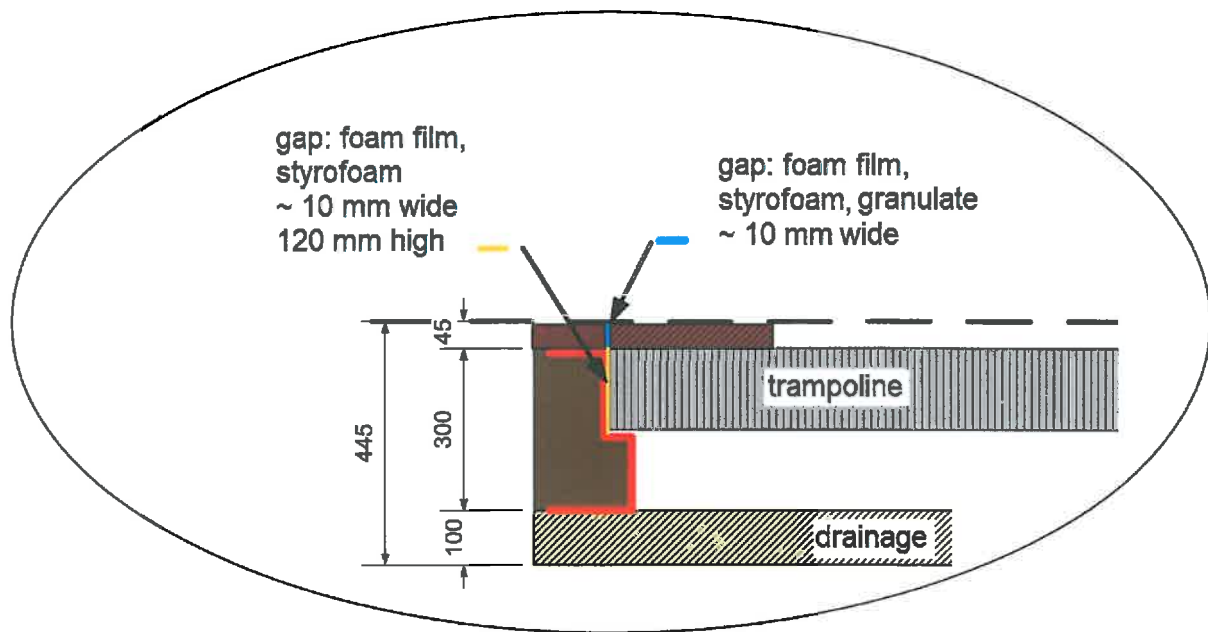
Pos.	Quantity	Symbol
1	1	 <p>Ø 1,90 m</p>
2	1	
3	16	 <p>M10 x 12 mm</p>
4	16	 <p>M10</p>













---

A.z.Ar.	To allow for working space – pit Ø 2,40 m
G	Drainage layer
O.K.	Top ground level
PS	Place requirement
RN	In case of using wetpour, the cleaning of the outer gaps is mandatory. Lift the trampoline with 4 people even out of the ground. After cleaning, set the trampoline carefully back onto the plasticframe.
PS	Space required including safety zone
mE	Refill and compact

**See drawings for details of shortcuts**

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## 4 Post installation checks

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### Notice

If the equipment has not been installed safely, you must ensure that the public is prevented from using it.

---

### 4.1 Marking filler depth

- Labelling the posts to show the depth of material provided as fall protection (i.e. loose filler).

### 4.2 The equipment has not been installed safely in the following cases:

- Installation of equipment is not complete.
- The protective surface has not been installed yet.
- Appropriate maintenance work cannot guarantee operational safety.

### 4.3 Removal of all assembly aids

- Please make sure that all assembly aids have been removed from the playing area. The equipment must not be approved for use until this check has been carried out.

### 4.4 Information about inspection of the equipment before it is used for the first time

- There are no special inspection requirements to be met before the equipment is used for the first time.

### 4.5 Retighten bolts

- After one week of play, please retighten all bolts again. Later upon respective maintenance.

---

## 5 Introduction Maintenance

### 5.1 General informations

This equipment should be installed, inspected, maintained and operated in accordance with EN 1176-7 guidelines.



Notice

**Please note:** Providing any necessary repairs are carried out, a piece of play equipment that is inspected regularly cannot become so damaged that it is dangerous.

---

Any spare parts which may be required can be obtained directly from your supplier.



Attention

This equipment should only be assembled, maintained and repaired by **persons with the necessary expertise.**

**A copy of the inspection record should be given to the operator, who must confirm receipt.**

---

**This maintenance instruction is based on the standard  
“EN 1176-1:2008”.**

---

## **6 General maintenance information**

### **6.1 Maintenance intervals**

Maintenance intervals are based on average use. Please note that more frequent inspections and/or maintenance are required if the play equipment is subject to intensive use.

### **6.2 Inspection frequency**

The frequency of inspections must be based on actual use. Factors that affect frequency include vandalism, location (e.g. coastal proximity), air pollution and the age of the equipment.

### **6.3 Maintenance products and procedures**

All nuts and bolts are hot-dip galvanised or stainless steel. One of the characteristics of stainless steel is that uncontrolled cold welding may occur when the nuts are tightened. To prevent this, it is necessary to spray the nuts and bolts with Teflon spray or another similar lubricant.

### **6.4 Spare parts**

All spare parts must conform to the manufacturer's specifications.

### **6.5 Identifying spare parts**

All spare parts are listed in the parts list. The parts list follows the installation requirements.

### **6.6 Special instructions for the disposal of individual equipment components**

No special instructions are necessary.

### **6.7 Special measures during the break-in period**

No later than 2 weeks after assembly, all screwed connections should be checked and tightened if necessary.

### **6.8 Maintenance of protective surfaces**

Surfaces providing fall protection must also be maintained regularly. It is particularly important to maintain the correct level of loose surface material and add more if necessary.

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## 6.9 Faults

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### Attention

Damages must be repaired as soon as they are detected. If serious defects that affect the safety must be repaired straight away, the playground item must be blocked with immediate effect.

---

## 6.10 Loose screws

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### Attention

Loose screws always cause quality problems and put safety at risk. Therefore, loose screws should always be tightened and checks carried out to ensure that there are no missing screws.

---

## 6.11 Preventing equipment use

Use of the equipment should be prevented in the event of incomplete installation, disassembly, maintenance, repairs and faults.

## 6.12 Claims/liability for faults (steel poles)

Steel posts and footings are covered by our guarantee if regular maintenance is carried out and recorded in writing.

Our general terms and conditions apply. Maintenance of steel poles first takes place after 3 years. The steel posts must be excavated down to the concrete foundations and checked for corrosion.

Zinc paint should be applied to any corroded areas and scratches.

Check ropes for abrasion, replace ropes where coating is damaged down the Steel inlet.

---

## **7 Maintenance timetable**

### **7.1 Special advices**

#### **7.1.1 Maintenance interval**

We strongly advise you to carry out inspections and maintenance work within the specified periods as use of the equipment, the weather and malicious vandalism cause wear and tear that compromises the safety and function of the equipment.

#### **7.1.2 Maintenance intervals in the event of intensive use**

Please note that more frequent inspections and/or maintenance are required if the play equipment is subject to intensive use.

#### **7.1.3 Faults that compromise safety**



**Notice**

In the event of a fault that compromises safety, quick action must be taken. This may involve repairing it immediately or shutting down and dismantling the equipment.

#### **7.1.4 Faults that compromise function**



**Notice**

Faults that compromise function should also be repaired immediately. Such faults lower the value of the equipment to the user and encourage malicious vandalism, which may render the equipment less safe. Any damage should also be repaired immediately.

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## **8 Monthly maintenance**

- 8.1 Check the spaces between the equipment and the ground (clearance and height of fall).**
- 8.2 Check the ground surface of fall protection for hard objects and loose foundations.**
- 8.3 Check all connecting elements and fittings for wear and tear and tighten if necessary. Replace damaged or missing parts.**
- 8.4 Check that moving metal parts (joints, springs, etc.) move smoothly and are not worn. Replace if necessary. It is not necessary to lubricate joints as we only use maintenance-free metal roller bearings.**
- 8.5 Check all attachments such as chains, ropes, nets, etc. for damage and replace if necessary.**
- 8.6 Check rubber parts, sleeves, etc. for wear and tear or damage and replace if necessary.**
- 8.7 If necessary, remove excess padding material from the post footings due to danger of rotting.**
- 8.8 Check the surface of wooden parts for damage caused by the weather or external influences and mould. Repair or replace if necessary.**
- 8.9 Check the surface of plastic and metal parts, e.g. slides, for damage and replace if necessary.**

## **9 Quarterly maintenance**

- 9.1 Detailed inspection of the operation and stability of the equipment paying particular attention to any wear and tear.**
- 9.2 Tighten all forms of attachment.**
- 9.3 Repaint and retreat surfaces.**
- 9.4 Maintenance of fall protection surfaces.**
- 9.5 Lubrication of joints.**
- 9.6 Check height of fall protection material and top up with loose filler if necessary. If the posts are labelled, top up to the mark.**
- 9.7 Retighten all bolts.**

## **10 Half yearly maintenance**

- 10.1 The stability of supporting posts, supports, foundations etc. has to be checked. The safety level of the entire system has to be checked after repairs have been carried out or additional system components have been installed or replaced.**



Attention

## Annual Maintenance

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### 11 Annual maintenance

- 11.1 Ascertaining that the equipment, foundations and surfaces are safe for operation.
- 11.2 In particular, the equipment should be checked for decay and corrosion. It may be necessary to dig out or excavate certain components in order to do so. Zinc paint should be applied to corroded areas and scratches.



Attention

The equipment must be inspected by someone **with the necessary expertise** in strict compliance with the instructions issued with the product.

**A copy of the inspection record should be given to the operator, who must confirm receipt.**

---



## Name of item: Climbing Game – Trampoline Circus \_ / Art. No. 20.02.112

Customer or operator: \_\_\_\_\_  
(Town, Town council, Kindergarten)

**Please copy and return once a year after main inspection has been carried out to the manufacturer by Telefax +49(0)6443/ 83 11 79!  
Place the confirmation form in the play equipment files.**

--	--	--

### 13 Hand over document



**Attention**

After the installation of the equipment pass the installation and maintenance documents to the operator. The operator has to receive the hand over documents. The complete filled and signed hand over document should be sent to the supplier.

Art.-No.: 20.02.112

Type of item : Trampoline Circus

Serial number: \_\_\_\_\_

**Customer or operator (Town, Town council, Kindergarten, etc.):**

\_\_\_\_\_  
\_\_\_\_\_

**Competent person in charge:**

\_\_\_\_\_  
\_\_\_\_\_

**Installation company (address):**

\_\_\_\_\_  
\_\_\_\_\_

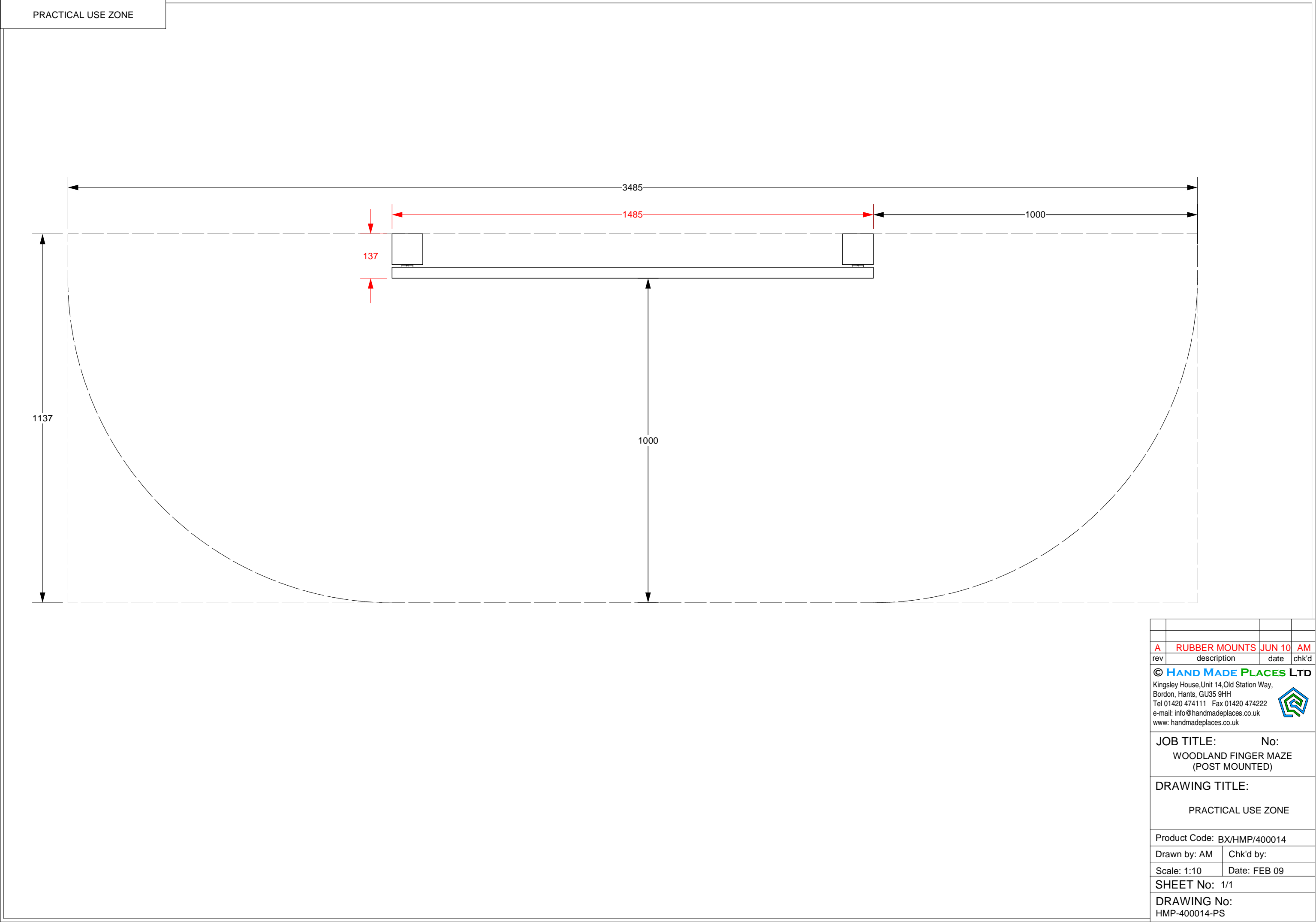
**Responsible assistant (assembler):**


\_\_\_\_\_  
\_\_\_\_\_

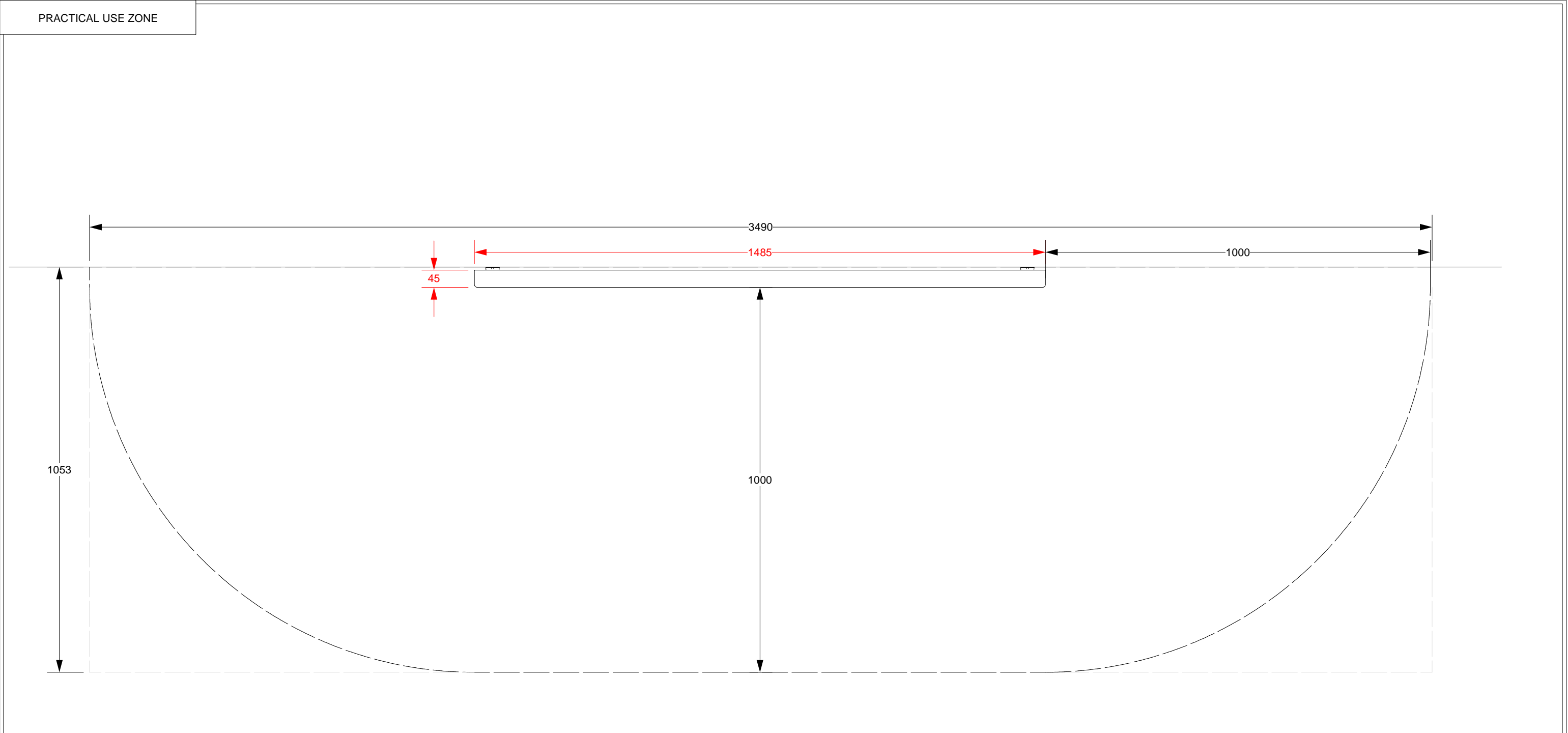
Received the complete assembly instructions, maintenance instructions and maintenance printout .

\_\_\_\_\_  
(Signature of operator)      (Signature of installation company)  
(Stamp)

Date: \_\_\_\_\_



A	RUBBER MOUNTS	JUN 10	AM
rev	description	date	chk'd
© <b>HAND MADE PLACES LTD</b>			
Kingsley House,Unit 14,Old Station Way, Bordon, Hants, GU35 9HH Tel 01420 474111 Fax 01420 474222 e-mail: info@handmadeplaces.co.uk www: handmadeplaces.co.uk			
JOB TITLE:		No:	
WOODLAND FINGER MAZE (POST MOUNTED)			
DRAWING TITLE:			
PRACTICAL USE ZONE			
Product Code: BX/HMP/400014			
Drawn by: AM	Chk'd by:		
Scale: 1:10	Date: FEB 09		
SHEET No: 1/1			
DRAWING No: HMP-400014-PS			



A	RUBBER MOUNTS	JUN 10	AM
rev	description	date	chk'd
© <b>HAND MADE PLACES LTD</b>			
Kingsley House,Unit 14,Old Station Way, Bordon, Hants, GU35 9HH Tel 01420 474111 Fax 01420 474222 e-mail: info@handmadeplaces.co.uk www: handmadeplaces.co.uk			
			
JOB TITLE:		No:	
WOODLAND FINGER MAZE			
DRAWING TITLE:			
PRACTICAL USE ZONE			
Product Code: BX/HMP/400014			
Drawn by: AM		Chk'd by:	
Scale: 1:10		Date: FEB 09	
SHEET No: 1/1			
DRAWING No: HMP-400014-PS			



SUPPLY ONLY

Construction Space:  
2000mmx1500mmx2000mm

Storage  
1245mmx772mmx930mm

Structure  
1245mmx772mmx600mm

Precautionary Measures:  
EYE GOGGLES  
STEEL TOE CAP BOOTS  
PROTECTIVE GLOVES

Special Tools, Lifting Devices or  
Templates Required:

N/A

Free Fall Height:

N/A

Orientation:

N/A

Additional Notes:

TAKE CARE WHEN LIFTING.  
FOLLOW MANUFACTURERS  
GUILDLINES FOR CEMENT USE

All Dimensions shown in **Millimeters**

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Bordon, Hants, GU35 9HH  
Tel 01420 474111 Fax 01420 474222  
e-mail: [info@handmadeplaces.co.uk](mailto:info@handmadeplaces.co.uk)  
[www: handmadeplaces.co.uk](http://www.handmadeplaces.co.uk)



DRAWING TITLE:

## OAK LEAF TABLE ASSEMBLY

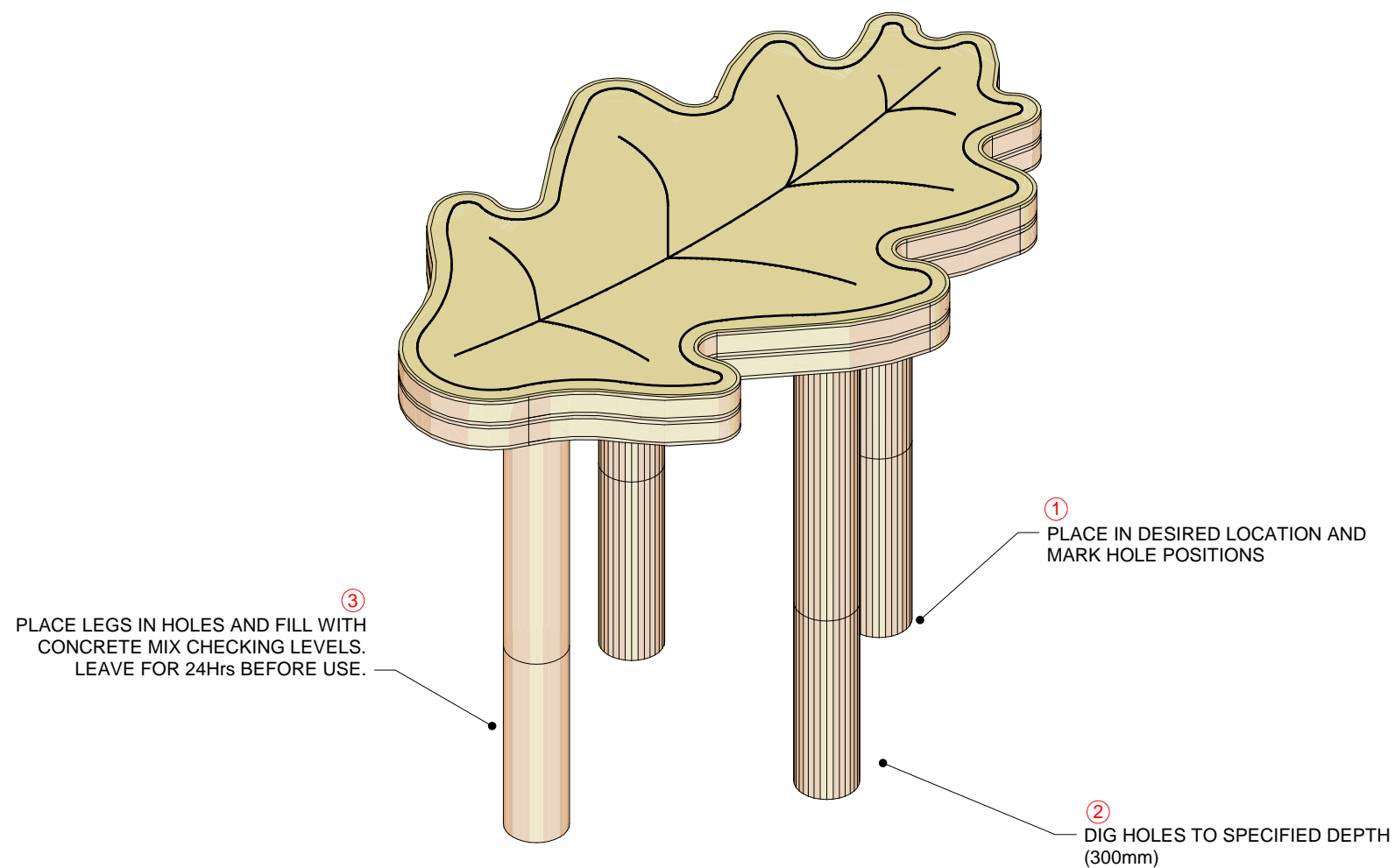
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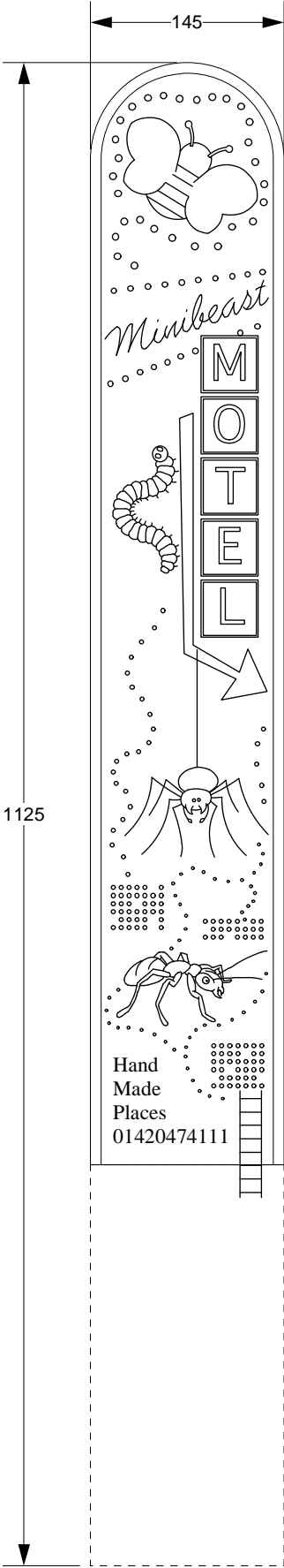
Chk'd by:

Date: AUG'10

SHEET No:2 of 3

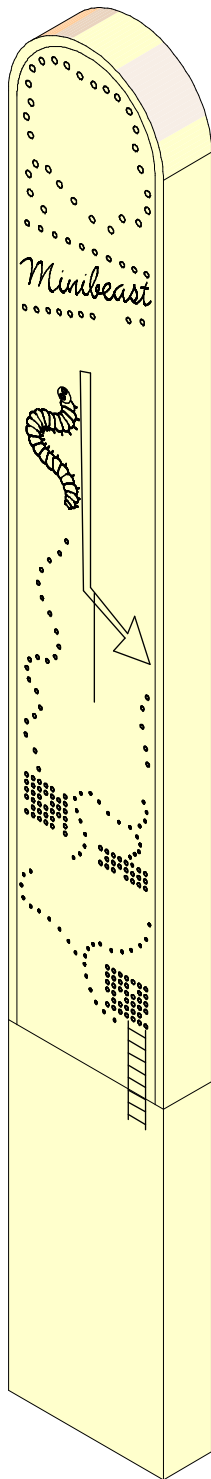


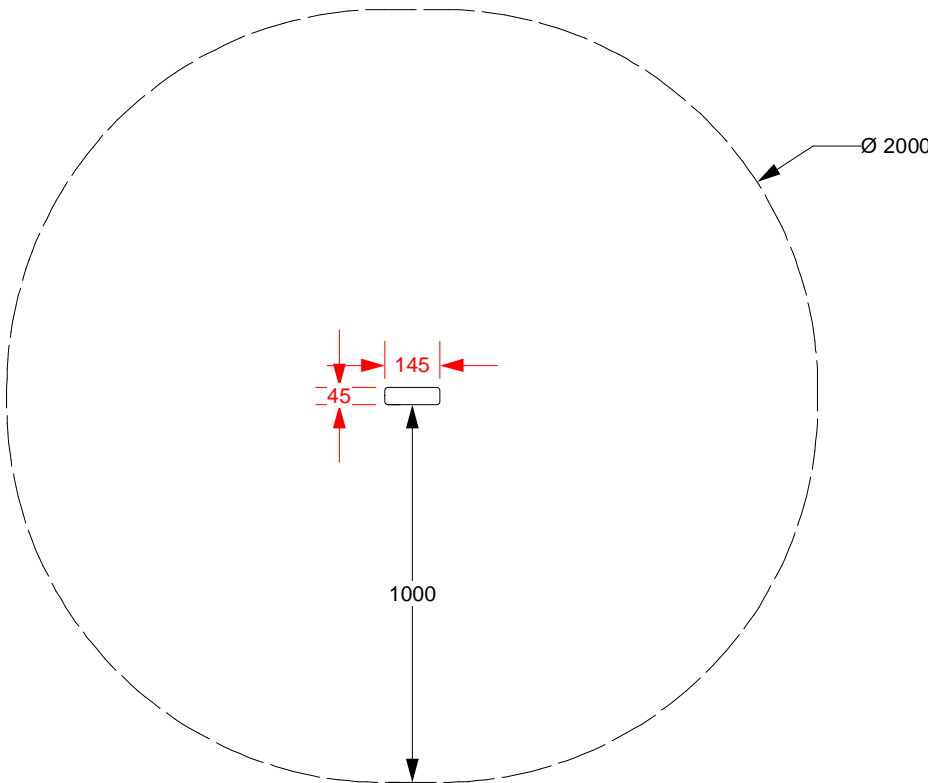
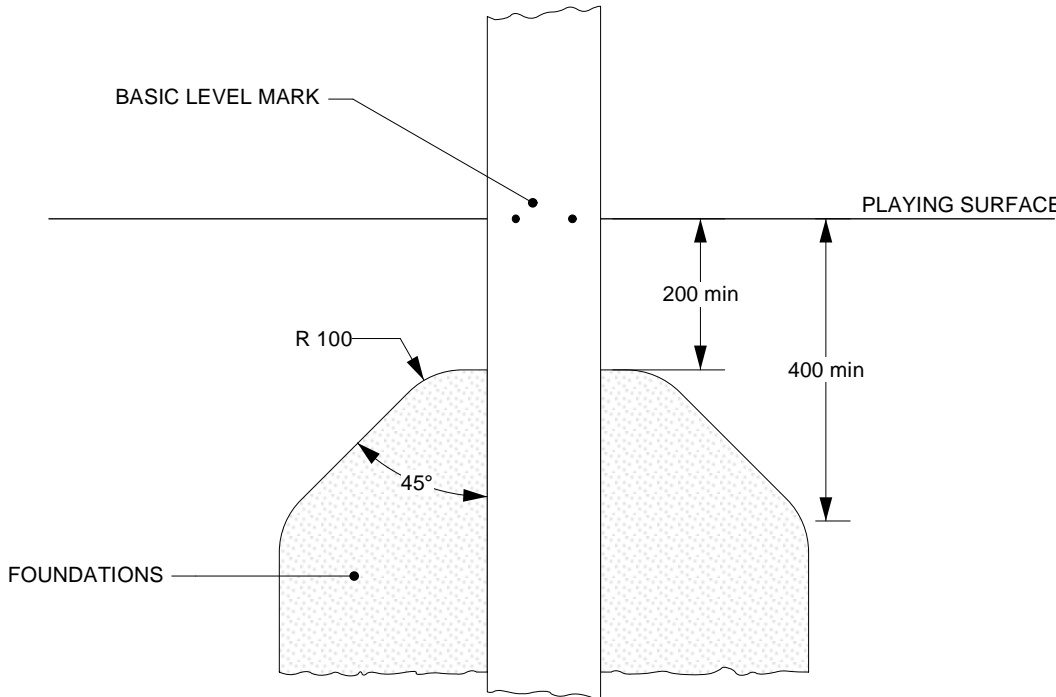
SUPPLY ONLY							
Minimum Space Requirements:		<div><p>PRACTICAL SPACE</p></div>	<div><p>Construction Space: 2000mmx1500mmx2000mm</p><p>Storage 1245mmx772mmx930mm</p><p>Structure 1245mmx772mmx600mm</p><p>Precautionary Measures: EYE GOGGLES STEEL TOE CAP BOOTS PROTECTIVE GLOVES</p><p>Special Tools, Lifting Devices or Templates Required:</p><p>N/A</p></div>				
Required Foundations under Normal Conditions:		<div></div> <div><ul style="list-style-type: none"><li>• FOUNDATIONS SHOULD NOT PRESENT A TRIPPING OR IMPACT HAZARD</li><li>• FOUNDATIONS FOR LOOSE FILL SURFACES SHOULD BE 400mm BELOW PLAYING SURFACE</li><li>• CARE SHOULD BE TAKEN CONCERNING ABNORMAL GROUND CONDITIONS</li></ul></div>	<div><p>Free Fall Height:</p><p>N/A</p><p>Orientation:</p><p>N/A</p><p>Additional Notes:</p><p>TAKE CARE WHEN LIFTING. FOLLOW MANUFACTURERS GUILDLINES FOR CEMENT USE</p><p>All Dimensions shown in <b>Millimeters</b></p><p>© <b>HAND MADE PLACES LTD</b> Kingsley House, Unit 14, Old Station Way, Bordon, Hants, GU35 9HH Tel 01420 474111 Fax 01420 474222 e-mail: info@handmadeplaces.co.uk www: handmadeplaces.co.uk</p><p><b>DRAWING TITLE:</b></p><p>OAK LEAF TABLE FOUNDATION INFORMATION</p><p>Product Code: BX/HMP/450021</p><table><tr><td>Drawn by: AM</td><td>Chk'd by:</td></tr><tr><td></td><td>Date: AUG'10</td></tr></table><p><b>SHEET No:</b> 3 of 3</p></div>	Drawn by: AM	Chk'd by:		Date: AUG'10
Drawn by: AM	Chk'd by:						
	Date: AUG'10						

SUPPLY ONLY		Construction Space: 1125mmx145mmx45mm	
		Storage 1125mmx145mmx45mm	
		Structure 1125mmx145mmx45mm	
COMPONENTS LIST:		Precautionary Measures: STEEL TOE CAPS PROTECTIVE GLOVES	
		Special Tools, Lifting Devices or Templates Required:  N/A	
		Free Fall Height:  N/A	
		Orientation:  N/A	
		Additional Notes: THIS ITEM IS LEFT UNTREATED TO ALLOW FOR NATURAL DECAY TO ENCOURAGE HABITAT.	
		All Dimensions shown in <b>Millimeters</b>	
		© <b>HAND MADE PLACES LTD</b> Kingsley House, Unit 14, Old Station Way, Bordon, Hants, GU35 9HH Tel 01420 474111 Fax 01420 474222 e-mail: info@handmadeplaces.co.uk www: handmadeplaces.co.uk	
		<b>DRAWING TITLE:</b>  MINIBEAST MOTEL	
		Product Code: BX HMP 550003	
		Drawn by: CS	Chk'd by:
		Date: MAR '10	
		SHEET No: 1/3	

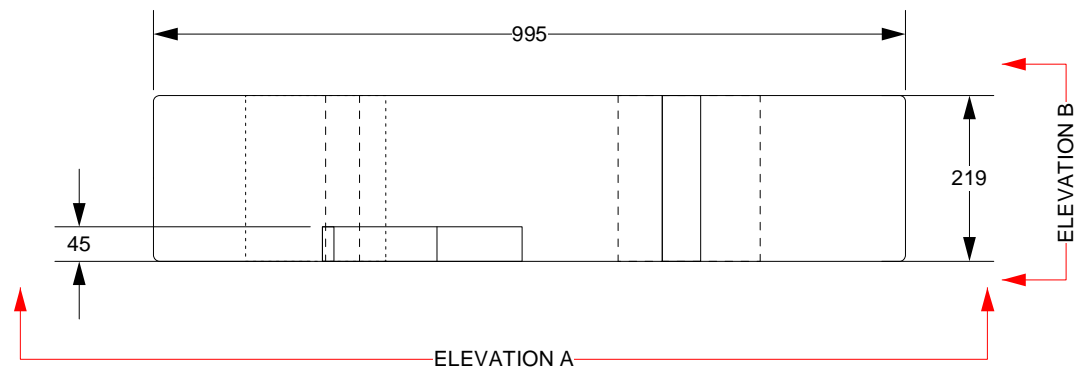
BX HMP 550003 MINIBEAST MOTEL X 1



SUPPLY ONLY		<div><div><div>1.</div><div>DIG HOLE IN DESIRED LOCATION AND PLACE MINIBEAST MOTEL IN. CAN BE SECURED WITH EITHER SOIL OR CONCRETE MIX.</div></div><div></div></div>		Construction Space: 1125mmx145mmx45mm
		Storage 1125mmx145mmx45mm		
		Structure 1125mmx145mmx45mm		
		Precautionary Measures: STEEL TOE CAPS PROTECTIVE GLOVES		
		Special Tools, Lifting Devices or Templates Required:  N/A		
		Free Fall Height:  N/A		
		Orientation:  N/A		
		Additional Notes: THIS ITEM IS LEFT UNTREATED TO ALLOW FOR NATURAL DECAY TO ENCOURAGE HABITAT.		
		All Dimensions shown in <b>Millimeters</b> © <b>HAND MADE PLACES LTD</b> Kingsley House, Unit 14, Old Station Way, Bordon, Hants, GU35 9HH Tel 01420 474111 Fax 01420 474222 e-mail: info@handmadeplaces.co.uk www: handmadeplaces.co.uk		
		DRAWING TITLE:  MINIBEAST MOTEL		
		Product Code: BX HMP 550003		
		Drawn by: CS	Chk'd by:	
			Date: MAR '10	
		SHEET No: 2/3		

SUPPLY ONLY			
Minimum Space Requirements:		<div></div>	
		Construction Space: 1125mmx145mmx45mm	
		Storage 1125mmx145mmx45mm	
		Structure 1125mmx145mmx45mm	
		Precautionary Measures: STEEL TOE CAPS PROTECTIVE GLOVES	
		Special Tools, Lifting Devices or Templates Required:  N/A	
Required Foundations under Normal Conditions:		Free Fall Height:  N/A	
<div><div><ul style="list-style-type: none"><li>FOUNDATIONS SHOULD NOT PRESENT A TRIPPING OR IMPACT HAZARD</li><li>FOUNDATIONS FOR LOOSE FILL SURFACES SHOULD BE 400mm BELOW PLAYING SURFACE</li><li>CARE SHOULD BE TAKEN CONCERNING ABNORMAL GROUND CONDITIONS</li></ul></div><div><p><b>NOTE:</b> BASIC LEVEL MARK SHOWS THE LEVEL OF THE PLAYING SURFACE.</p></div></div>		Orientation:  N/A	
		Additional Notes: THIS ITEM IS LEFT UNTREATED TO ALLOW FOR NATURAL DECAY TO ENCOURAGE HABITAT.	
		All Dimensions shown in <b>Millimeters</b> © <b>HAND MADE PLACES LTD</b> Kingsley House, Unit 14, Old Station Way, Bordon, Hants, GU35 9HH Tel 01420 474111 Fax 01420 474222 e-mail: info@handmadeplaces.co.uk www: handmadeplaces.co.uk	
		DRAWING TITLE:  MINIBEAST MOTEL	
		Product Code: BX HMP 550003	
		Drawn by: CS	Chk'd by:
			Date: MAR '10
		SHEET No: 3/3	

**NOTE:** PRE-ASSEMBLE AND SEND TO TREATMENT



BEE OUTLINE TO BE MADE ON THE CNC. THE SIGN WILL BE MADE FROM 2 PIECES OF 219mm x 45mm

THE BUMBLE BEE WILL HAVE 16mmØ x 1mm FIXING POINT ON THE BOTTOM SECTION FOR ALLOW THE FIXING OF LANDSCAPE SCREWS

THE PRODUCT IS TO BE ASSEMBLED IN TWO HALVES, WITH THE HALVES BEING FIXED TOGETHER THROUGH THE MIDDLE SECTION USING 6x60mm POZI SCREWS

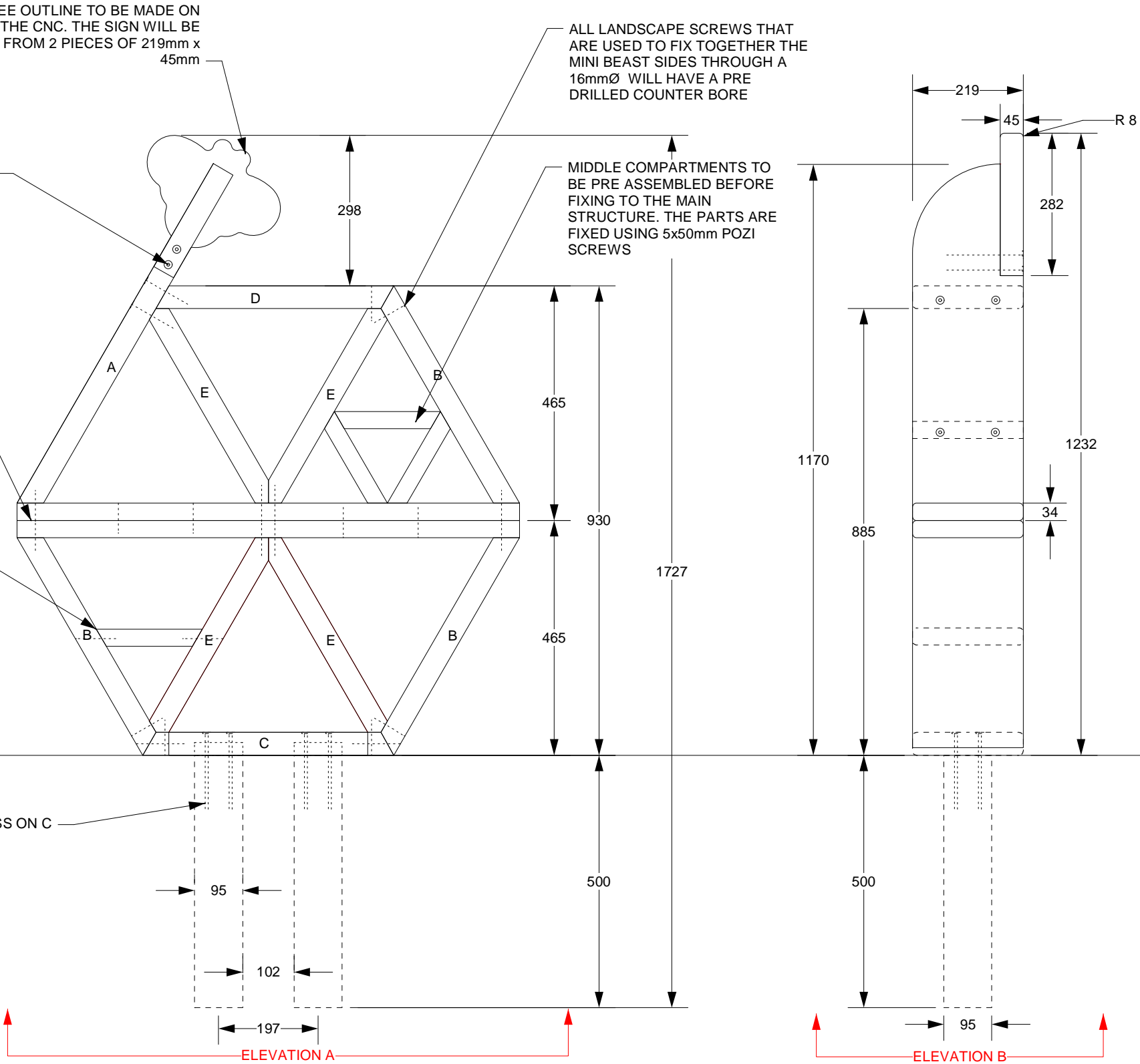
DIVIDER TO BE THE SAME SIZE AND ANGLE AS THE TRIANGULAR COMPARTMENT IN THE TOP RIGHT SECTION

ALL LANDSCAPE SCREWS THAT ARE USED TO FIX TOGETHER THE MINI BEAST SIDES THROUGH A 16mmØ WILL HAVE A PRE DRILLED COUNTER BORE

MIDDLE COMPARTMENTS TO BE PRE ASSEMBLED BEFORE FIXING TO THE MAIN STRUCTURE. THE PARTS ARE FIXED USING 5x50mm POZI SCREWS

GROUND LEVEL

POSTS FIXED INTO RECESS ON C



REVISIONS			
REV	DESCRIPTION	DATE	CHK'D
A	VARIOUS CHANGES	MAR'13	OMB
B	COMPLETE AMENDMENT	JUL'13	OMB

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Bordon, Hants, GU35 9HH  
Tel 01420 474111 Fax 01420 474222  
e-mail: info@handmadeplaces.co.uk  
www: handmadeplaces.co.uk



No:  
JOB TITLE:  
  
MINIBEAST HQ

DRAWING TITLE:  
  
PLAN & ELEVATION

Product Code: BX HMP 550008  
Drawn by: OB Chk'd by:  
Scale: 1:10 Date: FEB'13  
SHEET No: 1/4  
DRAWING No: MBHQ 101001

SUPPLY ONLY		Construction Space: 2000mmx2000mmx2500mm	
		Storage 219mmx70mmx2000mm	
		Structure 219mmx70mmx2000mm	
		Precautionary Measures: EYE GOGGLES STEEL TOE CAP BOOTS PROTECTIVE GLOVES	
		Special Tools, Lifting Devices or Templates Required:  N/A	
		Free Fall Height:  N/A	
		Orientation:  N/A	
		Additional Notes: TAKE CARE WHEN LIFTING. FOLLOW MANUFACTURERS GUILD LINES FOR CEMENT USE	
		All Dimensions shown in <b>Millimeters</b> © <b>HAND MADE PLACES LTD</b> Kingsley House, Unit 14, Old Station Way, Bordon, Hants, GU35 9HH Tel 01420 474111 Fax 01420 474222 e-mail: info@handmadeplaces.co.uk www: handmadeplaces.co.uk	
		DRAWING TITLE:  TASTE & SMELL TOTEM COMPONENTS	
		Product Code: BX/HMP/750007	
		Drawn by: AM	Chk'd by:
			Date: JUN'10
		SHEET No: 1 of 3	



TASTE & SMELL TOTEM x1  
219mm x 70mm 2000mm

SUPPLY ONLY

Construction Space:  
2000mmx2000mmx2500mm

Storage  
219mmx70mmx2000mm

Structure  
219mmx70mmx2000mm

Precautionary Measures:  
EYE GOGGLES  
STEEL TOE CAP BOOTS  
PROTECTIVE GLOVES

Special Tools, Lifting Devices or  
Templates Required:

N/A

Free Fall Height:

N/A

Orientation:

N/A

Additional Notes:  
TAKE CARE WHEN LIFTING.  
FOLLOW MANUFACTURERS  
GUILDLINES FOR CEMENT USE

All Dimensions shown in **Millimeters**

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[www: handmadeplaces.co.uk](http://www.handmadeplaces.co.uk)



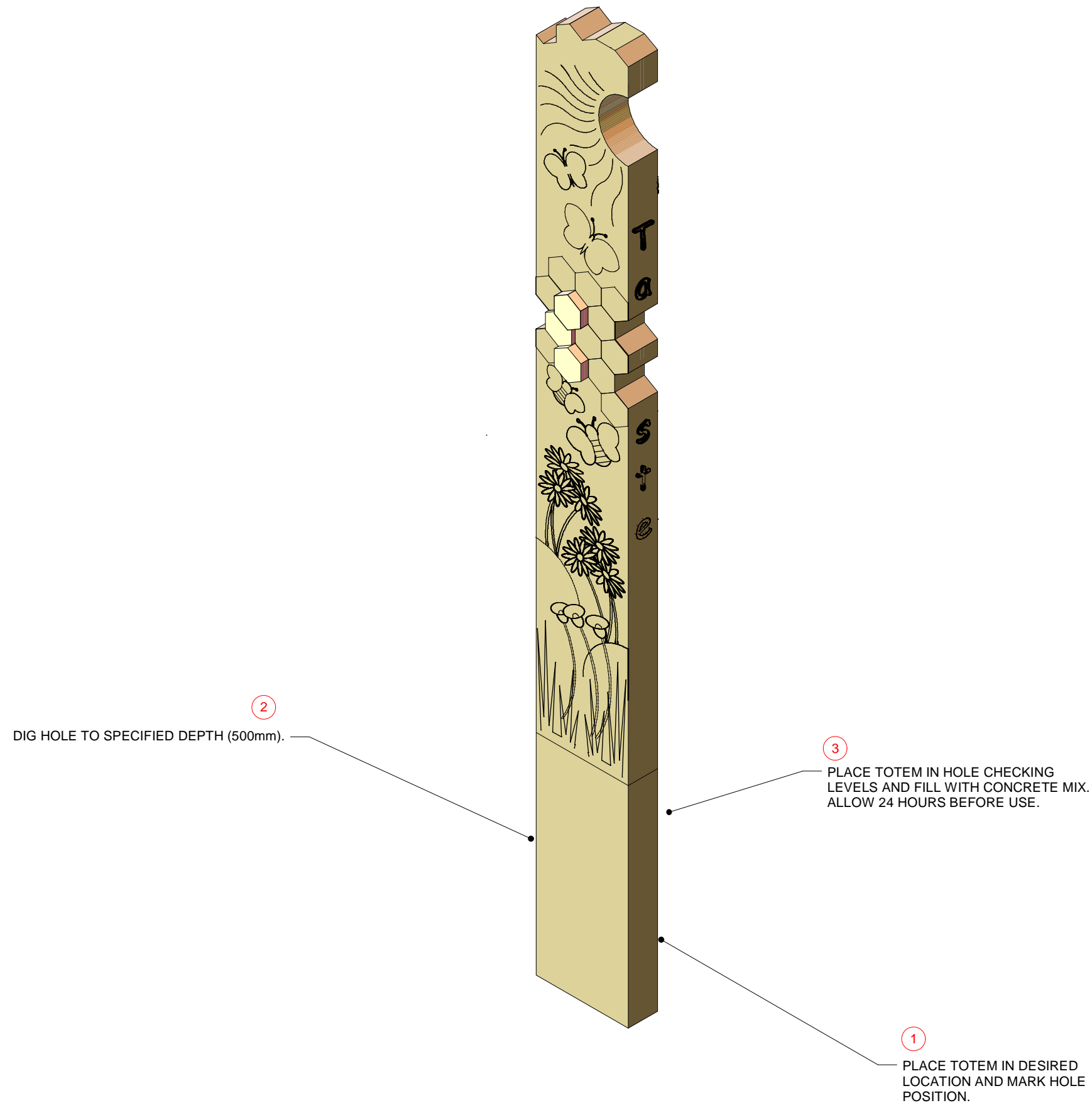
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TASTE & SMELL TOTEM  
INSTALLATION INSTRUCTIONS

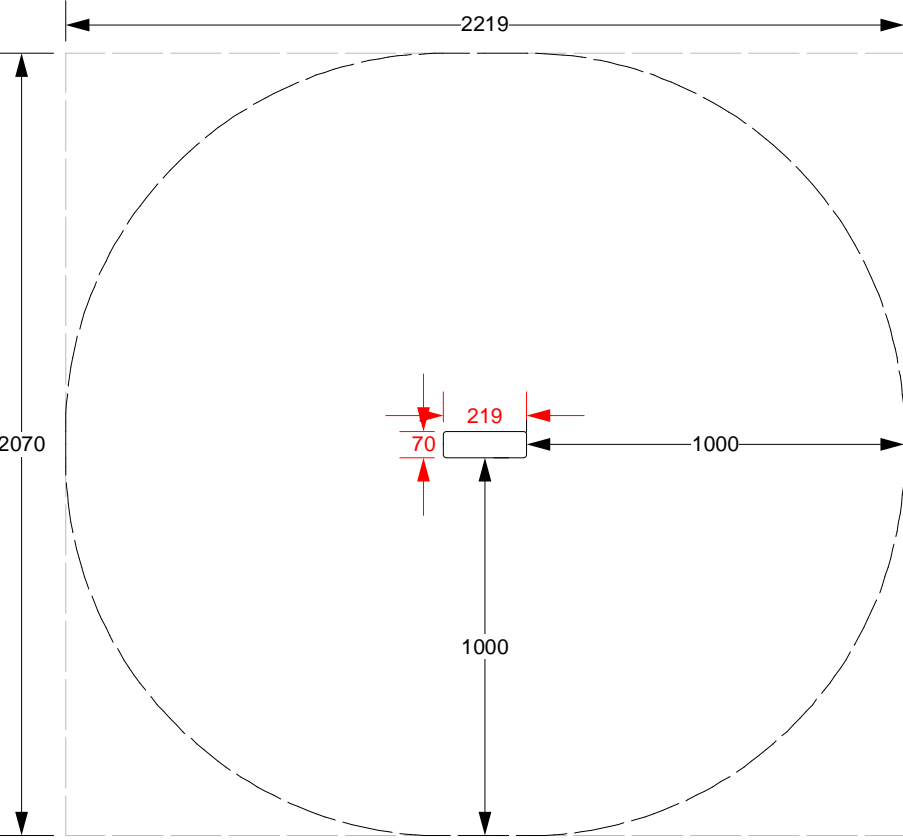
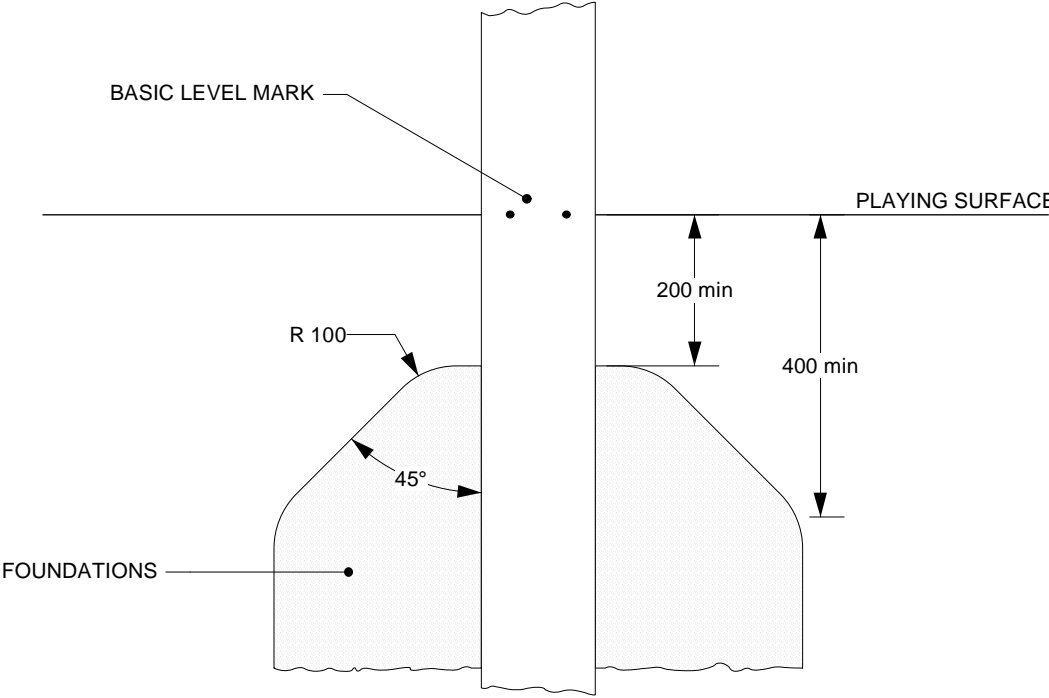
Product Code: BX/HMP/750007

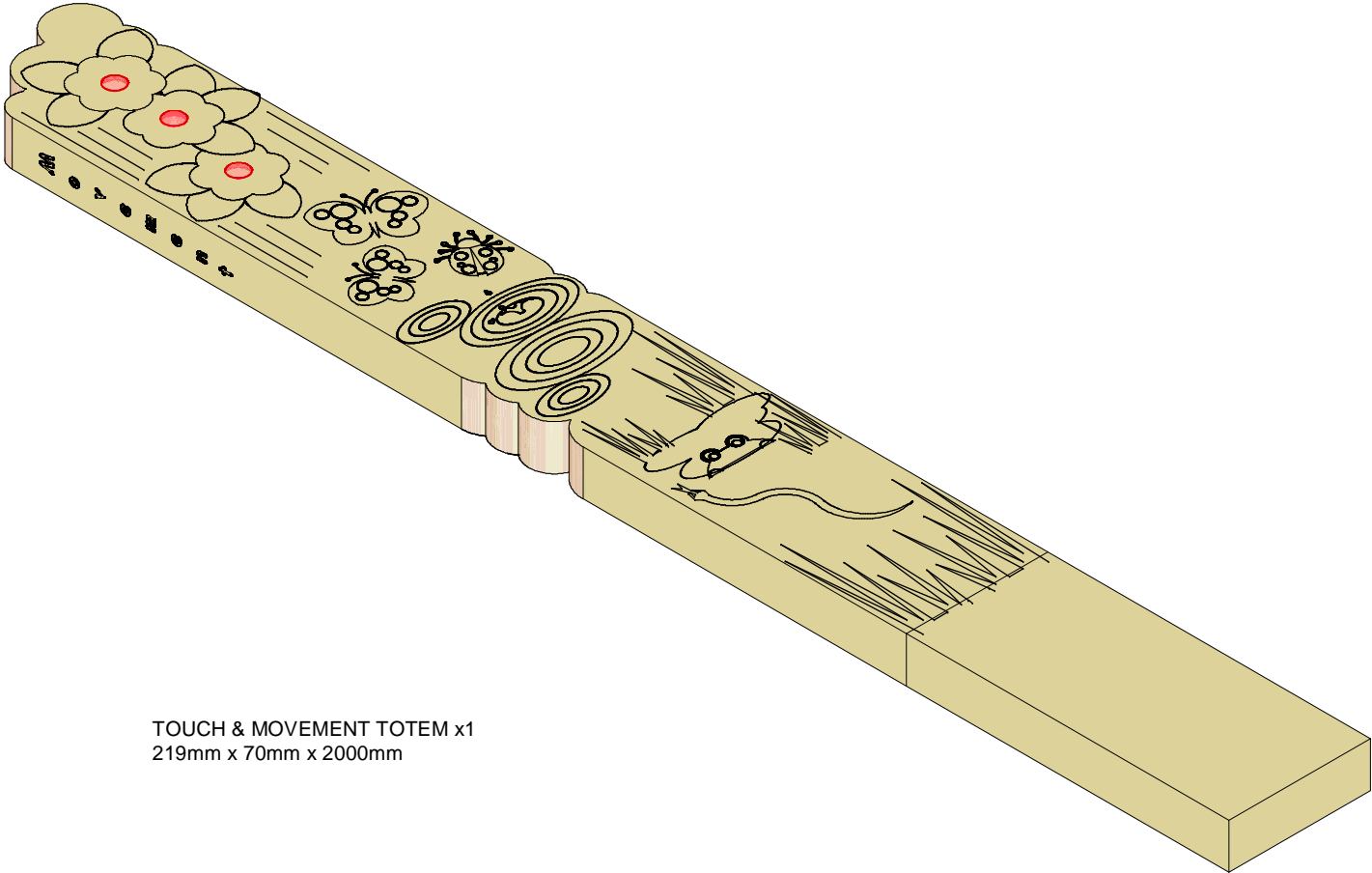

Drawn by: AM	Chk'd by:
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Date: JUN'10

SHEET No: 2 of 3



<div>SUPPLY ONLY</div>	<div>Minimum Space Requirements:</div> 	<div>Construction Space: 2000mmx2000mmx2500mm</div> <div>Storage 219mmx70mmx2000mm</div> <div>Structure 219mmx70mmx2000mm</div> <div>Precautionary Measures: EYE GOGGLES STEEL TOE CAP BOOTS PROTECTIVE GLOVES</div> <div>Special Tools, Lifting Devices or Templates Required:  N/A</div>
<div>Required Foundations under Normal Conditions:</div>	 <div> <ul style="list-style-type: none"> <li>FOUNDATIONS SHOULD NOT PRESENT A TRIPPING OR IMPACT HAZARD</li> <li>FOUNDATIONS FOR LOOSE FILL SURFACES SHOULD BE 400mm BELOW PLAYING SURFACE</li> <li>CARE SHOULD BE TAKEN CONCERNING ABNORMAL GROUND CONDITIONS</li> </ul> </div> <div>NOTE: BASIC LEVEL MARK SHOWS THE LEVEL OF THE PLAYING SURFACE.</div>	<div>Free Fall Height:  N/A</div> <div>Orientation:  N/A</div> <div>Additional Notes: TAKE CARE WHEN LIFTING. FOLLOW MANUFACTURERS GUILDLINES FOR CEMENT USE</div> <div> All Dimensions shown in <b>Millimeters</b>  © <b>HAND MADE PLACES LTD</b>  Kingsley House, Unit 14, Old Station Way,  Bordon, Hants, GU35 9HH  Tel 01420 474111 Fax 01420 474222  e-mail: info@handmadeplaces.co.uk  www: handmadeplaces.co.uk </div> <div>DRAWING TITLE: TASTE &amp; SMELL TOTEM FOUNDATION DETAILS</div> <div> <div>Product Code: BX/HMP/750007</div> <div> <div>Drawn by: AM</div> <div>Chk'd by:</div> </div> <div>Date: JUN'10</div> </div> <div>SHEET No: 3 of 3</div>

SUPPLY ONLY	<div>  </div> <div> <p>TOUCH &amp; MOVEMENT TOTEM x1 219mm x 70mm x 2000mm</p> </div>		<div> <p>Construction Space: 2000mmx2000mmx2500mm</p> </div> <div> <p>Storage 219mmx70mmx2000mm</p> </div> <div> <p>Structure 219mmx70mmx2000mm</p> </div> <div> <p>Precautionary Measures: EYE GOGGLES STEEL TOE CAP BOOTS PROTECTIVE GLOVES</p> </div> <div> <p>Special Tools, Lifting Devices or Templates Required:</p> </div> <div> <p>N/A</p> </div> <div> <p>Free Fall Height:</p> </div> <div> <p>N/A</p> </div> <div> <p>Orientation:</p> </div> <div> <p>N/A</p> </div> <div> <p>Additional Notes: TAKE CARE WHEN LIFTING. FOLLOW MANUFACTURERS GUILDLINES FOR CEMENT USE</p> </div> <div> <p>All Dimensions shown in <b>Millimeters</b> © <b>HAND MADE PLACES LTD</b> Kingsley House, Unit 14, Old Station Way, Bordon, Hants, GU35 9HH Tel 01420 474111 Fax 01420 474222 e-mail: info@handmadeplaces.co.uk www: handmadeplaces.co.uk</p> </div> <div>  </div> <div> <p>DRAWING TITLE: TOUCH &amp; MOVEMENT TOTEM COMPONENTS</p> </div> <div> <p>Product Code: BX/HMP/750008</p> </div> <div> <p>Drawn by: AM Chk'd by:</p> </div> <div> <p>Date: JUN'10</p> </div> <div> <p>SHEET No: 1 of 3</p> </div>	
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SUPPLY ONLY

Construction Space:  
2000mmx2000mmx2500mm

Storage  
219mmx70mmx2000mm

Structure  
219mmx70mmx2000mm

Precautionary Measures:  
EYE GOGGLES  
STEEL TOE CAP BOOTS  
PROTECTIVE GLOVES

Special Tools, Lifting Devices or  
Templates Required:

N/A

Free Fall Height:

N/A

Orientation:

N/A

Additional Notes:  
TAKE CARE WHEN LIFTING.  
FOLLOW MANUFACTURERS  
GUILDLINES FOR CEMENT USE

All Dimensions shown in **Millimeters**

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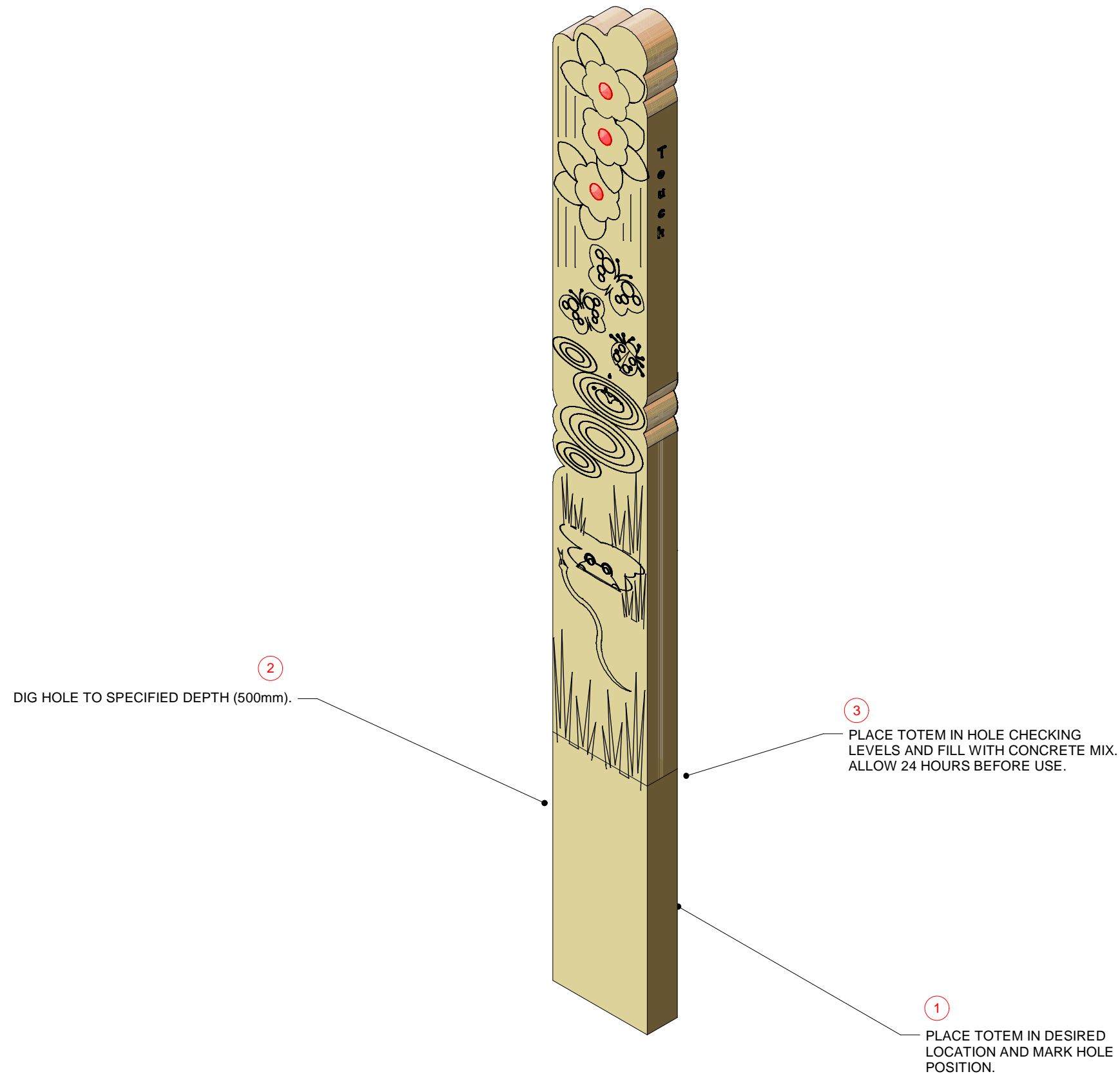
## TOUCH & MOVEMENT TOTEM ASSEMBLY

Product Code: BX/HMP/750008

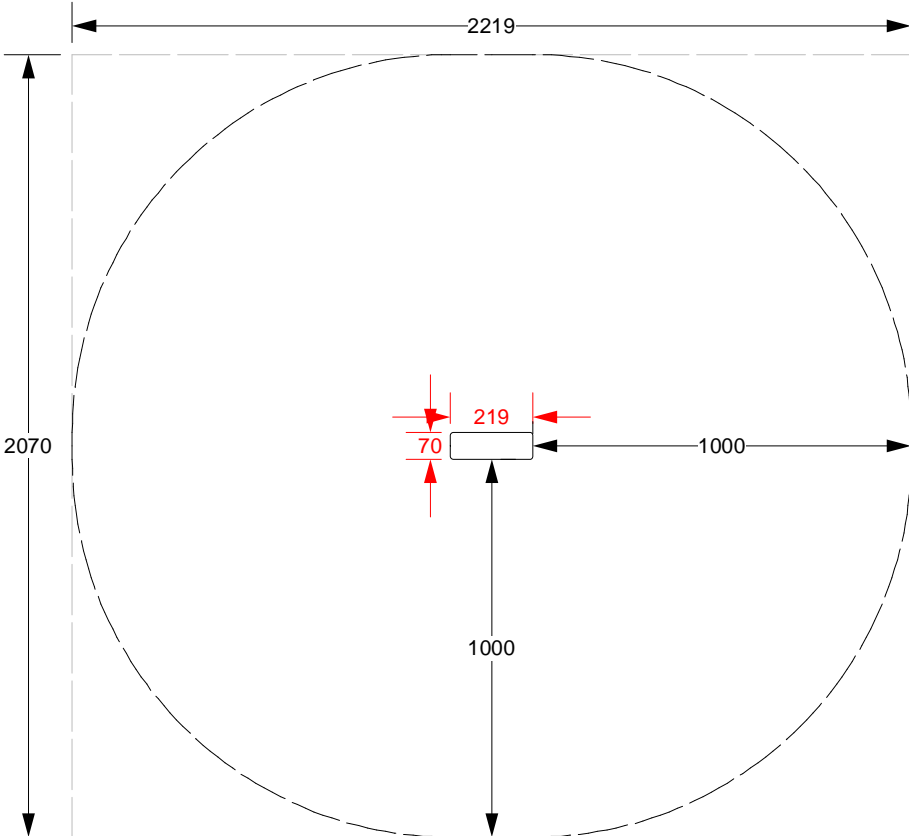
Drawn by: AM	Chk'd by:
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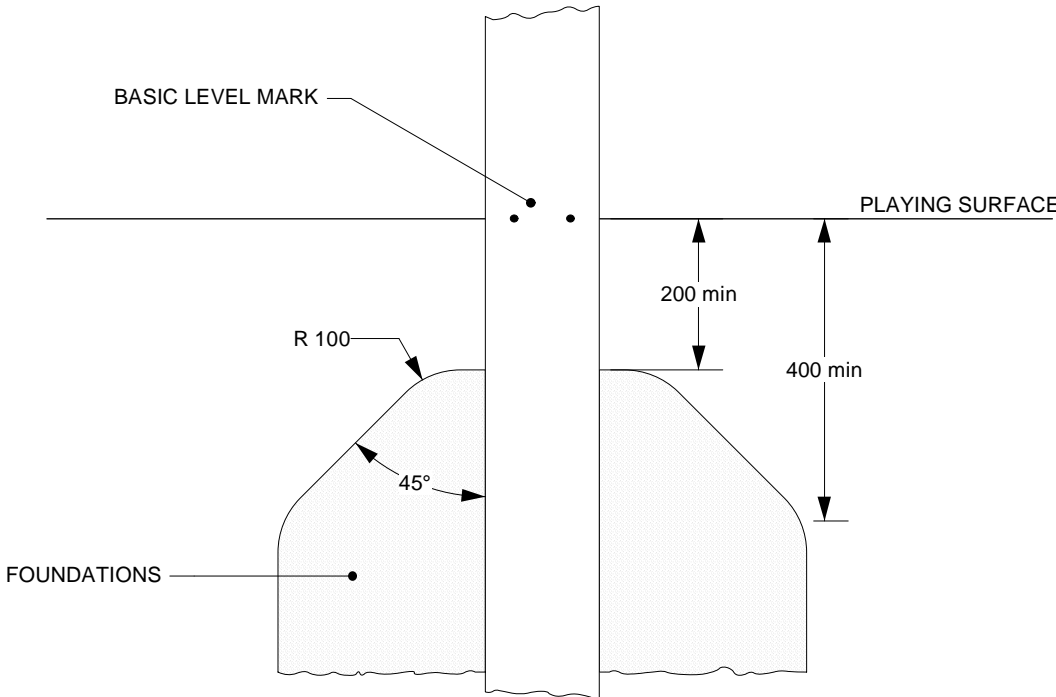
Date: JUN'10

SHEET No: 2 of 3





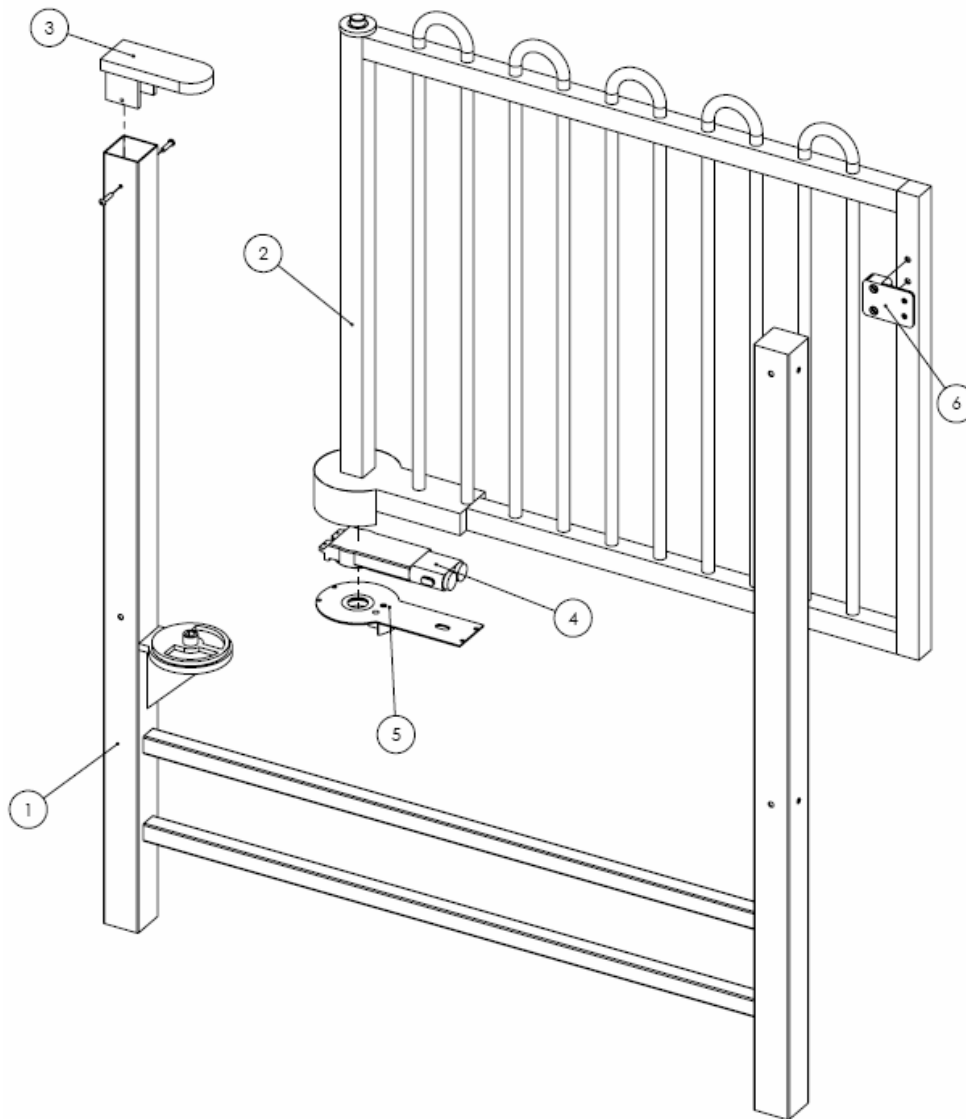
SUPPLY ONLY		Construction Space: 2000mmx2000mmx2500mm	
Minimum Space Requirements:		Storage 219mmx70mmx2000mm	
		Structure 219mmx70mmx2000mm	
		Precautionary Measures: EYE GOGGLES STEEL TOE CAP BOOTS PROTECTIVE GLOVES	
		Special Tools, Lifting Devices or Templates Required:	
		N/A	

Required Foundations under Normal Conditions:		Free Fall Height:	
		N/A	
		Orientation:	
 <ul style="list-style-type: none"><li>FOUNDATIONS SHOULD NOT PRESENT A TRIPPING OR IMPACT HAZARD</li><li>FOUNDATIONS FOR LOOSE FILL SURFACES SHOULD BE 400mm BELOW PLAYING SURFACE</li><li>CARE SHOULD BE TAKEN CONCERNING ABNORMAL GROUND CONDITIONS</li></ul> <p><b>NOTE:</b> BASIC LEVEL MARK SHOWS THE LEVEL OF THE PLAYING SURFACE.</p>		Additional Notes: TAKE CARE WHEN LIFTING. FOLLOW MANUFACTURERS GUILDLINES FOR CEMENT USE	
		All Dimensions shown in <b>Millimeters</b> © <b>HAND MADE PLACES LTD</b> Kingsley House, Unit 14, Old Station Way, Bordon, Hants, GU35 9HH Tel 01420 474111 Fax 01420 474222 e-mail: info@handmadeplaces.co.uk www: handmadeplaces.co.uk	
		DRAWING TITLE: TOUCH & MOVEMENT TOTEM FOUNDATION DETAILS	
Product Code: BX/HMP/750008			
Drawn by: AM	Chk'd by:		
	Date: JUN'10		
SHEET No: 3 of 3			

# Quantum Gate Self Closer Installation Instructions

The gate set comprises of:-

1. Gate post frame
2. Gate Leaf
3. Top locating plate complete with plain bearing
4. Adjustable dual action self closing unit
5. Bottom locating plate complete with internal stops and thrust bearing
6. Reversible slam plate



The gate will be supplied ready assembled with the gate leaf, self closing unit and the bearings pre fitted. The gate will open inward or outward according to requested conditions. The unit should be installed complete within a suitable trench to a depth of 600mm and levelled to match the fence height.

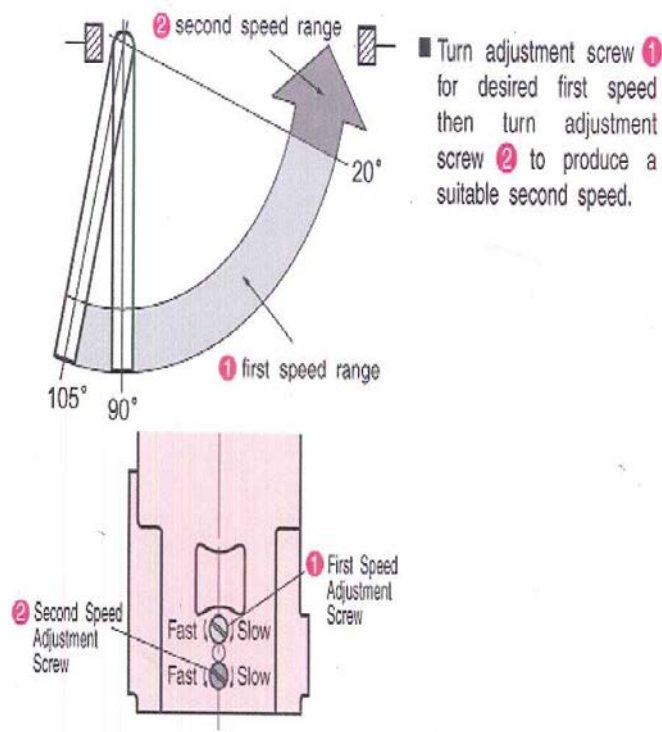
## Closing Speed Adjustment

The self closing unit is factory set to an appropriate speed. When the gate set has been installed the unit must be adjusted by following the procedure:-

1. Leave the unit to stand for at least 1 hour to enable the hydraulic oil to settle after transport and installation.
2. Using the Allan key supplied fully close the adjuster by screwing clockwise into the body of the unit.
3. Operate the gate to see what the closing speed is in this condition, if the gate closes too quickly at this point then the gate must be secured and the supplier contacted.
4. If the gate closes too slowly the unit can be speeded up to the required speed by rotating the adjustment screw anti clockwise. This should be done  $\frac{1}{4}$  of a turn at a time, operating the gate between each adjustment.
5. Repeat this process for the second stage of the closing arc.

**NB. If the adjuster is turned more than 4 complete turns the adjustment valve will come out of the closer body and cannot be replaced. The unit must now be discarded and a new one fitted.**

## HINGE SIDE



## SLAM PLATE SIDE

## **Maintenance and Repair of the Gate Finish**

The Gate leaf is a powder coated finish to BS 6497 and must be cleaned with soapy water annually to ensure that the powder coating does not deteriorate with the passing of time. If the coating is chipped it can be easily repaired by gently rubbing down the area and applying 2 coats of galvanising spray, then painted to match the original finish using the correct RAL colour paint, this can be obtained upon request.

## **Replacement of the Closer unit**

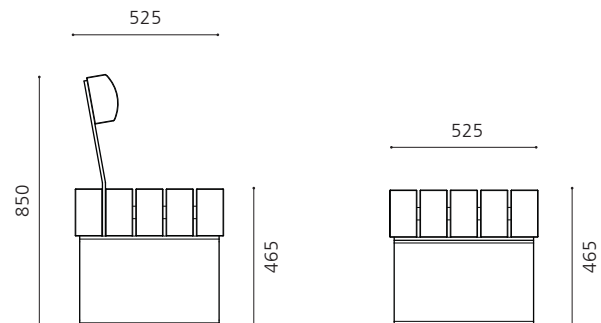
The self closing unit can be replaced by the following procedure.

1. Remove the top locating plate by removing the 2 securing screws and lift off.
2. Lift off the gate leaf and invert.
3. Remove the 4 securing set screws that secure the bottom locating plate and remove the self closing unit.
4. Replace the self closing unit with a new one and then follow the procedure in reverse.

## FORDHAM RANGE

### Coordinated heavy duty seat, bench & table set

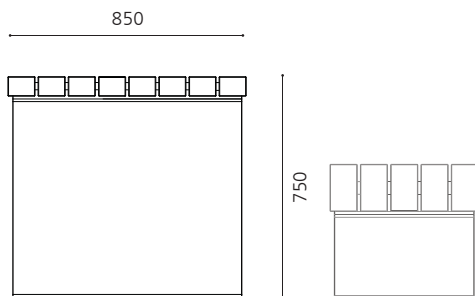
The Fordham steel and timber seating range offers a bold appearance, heavy duty materials and robust construction - all designed to offer the maximum resistance to vandalism required in tough urban environments. The bench is the basic form, to which a backrest can be added to form a seat. The iroko timber backrest slats are ergonomically curved for extra comfort and are supported by a durable galvanised steel frame. The complementary Fordham table is of a similar construction and can be used with seats and / or benches. Seats and benches are available in 4 standard lengths to comfortably accommodate up to 5 people, and the table is offered in 2 standard sizes, corresponding to the 2 mid-size seating lengths.



#### Installation:

Each seat / bench support is pre-drilled with 4no. holes for M16 ground fixings (not supplied)

## FORDHAM RANGE



### Installation:

Each table support is pre-drilled with 4no. holes for M16 ground fixings (not supplied)

Note: bench is shown for scale comparison only and is not supplied with table; please order benches separately.

### FORDHAM

Galvanised steel support frame with iroko timber slats, smooth planed finish

#### SEATS

##### FOR 5

3 person seat, 1500mm long

##### FOR 6

3 person seat, 1800mm long

##### FOR 8

4 person seat, 2350mm long

##### FOR 10

5 person seat, 3000mm long

#### OPTIONS:

- Armrests
- Polyester powder coated steelwork

#### BENCHES

##### FORB5

3 person bench, 1500mm long

##### FORB6

3 person bench, 1800mm long

##### FORB8

4 person bench, 2350mm long

##### FORB10

5 person bench, 3000mm long

#### TABLES

##### FORT6

6 person table, 1800mm long

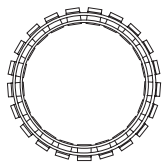
##### FORT8

8 person table, 2350mm long

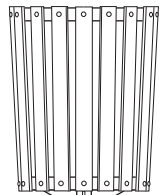




## TIMBER SLATTED LITTER BINS



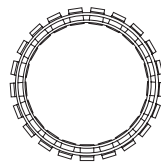
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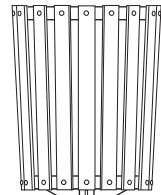
785

300

**Installation:** Set in concrete block, 300 x 300mm plan x 350mm deep

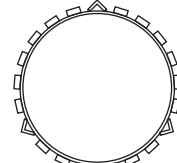


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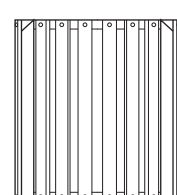


785

**Installation:**  
4 no. fixing holes for M8 ground anchors (not supplied)

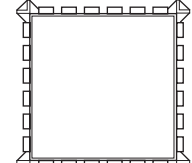


Ø530

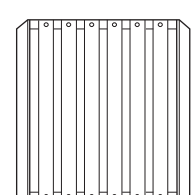


750

**Installation:**  
3 no. fixing holes for M12 ground anchors (not supplied)



530 sq



750

**Installation:**  
4 no. fixing holes for M12 ground anchors (not supplied)

### BOSTON - IN-GROUND

#### BOS 490 T

In-ground fixed litter bin  
Steel-frame in black plastic coated finish, iroko slats in Sadolin stain  
Steel liner, capacity 80 litres, with facility to secure with padlock

#### OPTIONS (ALL BOSTON MODELS):

- All-steel version

### BOSTON - BOLT-DOWN

#### BOS490 T B

Bolt-down fixed litter bin  
Steel-frame in black plastic coated finish, iroko slats in Sadolin stain  
Steel liner, capacity 80 litres

### TENBY

#### TSL 231

Bolt-down fixed litter bin  
Steel-frame in black plastic coated finish, iroko slats in Sadolin stain  
Steel liner, capacity 80 litres, with facility to secure with padlock

### BALMORAL

#### BSL 230

Bolt-down fixed litter bin  
Steel-frame in black plastic coated finish, iroko slats in Sadolin stain  
Steel liner, capacity 130 litres, with facility to secure with padlock

#### OPTIONS:

- Lid



**SECTION NO. 3**  
**SCHEDULE OF WORKS**

**Refer also to General Notes drawing 0002**

- 3/1 Site Clearance/Demolitions
- 3/2 Hard Landscaping
- 3/3 Soft Landscaping
- 3/4 Play Equipment
- 3/5 Furniture/Fencing
- 3/6 Drainage



**SECTION NO. 3/1 - SITE CLEARANCE/DEMOLITIONS**

£

**DEMOLITIONS AND ALTERATIONS**Site Clearance/Preparation; refer to drawing nos. 0010A, 7001A and 8901A and NBS C20 and D20

A	Remove and grub out existing tree; 1 Nr; drawing 4001A	Item
B	Grub out and clear existing shrubs and vegetation; approximately 190 sqm	Item
C	Remove picnic tables, cycle stands, pedestrian gate (EG1) and maintenance gate (EG2) (set aside for re-use)	Item
D	Remove benches; 5 Nr	Item
E	Remove play equipment	Item
F	Remove bins; 3 Nr	Item
G	Remove signs; 3 Nr	Item
H	Strip topsoil generally; 200mm deep; retain for use; approximately 1800 sqm	Item
J	Break out and remove existing paths and hard standing; with relevant sub base; 250mm deep; retain suitable material for use; approximately 985 sqm; remove unsuitable material	Item
K	Break out and remove existing safety surfaces with relevant sub base; 250mm deep; retain suitable material for use; approximately 371 sqm; remove unsuitable material from site	Item
L	Break out edge of pond; as required; approximately 105m	Item
M	Retain paddling pool concrete base; drill drainage holes in base to enable drainage; drawing 8901	Item
N	Breaking out upstand/wall surrounding pond; retain material for use; 111m; crush for fill	Item
P	Breaking out concrete base, 1500x 1500mm for root balls; 6 Nr	Item
Q	Excavate further 100mm for low level planted beds and retain arisings; approximately 512 sqm	Item
R	Filling to hard surfaces, paths, paved and concreted areas using imported type 1; 150mm deep; approximately 170 cum	Item
S	Filling with site won topsoil; approximately 300 cum	Item
T	Imported topsoil to lawns and flower beds; approximately 400 cum; NBS Q28	Item

**SECTION NO. 3/1 - SITE CLEARANCE/DEMOLITIONS (Cont'd)**

**DEMOLITIONS AND ALTERATIONS (Cont'd)**

**Site Clearance/Preparation; refer to drawing nos. 0010A and 7001A (Cont'd)**

A	Filling pond with retained/imported fill; approximately 686 cum; drawing 8901A, detail 1 and 2	Item
B	Surface treatments; regrade/shaping/filling/levelling etc.; approximately 1653 sqm	Item
C	Creation of mounds; 2 Nr; to install PE15; approximately 800mm high approximately 8m x 8m; including fill, grading and preparing surface; drawing 1002A	Item
D	Disposal of surplus material (soil and hardcore) off site; approximately 250 cum	Item
E	Tree and tree root protection; as NBS D20/164; drawing 4001A	Item
F	Protective fencing; drawing 4001A	Item
G	General clean and improvement of existing WC's; replace broken tiles as NBS M40/5A; jet wash; paint surfaces as NBS M60; replace broken or non working sanitaryware and ensure it is all in working condition	Item

**COLLECTION PAGE**

Page No. 3/1/1

" " 3/1/2

**SECTION NO. 3/2 - HARD LANDSCAPING**

£

Refer to drawings nos. 1000A, 1001A, 1002A, 3001A, 3002B and 8201APavings; including all necessary excavations; surface treatments, subgrade, geotextile mat, sub base and finishings; and NBS Q10, Q20, Q22, Q23, Q24 and Q26

A	Concrete setts block pavings; PV1; approximately 160sqm; NBS Q24/110A	Item
B	Resin bound permeable paving; PV2; approximately 235sqm; NBS Q23/225A	Item
C	Tiger mulch; PV3; approximately 810sqm; NBS Q26/120A, 120F and 120G	Item
D	CEDEC compacted gravel; PV4; approximately 105sqm; NBS Q23/160A	Item
E	Rubber crumb; PV5a and PV5b; approximately 145sqm; NBS Q26/120D and 120E	Item
	Metal edges, including additional sub base build up	
F	E1; 150mm; NBS Q10/200A	Item
G	E2; 100mm; NBS Q10/200B	Item
H	E3; 75mm; NBS Q10/200C	Item
J	E4; 50mm; NBS Q10/200D	Item
K	E5; 100mm; aluminium edge; NBS Q10/200E	Item

**COLLECTION PAGE**

Page No. 3/2/1

**SECTION NO. 3/3 - SOFT LANDSCAPING**

Generally all as drawings nos. 1000A, 1001A, 1002A, 3001A, 3002B, 4001A, 8201A and 8701A; and NBS Q28, Q30 and Q31

£

A	Retain and protect existing hedge	Item
B	Plant new hedge, including planting soil detail drawing 8701 detail 12	Item
C	Prepare beds for planting; detail 11	Item
D	Ditto, shrubs, hedge planting; detail 12	Item
E	Tree pit; detail 13	Item
F	Tree pit; detail 14	Item
G	Tree pit; detail 15	Item
	<u>Planting- as drawings 4002A, 4003A and 4004A</u>	
	Trees	
H	Amelanchier lamarckii; 4 Nr	Item
J	Betula pubescens; 2 Nr	Item
K	Betula nigra; 2 Nr	Item
L	Prunus 'Kanzan'; 3 Nr	Item
M	Betula utilis jacquemontii; 2 Nr	Item
N	Acer griseum; 2 Nr	Item
P	Prunus serrula tibetica; 2 Nr	Item
Q	Acer campestre; 4 Nr	Item
	Shrubs	
R	Berberis darwinii; 259 Nr	Item
S	Carpinus betulus; 457 Nr	Item
T	Cornus alba 'Sibirica'; 59 Nr	Item
U	Cornus canadensis; 527 Nr	Item

**SECTION NO. 3/3 - SOFT LANDSCAPING (Cont'd)**Planting (Cont'd)

## Shrubs (Cont'd)

A	Cornus sericea 'Flaviramea'; 10 Nr	Item
B	Elaeagnus ebbingei; 197 Nr	Item
C	Elaeagnus ebbingei 'Limelight'; 222 Nr	Item
D	Escallonia 'Apple Blossom'; 328 Nr	Item
E	Escallonia 'Red Dream'; 33 Nr	Item
F	Forsythia × intermedia 'Spring Glory'; 26 Nr	Item
G	Hebe 'Charming White'; 54 Nr	Item
H	Hebe rakaiensis; 48 Nr	Item
J	Hedera helix hibernica; 4 brks in lower 1/rd; 158 Nr	Item
K	Hedera helix hibernica; 4 brks in lower 1/3rd; 251 Nr	Item
L	Ilex aquifolium; 110 Nr	Item
M	Lavandula angustifolia 'Hidcote'; 49 Nr	Item
N	Lavandula × intermedia 'Alba'; 36 Nr	Item
P	Lavandula × intermedia 'Grosso'; 45 Nr	Item
Q	Pachysandra terminalis 'Green Carpet'; 459 Nr	Item
R	Santolina chamaecyparissus; 58 Nr	Item
S	Santolina rosmarinifolia; 9 Nr	Item
T	Sarcococca hookeriana var. humilis; 377 Nr	Item
U	Stachys byzantina 'Silver Carpet'; 13 Nr	Item
V	Vinca minor 'Gruner Teppich'; 94 Nr	Item

**SECTION NO. 3/3 - SOFT LANDSCAPING (Cont'd)**

Planting (Cont'd)

Herbaceous

A	Crocasmia 'Lucifer'; 39 Nr	Item
B	Geranium ibericum; 12 Nr	Item
C	Geranium sanguineum; 7 Nr	Item
D	Kniphofia uvaria; 10 Nr	Item
E	Luzula sylvatica 'Marginata'; 435 Nr	Item
F	Lythrum salicaria 'The Beacon'; 10 Nr	Item
G	Salvia officinalis; 65 Nr	Item
H	Sanguisorba officinalis 'Red Thunder'; 52 Nr	Item
J	Veronica spicata 'Alba'; 18 Nr	Item
K	Veronica spicata royal candles ('Glory'); 12 Nr	Item

Bulbs

L	Crocus sieberi 'Hubert Edelsten'; 198 Nr	Item
M	Hyacinthoides non-scripta; 1032 Nr	Item
N	Narcissus pseudonarcissus; 153 Nr	Item

Ferns

P	Asplenium scolopendrium; 24 Nr	Item
Q	Dryopteris dilatata; 101 Nr	Item
R	Dryopteris filix-mas; 189 Nr	Item



**SECTION NO. 3/3 - SOFT LANDSCAPING (Cont'd)**

Planting (Cont'd)

Grasses

A	Anemanthele lessoniana; 32 Nr	Item
B	Carex testacea; 38 Nr	Item
C	Deschampsia cespitosa 'bronzeschleier'; 12 Nr	Item
D	Deschampsia cespitosa 'Goldtau'; 42 Nr	Item
E	Miscanthus sinensis 'Ferner Osten'; 10 Nr	Item
F	Miscanthus sinensis 'Morning Light'; 38 Nr	Item
G	Stipa tenuissima; 69 Nr	Item

Landscape turf

H	TF1 - Lindum Turf (LT7 - Festival turf) : Area - 371 sq m	Item
J	TF2 - Lindum Turf (LT Shade) : Area - 923sq m	Item
K	Tree strategy details; as drawing 4001A	Item
L	Composted materials for trees and shrubs; NBS Q28/365A	Item

**COLLECTION PAGE**

Page No. 3/3/1

" " 3/3/2

" " 3/3/3

" " 3/3/4

**SECTION NO. 3/4 - PLAY EQUIPMENT**

£

Generally as drawing 0003A and 3002B; installed in accordance with manufacturer's recommendations, and NBS Q52 and CBA Playground Equipment Manufacturers Installation Instructions; equal and approved; including all foundations, excavations, etc.

A	Platform house; ref. PE1; Timber Play product code 4904; 1 Nr	Item
B	Trampoline; ref. PE2; Elbe product code 5620680; 1 Nr	Item
C	Little chicken; ref. PE3; Timber Play product code 4.08100; 2 Nr	Item
D	Little snail; ref. PE4; Timber Play product code 4.24235; 1 Nr	Item
E	Small see-saw; ref. PE5; Timber Play product code 6.11700; 1 Nr	Item
F	Wobble dish; ref. PE6; Timber Play product code 6.27300; 1 Nr	Item
G	Wind pipes; ref. PE7; Timber Play product code 9.02400; 1 Nr	Item
H	Two storey play house; ref. PE8; Timber Play product code 4.10500; 1 Nr	Item
J	Small play house; ref. PE9; Timber Play product code 4.10100; 1 Nr	Item
K	Toddler twin swing; ref. PE10; Timber Play product code 6.12720; 2 Nr	Item
L	Willow tunnel; ref. PE11; refer to drawing series 8000; 1 Nr	Item
M	Balance blocks; ref. PE12; Timber Play product code 6.51700; 1 Nr	Item
N	Jumping disks; ref. PE13; Timber Play product code 6.06000; 5 Nr	Item
P	Rotating beams; ref. PE14; Timber Play product code 6.51500; 1 Nr	Item
Q	Big suspension bridge; ref. PE15; Timber Play product code 6.61000; 1 Nr	Item
R	Mound stainless steel slide; ref. PE16; Timber Play product code 3.63300; 1 Nr	Item
S	Cradle nest special; ref. PE17; Timber Play product code 6.14520; 1 Nr	Item
T	High twin swing special; ref. PE18; Timber Play product code 7.14020; 1 Nr	Item
U	Tower combination; ref. PE19; Timber Play product code 2.33100; 1 Nr	Item
V	Oak leaf table; ref. PE20; Hand Made Places product code BX/HMP 450021; 1 Nr	Item
W	Minibeast HQ/Bug hotel; ref. PE21; Hand Made Places product code BX/HMP 550008; 1 Nr	Item
X	Jumping mushroom seats; ref. PE22; Timber Play product code 906110350R; 5 Nr	Item

**SECTION NO. 3/4 - PLAY EQUIPMENT (Cont'd)**

Generally as drawing 0003A; installed in accordance with manufacturer's recommendations,  
and NBS Ref (Cont'd)

A	Totems/Taste and smell; ref. PE23; Hand Made Places product code BX/HMP 750007; 1 Nr	Item
B	Totems/Touch and movement; ref. PE24; Hand Made Places product code BX/HMP 750008; 1 Nr	Item
C	Mini beast motel; ref. PE25; Hand Made Places product code BX/HMP 550003; 1 Nr	Item
D	Finger maze/Woodland; ref. PE26; Hand Made Places product code BX/HMP 400014; 1 Nr	Item
E	Leaf seats; ref. PE27; Hand Made Places; NBS Q52/330d; 5 Nr	Item
F	Climbing structure; ref. PE28; Timber Play product code 6.51007L; 1 Nr	Item
G	Timberwood tangle; ref. PE29; Timber Play product code 6.50030L; 1 Nr	Item
H	Climbing wall/2 Element structure; ref. PE30; Timber Play product code 7.77010; 1 Nr	Item
J	Table tennis; ref. PE31; Timber Play product code 7.89000; 2 Nr	Item

COLLECTION PAGE

Page No. 3/4/1

" " 3/4/2

**SECTION NO. 3/5 - FURNITURE/FITTINGS**

£

Generally all as drawings nos. 1001A, 1002A, 3002B, 8601A and 8801A; NBS Q40 and Q50

A	Reinstall existing timber picnic benches; 3 Nr; detail 9	Item
B	New bench; B1; 8 Nr; NBS Q50/220A; detail 1	Item
C	New bench; B2; 2 Nr; NBS Q50/220B; detail 4	Item
D	Reinstall existing cycle stands; detail 7	Item
E	Litter bins; Tenby or equal and approved; 4 Nr; NBS Q50/240A; detail 8	Item
F	Bespoke gate signage S2; as NBS N91/120A	Item
G	Bespoke board signage S1; as NBS N91/120B	Item
H	Boulders; 37 Nr; NBS Q50/345A	Item
J	Self closing lockable single gate; G1; as drawing 8601A; NBS Q40/570B; including carefully removing section of existing fence	Item
K	Reinstall pedestrian gate (EG1) and maintenance gate (EG2)	Item
L	Cleft chestnut pale fencing; NBS Q40/320A	Item
M	Fencing F1; NBS Q40/430A; drawing 8601A	Item
N	Bespoke fencing to match existing F2; NBS Q40/430B and drawing 8601A	Item
P	Tree grilles; NBS Q50/262A	Item

COLLECTION PAGE

Page No. 3/5/1

**SECTION NO. 3/6 - DRAINAGE**

£

Land drainage; all as NBS R13 and drawing 1000A and 8901A

A	Retain existing gullies; adapt and adjust to suit new levels; replace gully grates	Item
B	New gullies, connected to existing drainage	Item
C	Clean and wash through existing drainage runs	Item
D	Inspection chamber; NBS R13/600A	Item
E	Proposed surface drainage and pipework; NBS R13/600B and 600C	Item
F	Proposed cover/capping to redundant drains; NBS R13/600D	Item
G	Forming land drainage and swales detail; NBS R13/620A and detail 4	Item



COLLECTION PAGE

Page No. 3/6/1

**SECTION NO. 3**

**SUMMARY**

£

Page No.

Section No. 3/1 - Site Clearance/Demolitions

3/1/3

Section No. 3/2 - Hard Landscaping

3/2/2

Section No. 3/3 - Soft Landscaping

3/3/5

Section No. 3/4 - Play Equipment

3/4/3

Section No. 3/5 - Furniture/Fittings

3/5/2

Section No. 3/6 - Drainage

3/6/2

**To General  
Summary**

**SECTION NO. 4**

**SPECIALIST DOMESTIC SUBCONTRACTS**

**STREATHAM COMMON PLAY AREA**

£

**SECTION 4****APPROVED SPECIALIST DOMESTIC SUBCONTRACTORS (requiring Contractor Design)****Mechanical Services- Irrigation system**

A	Refer to NBS S14	Item
B	Add for overheads and profit	Item
C	Add for main contractors' discount	Item
D	<u>Add</u> for general attendances	Item
	<u>Add</u> for special attendances:-	
E	positioning - fixed charge	Item
	- time related charge	Item
F	power - fixed charge	Item
	- time related charge	Item
G	storage - fixed charge	Item
	- time related charge	Item
H	removing rubbish - fixed charge	Item
	- time related charge	Item
J	Other Builders work associated with Mechanical Services	Item

**COLLECTION PAGE**

4/1

**TOTAL TO**  
**GENERAL SUMMARY**

£

**SECTION NO. 5**

**PROVISIONAL SUMS AND DAYWORKS**

**STREATHAM COMMON PLAY AREA**

£

**SECTION 5****PROVISIONAL SUMS****Defined Provisional Sums**

A	Incoming services connections	Item	5 000.00
B	Additonal drainage	Item	3 000.00

**Undefined Provisional Sums**

C	Contingency	Item	25 000.00
D	Additional breaking out and demolition	Item	3 000.00
E	Additional planting protection measures	Item	2 000.00

To CollectionPage 5/3

£

## SECTION NO. 5 - PROVISIONAL SUMS AND DAYWORKS (Cont'd)

### DAYWORKS

Provide the following Provisional Sums for Dayworks, to be expended only as directed by the Architect or deducted in whole or in part if not required

LABOUR: Include Provisional Sums for :-

A	Labourer	50 hrs @ £	/ hr	Item
B	Tradesman	50 hrs @ £	/ hr	Item
C	MATERIALS AND GOODS: For Prime Cost before the Final Completion Date. The sum of £2 000.00 Add for percentage adjustment _____%			Item
D	PLANT: For Prime Cost of plant incurred before the Final Completion Date: The sum of £1 000.00 Add for percentage adjustment _____% (Rates for plant costs will be set out in the Schedule of Basic Plant Charges published by the RICS current at the Date of Tender)			Item



**COLLECTION**

Page No. 5/1

" " 5/2

**To General  
Summary**

£

## **GENERAL SUMMARY**

**GENERAL SUMMARY**

Page No.

Section No. 1 - Preliminaries

1/59

Section No. 2 - Specification

Section No. 3 - Schedule of Work

3/S

Section No. 4 - Specialist Domestic Sub-Contractors

4/2

Section No. 5 - Provisional Sums and Dayworks

5/3

Add:

Main Contractors Overheads and Profit

Tenderers are to identify here their specific requirements for overheads and profit on each of the Sections above

**TOTAL TO FORM  
OF TENDER**

## **APPENDICES**

**APPENDIX 'A'**

**TENDER DRAWINGS**

**Refer to Drawing No. SCP-CBA-1-GF-M2-L-0001A**

**APPENDIX 'B'**

**PRE-CONSTRUCTION INFORMATION**

**APPENDIX 'C'**

**DRAFT CONTRACT CONDITIONS  
AND DRAFT BOND FORMAT**

## **APPENDIX 'D'**

### **SURVEYS**