NBS Domestic sample

NBS

Containing:

A9 General requirements
D2 Site preparation
E1 Concrete foundations and floors
F1 Masonry walling
G2 Structural timber and general carpentry
Q1 Landscape
R1 Above and below ground drainage
A9 General requirements

System Outline

102 General requirements
• Requirement: Comply with obligations relating to the project as a whole, detailed in the following 'Execution' clauses.

Execution

602 Significant hazards of the design
• Hazards to be considered: Overhead power lines across site

604 Existing services
• Pre-commencement notifications to service providers:
  - Party responsible for notifications:
    Electricity: Contractor.
    Gas: Contractor.
    Sewage: Contractor.
    Water: Contractor.
  - Timing: In sufficient time not to delay progress.
• Identification of services: Before starting work, check and mark positions of services.

606 Undocumented defects in existing work
• Reporting undocumented defects: When discovered, immediately give notice.

608 General quality
• Sizes:
  - General dimensions: Nominal.
• Accuracy and fit:
  - General tolerances (maximum): To BS 5606 'Accuracy in building', tables 1 and 2.
• Execution generally:
  - Fixing: Fix, apply, install or lay components securely, accurately, plumb, neatly and in alignment.
  - Dimensions: Check on-site dimensions.
  - Finished work: Not defective, e.g. not damaged, disfigured, dirty, faulty or out of tolerance.

610 Proprietary products
• Products generally:
  - Source: Obtain products of each type from the same source or manufacturer.
• Manufacturers' recommendations:
  - General: Unless otherwise specified comply with manufacturers’ current printed recommendations and instructions. Keep copies on site.
  - Conflict with other requirements: In the event of conflict with other specified requirements seek advice/instruction.
• Substitution:
  - Products:
    Argument for substitution: If an alternative product to that specified is proposed, submit reasons for proposal. Approvals: Obtain approval before ordering alternative products.

Total for A9 General requirements
To be carried forward to Tender Summary
D2 Site preparation

System Outline

102 Survey
  • Objectives:
    - Site boundary: Confirm location and dimensions.
    - Buildings and structures adjacent to site boundary: Confirm locations and dimensions relative to boundary.
    - Above and below ground services: Identify and record service lines above and below ground within or immediately adjacent to site boundary.
  • Report: Submit.

108 Site clearance
  • Materials and features to be removed:
    - General: Rubbish and debris within site boundary.
    - Vegetation: Within area of new construction.
    - Topsoil: Within area of new construction.

110 Grading and levelling
  • Grading to levels: As drawings.
  • Excess subsoil: Remove from site.

Execution

606 Site clearance
  • Trees, shrubs and hedges to be removed:
    - Methods: In accordance with HSE/Arboriculture and Forestry Advisory Group safety leaflets.
  • Stripping topsoil:
    - Depth: Full depth of existing topsoil.
    - Around trees: Do not remove topsoil from below the spread of retained trees.

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Total for D2 Site preparation
To be carried forward to Tender Summary
E1 Concrete foundations and floors

System Outline

102 Strip foundations
- Trenches: Excavations as clause 608.
- Foundations:
  - Concrete:
    Standard: To BS 8500-2.
    Type: Designated concrete GEN1 or Standardized prescribed concrete ST2.
    Placement: As clause 614.
- Backfill:
  - Type:
    Under concrete and pavings: Highways Agency type 1 granular fill.
  - Timing: On completion of substructure.

Execution

602 Excavating generally
- Surplus materials: Remove from site.
- Mud, rock projections, boulders and hard spots: Remove. Replace with granular fill, well consolidated.
- Local soft spots: Harden by tamping in granular fill.
- Excavations: Keep free from water.

604 Placing concrete generally
- Surfaces to receive concrete: Clean, with no debris or free water.
- Temperature range for concrete: 5–30°C. Do not place against frozen or frost covered surfaces.
- Concrete: Compact fully.

606 Placing fill generally
- Excavations and areas to be filled: Free from loose soil and rubbish.
- Freezing conditions: Do not use frozen materials or materials containing ice.
  Do not place fill on frozen surfaces.

608 Excavating trenches for strip foundations
- Trenches:
  - Depth below ground (minimum): 600 mm.
  - Width at base: Equal to design width of foundations.
  - Sides: Vertical and stable.
  - Timing: Excavate immediately before placing concrete.

614 Placing concrete for strip foundations
- Foundation dimensions (minimum) for each wall type:
  - Solid walling: 450 x 150 mm.

644 Curing and protecting concrete generally
- Evaporation: Limit throughout curing period. Cover immediately after compacting. Replace cover immediately after finishing operations.
- Curing periods (minimum):
  - Surfaces which in the finished building will be exposed to the elements, and wearing surfaces of floors and pavements: Ten days.
  - Other structural concrete surfaces: Five days.

E1/102 Strip foundations

Total for E1 Concrete foundations and floors
To be carried forward to Tender Summary
### F1 Masonry walling

**System Outline**

**106 External solid walling**
- Parameters: As clause 602.
- Walling below ground:
  - Type: Solid.
  - Masonry units: Aggregate concrete blocks as clause 308.
  - Mortar: Class M6 as clause 316.
- Dpc at ground floor: Flexible as clause 338.
- Walling above ground:
  - Masonry units: Facing bricks as clause 304.
  - Bond or coursing: Flemish bond.
  - Mortar:
    - Type: Class M4 as clause 316.
    - Joint profile to external faces: Struck.
- Openings:
  - Lintels: Steel as clause 360.
  - Sills:
    - Type: Precast concrete as clause 368.
  - Dpc below: Flexible as clause 338.

**112 Internal solid walls**
- Parameters: As clause 604.
- Walling below ground:
  - Type: Solid.
  - Masonry units: Aggregate concrete blocks as clause 308.
  - Mortar: Class M6 as clause 316.
- Dpc at ground floor: Flexible as clause 338.
- Walling above ground:
  - Masonry units: Facing bricks as clause 304.
  - Bond or coursing: Stretcher bond.
  - Mortar:
    - Type: Class M4 as clause 316.
    - Joint profile: Flush.
- Openings:
  - Lintels: Precast concrete as clause 358.

**Products**

**304 Facing bricks**
- Manufacturer: Contractor's choice.
- Type: Clay to BS EN 771-1.
- Colour and finish: Multi.
- Unit sizes: 215 x 65 x 103 mm.
- Durability: F2.

**308 Aggregate concrete blocks**
- Manufacturer: Contractor's choice.
- Standard: To BS EN 771-3.
- Density: 1800–2000 kg/m³.
- Compressive strength (minimum): Manufacturer's standard.
- Unit sizes: 440 x 215 x 100 mm.
312 Manufactured stone blocks
   • Manufacturer:
   • Product range or reference:
   • Standard:
   • Colour and finish:
   • Unit sizes:

316 Mortar
   • Standards:
     - Mortars: To BS EN 998-2.
     - Cements:
       - Masonry: To BS EN 413-1.
       - Portland: To BS EN 197-1, type CEM I.
     - Sulfate resisting: To BS 4027.
     - Lime: To BS EN 459-1.
     - Sand: To BS EN 13139.
   • Mortar mixes:
     - Class M6: 1:0.5:4 cement:lime:sand.
   • Site batching: Permitted.
   • Site mixed additives: Not permitted.

338 Flexible dpcs
   • Manufacturer: Contractor's choice.
   • Type: Bitumen polymer, Agrément (BBA) certified.
   • Width: As drawings.

358 Precast concrete lintels
   • Manufacturer: Contractor's choice.
   • Standard: To BS EN 845-2.
   • Size: As drawings.

360 Steel lintels
   • Manufacturer: Contractor's choice.
   • Standard: To BS EN 845-2.
   • Size: As drawings.

368 Precast concrete sills
   • Manufacturer: Contractor's choice.
   • Standard: To BS 5642-1.
   • Colour and finish: Natural, smooth.
   • Size:

Execution

602 External walling parameters
   • External walling:
     - Solid walling below ground:
       Wall width: 215 mm.
     - Solid walling above ground:
       Wall width: 215 mm.

604 Internal walling parameters
   • Internal walling:
     - Solid walling below ground:
       Wall width: 100 mm.
     - Solid walling above ground:
       Wall width: 103 mm.
606 **Laying brickwork and blockwork**

- **General:**
  - Mortar joints: Lay units on full bed. Fill vertical joints.
  - Lift heights (maximum):
    - Total: Not more than 1.5 m daily.

- **Facework:**
  - Lowest courses: To extend 150 mm minimum below finished ground level.
  - Coursing: Plumb, with consistent appearance.
  - Built-in components: Align with walling joints.
  - Cleanliness:
    - Walling units: Keep clean.

---

616 **Laying horizontal dpcs**

- **Bedding and lapping:** Lay on full mortar bed. Lap 100 mm (minimum) at joints and fully lap at angles.
- **Width:** At least full width of masonry leaf.
- **Overlying construction:** Full even bed of mortar to receive next masonry course.
- **Overall finished joint thickness:** As close to thickness of general walling joints as practicable.
- **Ground level dpcs:**
  - Level: At least 150 mm above finished ground level.
  - Joint with damp proof membrane: Continuous and sealed.
- **Sill dpcs:** In one piece. Turn up at back where the sill is in contact with inner leaf.

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G2 Structural timber and general carpentry

System Outline

108 Timber joist flat roof structure
- Joists:
  - Type: As clause 302.
  - Setting out parameters: As clause 602.
- Preservative treatment: As clause 372 to all timber.
- Support: Wall plates with framing anchors as clause 356.
- Restraint:
  - Lateral restraint straps: As clause 364.
  - Vertical restraint straps: To wall plates as clause 370.
- Timber blocking:
  - Type: Softwood.
  - Size: As adjacent structural timbers.
- Strutting: Metal herringbone as clause 354.
- Roof decking:
  - Type: Rigid sheet as clause 312.
  - Fasteners: Annular ring shanked nails as clause 374.

Products

302 Flat roof joists
- Type: Softwood.
- Certification: Forestry Stewardship Council (FSC) chain of custody.
- Strength class:
  - Standard: To BS EN 338.
  - Class: C24.
- Size: 47 x 195 mm.

312 Rigid sheet flat roof deck
- Manufacturer: Contractor's choice.
- Type: Plywood to BS EN 636, structural use, bonding class 3.
- Certification: Forestry Stewardship Council (FSC) chain of custody.
- Thickness: 22 mm.

350 Wall plates
- Type: Softwood.
- Size: 63 x 100 mm.

354 Metal herringbone struts
- Manufacturer: Contractor's choice.
- Material: Pregalvanized steel.
- Size: To suit joist spacing.

356 Framing anchors
- Manufacturer: Contractor's choice.
- Material: Galvanized steel.
- Type: To suit connection.

364 Lateral restraint straps to joists
- Manufacturer: Contractor's choice.
- Material: Galvanized steel.
- Type: Flat strap with cranked end.
- Size:
  - Section: 30 x 5 mm (minimum).
  - Length: To carry over at least three joists.
### 370 Vertical restraint straps to wallplates
- **Manufacturer**: Contractor's choice.
- **Material**: Galvanized steel.
- **Type**: Flat strap with cranked end.
- **Size**:
  - Section: 30 x 2.5 mm (minimum).
  - Length: 1000 mm (minimum).

### 372 Preservative treatment
- **Manufacturer**: Contractor's choice.
- **Treatment regime**:
  - Timber for general construction: To Wood Protection Association (WPA) Commodity Specification C8.
  - Type: Boron.
- **Preservative solution for site application to cut timbers**: As recommended for the purpose by main treatment solution manufacturer.

### 374 Fasteners
- **Nails**:
  - Type: Stainless steel, dimensions to BS 1202-1 or to BS EN 10230-1.
  - Form: Flat head, annular ring shanked.
  - Shank diameter (minimum): 3.0 mm.
  - Length: To penetrate 44 mm (minimum).

### Execution

#### 604 Setting out flat roof joists
- **Joist centres**: As drawings.

#### 612 Fixing timber joists generally
- **Standard**: In accordance with BS 8103-3.
- **Bowed joists**: Install with positive camber.
- **Fixing**:
  - Herringbone strutting between joists:
    - Spacing:
      - Joist spans of 2.5–4.5 m: One row at centre span.
      - Joist spans over 4.5 m: Two rows equally spaced.
  - Outer joists against masonry walls:
    - Location: Position about 50 mm from masonry.
    - Packing at restraint strap positions: Insert softwood folding wedges between joist and masonry and fix solid blocking between joists along full length of each strap.
    - Packing at internal walls: Insert softwood folding wedges between joist and masonry on line of strutting and at 2 m (maximum) centres.

#### 622 Fixing rigid sheet roof decking generally
- **Setting out**: Fully support long edges at right angles to structure. Support end edges. Stagger end joints.
- **Fixing**: Fasteners at 150 mm (maximum) centres to edges and at 200 mm (maximum) centres at supports.
- **Joint cover strips**: Bitumen membrane strips, 150 mm (minimum) wide. Lay centrally over joints. Adhere with bonding compound along edges.

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**G2/108 Timber joist flat roof structure**

Total for G2 Structural timber and general carpentry
To be carried forward to Tender Summary
Q1 Landscape

System Outline

102 In situ concrete pavings
   • Substrate:
     - Formation levels: Excavating as clause 608.
     - Sub-bases:
       Type: Clean granular crushed hard rock and/or quarry waste, free from harmful matter and excessive dust and clay, well graded, passing a 75 mm BS sieve.
       Placement: As drawings.
     - Membrane: Separation as clause 308.
   • Concrete for paving:
     - Standards: To BS 8500-1 and BS 8500-2.
     - Type: Designated concrete PAV1.
     - Use of recycled aggregates: Permitted.
     - Placement: As drawings.

110 Brick, flag and slab mortar bedded pavings
   • Substrate:
     - Formation levels: Excavating as clause 608.
     - Sub-bases:
       Type: Clean granular crushed hard rock and/or quarry waste, free from harmful matter and excessive dust and clay, well graded, passing a 75 mm BS sieve.
       Placement: As clause 612.
   • Edgings: Precast concrete as clause 410.
   • Paving:
     - Type: Concrete flags as clause 324.
     - Placement: As clause 626.

118 Metal fencing
   • Type: Chain link as clause 340.
   • Height: As drawings.
   • Fixing: As clause 629.

122 Masonry freestanding walls
   • Trenches: As drawings.
   • Concrete for foundations:
     - Standards: To BS 8500-1 and BS 8500-2.
     - Ready mixed:
       Type: Designated concrete GEN1 or Standardized prescribed concrete ST2.
     - Use of recycled aggregates: Permitted.
     - Placement: As drawings.
   • Walling:
     - Parameters: As clause 634.
     - Walling below ground:
       Type: Solid.
       Masonry units: Clay bricks as clause 344.
       Mortar for walling: Class M6 as clause 362.
     - Dpc at ground: Slate as clause 356.
     - Walling above ground:
       Type: Solid.
       Masonry units: Clay bricks as clause 344.
       Mortar for walling: Class M6 as clause 362.
   • Capping:
     - Type: Brick on edge.
     - Mortar for walling: Class M12 as clause 362.
140 Topsoiling and grass seeding
- Topsoil:
  - Type: Obtain from site strip
  - Amelioration: Friable sanitized and stabilized compost in accordance with BSI PAS 100.
- Seed:
  - Certification: OECD Grass and legume seed scheme.
  - Mixture: Manufacturer’s standard mix for all grassed areas.

Products

308 Separation membrane
- Manufacturer: Contractor’s choice.
- Material: Polyethylene.
- Thickness (minimum): 250 micrometres (1000 gauge).

324 Concrete flags
- Manufacturer: Contractor’s choice.
- Standard: To BS EN 1339.
- Size: 450 x 450 x 50 mm.
- Colour: Natural.

340 Chain link metal fencing
- Manufacturer: Contractor’s choice.
- Standard: To BS 1722-1.
- Height: 1800 mm.
- Posts: Concrete.
- Chain link mesh: Plastics coated.

344 Clay bricks
- Manufacturer: Contractor’s choice.
- Standard: To BS EN 771-1.
- Colour: As drawings.
- Unit sizes: 215 x 65 x 103 mm.
- Durability: F2.

356 Slate dpcs
- Type: Two course natural slates, staggered joints.
- Source: Contractor’s choice.

362 Mortar for walling
- Standards:
  - Mortars: To BS EN 998-2.
  - Cements:
    - Portland cement: To BS EN 197-1, type CEM I.
    - Lime: To BS EN 459-1.
    - Sand: To BS EN 13139.
- Mixes:
  - Class M6: 1:0.5:4 cement:lime:sand.
  - Class M12: 1:0.25:3 cement:lime:sand.
- Site batching: Permitted.
- Site mixed additives: Not permitted.

410 Precast concrete edgings
- Manufacturer: Contractor’s choice.
- Standard: To BS EN 1340.
- Size: 50 x 150 mm.
- Edges: Square.
- Colour: Natural
Execution

602 Excavating generally
   • Surplus materials: Remove from site.
   • Mud, rock projections, boulders and hard spots: Remove. Replace with granular fill, well consolidated.
   • Local soft spots: Harden by tamping in granular fill.
   • Water: Keep excavations free from water.

604 Placing concrete generally
   • Surfaces to receive concrete: Clean, with no debris or free water.
   • Temperature range for concrete: 5–30°C. Do not place against frozen or frost covered surfaces.
   • Compaction: Compact fully.

606 Placing fill generally
   • Excavations and areas to be filled: Free from loose soil and rubbish.
   • Freezing conditions: Do not use frozen materials or materials containing ice. Do not place fill on frozen surfaces.

608 Excavating to sub-base formation levels
   • Formation levels: As drawings.
   • Excavation: Excavate to formation level in dry conditions immediately before compaction.
   • Compaction of formation: Adequate to resist subsidence and deformation during construction and of the completed paving when in use.
   • Compacted surface: Well closed, no movement under compaction plant.
   • Permissible deviation (maximum) from required levels, falls and cambers: ±20 mm.

612 Placing sub-base hardcore fill for paths and patios
   • Placing fill:
     - Spreading and levelling: Spread and level in 100 mm (maximum) layers.
     - Compacting fill:
       Compaction: Sufficient to resist subsidence and deformation of the completed paving when in use.
       Compacted thickness (minimum): To achieve required levels.
     - Permissible deviation (maximum) from required levels, falls and cambers: ±20 mm.

614 Laying precast concrete edgings
   • Laying generally:
     - Cutting units: Cut neatly and accurately without spalling. Form neat junctions.
     - Bedding and backing of units: Bed on 1:3 cement:sand mortar. Secure units with a continuous haunching of concrete.
   • Deviations (maximum):
     - Level: ±6 mm.
     - Horizontal and vertical alignment: 3 mm in 3 m.

618 Laying pavings generally
   • Cutting units: Cut neatly and accurately without spalling. Form neat junctions.
   • Laying generally:
     - Preparation: Remove loose material, rubbish and standing water.
     - Lines and levels of finished surface: Smooth and even with falls to prevent ponding.
620 **Laying in situ concrete paving**
- Separation membrane: Lay immediately before placing concrete, with 300 mm (minimum) lapped joints.
- In cold weather: Do not use frozen materials. Do not place concrete against frozen or frost covered surfaces.
- Air temperature: Do not place concrete when air temperature is below 3°C on a falling thermometer. Do not resume placing until rising air temperature has reached 3°C.
- Compacting: Fully compact concrete to full depth.
- Finishing:
  - Condition for applied finishing: A dense, even textured surface free from laitance or excessive water.
  - Brushed finish: Approximately 1 mm texture depth at right angles to longitudinal direction of the slab.
- Deviations (maximum):
  - Finished surface generally: ±6 mm.
  - Level adjacent to gullies and manholes: 0 to +3 mm.

626 **Laying mortar bedded brick, flag or slab paving**
- Laying units:
  - Laying: Lay units on 25 mm (minimum) semi-dry full mortar bed.
  - Condition: Firm so that rocking or subsidence does not occur or develop.
  - Appearance: Even and regular with even joint widths and free of mortar and sand stains.
- Protection from traffic: After laying keep free from pedestrian traffic for four days (minimum).
- Dry mortar joints:
  - Execution: When paving is dry and rain is not expected.
  - Jointing: Brush dry mortar into joints and ram firmly home until joints are filled solid and flush.
  - Protection: After filling joints, protect from rain for three days (minimum).
- Deviations (maximum):
  - Finished surface generally: As drawings.

629 **Installing metal fencing**
- Chain link fencing:
  - Centres of posts (maximum):
    - Straining posts: 69 m in straight runs and at all ends, corners, changes of direction and acute variations in level.
    - Intermediate posts: 3 m.
  - Completion: Submit manufacturer's and installer's certificates, to BS 1722-1.

630 **Excavating trenches for wall foundations**
- Trenches:
  - Depth below ground (minimum): 600 mm.
  - Trench width: Width at base equal to design width of foundations.
  - Condition: With stable sides.

632 **Placing concrete foundations for walling**
- Foundation dimensions (minimum): 600 x 150 mm.

634 **Freestanding garden walling parameters**
- Walling below ground:
  - Locations: As drawings.
  - Wall width: 215 mm.
- Walling above ground:
  - Wall width: 215 mm.
638 Laying masonry garden walling generally

- Basic brickwork:
  - Mortar joints: Lay units on full bed. Fill vertical joints.
  - Lift height (maximum): 1.2 m above other parts of work but not more than 1.5 m daily.

- Horizontal dpcs:
  - Bedding: Lay on full mortar bed.
  - Width: At least full width of masonry leaf.
  - Overlying construction: Full even bed of mortar to receive next masonry course.
  - Ground level dpcs: 150 mm (minimum) above finished ground.

642 Topsoiling

- Compacted soil: Loosen, aerate and break up soil to particles of 2–8 mm.
- Undesirable material: Remove weeds, roots, stones and foreign matter.
- Spreading topsoil: Spread in 150 mm layers (maximum before firming) when reasonably dry.
- Depths after firming and settlement (minimum):
  - Areas to be grassed: 100 mm.
  - Within root spread of existing trees: Do not cultivate.

646 Grass seeding and turfing

- Fertilizing: Before final cultivation and 3–5 days before seeding/turfing.
- Final cultivation:
  - Surface preparation: Reduce to fine, firm tilth with good crumb structure. Depth, 25 mm (minimum). Rake to a true, even surface.
  - Surface stones and earth clods: Remove those exceeding 20 mm.
- Watering: Soak the full depth of topsoil. Water evenly.
- Seeding: Good seed contact with the soil.

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Total for Q1 Landscape
To be carried forward to Tender Summary
R1 Above and below ground drainage

System Outline

108 Threshold rainwater drainage
  - Drawing references:

118 Surface water drainage pipework
  - Drainage layout and levels: As drawings.
  - Trenches:
    - Excavating trenches: As clause 614.
    - Completing trenches: For plastics pipelines as clause 618.
  - Pipework: Plastics solid wall as clause 350.
  - Fittings:
    - Bends and branches: As required to complete the installation.
    - Gullies: Trapped as clause 362.
  - Channels: As clause 322

122 Inspection chambers and manholes
  - Inspection chambers:
    - Proprietary chambers: Concrete as clause 366.
  - Fittings:
    - Channels: As required to complete the installation.
    - Steps: Required for chambers deeper than 900 mm.
  - Covers and frames: As clause 384.
  - Backfilling: As clause 642.

Products

322 Rainwater drainage channels
  - Manufacturer: Contractor's choice.
  - Type: Polymer concrete.
  - Length: Manufacturer's standard.
  - Outlet size: 110 mm.
  - Grid: Galvanized steel.

350 Plastics solid wall pipes
  - Manufacturer: Contractor's choice.
  - Type: Solid wall PVCU pipes to BS EN 1401-1.
  - Size: As drawings.

362 Trapped gullies
  - Manufacturer: Contractor's choice.
  - Type: Plastics to BS 4660 or BS EN 13598-1, Kitemarked.
  - Outlet size: As pipeline.

366 Concrete inspection chambers
  - Manufacturer: Contractor's choice.
  - Standard: To BS 5911-4
  - Size: As drawings.

384 Access covers and frames
  - Manufacturer: Contractor's choice.
  - Standard: To BS EN 124.
  - Size: 450 x 450 mm.
  - Loading grades: B125.
388 Granular materials
   • Granular material (for general use):
     - Source: Contractor's choice.
     - Standard: To BS EN 12620.

Execution

614 Excavating pipe trenches generally
   • Trench from bottom up to 300 mm above crown of pipe:
     - Sides: Vertical.
     - Width: As small as practicable but not less than external diameter of pipe plus 300 mm.
   • Timing: Excavate to formation immediately before laying beds or pipes.
   • Mud, rock projections, boulders and hard spots: Remove. Replace with bedding material, well consolidated.
   • Local soft spots: Harden by tamping in bedding material.

618 Completing trenches for plastics pipelines
   • Granular bed and side fill:
     - Bedding: 100 mm (minimum) compacted granular material.
     - Granular support: After initial testing of pipeline, lay and compact by hand more granular material uniformly to 100 mm above crown of pipe.

626 Laying below ground drainage pipes generally
   • Alignment: To true line and regular gradient on even bed for full length of barrel with sockets (if any) facing up the gradient.
   • Hard packings under pipes: Do not use.

630 Backfilling to trenches generally
   • Backfill from top of surround or protective cushion:
     - Type: As chamber manufacturer's recommendations.

System Completion

804 Testing foul and surface water drainage pipework
   • England and Wales: As Approved Document H, part H1, 2.60 (air test) or 2.61 (water test).

806 Testing manholes and inspection chambers
   • Exfiltration: To BS EN 1610, method W.
   • Infiltration: No identifiable flow of water penetrating chamber.

808 Cleaning below ground drainage systems
   • Cleaning: Flush out the whole installation and remove silt and debris immediately before handing over.

R1/108 Threshold rainwater drainage
R1/118 Surface water drainage pipework
R1/122 Inspection chambers and manholes

Total for R1 Above and below ground drainage
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<td>D2 Site preparation</td>
<td></td>
</tr>
<tr>
<td>E1 Concrete foundations and floors</td>
<td></td>
</tr>
<tr>
<td>F1 Masonry walling</td>
<td></td>
</tr>
<tr>
<td>G2 Structural timber and general carpentry</td>
<td></td>
</tr>
<tr>
<td>Q1 Landscape</td>
<td></td>
</tr>
<tr>
<td>R1 Above and below ground drainage</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
</tr>
<tr>
<td>Contractor’s assessment of VAT £</td>
<td></td>
</tr>
<tr>
<td>Grand total £</td>
<td></td>
</tr>
</tbody>
</table>

Signed

For and on behalf of

Date