

(iteriad)

North View New Mental Health Unit

North Manchester General Hospital
for IHP to GMMH Trust.

External Works - Hard and Soft
Landscape NBS Specification



NMGNPH-ITR-VV-XX-SP-L-2001 C04
S4 - Construction Approval
Q40 revised to omit F2 type fence
8th July 2023

Iteriad Ltd

Greater Manchester Mental Health NHS Foundation Trust

NORTH VIEW (New Park House)

NMGNPH-ITR-VV-XX-SP-L-2001

Hard and Soft Landscape Specification

S4

C04

08-07-2023

New mental health hospital at North Manchester General Hospital

D41

Crib walls, gabions and other gravity retaining walls

To be read with preliminaries/general conditions.

99 Pscp

1. NOTE: : Any proprietary specified items to include for Similar or Approved by PSCP.

100 Landscape clauses only

1. Please note this D41 specification has been included and updated for landscape clauses only relating to landscape wall infill materials and finishes subsoil, topsoil mix information. Please refer to Engineering specification NMGNPH-CUR-XX-00-SP-S-9101 and engineering D20 specification for all other structural/civils formation, loadings, foundations, back fill and drainage related clauses.

211J Gabion retaining wall to east perimeter and boundary zone

1. **Manufacturer:** Enviromesh (enviromesh.com Staffordshire) or other equal. Rigid galvanised steel type baskets.
 - 1.1. **Product reference:** Steel Welded Mesh Cages Rigid type treated with anti corrosion treatment to manufacturers and engineers specification.
2. **Configuration:** refer to drawings NMGNPH-ITR-XX-XX-DR-L-0027, 0028, 0408, 0409, 0417. Agreed stepped ends to walls.
 - 2.1. **Sizes:** refer to drawings NMGNPH-ITR-XX-XX-DR-L-0408, 0409, 0417
 - 2.2. **Mesh:** Welded wire to BS 1052
 - 2.3. **Diaphragm:** Refer to engineering specification
3. **Fill to units:**
 - 3.1. **Material:** Clean dry locally source stone within basket fill to engineers specification. Contractors choice source of stone.
 - 3.2. **Size/ grading:** Stone rubble fill material G6 type to suit requirements of retaining structure manufacturer and to engineering specification.
 - 3.3. **Sample and Sample Panel:** Provide samples of proposed stone for approval, provide colour range samples from light to dark stone for appearance comparison. Provide working sample panel min 2m height and 2m length as part of works as quality sample panel for approval. As per agreed sample presented on site.
4. **Substrate:** to Engineering specification
5. **Batter of wall face:** 10% max
6. **Geotextile:** to engineering specification
7. **Other requirements:** Drainage outlet pipes as section R13

250 Assembling and installing

1. **Description:** Gabions
2. **Fixings:** To manufacturers specification.
 - 2.1. **Individual ties of lacing wire:** Do not use.
3. **Assembly**
4. **Installation**
 - 4.1. **Vertical joints:** Staggered in adjacent courses.
 - 4.2. **Lifting and placing of prefilled units:** Use lifting frames and remove on completion.

- 4.3. **Stepped constructions:** Align bottom edge wire of upper baskets with a longitudinal wire of mesh of lower baskets. Provide continuous lacing along all horizontal joints at front and rear of wall.

5. **Filling**

- 5.1. Maintain shape of basket during filling.
5.2. Fill to full height in sequence recommended by manufacturer.
5.3. **Top mesh:** To bear upon fill.
5.4. **Lid:** Fix securely.

6. **Backfill:** Place and compact at each course as work proceeds.

510 Timber retaining wall systems - Public Right of Way Path South End

1. **Manufacturer:** Submit proposals M&M Timber or similar
 - 1.1. **Product reference:** Unilog Pro Type
2. **Properties:** To BS8417
 - 2.1. **Overall length:** standard lengths varies to manufacturers recommendation
 - 2.2. **Preservative treatment:** Manufacturer's standard.
 - 2.3. **Special shapes:**
3. **Accessories:** Manufacturer's standard- semi permeable geotextile membrane between soil and Unilog wall required.
4. **Substrate:** Clean stone
5. **Foundation:** Concrete to manufacturers specification
6. **Other requirements:**

520A Type PL1 timber walls to raised edible garden beds in PICU garden Sp1.03

1. **Type:** Clean new Sleepers laid horizontally
2. **Size:**
 - 2.1. **Overall length:** Varies refer to drawings series NMGNPH-ITR-XX-XX-DR-L-0300 and 0400 series. Sleepers min 250mm width x 125mm depth x length varies. Concealed tamper proof fixings. Wall heights above ground for wheelchair beds is min 750mm and max 850mm. Recess in raised beds for wheelchair users min depth 400mm
 - 2.2. **Cross section:** Varies refer to drawings.
3. **Preservative treatment:** Not required. Ensure all sleepers are clean and free from substances that may stain clothes.
4. **Substrate:** Free draining substrate: gravel type material under layer of free draining filter fabric between topsoil and gravel. Refer to engineers specification for footings.
5. **Visqueen liner:** Visqueen type protective liner to be fixed securely to sides of each planter, overlapped to ensure timber is protected from soil/compost material.

550 Erecting timber retaining walls

1. **Setting out:** Manufacturers recommendations
2. **Installation:**
 - 2.1. **Embedment below ground level:**
 - 2.2. **Securement:**
 - 2.3. **Trimming:**
3. **Tie-backs:**
4. **Backfill:** Compact in layers maximum 150 mm deep.

L37

External stair, ramps, handrail and balustrades systems

General

100 Pscp

1. NOTE: Any proprietary specified items to include for: or Similar or Approved by PSCP.

110 Stair and external step systems

1. Description: To north east zone 0 rear access sp0.1. Refer to drg NMGNPH-ITR-XX-XX-DR-L-0412. Steps to arrival steps and Visual Garden Sp1.07. Refer to drg NMGNPH-ITR-XX-XX-DR-L-04??
2. Type: Built in situ. Part M compliance.
3. Base/ Fabric: In situ concrete, as section E10 to Engineers details.
4. Surface: Precast concrete step units 350mm x 150mm
 - 4.1. Finish: Slip-resistant
5. Unobstructed width: min 1800 mm
6. Accessories: Handrail system. 'Corduroy' hazard warning surface, as section Q25. insert contrasting nosing.
Gatic slot drain to bottom landings to engineers details

150 Handrail systems

1. Description: To stairs at north east zone 0 rear access sp0.1 and steps at arrival space sp0.1
2. System manufacturer: Contractor's choice
3. Material: Carbon steel Austenitic stainless steel. Q-railing CHS 48.4mm x 2.6mm with end caps.
 - 3.1. Cross section: 100 mm perimeter circular
 - 3.2. Finish: Not required
4. Height (to upper surface of handrail)
 - 4.1. Above pitch line: 900 mm
 - 4.2. Above landing: 1100 mm
5. Accessories:

151 External Handrail to MEWP Ramp on East side

1. to Zone 0 Sp0.2.
2. As L37/150
- 3.

155 Handrail systems to Dementia Spaces

1. Description: To older adult and dementia gardens sp2.01 and 2.03
2. System manufacturer: Submit design and cost proposals
3. Material: Hardwood handrails and stainless steel posts and frame
 - 3.1. Cross section: 100 mm perimeter circular
 - 3.2. Finish: Wood stain, as section M60 to handrail, N/A to posts.
4. Height (to upper surface of handrail)
 - 4.1. Above pitch line: 900 mm
 - 4.2. Above landing: n/a

5. Accessories: inset anti ligature vertical panels to work to curved section

160 Balustrade systems

1. Description: to top of retaining wall along north wing adjacent to car park and south end maintenance path- see L37/150
2. System manufacturer: Contractor's choice
3. Guarding
 - 3.1. Material: Submit design and cost proposals
 - 3.2. Finish: Submit design and cost proposals
4. Rail
 - 4.1. Cross section: 100 mm perimeter circular
 - 4.2. Material: Stainless Steel, as section Z11
 - 4.3. Finish: Submit design and cost proposals
5. Height (to upper surface of rail)
 - 5.1. Above pitch line: 900 mm
 - 5.2. Above landing: 1100 mm
6. Accessories: Submit design and cost proposals

System performance

210 Design

1. Description: Stairs
2. Inclusive design: Complete detailed design in accordance with BS 8300-1
3. Structure and associated features: Complete detailed design to BS EN 1991-1-1
4. Structural performance criteria
 - 4.1. Dead loads (maximum): to engineers specification
 - 4.2. Imposed loads (maximum)
 - 4.2.1. Activity/ Occupancy loading: to engineers specification
 - 4.2.2. Point loads (maximum): to engineers specification
5. Other performance criteria: to engineers specification
6. Proposals: Submit drawings, technical information, calculations and manufacturers' literature.

220 Design

1. Description: Of handrail and balustrading system
2. Inclusive design: Complete detailed design in accordance with Building Regulations (Eng) Approved Document M, volume 2
3. Structure and associated features: Complete the design to meet structural and safety requirements of BS 6180 and in accordance with BS 8300-2
4. Structural performance criteria
 - 4.1. Horizontal uniformly distributed line loads on balustrade or handrail (maximum): 0.74 kN/m
5. Other performance criteria: none
6. Proposals: Submit drawings, technical information, calculations and manufacturers' literature.

Products

310 Precast concrete step unit

1. Description: To north east stairs, arrival space steps and sp1.07 visual garden

2. Manufacturer: Contractor's choice
 - 2.1. Product reference: Contractor's choice
3. Standard: To BS EN 771-2 and -3.
4. Size
 - 4.1. Surface width: 1800 mm
 - 4.2. Going: 350 mm
 - 4.3. Rise: 150 mm
5. Colour: Grey
6. Finish: Exposed textured non slip granite aggregate
 - 6.1. Slip resistance value of integral tread - water wet (minimum): to engineers specification.
Integral to finished surface
 - 6.2. Slip resistance value of integral nosing - water wet (minimum): As integral tread
 - 6.2.1. Colour of integral nosing: Black granite contrasting to tread colour
7. Accessories:

Fabrication

510 Fabrication generally

1. Design: Complete the detailed design and obtain approval prior to commencing fabrication.
2. Shop drawings: Submit.
3. Structural calculations: Submit.
4. Frameworks: Assemble and brace, including temporary members required for installation.
5. Contact between dissimilar metals: Avoid.
6. Fixings: Fully bolt together. Tighten bolts.
7. Temporary support: Do not subject members to non-design loadings.

Execution

610 Loading

1. Site activities: Restrict, to ensure that design loads are not exceeded, or submit proposals for temporary supports.

620 Concrete foundations generally

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

630 Setting components in concrete

1. Holes: 250 x 250 x minimum 300 mm deep
2. Components: Accurately positioned and securely supported.
3. Concrete fill: Compact as filling proceeds.
4. Concrete foundations exposed to view: Finished to weathering profile to shed water and trowel smooth.
5. Temporary component support: Maintain undisturbed for minimum 48 hours.

640 Preservative treated timber

1. 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.
2. Heavily worked sections: Re-treat.

650 Installation generally

1. Fasteners: To section Z20.
2. Structural members: Do not modify, cut, notch or make holes in structural members, except as indicated on drawings.
3. Temporary support: Do not use finished work as temporary support or strutting for other work.
4. Applied finishes: Substrates to be even, dry, sound and free from contaminants. Make good substrate surfaces and prepare/ prime as finish manufacturer's recommendation before application.

662 Adverse weather

1. General: Do not use frozen materials and do not lay on frozen surfaces.
2. Working limits: Do not lay blocks/ dressings:
 - 2.1. Cement gauged mortars: When the air temperature is at or below 3°C and falling or below 1°C and rising (unless mortar has a temperature of not less than 4°C when laid and work is thoroughly protected).
 - 2.2. Hydraulic lime:sand mortars: When the air temperature is at or below 5°C and falling or below 3°C and rising.
3. Temperature of the work: Maintain above freezing until mortar has fully set.
4. Newly erected work: Protect from precipitation; Prevent rapid drying in hot conditions.
5. Remedial work: Rake out and replace mortar damaged by frost.
 - 5.1. Damaged work: Rebuild.

670 Installation of tread inserts/ nosings

1. Treads: Fully cured, sound and level.
2. Fixing
 - 2.1. Location/ position: In accordance with BS 8300-1
 - 2.2. Fixings: As manufacturer's recommendations
 - 2.2.1.Centres: As manufacturer's recommendations

680 Site painting and staining

1. Timing: Prepare surfaces and apply finishes as soon as possible after installing components.

Completion

910 Inspection

1. Timing: Give reasonable notice before covering up
2. Period of notice (minimum): 3 working days.

915 Slip resistance testing

1. Surfaces to be tested: L37/ 310.
 - 1.1. Surface condition: Dry and wet
2. Timing: As agreed with contract administrator
3. Period of notice (minimum): 3 working days.

4. **Test standard:** To BS 1134 and BS 7976-2
 - 4.1. **Testing authority:** A UKAS accredited laboratory
 - 4.2. **Witnessing/ Certification:** Arrange for tests to be witnessed/ certified by: Contract administrator.
 - 4.3. **Report:** Submit.
 - 4.3.1. **Format:** As required under BS 1134 and BS 7976-2

920 Documentation

1. **Contents**
 - 1.1. Copies of structural design calculations/ test reports.
 - 1.2. General product information.
 - 1.3. Installation information.
 - 1.4. Inspection and maintenance reports.
2. **General product information.**
 - 2.1. Installation information.
 - 2.2. Inspection and maintenance reports.
3. **Number of copies:** 6
4. **Submission:** Two weeks prior to date when principal contractor expects work to be practically complete

Ω End of Section

Q10

Kerbs/ edgings/ channels/ paving accessories

Clauses

2 To be read with preliminaries/general conditions.

Types of kerbs/edgings and channels

100 PSCP

1. NOTE: Any proprietary specified items to include for: or Similar or Approved by PSCP.

110J Proprietary precast concrete

1. Description: K1, K2, K3 kerbs
2. Refer to Engineers specification.
3. Standard: To BS EN 1340.
4. Manufacturer: Contractor's choice
5. - Product reference: Contractor's choice
6. Recycled content: Contractor's choice
7. Size (width x height x length): [K1=125 x 255 x 915 mm, K2 = transition, K3 drop kerb].
8. Special shapes: [[Internal radius kerbs as shown on drawings and External radius kerbs as shown on drawings].
9. Finish: [As cast].
10. Colour: [Grey].
11. Bedding: [Fresh concrete races].
12. Joints generally: [Dry, 2-3 mm gap].
13. Sealant movement joints: [Not required].
14. Accessories: [Submit proposals].

112 Precast concrete

1. Description: K4 type pin kerb edges to boundary lines to edges of external roadside footpaths
2. Standard: To BS EN 1340.
3. Recycled content: Contractor's choice
4. Designations: EF Edging, flat top
5. Size (width x height x length): 50 x 150 x 915 mm
6. Special shapes: none
7. Finish: As cast
8. Colour: Grey
9. Bending strength: Refer to engineers specification
10. Weathering resistance: Refer to engineers specification
11. Abrasion resistance: Refer to engineers specification
12. Slip/ skid resistance: Refer to engineers specification
13. Bedding: Fresh concrete races
14. Joints generally: Refer to engineers specification
15. Sealant movement joints: Refer to engineers specification
16. Accessories: Refer to engineers specification

114J Timber edging (alternative to metal edging)

1. Softwood board:
 - 1.1. Size: : E3:150 x 38 mm. Use E4 25mm thick boards to curvilinear paths and hardstanding areas as alternative to metal edging in minimal risk areas.
 - 1.2. Fixing: Galvanized nails into softwood pegs.
2. Softwood pegs:
 - 2.1. Size: [50 x 50 x 600 mm long].
 - 2.2. Fixing: Drive into ground.
 - 2.3. Centres: [900 mm. Timbers to be cut on site to accommodate smooth curving nature of footways.].
3. Preservative treatment: [As section Z12 and WPA Commodity Specification C4, with 15 year desired service life].
 - 3.1. Type: [Contractor's choice].

170A Linear slot drainage channel systems to main arrival space only

1. Manufacturer: [ACO Tel 01462 816666 or equal].
 - 1.1. Product reference: MultiDrain M150D Brickslot
2. Bore: 150 mm
3. Finish: As cast
4. Colour: Natural
5. Accessories: Inspection unit channels
6. Bedding: Fresh concrete races as per engineers specification
7. Joints generally: Drain unions as required
8. Slot to be 10mm Heelguard, made of stainless steel (Grade 304)
9. Tamper proof fixings to all fittings within external spaces in Level 0 or 1 Risk areas (Refer to drg no NMGNPH-ITR-XX-XX-DR-L-0018, 0024, 0413).

180J Drainage channel systems with inbuilt falls and gratings to north maintenance path by Gabion Wall 4

1. Refer to Engineers Specification.
2. Manufacturer: [Aco Tel: [ACO Tel 01462 816666 or equal].
 - 2.1. Product reference: [HexDrain B125 sytem with Heelguard grating. Gatic channel 225 to all areas].
3. Size: Refer to engineers specification
4. Type of fall: Refer to engineers specification
5. Finish: Standard
6. Colour: Charcoal
7. Accessories: Refer to engineers specification
8. Bedding: Refer to engineers specification
9. Joints generally: Refer to engineers specification
10. Cover gratings: Galvanized steel, slotted
 - 10.1. Fixings: Hexagon head bolts with black moulded polypropylene protective cover caps
 - 10.2. Loading grade to BS EN 124: Refer to engineers specification
 - 10.3. Finish/ Colour: Grey

181J Contraband 'hide' proof Drainage channel systems with inbuilt falls and gratings to private gardens (Sp1.03 and Sp1.04)

1. Refer to Engineers Specification.
2. **Manufacturer:** : [ACO Tel 01462 816666 or equal].
 - 2.1. **Product reference:** [Multidrain M100 system with Stainless Steel Multi drain Perforated. Gatic channel 225 to all areas].
3. **Size:** Refer to engineers specification
4. **Type of fall:** Refer to engineers specification
5. **Finish:** Standard
6. **Colour:** Stainless Steel
7. **Accessories:** Refer to engineers specification
8. **Bedding:** Refer to engineers specification
9. **Joints generally:** Refer to engineers specification
10. **Cover gratings:** Stainless Steel Multi drain Perforated Stainless Steel C250 12656/57. Tamper proof fixings to all fittings within external spaces .
 - 10.1. **Fixings:** Tamper proof fixing - hexagon head bolts with SS moulded polypropylene protective cover caps
 - 10.2. **Loading grade to BS EN 124:** Refer to engineers specification
 - 10.3. **Finish/ Colour:** Grey

184J Recessed manhole covers in paving

1. Recessed covers to be used in pedestrian areas where there is coloured macadam Q22/176J, Block/flag paving Q25/120B, Soft rubberised surfacing Q26/360A and concrete timber paving Q25/120A.
2. **Supplier:** Recessed Manhole Covers Ltd, Wirral , tel: 01151 639 4281 or other similar to Contractors Choice.
3. **Size:** Depths to suit paving. Use 80mm depth trays for block paving. Lay paving blocks to suit direction of pattern of surrounding paving and to sit square with paving alignment. No blocks or flags to be cut smaller than half size and securely fixed to prevent tampering or lifting out by Service Users.
4. **Fixing:** To manufacturers specification.
5. Tamper proof fixings to all fittings within external spaces in Level 1 Risk areas (Refer to drg no NMGNPH-ITR-XX-XX-DR-L-0018).

185J Recessed manhole covers in grass

1. Recessed covers to be used in grassed areas
2. **Supplier:** Recessed Manhole Covers Ltd, Wirral , tel: 0151 639 4281
3. **Size:** Depths to suit grass and topsoil growing medium sufficient for successful growth min 100mm depth
4. **Fixing:** To manufacturers specification
5. Tamper proof fixings to all fittings within external spaces in Level 1 Risk areas (Refer to drg no NMGNPH-ITR-XX-XX-DR-L-0018).

195J Ribbon walls in main arrival space Type W2: [powder coated steel section walls]

1. **Manufacturer:** : [CBArts t:01229 588580 www.cb-arts.co.uk; or Kinley tel 830688 www.kinley.co.uk or similar].

- 1.1. **Product reference:** [bespoke detail design and manufacturer to drg no NMGNPH-ITR-XX-XX-DR-L-0410, 0413 and plan no NMGNPH-ITR-XX-XX-DR-L-0024].
2. **Size:** [Height varies in mild steel min wall thickness min 6mm in ribbon sections joined to form continuous wall to manufacturers details].
3. **Type/ Material:** [mild steel].
 - 3.1. **Finish:** [powder coated].
 - 3.2. **Colour:** [NHS blue RAL - tbc].
4. **Accessories:** [concealed support braces and brackets to inside edges to manufacturers details].
5. **Bedding:** [concrete strip footing to engineers specification].
6. **Joints:** [Concealed fixings and joint detail to manufacturers details].

196J Planters special type PL2: [powder coated metal upstand planter walls] to cafe garden sp1.04

1. **UK Manufacturer:** : [Kinley tel 830688 www.kinley.co.uk; Livinggreen Tel:0131 440 9804 www.livinggreendesign.com or similar. Contractor to present alternative suppliers].
 - 1.1. **Product reference:** [Perimeta Planterline range by Kinley or as per manufacturers range].
2. **Size:** [500mm height x 6mm 'Perimeta' upstand walls to manufacturers specification].
3. **Type/ Material:** [galvanised steel].
 - 3.1. **Finish:** [powder coated].
 - 3.2. **Colour:** [powder coated RAL colour to be agreed to match particular ward zone for Sp1.04 cafe garden].
4. **Accessories:** [support braces and brackets to inside edges to manufacturers details].
5. **Bedding:** [concrete strip footing to manufacturers specification].
6. **Joints:** [Connected with Connector strip to manufacturers details].
7. **Drg no:** Refer to drg no NMGNPH-ITR-XX-XX-DR-L-0402

197J Planters special type PL3: [powder coated metal upstand planter walls] to roof gardens sp3.01, 3.02, 3.03

1. **UK Manufacturer:** : [Kinley tel 830688 www.kinley.co.uk; Livinggreen Tel:0131 440 9804 www.livinggreendesign.com or similar. Contractor to present alternative suppliers].
 - 1.1. **Product reference:** [Perimeta Planterline range by Kinley or as per manufacturers range].
2. **Size:** [500mm height x 6mm 'Perimeta' upstand walls to manufacturers specification].
3. **Type/ Material:** [galvanised steel].
 - 3.1. **Finish:** [powder coated].
 - 3.2. **Colour:** [powder coated RAL colour to be agreed to match particular ward zone for Sp3.01, 3.02, 3.03 roof gardens].
4. **Accessories:** [support braces and brackets to inside edges to manufacturers details].
5. **Bedding:** [concrete strip footing to manufacturers specification to roof build up system details].
6. **Joints:** [Connected with Connector strip to manufacturers details].
7. **Drg No:** Refer to drg no: NMGNPH-ITR-XX-XX-DR-L-0403

201 Special Metal Edging Type E2d

1. **Description:** E2d:50mm metal edge to rubberised surface / lawn/planting bed
2. **Manufacturer:** Kinley Systems t:01580 830688 or Everedge Co t: 01630 417120 or Core Landscape Products t:0800 118 2278
 - 2.1. **Product reference:** use or equivalent to AlluExcel 50mm aluminium edging - Ref: straight 101017 and flexible curved 101016

3. **Size:** 40mm high x 2500mm length x 5mm thick
4. **Type/ Material:** Aluminium
 - 4.1. **Finish:** Standard
 - 4.2. **Colour:** Grey
5. **Accessories:** Casting-in anchors for anti dig to High and Very High Risk gardens
6. **Bedding:** Proprietary
7. **Joints:** Connected with Connector strip

202 Special Metal Edging Type E1

1. **Description:** E1:100mm metal edge to shrub bed / lawn
2. **Manufacturer:** As Q10/201
 - 2.1. **Product reference:** Use or equivalent to AllEdge 100mm premium edging - Ref: 110010
3. **Size:** 100mm high x 2500mm length x 5mm thick
4. **Type/ Material:** Aluminium
 - 4.1. **Finish:** Standard
 - 4.2. **Colour:** Grey
5. **Accessories:** Casting-in anchors for anti dig to High and Very High Risk gardens
6. **Bedding:** Proprietary
7. **Joints:** Connected with Connector strip

203A Special Metal Edging Type E2b

1. **Description:** E2b:75mm metal edge to macadam paving to planting bed
2. **Manufacturer:** As Q10/201
 - 2.1. **Product reference:** Use or equivalent to AluExcel 75mm premium edging - Ref: Flexible for curved lines 101024, and Rigid for straight lines 101026
3. **Size:** 75mm high x 2500mm length x 5mm thick
4. **Type/ Material:** Aluminium
 - 4.1. **Finish:** Standard
 - 4.2. **Colour:** Grey
5. **Accessories:** Casting-in anchors for anti dig to High and Very High Risk gardens
6. **Bedding:** Proprietary
7. **Joints:** Connected with Connector strip

203B Special Metal Edging Type E2c

1. **Description:** E2c:75mm metal edge to concrete timber effect paving
2. **Manufacturer:** As Q10/201
 - 2.1. **Product reference:** Use or equivalent to AluExcel 75mm premium edging - Ref: Flexible for curved lines 101021, and Rigid for straight lines 101020
3. **Size:** 75mm high x 2500mm length x 5mm thick
4. **Type/ Material:** Aluminium
 - 4.1. **Finish:** Standard
 - 4.2. **Colour:** Grey
5. **Accessories:** Casting-in anchors for anti dig to High and Very High Risk gardens
6. **Bedding:** Proprietary
7. **Joints:** Connected with Connector strip

203C Special Metal Edging Type E2a

1. **Description:** E2a: 100mm metal edge to vehicular macadam loading paving
2. **Manufacturer:** As Q10/201
 - 2.1. **Product reference:** Use or equivalent to AluExcel 100mm Aluminium edging - Ref: Flexible for curved lines 101023, and Rigid for straight lines 101022
3. **Size:** 100mm high x 2500mm length x 5mm thick
4. **Type/ Material:** Aluminium
 - 4.1. **Finish:** Standard
 - 4.2. **Colour:** Grey
5. **Accessories:** Casting-in anchors for anti dig to High and Very High Risk gardens
6. **Bedding:** Proprietary
7. **Joints:** Connected with Connector strip

Roads/paving accessories/ marking/ demarcation

390 Road marking (light duty)

1. **Manufacturer:** Contractor's choice
 - 1.1. **Product reference:** Contractor's choice
2. **Colour:** To Engineers specification
3. **Surfaces to receive markings:** Clean and dry, loose material removed.
4. **Application:** Uniform, with no streaks or ragged edges.

395 Road marking (thermoplastic)

1. **Standard:** Road Safety Markings Association standard specification document for road marking and road studs (StanSpec).
2. **Manufacturer:** Contractor's choice
 - 2.1. **Product reference:** Contractor's choice
3. **Colour:** To Engineer's specification
4. **Retroreflectivity to BS EN 1436:** To Engineer's specification

Laying

510 Laying kerbs, edgings and channels

1. **Cutting:** Neat, accurate and without spalling. Form neat junctions.
 - 1.1. **Long units (450 mm and over) minimum length after cutting:** 300 mm.
 - 1.2. **Short units minimum length after cutting:** The lower of one third of their original length or 50 mm.
2. **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.
3. **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

1. **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.

Q40 Fencing **REVISED**

Clauses

2 To be read with preliminaries/ general conditions.

Fencing systems

100 PSCP

1. NOTE: : Any proprietary specified items to include for Similar or Approved by PSCP.

125A Open Rigid Mesh steel panel secured by design fencing to all gardens/courtyards/S136 compound Type F1 and FM yard Type F3 **REVISED**

1. Manufacturer: CLD Fencing Systems.
Tel. 01270 764751 www.cld-fencing.com or similar GMMH NHS Trust approved. Secured by Design 358 non climbable.
1.1. Product reference: CLD Securus S1 range. Submit proposals.
2. Standard: To BS 1722-14, category 2.
3. Height: Type F1= inner and outer gardens/courtyards perimeter fence and S136 compound= 4000 mm. Type F3 = FM yard area Sp1.08 = 2400mm height
4. Mesh and wire: mesh and wire 76.2 x 12.5 mm mesh; 4 mm wire, high aluminium content galvanised and polyester powder-coated to minimum 80 microns. PPC Colour Green RAL 6005
5. Posts: 60 x 60 mm SHS (80 x 40 mm RHS for 3000mm high delete as required), galvanised after manufacture and polyester powder-coated with 41 x 21mm clamping channel galvanised and polyester powder-coated to match fencing.
6. Maximum centres of posts: varies 2440mm - 2520mm to manufacturers specification
7. Method of setting posts: Set in concrete foundation to engineers specification
8. Bottom of fencing: Standard non anti dig panels with max gap at bottom of 25mm. K4 pin kerb between surfaces. Use K4 pin kerb on flat between posts on outer side of F1 fence to MEWP path to prevent weed growth/untidy edge.
9. Accessories: Lockable gates to ironmongery schedule for anti escape requirements. Two hook and band hinges, return spring and a heavy duty automatic latch and lock to GMMH Trust security requirements. Single gate min1200 -1500 min width to manufacturers specification to fit MEWP scissor lift through clear opening. Tamper proof power sockets to be provided to posts for fence mounted CCTV/lighting - cables to be concealed to run up through post void.
10. Conformity: Submit manufacturer's and installer's certificates, to BS 1722-14.
11. Secured by design approved. All fixings to be tamper proof.
12. Manufacturer to provide all design drawings for all fencing and gates for approval.
13. Specials: Fence fixing to align to building up to parapet level where meets at an angle to be anti-climb triangular 'sterile area' cage detail with anti ligature anti tamper lockable access hatches min 1200mm length sections - refer to manufacturers details. Same detail required along perimeter fenceline at change of direction narrower than 90deg and by gated access points.
Note special panels required to FM Type F3 to close gaps at main entrance link from gabion wall lines.
14. Privacy Panels to Fences: Screenweave as required.
15. System conforms to: LPS1175 SR1 Secured by Design
15 year guarantee if installed by an approved contractor of CLD

150 General pattern strained wire fencing Type F5 to privacy screen hedgerow on eastern embankment side of site

1. **Manufacturer:** Contractor's choice
 - 1.1. **Product reference:** Contractor's choice
2. **Standard:** To BS 1722-2, type SW 200.
3. **Wire:** Contractor's choice min 12.5g high tensile.
4. **Posts and struts:** Pressure treated Round wood Class 4 for in ground use
 - 4.1. **Treatment:** To provide a 15-year service life. BS4102.
 - 4.2. **Finish:** Hot-dip galvanized to BS EN ISO 1461
5. **Maximum centres of posts**
 - 5.1. **Straining posts:** 150 m in straight runs and at all ends, corners, changes of direction and acute variations in level.
 - 5.2. **Intermediate posts:** 3.5 m.
 - 5.3. **Posts::** min 2.25m centres.
6. **Method of setting posts and struts**
 - 6.1. **Straining posts:** 450 mm square or 300 mm diameter holes, 900 mm deep filled to two thirds depth with concrete
 - 6.2. **Struts:** min 280 x 280 x 350mm holes, 350 mm deep filled to not less than half the depth with concrete
 - 6.3. **Intermediate posts:** Minimum 75 mm surround or 400 mm diameter holes, 900 mm deep filled to not less than half the depth with concrete
7. **Accessories:** Stockproof type mesh HT8/80/15 800mm high roll for added security and stability on slope.
8. **Drg Ref:** Refer to drg no: NMGNPH-ITR-XX-XX-DR-L-0407
9. **Conformity:** Submit manufacturer's and installer's certificates, to BS 1722-2.

310J Close boarded fencing to PICU Visual Garden Sp1.07 facing Energy Centre compound only and to Outer FM yard fence facing Crescent Road and South elevations only..

1. **Manufacturer:** Contractors choice
 - 1.1. **Product reference:** Contractors choice
2. **Standard:** To BS 1722-5, type WPW240A.
3. **Height:** 2400mm
4. **Wood:** Softwood
 - 4.1. **Treatment:** To provide a 30-year service life
 - 4.2. **Finish:** Exterior wood stain, as section M60. Colour - Black
5. **Boards/ rails:** Single sided. Softwood chamfered edged boards on rectangular rails min 87x37mm x 3 no. Board widths vary 200mm and 100mm.
6. **Posts:** Wood
7. **Centres of posts (maximum):** 2.52m
8. **Method of setting posts:** 300 mm square or round holes, 750 mm deep filled to not less than half the depth with concrete
9. **Accessories:** Wood gravel board. Single gate to match min 1400-1500mm to allow access for MEWP scissor lift. Wood capping. Gate locking system - refer to RBA ironmongery schedule.
10. **Conformity:** Submit manufacturer's and installer's certificates, to BS 1722-5. Two hook and band hinges, return spring and a heavy duty automatic latch and lock to GMMH Trust security requirements

Gates, posts and stiles

550 Wood-alternative for MEWP maintenance path east side

1. **Description:** Close boarded matching gates and posts to MEWP maintenance path on east side.
2. **Manufacturer:** To match fencing type as per Q40.310J
3. **Standard:** To BS 5709.
4. **Wood:** As fencing Q40.310J. 3 no gates.
5. **Treatment:** As section Z12 and Wood Protection Association Commodity Specification C3.
 - 5.1. **Type:** Min 1500mm single gate width to allow access for MEWP vehicle. To provide a 30-year service life
 - 5.2. **Finish:** Exterior wood stain black to match fencing, as section M60
6. **Adhesive:** Synthetic resin to BS EN 301, type 1.
7. **Workmanship:** As section Z10.
8. **Fittings:** Two hook and band hinges, return spring and a heavy duty automatic latch and lock to GMMH Trust security requirements. Gate locking system - refer to RBA ironmongery schedule.
 - 8.1. **Finish:** Hot-dip galvanized to BS EN ISO 1461
9. **Method of fixing:** Concrete foundation, 450 mm square x 750 mm deep
10. **Accessories:** None

560A Steel Gates to Mesh Fencing Types F1 and F3. Opening gates to Discrete/S136 compound (4m ht) and inner FM yard compounds (Energy Centre and Bin Store) and Maintenance Path on East side Type F3 (2.1-2.4m) REVISED

1. **Description:** Gates and posts to garden fence/S136 compound types F1 and F2 single pedestrian maintenance access only. Double opening to Energy Centre compound, and Bin Store Type F3
2. **Matching Secured by Design** as per Q40/125A.
3. **Width between posts** - to suit gate width
4. **Heights to match fencing** - F1 = 4m and F3 = 2.4m as clause Q40.125A.
Single access gates type min 1200-1500mm width and min height clearance to allow MEWP scissor lift vehicle access to gardens and to maintenance path gates east and west side.
Discrete S136 compound - double opening type, min height clearance within 4m fence for ambulance/emergency vehicle access requirements to manufacturers details. 180 deg hinge movement on both side.
Inner FM yard compounds - double opening type, 2400mm height. 180 deg hinge movement on both side.
Matching Mesh gates to MEWP maintenance path = 2100mm height single access min 1200mm-1500mm width
5. **Manufacturer:** to match fencing spec and manufacturer
6. **Standard:**
 - 6.1. **Domestic gates:** To BS 4092-1.
 - 6.2. **Steel palisade gates:** To BS 1722-12..
7. **Materials and workmanship:** As section Z11.
8. **Finish:** Powder coated to BS 1722-16
 - 8.1. **Colour:** match fencing
9. **Joining:** Welded.
10. **Fittings:** NHS requirements mental health environments. Lockable. Two self closing adjustable hinges, cushioned slam plate and automatic catch
11. **Finish:** Powder coated to BS 1722-16

12. **Method of fixing:** Continuous Concrete foundation, min 450 mm square x 750 mm deep to engineers details. 4m height foundations min 600mm x 900mm deep to engineers details. Check wind loadings as per engineer's specification.
13. **Accessories:** Security notice (supplied by Employer). Gate locking system - refer to RBA ironmongery schedule.

562J Automated sliding steel gates to Main FM yard entrance (2.4m ht), **REVISED**

1. Main FM yard perimeter gates - sliding. 2400mm height with sliding track to fit across min 6m opening.
2. Manufacturer is Contractors Choice. Manufacturer to provide all design and assembly drawings for approval.
3. All fixtures and fittings to be secured by design approved. All power supply, circuits and loading subject to approval by M&E and Structural Engineer. Gate locking system - refer to RBA ironmongery schedule.

Accessories - Not Used

Execution

710 Installation generally

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

715 Competence

1. **Operatives:** Contractors must employ competent operatives.
2. **Qualifications:** Submit certification of training.
 - 2.1. **NHSS Sector Scheme 2A sub categories:** (d)
 - 2.2. **NHSS Sector Scheme 2C sub categories:** Not required

720 Setting posts in concrete

1. **Standard:** To BS 8500-2.
2. **Mix:** Designated concrete not less than GEN1 or Standard prescribed concrete not less than ST2.
3. **Alternative mix for small quantities:** 50 kg Portland cement to 150 kg fine aggregate to 250 kg 20 mm nominal maximum size coarse aggregate, medium workability.
4. **Admixtures:** Do not use.
5. **Holes:** Excavate neatly and with vertical sides.
6. **Filling:** Position post/ strut and fill hole with concrete to not less than the specified depth, well rammed as filling proceeds and consolidated.
7. **Backfilling of holes not completely filled with concrete:** Excavated material, well rammed and consolidated.

730 Exposed concrete foundations

1. **Filling:** Compact until air bubbles cease to appear on the upper surface.
2. **Finishing:** Weathered to shed water and trowelled smooth.



Specification created using NBS Chorus



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