

Station South Specification

Retention (Drawing 180/114)

- Protect existing tree with orange barrier fence
- Protect construction site boundary with a heras fence during works
- Surface vegetation retention: All vegetation not shown on drawing 180/114.
- Strip soil to formation depths. Store in locations shown on 180/114
- Imported topsoil to BS 3882:2015 Depths as shown on drawing 180/114.
- Lay terram 1000 geotextile between existing soil and imported topsoil
- Supply and mix 20% PAS100 compost with imported soil before spreading
- Instructions regarding Japanese knotweed to be supplied by SS

Hard Landscape (Drawing 180/100)

- **P1-Tarmac Footpath with E1 kerb to adoptable standard**
 - Standard: Manchester City Council's adoption standard as standard details F2
 - Granular Subbase: Type 1 subbase laid and compacted in accordance with DOT SHW. Layer thickness appropriate to the suitable compaction plant. Subbase depth relative to the CBR value at formation level in accordance with HD25/94 (VOL 7. SECTION 2, PART 2) (copied below under subbase)
 - Base: wet lean concrete to type ST2 to table 10/1 clause 1001
 - Paving grade: Domestic drive
 - Compacted thickness: 150mm
 - Binder course: Asphalt concrete to clause 906, 929
 - Paving grade: Domestic drive
 - Compacted thickness: 40mm
 - Surface course: Asphalt concrete to clause 909, 914
 - Paving grade: Domestic drive
 - Compacted thickness: 20mm
 - Surface treatment: Coated chippings to clause 915 Minimum PSV63 maximum AAV 14
- **P2-Flexipave with E2 edging**
 - Granular Subbase: Type 1 subbase laid and compacted in accordance with DOT SHW. Layer thickness appropriate to the proposed compaction plant. Subbase depth relative to the CBR value at formation level in accordance with HD25/94 (VOL 7. SECTION 2, PART 2) and clause Q20:120 (copied below under subbase)
 - Geomembrane between soil and subbase:
 - Manufacturer: Terram.
 - Product reference: Type 1500.
 - Surface course:
 - Manufacturer: KBI
 - Product reference: HD1500 Flexipave
 - Colour: Trent Pea (TBC)
 - Website: <http://www.kbiuk.co.uk>
 - Binder: UV stable Clear polyurethane
 - Application: Thoroughly mixed and uniformly spread.
 - Spreading rate: As per manufacturers specification.
 - Thickness: 35cm
 - Drainage falls: Lay sub-base with 1:40 crossfall or 1:50 central camber.

- Surface of path: 75 mm above existing ground level.
- Completion: Compact to produce a firm, regular surface, stable in use.
- **P4-Rubbercrumb with E2 edging**
 - Granular Subbase: Type 1 subbase laid and compacted in accordance with DOT SHW. Layer thickness appropriate to the proposed compaction plant. Subbase depth relative to the CBR value at formation level in accordance with HD25/94 (VOL 7. SECTION 2, PART 2) and clause Q20:120 (copied below under subbase)
 - Geomembrane between soil and subbase:
 - Manufacturer: Terram.
 - Product reference: Type 1500.
 - Surface course:
 - Manufacturer: Playtop or similar
 - Product reference: Wetpour resin-bound rubber crumb
 - Standard: To BS 7188
 - Thickness: 40mm
 - Inlaid graphics: 21 dots
 - Binder: UV stable clear polyurethane resin
 - Drainage: This area will require a cycle wheel proof gully or linear slot drain. Contractor to profile ground and locate drainage to ensure free drainage.
- **P5-Self binding gravel (such as Hoggin or Breedon Gravel) with E2 edging**
 - Granular Subbase: Type 1 subbase laid and compacted in accordance with DOT SHW. Layer thickness appropriate to the proposed compaction plant. Subbase depth relative to the CBR value at formation level in accordance with HD25/94 (VOL 7. SECTION 2, PART 2) and clause Q20:120 (copied below under subbase)
 - Blinding to sub-base:
 - Type: Coarse sand.
 - Laying: Compact. Seal interstices. Provide free drainage.
 - Compacted thickness: 25 mm.
 - Geotextile: Terram 1000 or similar
 - Surface course: Fine hoggin or self-binding gravel
 - Size: Graded 10-12mm to dust (No large lumps of clay)
 - Compacted thickness: 50mm.
 - Dry weather: Lightly water layers during compaction.
 - Finished surfaces:
 - Lines and levels: To levels shown on drawings. Ensure gradients flowing and direct water into soft landscape or gully to prevent ponding.
 - Overall texture: Even.
 - State at completion: Compact to produce a firm, regular surface, stable in use.
- **P6-Reclaimed Sandstone Paving with E2 edging**
 - Traffic Category 2
 - Granular Subbase: Type 1 subbase laid and compacted in accordance with DOT SHW. Layer thickness appropriate to the proposed compaction plant. Subbase depth relative to the CBR value at formation level in accordance with HD25/94 (VOL 7. SECTION 2, PART 2) and clause Q20:120 (copied below under subbase heading)
 - Laying course:

- Bound construction Type A: In accordance with BS 7533-101:2021, clause 5.4 and 6.4.2.
 - Bedding: Type 35 bedding mortar In accordance with BS 7533-101:2021, clauses 6.6.5 and 6.7.5
 - Nominal thickness after compaction: 40mm- min thickness 30mm under deeper paving units.
- Supplier: Provided free of cost by MCC
- Paving Size: Small Sett = 100x150mm Large Flag = 450x150mm Square Sett = 300x300mm. (Shallow, which is why we have specified a bound construction)
- Method of cutting sett sides: Diamond sawn
- Bond: As originally laid in Exchange Square
- Jointing:
 - Bound construction: In accordance with BS 7533-101:2021, clause 5.6.
 - Joint width: 6 mm
- **Hardcore with E3 edging (Under container)**
 - 150mm deep Type 1 unbound granular material in accordance with clause 803 of the specification for highway works. (N1) terram 1000 geotextile between type 1 and existing soil.
- **E1- Concrete kerb to adoptable standard**
 - Refer to Manchester City Council drawing standard detail K2
 - Standard: To BS EN 1340.
 - Designations: Transition and Crossing Kerb to match adjacent HB2 kerb
 - Transition Kerb Size (width x height x length): 125x 225 x 914mm (left hand and right hand)
 - Crossing Kerb Size (width x height x length): 125x 150 x 914mm bullnose
 - Finish: Natural concrete
 - Bedding: 25mm mortar bedding. Ordinary Portland cement to BS EN 197-1
 - Foundation: 150mm deep x 275mm wide GEN3 concrete haunching and base.
 - Dowel Bars: 100mm long MS dowel bars. 12mm diameter at 900mm centres
 - Joints generally: 6mm with class iii mortar to clause 2404
 - Kerb upstands: 25mm
 - Repair of roadway: As Manchester City Council drawing standard detail K2
- **E2-50mm wide EF Concrete pin kerb flush to adjacent surfaces**
 - Standard: To BS EN 1340 and BS 7533-101:2021 part 5.8.
 - Designations: EF Concrete Edging
 - Size: 50mmx150mmx915mm
 - Finish: Natural concrete
 - Bedding: 150mm deep (min) x300mm wide GEN3 concrete haunching
 - Joints generally: 3mm narrow jointed
- **E3 edging- Timber**
 - Softwood board:
 - Size: 150 x 38 mm.
 - Fixing: Galvanized nails into softwood pegs.
 - Softwood pegs:

- Size: 50x50x600mm (Pointed at one end)
- Fixing: Drive into ground.
- Centres: 500mm
- Preservative treatment: 10-year lifespan
- **Subgrades and Sub-base depth**
 - Check subgrade CBR conditions over entire area to receive hard landscape, paving, walls, fences and foundations. Provide results to project manager
 - Submit: Where conditions are not suitable for intended construction or use or require modification, obtain instructions before proceeding.
 - Granular Subbase: Type 1 subbase laid and compacted in accordance with DOT SHW. Layer thickness appropriate to suitable compaction plant. Subbase depth relative to the CBR value at formation level in accordance with HD25/94 (VOL 7. SECTION 2, PART 2) as follows:



Table for Sub-base Depths (mm)					
Subgrade CBR Value		Sub-base Only	Sub-base on Capping		
=> Than	< Than	Type 1 Sub-base	Type 1 Sub-base	Capping	Total Depth
	2.5	Sub grade improvement required			
2.5	3.0	350	150	400	550
3.0	4	310	150	350	500
4.0	5.0	260	150	300	450
5.0	6.0	225	150	250	400
6.0	7.0	215	150	235	385
7.0	8.0	200	150	220	370
8.0	9.0	190	150	210	360
9.0	10.0	180	150	200	350
10.0	11.0	180	150	190	340
11.0	12.0	175	150	180	330
12.0	13.0	175	150	170	320
13.0	14.0	170	150	160	310
14.0	15.0	160	150	150	300
15.0		150	150	-	150
Notes: 1.	All materials within 450mm of finished pavement surface shall be non-frost susceptible.				
2.	Class 2 foundation based on HD25/94				
3.	For CBR values between 2.5% to 5%, Terram 1500 or equivalent is required between subgrade and the pavement foundation.				
4.	Sub-formation to be proof rolled (subject to levels) and herbicide applied.				

Soft Landscape: SS will carry out all planting and seeding works

- **Existing Grass-** protect, reinstate, cultivate where damaged by works
- **SS2: Hedge-Strip** existing grass and cultivate soil
- **SS3: Ornamental planting** - Ensure 400mm deep as will be planted by Station South at a later date. Use site soil to make up soil depths. Cultivate and remove any construction waste at practical completion.
- **Allotment Raised Planters- purchased and constructed by SS**
 - Manufacturer - WoodBlocX Ltd www.woodblocx.co.uk

- Product Reference - SKU00296
- Size: 3m (Length)x 0.45m(Width) x 0.45m (Height)
- Ground Spikes: 400mm galvanised steel
- Angle Plates: 1mm Galvanised Steel
- Dowels: Recycled plastic
- Installation: This will be carried out by volunteers. The contractor should allow for purchasing, delivery and creation of a level base to construct the planters on.

Boundaries

- **F2: Balustrade** –1.2m high balustrade with infill to 70cm from tops of gabion wall. Posts at least every 1m centres, cast into a sleeve at the back of the gabion wall. Design and specification subject to SS risk assessment and Structural Engineer's calculations. **SS to provide engineering design**
- **F3: Weldmesh fence**
 - Manufacturer: Zaun or similar. Duo6 Clamp and Zariba 6 Plus Clamp.
 - Standard: To BS 1722-14:2017, category 1.
 - Height: 1.4m
 - Finish: Galvanized and polyester powder coated.
 - Colour: (TBC- tier 2 colour, possibly RAL7024 Graphite Grey)
 - Mesh and wire: Duo6 mesh comprising 200 x 50mm mesh with single 6 mm vertical wires at 50 mm centres and dual 6 mm horizontal wires at 200mm centres as supplied, powder coated finish.
 - Posts: 60mm x 40mm rectangular hollow section, powder coated finish to match mesh
 - Maximum centres of posts: 2.525-3.025m
 - Method of setting posts: In ground. Foundation: 800x300x300mm
 - Granular Subbase: Type 1 subbase laid and compacted in accordance with DOT SHW. Layer thickness appropriate to the proposed compaction plant. Subbase depth relative to the CBR value at formation level in accordance with HD25/94 (VOL 7. SECTION 2, PART 2) and clause Q20:120
 - Fixing: Panels fixed to posts with full height 40 x 5mm clamp bar with bolt fixings at 400 mm centres. The full height clamp bars create a flush safe finish with the mesh ends behind the clamp bar.
 - Accessories: Safety capping
 - Conformity: Submit manufacturer's and installer's certificates, to BS 1722-14.
- **F5: 1.8m high Hit miss timber fenced/ gated bin store**
 - Wood: Pressure treated softwood with a 15 year lifespan
 - Treatment: Pressure treated. Cut surfaces to be treated with an end grain preservative
 - Finish: High quality planed finish
 - Timber: From FSC certified source
 - Boards/ rails: 150mmx12mm wide boards run vertically.
 - Posts: Timber 75mm square
 - Toprail: Present
 - Gaps: 25mm overlap between front and back boards so that there are no visible gaps between boards when viewed straight on
 - Centres of posts (maximum): 2m

- Gate: 2m wide x1.8m high. Flat top. Leave a 10-20mm wide expansion gap between the post and the gate.
- Method of setting posts: Galvanised steel post shoe, haunched in concrete
- Accessories: galvanised lock, gate catcher for each gate leaf, drop bolts and sockets for double leaf gates

- **G1: Weldmesh Gate**

- Manufacturer: Zaun manual swing pedestrian gate
 - Single leaf Sizes: 1.4m high, 0.9m width.
 - Double Leaf Sizes: 1.4m high, 1.8m width.
- Frame: 50 x 50 mm RHS
- Infill: Zaun Duo6 mesh welded inside to match fence
- Posts:
 - 150mmx150mmx2.1m
 - Method of fixing: Gate to be set no more than 75mm above ground. Posts set in holes not less than 300mm square in plan, depth not less than 500mm and to achieve gate height of 1.4m, completely filled to a minimum of 50mm below ground level with concrete mix (min strength of C30).
 - Opening and swing direction: As shown on drawing
- Accessories:
 - Single leaf Size: Gate catcher for each gate leaf, drop bolts for double leaf gates
 - Double Leaf Size: Gate catcher for each gate leaf, drop bolts and sockets for double leaf gates
 - Lock: Cylinder lock

- **G2: FLOOP Gate**

See MCC design

- **G3: Timber Close Board Gate**

- Double Leaf 1.4m high, 1.8m width
- Method of fixing: Gate to be set no more than 75mm above ground. Posts set in holes not less than 300mm square in plan, depth not less than 500mm and to achieve gate height of 1.4m, completely filled to a minimum of 50mm below ground level with concrete mix (min strength of C30).
- Opening and swing direction: As shown on drawing
- Accessories:
 - Lock: Cylinder lock
 - Gate catcher for each gate leaf, drop bolts for double leaf gates
 - Double Leaf Size: Gate catcher for each gate leaf, drop bolts and sockets for double leaf gates
- 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.

- Setting posts in concrete
 - Standard: To BS 8500-2.
 - Mix: Designated concrete not less than GEN1 or Standard prescribed concrete not less than ST2.
 - 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.
 - Admixtures: Do not use.
 - Holes: Excavate neatly and with vertical sides.
 - Filling: Position post/ strut and fill hole with concrete to not less than the specified depth, well rammed as filling proceeds and consolidated.
 - Backfilling of holes not completely filled with concrete: Excavated material, well rammed and consolidated.
- Completion: Adjust hinges, latches and closers to provide smooth operation. Lubricate where necessary.

G4: Allotment Weldmesh Gate

<https://www.zaun.co.uk/products/ring-top-fencing/>

- Manufacturer: Zaun manual swing pedestrian gate
 - Single leaf Sizes: 1.4m high, 0.9m width.
 - Double Leaf Sizes: 1.4m high, 1.8m width.
- Frame: 50 x 50 mm RHS
- Infill: Zaun Zabiba Ring Top mesh welded inside to match fence
- Posts:
 - 150mmx150mmx2.1m
 - Method of fixing: Gate to be set no more than 75mm above ground. Posts set in holes not less than 300mm square in plan, depth not less than 500mm and to achieve gate height of 1.4m, completely filled to a minimum of 50mm below ground level with concrete mix (min strength of C30).
 - Opening and swing direction: As shown on drawing
- Accessories:
 - Single leaf Size: Gate catcher for each gate leaf, drop bolts for double leaf gates
 - Double Leaf Size: Gate catcher for each gate leaf, drop bolts and sockets for double leaf gates
 - Lock: Cylinder lock

Gabion Wall

- **SS to provide engineering design**
- Performance as reShaped's spec-D41 Crib walls, gabions and other gravity retaining walls
- Filling- cheapest filling material, handpacked
- Coping-60x60mm concrete flag paving

Furniture

- **Cycle Store**
- Station South have been gifted Sheffield cycle stands that have been removed from another location.

- Preparation: Pick up stands from a location in Manchester. Remove any concrete foundation that still remains on part of the stand that was previously below ground.
- Method of fixing: Root fixed.
- **Cycle Store**
 - Manufacturer: Cycle Hoop
 - Product reference: Bike Hanger
 - Dimensions: Length: 2550mm x Depth: 2030mm x Height: 1365mm
 - Material: Galvanised Steel
 - Finish: give options
 - Colour: give options
 - Method of fixing: Baseplate fixed onto a 20x20x20cm foundation
- **Cycle Repair Station**
 - Manufacturer: Cycle Hoop
 - Product reference: Public bike repair stand
 - Width 216mm x Depth 406mm x Height 1260mm
 - Material: Galvanised steel
 - Finish: Powder coated
 - Colour: Custom colour to be confirmed by Station South
 - Method of fixing: As recommended by manufacturer
- **Cycle Clean Station**
 - SS to confirm
- **Bottle Fill Station**
 - To be confirmed by SS

Services

- Ducting to future lighting and electrics locations

Containers

- Used 10ft containers with double doors
<https://www.shippingcontainersuk.com/brands/used-10ft-shipping-container.php>

Drainage

- Gullys and slot drains connected to new drainage SS to provide engineering design
- Drainage behind gabion wall SS to provide engineering design

Lighting

- SS to confirm

F1: Existing weldmesh fence –Reinstate insitu, carrying out necessary works to ensure fence taught, clipped to line wires, fixed to post every 2m and has no sharp edges. New weldmesh to match existing. Assume 60m new weldmesh fence and 20 new angle iron fence posts will be required (Figures subject to Mark's assessment)

- **G1: Weldmesh Gate**

G1a Single leaf gate 0.9m wide, 1.4m high

G1b Double leaf gate 1.8wide, 1.4m high

sdsadfcsa

- **G2: FLOOP Gate**

See MCC design

- **G3: Timber Close Board Gate**

G2c: Double Leaf 1.4m high, 1.8m width

- Method of fixing: Gate to be set no more than 75mm above ground. Posts set in holes not less than 300mm square in plan, depth not less than 500mm and to achieve gate height of 1.4m, completely filled to a minimum of 50mm below ground level with concrete mix (min strength of C30).
- Opening and swing direction: As shown on drawing
- Accessories:
 - Lock: Cylinder lock
 - Single leaf Size: Gate catcher for each gate leaf, drop bolts for double leaf gates
 - Double Leaf Size: Gate catcher for each gate leaf, drop bolts and sockets for double leaf gates
- 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.
- Setting posts in concrete
 - Standard: To BS 8500-2.
 - Mix: Designated concrete not less than GEN1 or Standard prescribed concrete not less than ST2.
 - 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.
 - Admixtures: Do not use.
 - Holes: Excavate neatly and with vertical sides.
 - Filling: Position post/ strut and fill hole with concrete to not less than the specified depth, well rammed as filling proceeds and consolidated.
 - Backfilling of holes not completely filled with concrete: Excavated material, well rammed and consolidated.

- Competition: Adjust hinges, latches and closers to provide smooth operation. Lubricate where necessary.
- **G1: Timber cleft gate**
 - G1a Single leaf gate 0.9m wide, 1.4m high
 - G1b Double leaf gate 1.8-2.0m wide, 1.4m high
- **G2: Timber Close Board Gate**
 - G2a: Single leaf: 1.4m high, 1m width.
 - G2b: Double Leaf 1.4m high, 1.95m width
 - G2c: Double Leaf 1.4m high, 1.8m width
- **P3-Flexistone with E2 edging**
- Granular Subbase: Type 1 subbase laid and compacted in accordance with DOT SHW. Layer thickness appropriate to the proposed compaction plant. Subbase depth 300 mm MOT Type 1 as a minimum. Increases in depth may be required relative to the CBR value at formation level in accordance with HD25/94 (VOL 7. SECTION 2, PART 2) and clause Q20:120 (copied below under subbase)
- Geomembrane between soil and subbase:
 - Manufacturer: Terram.
 - Product reference: Type 1500.
- Surface course:
 - Manufacturer: KBI
 - Product reference: HDST20 Flexistone
 - Colour: Cappucino TBC by Station South
 - Website: <http://www.kbiuk.co.uk>
 - Binder: UV stable Clear polyurethane
 - Slip resistance: Fine Glass glit 50-80gm2
 - Application: Thoroughly mixed and uniformly spread.
 - Spreading rate: As per manufacturers specification.
 - Thickness: 20cm